List of Projects using Atmega Microcontroller with advance view:

1. Entertainment Center Cooling System As nice as an entertainment center with all the AV equipment neatly stacked behind a glass door looks, the vent... leaves a lot to be desired, which meant temperatures inside the enclosure were often well in excess of 100F. I could just leave the door...... Listed unde Entertainment Projects

2. MQTT Based Fire Detection System In recent days, automatic fire detection and control is becoming very essential to reduce the fire in a building or a It provides real-time surveillance, monitoring and automatic alarm. A key aspect of such systems is to identify a developing fire emergency in a...... List Clock Projects

3. Voice Controlled Robot Using 8051 Microcontroller A voice controlled robot takes specified command in the form of voice. Whatever the command is through voice module or Bluetooth module, it is decoded by the existing controller and hence the given command is executed. Here in this project, I h Bluetooth...... Listed under: Robotics - Automation Projects

4. Measure Your WiFi Signal Strength Using Particle Photon WiFi has become an integral part of our life and daily billions of people use WiFi as a method the internet. But the range of WiFi is limited, unlike a cellular connection. A normal WiFi router usually has a range of about a 100m...... Listed under: Ir Ethernet - LAN Projects

5. Interactive Sound Poster for Kids Things to Prepare: - Foam Board - Aluminum Foil or Copper Tape - Makey Makey - Computer (Or Raspberry Pi & Speaker) - Poster Design Ste Design a Poster With a Tappable Button. I created a poster for Halloween event for kids. It...... Listed under: Sound - Audio Projects

6. Controlling Relay Module From Anywhere in the World With Amazing UI Using Losant Learn how to control relay module from anywhere in the world u Amazing UI using Losant, this is part 6 of IoT World Series Step 1: Needed Components Needed components ESP8266PlatformIO IDE with default proj setupRelay Module [Shipping free for a dollar]Jumper cables [40 pcs Shipping...... Listed under: Other Projects

7. Walkera Devo 10 Radio Transmitter Deviation Mod – Control Everything! Universal transmitter to control everything! One transmitter to rule them all. https://youtu.be/tRdhxF
The Devo 10 is a programmable radio transmitter from Walkera. When Deviation is installed with a couple of RF modules, it can almost replace every transmitter for your RTF n
multi-rotors/quadcopters/helicopters and planes....... Listed under: Metering - Instrument Projects

8. Wireless Energy Meter With Load Control INTRODUCTION Hi guys am a 3rd Year University Student of Lovely Professional University, India currently p
Electronics and Communication Engineering . Youtube Channel :::: https://www.youtube.com/channel/UC6ck0xanIUI14Oor... Facebook Profile
:::: https://www.facebook.com/arnab.das.bwn GitHub :::: https://www.facebook.com/arnab.das.bwn Wordpress :::: https://www.facebook.com/arnab.d
This Project is Based on Atmel's Atmega16 Microcontroller as the main brain for computation. NRF24L01+ Wireless communication...... Listed under: N
Instrument Projects

9. MonkeyDogTracker Okay, I admit I don't have a monkey. But would you be looking at this if I didn't mention monkey? And this would work for a monke
your monkey or dog wander off? Would you like to see where he/she is? Well, they make...... Listed under: GPS Based Projects

10. Interactive LED Beer Pong Table Create your own Interactive LED Beer Pong Table! This instructable will guide you through all of the steps to in order to create a one-of-a-kind
table complete with cup detecting RGB pods, automatic ball washers, a 32x12 ping pong ball LED grid, side...... Listed under: LED Projects
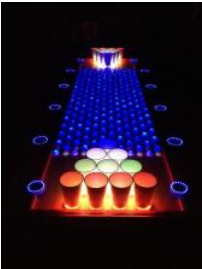
11. ESP8266 / NRF24L01 Breadboard Adapter Have you ever been anxious to receive your new break-out boards, only to find out that the pin layout is no
breadboard friendly? If only those pins were aligned differently. Well, let me show you how I have made an easy breadboard adapter that will...... Liste
Development Board - Kits Projects

12. GPS Data Logger While this is not the first Arduino based GPS Data Logger out there, it may be the most versatile. This device has a lot of features & ev
possible uses. It started with significant inspiration from Mikal Hart's "Reverse Geocache"TM and the use of...... Listed under: GPS Based Projects

13. Control Daikin AC From Anywhere With Beautiful UI and Losant In this instructable we will learn how to control Daikin air-conditioner from any point i
world using Losant IoT Enterprise Platform and their amazing UI dashboard The ESP8266 is a low-cost Wi-Fi chip with full TCP/IP stack and MCU (micro
unit) Step 1: How It Works...... Listed under: Home Automation Projects

14. ESP32: DIY Motor Driver With ESP32 Controller This is the simplest motor driver that could possibly be built using only one NPN transistor, which is co
and driven by the ESP32 micro controller board. Step 1: Materials and Tools ESP32 MicrocontrollerDC motorNPN Transistor -- BC337100Ω resistorDioc
N4148 General PurposeBreadboard wiresBreadboard'2x jumper...... Listed under: Motor Projects

15. Solar Power System Monitoring In this indestructible I will demonstrate how to make your Own Solar power Monitoring station .With materials ,Code a
electronics parts. we will start with the PCB designed on a fritzing program to sending off for the PCB ,Soldering it and Installing it into a...... Listed und
energy projects

16. Make a Pocket-Size Theremin With ESP32 Theremin are those unique instruments use to make those alien show theme songs or sound effect. You may have also heard it in St
Big Bang Theory, or even a haunted house. They produced a unique sound from the electromagnetic effects between wires. Here...... Listed under: Sound - Audio Projects
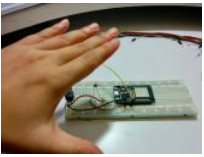
17.

Micro:Bit Puppet "Text Messaging"! Nearly all of our wireless communication is done using radio waves*, including phone calls, text messages, and Wi[...] built-in radio transmitters and receivers, the Micro:Bit microcontroller makes it super easy to build all sorts of projects with radio communication. This [...] project is...... Listed under: Microcontroller Programmer Projects

18.

Solar Tide Clock Tides. In Anchorage Alaska we live on a point located between two enormous tidal bays--so big in fact that Captain Cook on his initial [...] the area thought (hopeful thinking) that this entrance would prove to be a "northwest passage". It is shallow and...... Listed under: Clock Projects, Solar projects

19.

Simple Altera FPGA Demo This tutorial will show you how to turn on an LED using both the built-in LED on a development board as well as using a GPI[...] happen to be using a DE0 CV Dev board from Terasic. We will be using the Quartus...... Listed under: LED Projects

20.

Bike Power Pedal IoT Work is of two kinds: first, altering the position of matter at or near the earth's surface relatively to other such matter; second, te[...] people to do so. The first kind is unpleasant and ill paid; the second is pleasant and highly paid. Bertrand...... Listed under: Other Projects

21.

Jar of Fireflies This project uses green surface-mount LED's along with an AVR ATTiny45 microcontroller to simulate the behavior of fireflies in a jar. https://youtu.be/UeL0LC2IgpQ (note: the firefly behavior in this video has been greatly sped up in order to be easier to represent in a short film....... Li[...] under: Home Automation Projects

22. How to Flash MicroPython Firmware on a ESP8266 Based Sonoff Smart Switch What's Sonoff? Sonoff is a device line for Smart Home developed by ITEAD. One of the most flex[...] inexpensive devices from that line are Sonoff Basic and Sonoff Dual. These are Wi-Fi enabled switches based on a great chip, ESP8266. While the Sonoff infrastructure may wo[...] well for...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

23.

Digital Clock Using Microcontroller (AT89S52 Without RTC Circuit) Lets describe a clock... "Clock is a device that counts and shows time(relative)"!!! Gue[...] right so lets make a CLOCK with ALARM feature. NOTE: it will take 2-3 minutes in reading please read the whole project or else I will not be responsible[...] part damage....... Listed under: Clock Projects
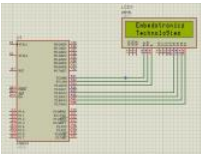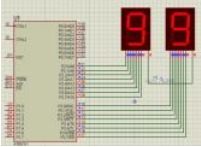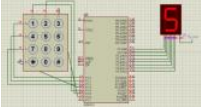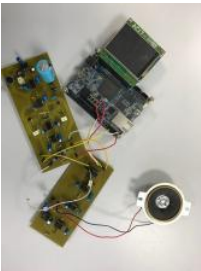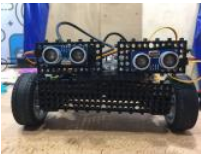
24.

How to Control ESP8266 Based Sonoff Basic Smart Switch With a Smartphone Sonoff is a device line for Smart Home developed by ITEAD. One of the [...] flexible and inexpensive devices from that line are Sonoff Basic. It is a Wi-Fi enabled switch based on a great chip, ESP8266. This article describes how [...] the Cloud4RPi service on a Sonoff Basic smart...... Listed under: Phone Projects

25.

Interfacing 8051 Microcntroller With 16*2 Lcd in Proteus Simulation This is a very basic project of 8051. In this project we are going to tell you about h[...] interface 16*2 lcd to 8051 microcontroller. So here we are using full 8 bit mode. In the next tutorial we will tell about 4...... Listed under: LCD Projects
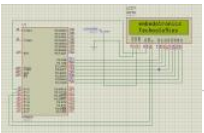
| 26. | | Interfacing 8051 Microcontroller With Lcd in 4-bit Mode In this tutorial we are going to tell you about how we can interface lcd with 8051 in 4-bit mode Software Used: As we are showing proteus simulation so FOR CODING AND SIMULATION YOU REQUIRED: 1 Keil uvision: Their are lots of product from under: LCD Projects |

| 27. | | How to Count From 0 to 99 Using 8051 Microcontroller With 7 Segment Display Hello everyone, In this tutorial we are going to tell you about how to co 0 to 99 using two 7 segment display. Step 1: Software Used: As we are showing proteus simulation so FOR CODING AND SIMULATION YOU REQUIRED: uvision: Their are...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects |

| 28. | | Keypad Interface With 8051 and Displaying Keypad Numbers in 7 Segment In this tutorial I'm going to tell you about how we can interface keypad with displaying keypad numbers in 7 segment display Step 1: Software Used As we are showing proteus simulation so FOR CODING AND SIMULATION YOU REQUIRED: 1 Keil uvision: Their are...... Listed under: Security - Safety Projects |

| 29. | | Memory-Card Made of CMOS EPROM's The instructable created by me will help you to build a huge memory capactiy which will come in handy for ma projects and measurements. The memory card is suitable for multi-usage and can be way more realaiable in comparison to flash cards and other type under: Memory - Storage Projects |

| 30. | | DIY Temperature Logger With STM32F103, MicroSD Card and DS18B20 I'm currently building a temperature logger for some guys doing a research in Tried to make it as small as possible, with temperature sensor that can be crammed in small space. Since the first revision slash prototype of the devi incredibly simple to...... Listed under: Temperature Measurement Projects |

| 31. | | Fun Micro:bit Robot – EASY and Inexpensive! BBC micro:bits are great! They are easy to program, they're packed with features like Bluetooth and an accelerometer and they're inexpensive. Wouldn't it be great to be able to build a robot car that costs next to NOTHING? This project is inspired by the Listed under: Robotics - Automation Projects |

| 32. | | Music Synthesizer Based on DE0-Nano-SoC Music Synthesizer This music synthesizer is quite simple : you just have to blow, sing, or even play music in the microphone, and the sound will be modulated and sent through the speaker. Its specctrum will also appear on the LCD display.The Music...... Liste Sound - Audio Projects |

| 33. | | EBot8 Object Following Robot Have you ever wondered to make a robot that follows wherever you go? But just couldn't? Well... Now you can! We prese the object following robot! Go for this tutorial,like and vote and maybe you can do it too!! Step 1: Gather the Materials...... Listed under: Robotics - Auto Projects |

| 34. | | Space Battleship Yamato 2199 With Trinket Microcontrollers Because of the remake of the animation and movie of Space Battleship Yamato, in additio attractive design of Bandai model. It make me interest to build this space battleship model again. Bandai not mention its scale, maybe ~1:2500 by esti https://youtu.be/b5TzmONvX3o https://youtu.be/SdxBiHjwRUM Step...... Listed under: Microcontroller Programmer Projects |

| 35. | | Solar Coaster The iconic scene from Jurassic Park came in the car where the glass of water resonated with the approaching footsteps of the T-Rex (spo original scene was done according to web blogs by someone carefully boinging a musical string attached to the support for...... Listed under: Solar ene projects |

| 36. | | Mail Alarm After completing my GSM Home Alarm V1.0 and some time of using, I decided to make some modifications. In the hardware the main chan the replacement of the ultrasonic sensor and the introduction of a keypad. On the software, I change the SMS notification by e-mail....... Listed under: Projects |

| 37. | How to Make an Interactive Sound Wave Print In this tutorial we are going to show you how to make an interactive sound wave print within a picture frame, so you can see and your favourite song at the same time! When you touch the print through the glass of the frame,...... Listed under: Sound - Audio Projects |

38. The ULTIMATE Gumball Machine What is ultimate? Infinite RGB? How about a cool LCD touchscreen? Maybe even some completely unnecessary wifi capabilities? How about all of them- in a gumball machine. DFRobot reached out to me to create a project that uses their 2.8" TFT screen, so I made th… Listed under: Game - Entertainment Projects, Uncategorized

39. The KIM Uno – a 5€ Microprocessor Dev Kit Emulator The KIM Uno is a portable, software defined dev kit for (retro) microprocessors. But let me introduce the idea of it by back in time: Back in late 2018 it came to my mind, that I wanted to build a small portable microprocessor dev kit, just…… Listed under: Microcontroller Programmer Proje…

40. Micro:bit Compass This instructables show how to use micro:bit to make a simple digital compass. Step 1: Get a Micro:bit If you not yet have a micro:b may get a micro:bit here: https://microbit.org/resellers/ Step 2: Optional: Battery Holder If you want to make the digital compass portable,…… Listed u Microcontroller Programmer Projects

41. PyPortal Splatoon 2 Schedule Display Fun display of current and upcoming Splatoon 2 stages in Turf War and Ranked games, Ranked game type, and Run schedule using an Adafruit PyPortal. Cycle through the schedule by pressing on the touch screen. Backgrounds are randomly cycled for eye candy optional…… Listed under: Game - Entertainment Projects

42. ESP32 Robot Using Servos I have been experimenting using different ESP32 development boards, recently I ordered of the TTGO T-Beam variety which with a Battery socket to add your own 18650 Lipo, this really takes some of the power regulation complexity out of building a small robot, as…… Listed Robotics - Automation Projects

43. Makey Makey Game Show Buzzer This instructable is designed to help you build a simple game buzzer system for classroom review games. In this Instructable, you will create cardboard switches that will work with a Makey Makey and will be coded using Scratch. Supplies: 4 Pieces of Cardboard (3 x…… Listed under: Game - Entertainment Projects

44. Sinewave and Cosinewave Signal Generator For an upcoming project I need a signal generator that produces a sine wave and a cosine wave*. The eas would be to buy a signal generator. I also could buy one of those amazing integrated circuits that Analog Devices makes and build a…… Listed under: I Ethernet - LAN Projects

45. Alexa-controlled Adam Savage Pumpkin All the lights in my house are smart so I've got pretty used to yelling at them to switch on and off, but it ends me look dumb when I yell at a light that isn't. And I look especially dumb when yelling…… Listed under: LED Projects

46. Weight Sensor Coaster This Instructable will allow you to build a drink coaster with a weight sensor in it. The sensor will determine the amount of liqu glass placed on the coaster and send this information through WiFi to a webpage. Additionally, the coaster have LED…… Listed under: Sensor - Transd Detector Projects

47.   Basic Mobile Phone Using STM32F407 Discovery Kit and GSM A6 Module Have you ever wanted to create a cool embedded project?. If yes, how about one of the most popular and everyone's favorite gadget i.e Mobile Phone!!!. In this Instructable, I will guide you on how to build a basic mobile phone STM32F407 Discovery…… Listed under: Phone Projects

48.   MicroPython Program: Is the Toilet Occupied? Our office is a large group office with limited bathroom space."I" often find that I have no room to go to bathroom, so I have to wait so long that I feel embarrassed. The experiment used MakePython ESP8266 to set up a detection server…… Listed under: Microcontroller Programmer Projects

49. AVR Dual RGB Matrix Driver A friend of mine had a great idea for an awesome project. He wanted to create a pair of servo rigs that would mimic the movement of his hands u motion. On top of the servos would sit some lasers so he could create some…… Listed under: LED Projects

50.   WiFi RFID Reader The main idea was to read in 13.56 MHz RFID (tags / tokes / stickers / wristbands / cards) by a magic box and post the RFID UID to a l database by WiFi network. This instructable builds the base of the whole system -…… Listed under: Internet - Ethernet - LAN Projects

51.   INFRA RED REMOTE CONTROLLED ROBOCAR USING AVR (ATMEGA32) MCU The present PROJECT describes a design and implementation of an infrare remote controlled RoboCar which can be used for various automated unmanned control applications. I have designed remote controlled RoboCar(left right/front-back motion). The entire system is based on microcontroller (Atmega32) that makes the control system…… Listed under: LED Projects

52.   Using a Quadrature Encoder With an ATtiny 2313 and an OLED Display In this instructable you'll learn how to use a rotary encoder (see http://en.wikipedia.org/wiki/Rotary_encoder) with a microcontroller and how to display the numeric value as a bar and a numeric value on an OLED d See the video below for the project in action. The…… Listed under: LED Projects

53.   2cm Height 7 Segments 6 Digits AVR Clock With 4 Digits Thermometer This project is explaining how to create yourself a 6 digits 7 segments clock with microcontroller Step 1: Prepare the Parts for This Project We need to prepare a parts for this project, 6x 7 Segments Common Anode 6x PNP transisto driver, I…… Listed under: Clock Projects

54.   Temperature Control System Using Labview (Atmega32) This work describes a framework of ON/OFF, proportional and linear temperature control sys design and implementation of this process is done using LABVIEW, virtual workbench software. The project involves includes data acquisition, data pro and the display of data. At the initial stage Data…… Listed under: Temperature Measurement Projects

55. Firmware Upgrade for USBASP Clone – Fixing Error Setting USBASP ISP Clock USBASP is one of the most popular programmer for AVR Microcontroller by Thomas Fischl. It is or oldest programmer for AVR. And very common being used with AVRdude software. There are many GUI based on AVRdude, such as: embedXcodeAVF MatAVRDUDESSBitBurneravrdude-guikhazamaeXtreme Burnerand many more In this...... Listed under: Clock Projects

56. Low Speed AVR Oscilloscope V2.00 (Is Updated on 19 Mar 2011) >> The firmware was updated on 19 Mar 2011 << A few months ago a friend of mine - mechanical at profession- told me that he had problem with some car sensors. He couldn't check, with a simple multimeter, if a sensor was working p ...... Listed under: LCD Projects

57. Learn About Microcontrollers This Instructable was designed to answer the question: how do I get started in microcontrollers? Now, in clear, simple En can learn what a microcontroller is, and how to use one. You will learn how to make everything that you need to get started....... Listed under: Microco Programmer Projects

58. Homemade Battery Monitor Using AVR I want to share my experiment with voltage divider, ADC and AVRHomemade battery monitor using AVRIt's pre the sensor are only two resistors and zener diode with capasitor, I don't buy them, I've found it in my box.We can use it for monitoring our...... Listed u Battery Projects

59. Measuring Tempurature Using Sensor(LM35) and Atmega32 A digital thermometer is a good project in microcontrollers because it provides an opport learn using sensors to measure the real world signals that are analog in nature. I am trying to describes a similar project based on a Atmega32 microc and an LM35...... Listed under: Temperature Measurement Projects

60. Temperature Sensor(LM35) Interfacing With ATmega32 and LCD Display| Automatics Fan Control Step 1: In this project, You will learn How to interfac Temperature Sensor(LM35) with AVR ATmega32 Microcontroller and LCD display. Before This Project you have to need Learn about following articles I add lcd library in avr studio| avr microcontroller tutorial introduction...... Listed under: Temperature Measurement Projects

61. Debugging AVR Code in Linux With Simavr I recently started programming AVR chips, namely the ATTiny85. They can be programmed using C, compilers are readily available i and you can do a LOT with them - just search for avr on this site! Anyway, I was having some trouble with my...... Listed under: LED Projects

62. Interfacing PS2 Controller With AVR -Bit Bang Hey friends in this instructable I will show you how to interface sony PS2 controller with AVR microcontrc will be your handy code which you can be used in future to control robots .You can get analogue value from joystick which can be used...... Listed und Projects

63. Swiss AVR Knife The Swiss AVR Knife bundles a number of AVR programming projects together in a single convenient Altoids Gum Tin. Because of the afforded by microcontroller programming, it also provides a starting point for any number of projects based on LEDs and sound output. The...... Listec Microcontroller Programmer Projects

73. Line Follower Robot using Microcontroller Have you ever made your own robot? Here is a very simple and easy robot. In this project, I will explain how to design and build a Line Follower Robot using microcontroller. The Line Follower Robot is a basic robot that follows a specific path...... Listed under: Robotics - Automation Projects

74. Temperature Controlled DC Fan using Microcontroller A Temperature Controlled DC Fan is a system which automatically turns on a DC Fan when the ambient temperature increases above a certain limit. Generally, electronic devices produce more heat. So this heat should be reduced in order to protect the device. There are many...... Listed under: Temperature Measurement Projects

75. Microcontroller Projects: Sonar Water-Level Meter Three-fourths of the earth is water, out of which 97 per cent is saline (in oceans, seas and groundwater. The remaining 2.5 per cent to 2.75 per cent is fresh water, out of which 1.75 per cent to two per cent is frozen in glaciers,...... Listed under: Battery Projects

76. RFID based Attendance System Most educational institutions' administrators are concerned about student irregular attendance. Truancies can affect student overall academic performance. The conventional method of taking attendance by calling names or signing on paper is very time consuming and insecure, hence inefficient. Radio Frequency Identification (RFID) is an interesting solution in...... Listed under: Radio Projects

77. Ultrasonic Radar Model Using Microcontroller ATmega128 The circuit described here demonstrates the working of a radar system. It uses ultrasonic waves to detect an object and measure its distance and angular position, and displays the same on a 20x4 LCD screen. -- Ashutosh M. Bhatt is an M. Tech in embedded...... Listed under: Motor Projects

78. AT90S1200 D.D.S. FUNCTION GENERATOR The presented project is a function generator for sinusoidal and square signals production. The output frequency covers the range from 10 Hz to 100 KHz with a step of 2 Hz. The waveform synthesis... Electronics Projects, AT90S1200 D.D.S. Function Generator "avr microcontroller projects, " The presented project is...... Listed under: Sensor - Transducer - Detector Projects

79. GAS DETECTOR CIRCUIT ATTINY45 Gas sensors are employed in a wide range of applications in the fields of safety, health, instrumentation etc... Common examples are domestic/commercial alarms for explosive or toxic gases or in automotive application, as gas... Electronics Projects, Gas Detector Circuit ATtiny45 "avr project, microcontroller projects, " Gas sensors are employed...... Listed under: Sensor - Transducer - Detector Projects

80. UNINTERRUPTIBLE POWER SUPPLY UPS AT90S8515 PWM with AT90S8515 a good practice to understand the logic can give 200w Power should be developed more The driver circuit method used in section H-Bridge driver integrated HIP4080 I have in the... Electronics Projects, Uninterruptible Power Supply UPS AT90S8515 "avr project, microcontroller projects, " PWM with AT90S8515...... Listed under: Battery Projects

81. MICROCONTROLLER GSM ALARM AND CONTROL CIRCUITS Now quite a popular topic with Cell Phone Control with Microchip pic series for those who want to do these types of projects that could give clues will limp a few projects, including projects... Electronics Projects,Microcontroller GSM Alarm and Control Circuits "avr project, microcontroller projects, " Now quite...... Listed under: Clock Projects

82. MICROCONTROLLER CONTROLLED DIGITAL POWER SUPPLY CIRCUITS ARCHIVE NXP80C31, PIC16F876, PIC12F629, PIC18F452, PIC16F876, PIC16F870, F HC908QT4 made with integrated power sources in various voltage and power MCU of microcontrollers in power electronics used always been interest Unfortunately this type MCU, PIC,... Electronics Projects, Microcontroller Controlled Digital Power Supply Circuits Archive "avr project, microcontroller p NXP80C31, PIC16F876,...... Listed under: Circuits

83. MICROCONTROLLER CONTROLLED BATTERY CHARGING CIRCUITS PIC Series Microcontroller ATMEL etc. Battery battery charger integrated circuits ma the PIC16F819, PIC16F84, PIC16F876, ATMEGA32, AT90S4433-PCR, AT90S1200-P, based on the ATmega8's 7units applications Microcontroller controlled charging circuits all files: microcontroller-controlled-battery-charging-circuits.rar alternative... Electronics Projects, Microcontroller controlled battery c circuits "avr project, battery charger circuit, microchip projects,...... Listed under: Battery Projects

84. MICROCONTROLLER CONTROLLED ROBOT PROJECTS Multi-robot projects have been realized with the microcontroller. In addition to professional pra 'projects have simple robot Most of the projects in the PIC16F series microcontrollers used ATMEL series over with no project varieties... Electronics Projects, Microcontroller Controlled Robot Projects "avr project, microcontroller projects, " Multi-robot projects have been...... Listed under: Robotics - Automation Projects

85. OLD CD ROM TRACK PLAYER WITH MICROCONTROLLER Old Cd Rom in handy if you want to make a Track Player PIC16F877 and AT89C51, AT89S52 co are made with good projects. Add to My Cdrom the features of the project with PIC16F877:... Electronics Projects, Old Cd Rom Track Player with Microcontroller "avr project, microchip projects, microcontroller...... Listed under: Other Projects

86. AVR TEMPERATURE MEASUREMENT SYSTEM Atmel AVR, Atmel microcontroller series with a super "Temperature Control Measurement System" 16 ser 4 alarm inputs and the computer's connection. Temperature measurement, alarm, an exemplary application in the PC communication This measuring... Electronics Projects, AVR Temperature Measurement System "avr project, microcontroller projects, " Atmel AVR, Atmel microcontroller...... under: Temperature Measurement Projects

87. MONITOR AUDIO RADIO SPECTRUM ATMEGA8 Atmega8-16 ac circuits with LEDs monitor the spectrum vu-meters of the advanced state of our LCD an spectrum analyzer circuit looks very nice variety of testing everything in the middle video There are...Electronics Projects, Monitor Audio Radio Spectru Atmega8 "atmega8 projects, avr project, microcontroller projects, " Atmega8-16...... Listed under: Radio Projects, Sound - Audio Projects

88. WHEELS BIKE LIGHT CIRCUIT ATTINY2313 a flashy accessory for your bike 74LS595N 25LC080P a good practice based on the software with all the deta pcb diagram hex code schema (schema) and PCBs (br) Latest eaglecad prepared by...Electronics Projects, Wheels bike light circuit "avr project, microcc projects, " ATTINY2313 a flashy accessory...... Listed under: LED Projects

89. ATMEGA162 LCD OSCILLOSCOPE CIRCUIT A very nice project cost is a bit high in our country, even hard to find parts Atmel AVR microcontroller series with this type of project is ideal for those who want to... Electronics Projects, ATMEGA162 LCD Oscilloscope Circuit "avr project, microcontroller project nice project...... Listed under: LCD Projects

90. ATMEGA8 AT90S4433 WIRELESS RF TEMPERATURE TRANSMITTER And a beautiful project with ATmega8 AT90S4433 your computer from a remote loca the location's wireless RF system temperature data come Mailbox temperature measured in the test program with garden-temperature condition is displayed... Electronics Projects, ATmega8 AT90S4433 Wireless RF Temperature Transmitter "atmega8 projects, avr project, microcontroller projects, ".. under: Medical - Health based Projects, Temperature Measurement Projects

91. LM3886 TDA7318 DIGITAL AMPLIFIER AT90S8535 AT90S8535, TDA7318 and LM3886 have been realized with digital amp system LED Indicator-signal input selection can be mad unfortunately explanations could not solve in a language 🙂 but ATMEL microcontroller dealing with people a... Electronics Projects, LM3886 TDA7318 Digital Amplifier AT90S8!

amplifier circuits, avr project, ic amplifier,...... Listed under: Sound - Audio Projects

92.   ATMEGA168 MOOD POLY CONTROLLED INTERACTIVE LED LIGHT "Polycontrolled Interactive LED Mood Light" is based on Atmel ATMEGA168/88 quite a
             RGB LED application design professional as well as various modes, speed, the program's options. I hope I know the main parts... Electronics
             Projects, ATMEGA168 Mood Poly Controlled Interactive LED Light "avr project, microcontroller projects, " "Polycontrolled...... Listed under: LED Projects

93.   SPEED INDICATOR CIRCUITS TACHOMETER ATMEL ATMEGA8 Atmel ATmega series of projects have been realized with the speedometer and LCD display are the different in
             used circuits. Display circuit used Used atmega8l-8P. Hex file and prepared by Proteus. Dns file there.... Electronics Projects, Speed Indicator Circuits Tachometer Atmel
             atmega8 "atmega8 projects, avr project, microcontroller projects, "...... Listed under: Metering - Instrument Projects

94.   AT89S52 THERMISTOR CIRCUIT THERMOMETER LCD DISPLAY NTC Thermistor Thermometer based on AT89S52 circuit and HIH 3160 humidity sensor h
             and temperature information is given. Display LCD display circuit and there are two versions of the C source code and schema... Electronics Projects, A
             Thermistor Circuit Thermometer LCD Display "avr project, microcontroller projects, " NTC Thermistor...... Listed under: Circuits

95.   MODEL AIRCRAFT PROJECTS Different models of the project Model Aircraft Model airplane models, drawings, model details, sample circuits, fan motor
             as well as stock control circuit microchip PIC16F microcontrollers made with a variety of serial... Electronics Projects, Model Aircraft Projects "avr projec
             microcontroller projects, " Different models of the project...... Listed under: Other Projects

96.   COMPUTER CONTROLLED 8-CHANNEL DIMMER CIRCUIT AT90S2313P 200 watt dimmer circuit is controlled from RS232 port with MOC3021 opto isolat
             driver control program running on xp pretty simple hex to asm code pcb diagram AT90S2313P There have also dosyalarıda... Electronics Projects, Com
             Controlled 8-Channel Dimmer Circuit 200W AT90S2313P"avr project, microcontroller projects, " AT90S2313P...... Listed under: Circuits

97. WAV PLAYER CIRCUIT WITH ATMEL ATTINY2313 ATtiny2313 microcontroller circuit with MAX232 PC connection can be established based on the pc program with wav file loadin
    output of the power amplifier TDA2003 integrated amp Atmel Wav Player Circuit Test The... Electronics Projects, Wav Player Circuit with Atmel ATtiny2313 "avr project, microco
    projects, " ATtiny2313 microcontroller...... Listed under: Radio Projects, Sound - Audio Projects

98.   USB TO LPT CONVERTER CIRCUIT WITH ATMEL ATMEGA8 Converter from USB to LPT parallel port (25 pin SubD receptacle) with hardware virtualization
             input/output instruction level Supports all parallel port modes named SPP, EPP and ECP, 16 Byte FIFO depth USB Low... Electronics Projects, USB to LPT
             Converter Circuit with Atmel ATMEGA8 "atmega8 projects, avr project,...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

99.   ATMEGA128 ATMEGA32 PC CONTROLLED LED MATRIX ANIMATION LED SIGNS Serve to control the 128×64 graphic LCD with a preview of the contents
             array and menu graphics. The heart of the controller is Atmega 128 CPU for communication with the PC corresponds... Electronics Projects, ATMEGA1
             ATMEGA32 PC Controlled LED Matrix Animation LED Signs "avr project, microcontroller...... Listed under: LED Projects

100. AT89S52 8051 RF DC MOTOR SPEED CONTROL Wireless within a certain area with a control circuit for controlling the speed of DC Motor. Work, should reach my goal I began to identify materials. These materials AT89S52 microcontroller, our... Electronics Projects, AT89S52 8051 RF DC Motor Speed Control "8051 example, avr project, keil...... Listed under: Motor Projects

101. 89C51 8051 VOLTMETER THERMOMETER DS1621 ADC0808 ADC 0808 standard data acquisition systems many components on a single chip host is a r ADC 0808 8-bit flip makes the process and addresses from input latch 8-channel data selection (multiplexer) and...Electronics Projects, 89C51 8051 vo thermometer DS1621 ADC0808 "8051 example, avr project, keil example,...... Listed under: Metering - Instrument Projects

102. CALCULATION OF BODY LENGTH WITH 8051 AND DS89C430 In this project, which is designed using DALLAS DS89C430 microcontroller (in simulation AT89C51RC2) circuit and a marching band, calculated on the length of the body, the LCD display was performed. Circuit consists of three... Electronics Projects, Calculation of Body Length with 8051 and DS89C430 "8051 example, avr project,...... Listed under: Calculator Projects

103. AT89C51 8051 GRAPHIC LCD ANIMATION GLCD Animation circuit voltage is applied to the currently displayed map of Turkey comes first. Subsequently Turkish flag and a picture of Mustafa Kemal Atatürk, the next step is to come. Art world... Electronics Projects, AT89C51 8051 Graphic LCD Animation "8 example, avr project, keil example, microcontroller...... Listed under: LCD Projects

104. AT89C51 L293D DC MOTOR WITH DOOR CONTROL CIRCUIT The main purpose of the circuit is to control the gate of the house. This DC motor and pro two limit switches is provided by mechanical parts. The two buttons open and close... Electronics Projects, AT89C51 L293D DC Motor with Door Contro Circuit "8051 example, avr project,...... Listed under: Motor Projects

105. AT89C51 SQUARE WAVE SIGNAL GENERATOR Signal generator test is often the recipients of the amplifiers used in the test and repair of this equipmer the signal source. Wave detector, radio frequency used in places such as bridges.... Electronics Projects, AT89C51 Square Wave Signal Generator "8051 avr project, keil example, microcontroller...... Listed under: Radio Projects, Sound - Audio Projects

106. DISEQC TESTER CIRCUIT WITH ATMEL ATTINY13 This device is designed to help define the way DiSEqC-switches to the working protocols 1.0 and 1.1 ar number of entrances to 4 – x. It feeds the unit from the source of... Electronics Projects, DiSEqC Tester Circuit with Atmel ATtiny13 "avr project, microcc projects, " This device...... Listed under: Circuits

107. MONITOR TEST CIRCUIT WITH ATMEGA88 color image of a classic test circuit will monitor the audio output of this circuit in addition to the music in the from the old ateri amp could work in the test... Electronics Projects, Monitor Test Circuit with atmega88 "avr project, microcontroller projects, " color ir of...... Listed under: LCD Projects

108. ATMEL ATMEGA8 IR DETECTOR CIRCUIT 8-channel approach to IR detector sensor circuit is realized with ATmega8 microcontroller. I2C bus (TWI, SMBu measuring through the obstacle detection, designed for mobile robot. Approach reflects the beam of infrared light detector... Electronics Projects, Atm ATMEGA8 IR detector circuit "atmega8 projects, avr project, microcontroller projects, " 8-channel...... Listed under: Circuits

109. AT89C51 MICROCONTROLLER ANALOG CLOCK FOR GRAPHIC LCD Analog Clock GLCD We use 128×64 pixel graphical LCD having "HY-12864K" is. This adds the file extension of connections are provided in PDF. 128 × 64 graphic LCD s have the same... Electronics Projects,AT89C51 Microcontroller Analog Clock for Graphic LCD "8051 example, avr projec

Listed under: Clock Projects

110. AT89C51 ANIMATED BMP GRAPHIC LCD DISPLAY AT89C51 microcontroller controlled Animated BMP project usnig Graphic LCD Display 128×64 project source code and proteus isis simulation schematic files Graphic LCD Animated BMP Schematic project files: at89c51-animated-bmp-graphic-lcd-displa author: Cihangir Kılıç… Electronics Projects, AT89C51 Animated BMP Graphic LCD Display "8051 example, avr project, keil example, microcontroller pro Listed under: LCD Projects

111. 8051 PS2 KEYBOARD WITH LCD WRITING TEXT PS / 2 protocol used text via a keyboard microcontroller applications that perform printing text on the L goal here Text via keyboard microcontroller to print text on the LCD. Through keyboard microcontroller…Electronics Projects, 8051 PS2 Keyboard with Writing Text "8051 example, avr project, keil…… Listed under: LCD Projects

112. ATMEGA32 10A 2-CHANNEL METER WITH LCD DISPLAY   PID Temperature Controller Max232 PC via RS232 serial port connection can be made Accordi information I found PID Temperature Controller is accurate temperature control system i AT90S2313 control system with high mains voltage… Electron Projects, AT90S2313 Computer Supported PID Temperature Controller "avr project, microcontroller projects, " PID…… Listed under: Temperature Meas Projects

113. ATMEGA32 10A 2-CHANNEL METER WITH LCD DISPLAY 10 Ampere circuit Ampere meter based on ATmega32 128×64 large LCD display it measures 10 channel AC DC used sed1330 Automatically Detect This project is a 2 channels amp meter. Those…Electronics Projects, ATmega32 10A 2-channel mete LCD display "avr project, microcontroller projects, " 10…… Listed under: Metering - Instrument Projects

114. ATMEGA128 MMC CARD SUPPORTED 3-COLORS LED SIGN MESSAGE BOARD ATmega128 microcontroller based on the ATmega128 a quality marquee instead of text information stored on the MMC card codes shared resources At the beginning this project was to buy a led sign to…Electronics Projects, ATmega128 MMC Card Supported 3-Colors LED Sign Message Board "avr project, microcontroller…… Listed under: LED Projects

115. ATMEGA8 MOTORCYCLE ALARM CIRCUIT Separate power supply. Signalling on mobile phone call.This function has only a few hundred euros more exp equipment. motorcycle into the phone by calling The digital alarm input is a normally closed contact. The… Electronics Projects, ATmega8 Motorcycle a circuit "atmega8 projects, avr project, microcontroller projects, " Separate power…… Listed under: Sensor - Transducer - Detector Projects

116. 8051 ROBOT ARM STEPPER MOTOR CONTROL In this 8051 Robot ARM application I use for robot arm 3 stepper motor design, study and is to be infor about the expulsion. Stepping motors to provide work, applied to the ends of… Electronics Projects, 8051 Robot ARM Stepper Motor Control "avr proje microcontroller projects, " In this…… Listed under: Robotics - Automation Projects

117. 8051 ELEVATOR PROJECT STEPPER MOTOR CONTROL This application step (step) motor control, input and output ports through 8051 will examine the providing lift. We use our stepper motor circuit. As we know, certain steps of the stepper motor,… Electronics Projects, 8051 Elevator Project Stepper N Control "avr project, microcontroller projects, " This application…… Listed under: Motor Projects

118. MICROCONTROLLER CONTROLLED METAL DETECTOR PROJECTS Result of displays in the form of two scales, which are estimated to judge the materia addition, the screen is small scale level of response and the current supply voltage. PIC18F252 The program… Electronics Projects, Microcontroller Cor Metal Detector Projects "avr project, microcontroller projects, " Result of displays…… Listed under: Sensor - Transducer - Detector Projects

119. AT89C51 L293D MOTOR CONTROL PROJECT AT89C51 L293D Motor Control Circuit Operation, Our project name and the name suggests, the treadmill motor control is required. When designing this project, I saw fit to use DC motors. Because the…Electronics Projects, AT89C51 L293D Motor Control Pr project, microcontroller projects, " AT89C51 L293D Motor…… Listed under: Motor Projects

120. ATMEGA168 JAVA GUI INTERFACE NIMH CHARGE CIRCUIT Source files are Java and C Diff communication with the computer via the RS232 port is made in the Java GUI Interface 2 × 16 LCD display also got on the circuit with… Electronics Projects, ATmega168 Java GUI Interface NIMH Charge Circuit "avr p battery charger circuit,…… Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

121. AT89C51 5X7 LED MATRIX APPLICATION Circuit Operation: This practice of over 5 × 7 matrix LED A… Z characters are intended to be created. Provision characters in source code LEDs (table) was created and when necessary with the… Electronics Projects, AT89C51 5X7 LED Matrix Application "8051 exa project, keil example, microcontroller…… Listed under: LED Projects

122. AT89C51 LCD DISPLAY FREQUENCYMETER PROJECT Frequency in all matters relating to the definition based on frequency is required. In the same way numeric (digital) Frequency frequency to do the same as the description of the circuit should be… Electronics Projects, AT89C51 LCD display Frequency Project "8051 example, avr project, keil example, microcontroller…… Listed under: LCD Projects

123. AT89C51 KEYPAD CONTROLLED SCROLLING LED DOT MATRIX TEXT AT89C51 Scrolling LED Circuit Operation: Keypad's the values entered the program continually monitored, "*" key is pressed unless the display of the first letter that section required all letters appear, but the… Electronics Projects, AT8 Keypad Controlled Scrolling LED Dot Matrix Text "8051 example, avr project,…… Listed under: LED Projects

124. AT89S52 LCD DISPLAY STEPPER MOTOR CONTROL EXAMPLE AT89S52 Stepper Motor Control Stepper motor, the motor angular position is changing in This engine is moving into specific steps, according to the windings is controlled by sending signals. Any stimulus that would… Electronics Projects, AT8 Display Stepper Motor Control Example "8051 example, avr project, keil…… Listed under: LCD Projects

125. 8051 CALCULATOR CIRCUIT 8051 Calculator Circuit Operation As seen at half one has to use the keypad and an LCD with 8051. The keypad consists of columns. When the button is pressed certain keys combined… Electronics Projects, 8051 Calculator Circuit "8051 example, avr project, keil example, microcontroller projects, " 8051…… Listed under: Calculator Projects

126. 8051 ADC0808 LCD DISPLAY VOLTMETER ADC0808 analog / digital converter of the 8 analog inputs (IN0-IN7) and 8-bit digital output (OUT0-OUT7) are Entries will be transferred to the digital output of the converter which converted to 3-bit ADD,…Electronics Projects, 8051 ADC0808 Lcd Display Voltme example, avr project, keil example, microcontroller…… Listed under: LCD Projects

127. LED DISPLAY SPEED METER CIRCUIT WITH AT89C51 Speed Meter Circuit consists of four parts. These Supply solid floor Sensor sensor, microcontroller and microcontroller solid hexadecimal numbers we obtained from the 7-segment display technology with time code converter solid. Program Keil µVision3… Electronics Projects, LED Display Speed Me with AT89C51 "8051 example, avr project, keil…… Listed under: LED Projects

128.   8051 STOPWATCH CIRCUIT WITH LCD DISPLAY Stopwatch Circuit 8051 on behalf of the programming of integrated compiler program that is used too
        the present case. You are left with only the easiest to use and most advantageous for... Electronics Projects, 8051 Stopwatch Circuit with Lcd Display "8
        example, avr project, keil example,...... Listed under: LCD Projects

129.   USB CONTROLLED WEB SITE HIT COUNTER ATMEL ATTINY25 WITH DELPHI Web site counts the number of inputs to the circuit .. Circuit attiny25 an inte
        and MAX7219 section based on the indicators used for the 7-segment display 8 hunting and Delphi source code are... Electronics Projects, USB Contro
        Site Hit Counter Atmel Attiny25 with Delphi "avr project,...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

130.   EMBEDDED RTL8019AS WEB SERVER PROJECT ATMEGA103 I quickly was able to appeal to the network card via a 8-bit data bus. The connectivity of the
        card and thus the RTL8019AS chip via two 8-bit ports of the processor and... Electronics Projects, Embedded RTL8019AS Web Server Project ATMega10
        project, microcontroller projects, " I quickly...... Listed under: Internet - Ethernet - LAN Projects

131.   USB PORT RELAY CONTROL WITH ATMEL ATMEGA8 6 relay control units can be made via the usb port usb drive computer program code and schema
        pcb circuit to regulate the supply 9-12 volt ac section there on the SPI... Electronics Projects, USB Port Relay Control with Atmel Atmega8 "atmega8 pro
        project, microcontroller...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

132.   AT89C51 DS1621 THERMOMETER CIRCUIT AT89C51 Operation of the thermometer circuit DS1621 temperature sensor circuit using a digital thermome
        tell if I made . As a simple circuit operation is as follows; The numerical value obtained from the temperature... Electronics Projects, AT89C51 DS1621
        Thermometer Circuit "8051 example, avr project, keil example, microcontroller...... Listed under: Temperature Measurement Projects

133. PC CONTROLLED AT90S2313 LED ANIMATION CIRCUIT Why I write about it? This system uses two ready rolls 5 x 8 LED matrix, 89C2051, is a programmable serial port and it ca
        easy to adapt to the needs of... Electronics Projects, PC Controlled AT90S2313 Led Animation Circuit "avr project, microcontroller projects, " Why I...... Listed under: LED Projects

134.   AT89C2051 WITH DOT MATRIX DISPLAY APPLICATIONS 4 Piece AT89C2051 microcontroller project has been realized with matrix display isis proteus sir
        and asm files available in hex code Atmel AT89C2051 • Compatible with MCS®-51Products • 2K Bytes of Reprogrammable Flash Memory... Electronics
        Projects, AT89C2051 with Dot Matrix Display Applications "avr project, microcontroller projects, " 4 Piece...... Listed under: LED Projects

135.   ANALOG LED CLOCK CIRCUIT AT89C2051P 301 LED Analog Clock Project Schema Files of PCB and C51 Compiler Source Code has been prepared by th
        The clock circuit is made of 301 LEDs with a diameter of 3mm... Electronics Projects, Analog LED Clock Circuit AT89C2051P "avr project, led projects,
        microcontroller projects, " 301...... Listed under: LED Projects

136.

PC CONTROLLED FLOWER WATERING CIRCUIT WITH ATMEGA8 As far as I understand an interesting project information via computer is determined in irrigation is done in the required time data exchange via RS232 com port has made the source code and diagrams...Electronics Projects, PC Controlled Watering Circuit with ATmega8 "atmega8 projects, avr project, microcontroller...... Listed under: Sensor - Transducer - Detector Projects

137.

ATMEL ATMEGA8 MULTIMETER CIRCUIT (LED DISPLAY) Hello, "Multimeter" was the only title that first came to my mind to. Voltmeter (positive DC volta 0.00 to 9.99 V and 10.0 – 30.0 V with automatic range switching. Frequency counter 0... Electronics Projects,Atmel Atmega8 Multimeter Circuit (led display) "atmega8 projects, avr project, microcontroller projects, "...... Listed under: LED Projects

138.

8051 PROGRAMMABLE POWER SUPPLY Circuit Operation: Circuit diagram appears in the 0-5 the entered value from the keypad circuit, which is conne port P1 applied to the integrated DAC 0808 DAC output is obtained from the analog...Electronics Projects, 8051 Programmable Power Supply "8051 ex project, keil example, microcontroller projects, "...... Listed under: Circuits

139.

DS1302 RTC 8051 DIGITAL CLOCK CIRCUIT (LCD DISPLAY) 8051 keil example application circuit LCD Display Digital Clock using DS1302 RTC 8051 Digital Schematic 8051 Digital Clock Circuit keil source code and proteus isis simulation schematic files: ds1302-rtc-8051-digital-clock-circuit-lcd-display.rar au @Aytan ASLAN... Electronics Projects, DS1302 RTC 8051 Digital Clock Circuit (LCD Display) "8051 example, avr project, keil...... Listed under: Clock Proje

140.

89C51 DIGITAL CLOCK CIRCUIT From the incoming data encoded in Port0 integrated 7-segment display with 7447 microcontroller integrated ulaşır.744 code from the 7-segment display is used to show. So when it comes to 0000 a, b, c,...Electronics Projects, 89C51 Digital Clock Circuit "8051 example, av keil example, microcontroller projects, "...... Listed under: Clock Projects

141.

AT89S52 DS1620 THERMOMETER CIRCUIT (LCD DISPLAY) This project gave ds1620'n given as a result of the digitally using AT89S52 microcontroller is a display of temperature information of the LCD screen. Moreover, the circuit ambient temperature when it reaches a...Electronics Projects, AT89S52 DS Thermometer Circuit (LCD Display) "8051 example, avr project, keil example,...... Listed under: Circuits

142.

LCD DATE TIME TEMPERATURE AT89C52 DS18B20 DS1302 Atmel microcontrollers with a good example for the use of DS18B20 DS1302 circuit 2 × 16 L with 4 buttons in circuit adjustments can be made The first button is a long hold... Electronics Projects, LCD Date Time Temperature AT89C52 DS18B2(DS1302 "8051 example, avr project, keil...... Listed under: LCD Projects

143.

8051 MICROCONTROLLER UP DOWN COUNTER CIRCUIT (KEIL) With 8051 DOWN COUNTER The basic principle of this circuit based on the number ent the keypad is left counting down or up. # On the keypad to make counting down and counting... Electronics Projects,8051 Microcontroller Up Down Co Circuit (keil) "8051 example, avr project, keil...... Listed under: Circuits

144.

PS2 KEYBOARD KEYLOGGER CIRCUIT ATMEL AT89C2051 KeeLog has decided to release an early version of it's hardware keylogger family to the public including full firmware & software source code, keylogger hardware electrical schematics, and documentation. This PS/2 key logger is a 100% operatio tested device, assembled and used by hundreds of...... Listed under: Other Projects

145. RTL8019 ISA WEB SERVER CIRCUIT ATMEGA32 RELAY CONTROL CAMERA CONNECTION Very detailed and complicated project all of the resources to be shared for different app feyza can give example might now mikrocontroller.co my site ATmega32 web server project shared resources of the project the... Electronics Projects, RTL8019 ISA Web Server

ATmega32 Relay Control Camera Connection "avr project,...... Listed under: Circuits

146. ADC0831 8051 LM35 TEMPERATURE CONTROL WITH LCD SCREEN Adc 0831 with 8051 lm 35 temperature sensor, and a detailed project examples for inverters. author :Özer Deniz Objective: LM 35 temperature sensor dealt with 0831 ADC analog-to-digital conversion of knowledge,... Electronics Projects, ADC0831 8051 LM35 Temperature Control with LCD Screen "avr project, microcontroller projects, "...... Listed under: LCD Projects, Temperature Measurement Projects

147. 8051 SRF04 ULTRASONIC DISTANCE METER CIRCUIT 8051 srf04 ultrasonic distance measurement application also contains information about the diffe controllers and this information can be useful for applications 8051 microcontroller distance measurement using ultrasonic transceiver done. Studies microcontrollers 8051 with... Electronics Projects, 8051 SRF04 Ultrasonic Distance Meter Circuit "avr project, microcontroller projects, " 8051 srf04...... L under: Metering - Instrument Projects

148. NIMH NICD BATTERY FAST PWM CHARGER CIRCUIT ATMEL AVR Battery charging circuit atmel attiny26lp based on switched PWM works as a fast charg the switching circuit 100UH coil and irf5305 irl3803 MOSFETs used charging current of 300 mA, 600 mA ......Electronics Projects, NiMH NiCd Battery Fas Charger Circuit Atmel AVR "avr project, battery...... Listed under: Battery Projects

149. USB JOYSTICK CONVERTER FOR ATARI, AMIGA, COMMODORE 64 Old atari, commodore-64, amiga joystick you can use on your computer usb converte circuit based on Atmel ATmega8-pin adapter does not require power from the USB port in addition to working with 5Volt...Electronics Projects, USB Joy Converter for Atari, Amiga, Commodore 64 "avr project, microcontroller projects, "...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

150. 27 MHZ WIRELESS KEYBOARD SPY CIRCUIT ATMEL ATMEGA64 In an article "Symantec warns: each word or phrase that you enter on the wireless keybc be tracked!" Was called I knew it was true, but such a project would never have thought... Electronics Projects, 27 MHz Wireless Keyboard SPY Circuit A ATmega64 "avr project, microcontroller projects, "...... Listed under: Circuits

151. DIGITAL AUDIO CONTROL CIRCUIT NOKIA 3310 LCD ATMEL ATMEGA8 TDA7439 My old chassis while stirring an old stereo on the chassis tda7439 foun integrate these with making an application decided and ultimately such a nice application appeared application If we are talking...Electronics Projects, Audio Control Circuit Nokia 3310 LCD Atmel ATmega8 TDA7439"atmega8 projects,...... Listed under: Sound - Audio Projects

152. TV OSCILLOSCOPE CIRCUIT WITH ATMEGA8515 ATTINY12 Attiny12 ATMEGA8515 a very interesting project based on digital solid-source software and s files, PCB's drawings for people working with Atmel series microcontrollers can give different ideas can be useful in different projects analogue... Elect Projects, TV Oscilloscope Circuit with ATmega8515 ATtiny12"avr project, microcontroller projects, " Attiny12 ATMEGA8515 a...... Listed under: LCD Proje

153. ATMEL ATMEGA PROJECTS THERMOMETER LM35, DISPLAY, KEYPAD Atmel ATMEGA series made with micro-controller's three projects which can delive bahramelectronic. site manager of @ Bahrain thanks to my brother. 1 – ATMega16 LCD display temperature measurement (LM35) 2 – 7 segment... Ele Projects, Atmel ATmega Projects Thermometer LM35, Display, Keypad "avr project, microcontroller projects, " Atmel...... Listed under: LCD Projects

154. DIGITAL TONE CONTROL CIRCUIT ATMEL ATTINY2313 LM1036 Recently a similar application I've done, but ds1844 integrated can not be found had be problem AVR reviewing ATtiny2313 `fame four PWM channels, saw direct this practice came to my mind bass treble...Electronics Projects, Digital Tone Circuit Atmel ATTINY2313 LM1036 "avr project, microcontroller projects, " Recently...... Listed under: Sound - Audio Projects

155. 8051 BASCOM AVR PROJECTS ATMEL CIRCUITS ARCHIVE With Atmel series (AT89C2052, AT90S2313, AT89S8252, etc..) Was very spacious with quality ar series microcontroller atmel version of the circuit can find a lot. Usb, alarm, LCD, nokia 3310, nokia 6100, display, LED,... Electronics Projects, 8051 Bas Projects Atmel Circuits Archive "avr project, microcontroller projects, " With...... Listed under: LCD Projects

156. USB UART CONVERTER PIC16F88 CIRCUIT ATTINY2313 Recently circuit on the web I've seen perform this southern been applying If we are talking appl atmel's famous ATtiny2313 achieves with USB UART converter further circuit 8bit I / O 128-byte EEPROM 32-byte...Electronics Projects, USB UART Conv PIC16F88 Circuit Attiny2313 "avr project, microchip projects, microcontroller projects,...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

157. ATMEL AT90S2313 COMPUTER-CONTROLLED SCROLLING LED TEXT All details were shared with the marquee circuit computer control program atmel a source software image format PCB, schematics and drawings have OrCAD source. The marquee on the circuit The marquee circuit 350 leds... Electron Projects, Atmel AT90S2313 Computer-Controlled Scrolling LED Text "avr project, microcontroller projects, " All details...... Listed under: LED Projects

158. HDD CLOCK CIRCUIT ATMEL ATMEGA128 DS1307 TDA5410 MOTOR DRIVER Before "Broken HDD Evaluate under the heading" corrupted hard disks to few apps I've used on the web with the sandpaper I I told you about that time had projects now hardisk... Electronics Projects, HDD Clock Circuit Atme ATmega128 DS1307 TDA5410 Motor Driver "avr project, led...... Listed under: Clock Projects

159. 100WATT PV PANEL CONVERTER ATMEGA8 100W DC TO AC ICL7667 ETD34 The use of solar energy will be the topic for a long time an active electronic used a lot in this business at one of these inverter dc to ac converters. Ac... Electronics Projects, 100Watt PV Panel Converter Atmega8 100W DC to AC ETD34 "atmega8...... Listed under: Solar energy projects

160. POWER LED DRIVER CIRCUIT LED CURRENT SOURCES ATMEGA8 PWM Power LED driver circuit based on Atmel ATmega8 is working with 12 volt 3 1 wa power LEDs with PWM buck converter is operated ATmega-8 a good example source code to solve logic... Electronics Projects, Power LED Driver Circui Current Sources Atmega8 PWM "atmega8 projects, avr...... Listed under: LED Projects

161. PCB PRINTING WITH EPSON CX4200 INKJET PRINTER MODIFIED Prepared by: Volkan Sahin – First of all you need to know when the project was challer if there is the possibility worthwhile 🙂 CX4200 Epson inkjet to print text by modifying the... Electronics Projects, PCB Printing with Epson CX4200 inkje Modified "avr project, microcontroller projects, "...... Listed under: Other Projects

162. MICRO ROBOTIC FLY SCREEN CLEANER AT90LS8535 ROBOT BUG A very interesting robot project ratchet içintasarl been cleaning the flapper cleaner ro of the system microcontroller atmel at90ls8535 source software given c. Uygulayamasa sections of the circuit on the robot project source... Electronics Projects, Micro Robotic Fly screen cleaner AT90LS8535 Robot BUG "avr project, microcontroller projects, "...... Listed under: Robotics - Automation Proj

163. CNC DRILLING MACHINE CONTROL DIRVE BOARD ATMEL AT89C2051 L297 L298 Printed circuit board drilling machine on the Atmel AT89C2051 microcontroller L297 L298 moto software does not open hex code provided free computer control program, but other parts of the circuit (motor drives, serial... Electronics Projects, CNC Drilling Machine Cont Board Atmel AT89C2051 L297 L298 "avr project,...... Listed under: CNC - Printing Machines Projects

164. 2.4 GHZ SPECTRUM ANALYZER CIRCUIT NOKIA 3410 LCD ATMEGA8 Mobile phones with Nokia 3410 LCD screens often used microcontrollers Atmel AT and cywm6935 nokia 3410 LCD modules made with a 2.4 GHz spectrum analyzer circuit Handheld 2.4 GHz Spectrum Analyzer Circuit After visiting... E Projects, 2.4 GHz Spectrum Analyzer Circuit Nokia 3410 LCD ATmega8 "atmega8 projects, avr...... Listed under: Circuits

165. ATMEL ATMEGA8 VIA USB CONTROL CIRCUIT Hi, I have done recently attiny2313'l usb application (ATTINY2313 PIC16F88 USB UART converter circuit) th needs at this time on I did with ATmega8. RS232 portion of the circuit 15 disuse I /... Electronics Projects, Atmel Atmega8 via USB Control Circuit "atme projects, avr project, microcontroller projects, "...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

166. LIGHT FOLLOWING ROBOT WITH ATMEL ATTINY25 Light following robot circuit board on attiny25v not very complicated circuit Lithium-polymer batter provided with the circuit feeding the tiny H-bridge output (2N3904) drive motors are controlled with two LDR light is perceived. As... Electronics Project Following Robot with Atmel ATtiny25 "avr project, microcontroller projects, " Light following...... Listed under: Robotics - Automation Projects

167. TRANSISTOR TESTER CIRCUIT ATMEGA8 LCD DISPLAY Transistor very useful for testing the circuit, but I do not know more pic programming with atmel seeing this type of advanced applications get confused 🙂 Transistor test circuit, BJT, MOSFET, triac,...Electronics Projects, Transistor Tester Circuit ATM Display "atmega8 projects, avr project, microcontroller projects, "...... Listed under: Circuits

168. ATMEGA8 PROGRAMMABLE CONTROLLER BOARD ELECTRONIC PLC CIRCUIT Tiny Basic Controller (TBC) is a simple device that can operate as a PLC (p logic controller) for home automation, control, etc. For example, this one can dial-up by modem to the remote computer and control the system, can some processes, temperature regulation, battery charging,...... Listed under: Development Board - Kits Projects

169. FOR ALL THE TELEVISION REMOTE CONTROL (JUST OFF) 90% of all leisure joke circuit television (including plasma, LCD) is said to work 30 ... 50 meters space closes the television. Circuit made ATTINY85V-10 micro-controller circuit with two 1.5v AA battery...Electronics Projects, For all the television rem control (just off) "avr project, microcontroller projects, "...... Listed under: Other Projects

170. AT89C52 APPLICATIONS EXAMPLES PROTEUS ISIS CIRCUITS (10 PROJECTS) AT89C52 examples of applications can be helpful for beginners of all sample prepared with simple 3 .5 source lines of code. Bass. Hex, bin, etc.. isis proteus have codes and simulation files. 0-255 binary...Electronics Projects, AT8 Applications Examples Proteus isis Circuits (10 projects) "avr project, microcontroller projects, "...... Listed under: Circuits

171. ATMEL AT89C2051 CLOCK CIRCUIT WITH LED DISPLAY Pretty stylish digital clock circuit of the display to show information on the hours, but around kil with 120 LEDs in display attracts attention also has an alarm feature. Microprocessor AT89C2051 LED clock...Electronics Projects, Atmel AT89C2051 Clc with LED Display "avr project, led projects, microcontroller...... Listed under: Clock Projects

172. STEREO 64LEDS VU METER CIRCUIT ATMEGA8 Lately, when I went deeper into programming, I was fascinated by precise A / D converters in microcontrollers. And so I decided to make a 2x32 LED VU meter with the ATmega8 microcontroller, which can be bought for example in GME for only so...... Listed under: LED Projects

173.
3-20V 01-10A POWER SUPPLY CIRCUIT ATMEGA8 LCD AMMETER, VOLTMETER What cannot do more than one radio amateur? What can not be more th radio amateur? That's right - without a GOOD power supply, or even better, a GOOD TWO-CHANNEL power supply. That's right - without a GOOD pow or even better, a...... Listed under: Circuits

174.
OPERATED WASHING MACHINE CONTROL CIRCUIT WITH ATMEGA32 ATmega32 microcontroller based on the project is already quite interesting and a professional I see this type of advanced projects ATMEL series Some sections of the circuit MOC3043 opto diac, MOC3023 isolated with LCD... Electron Projects, Operated Washing Machine Control Circuit with ATmega32 "avr project, microcontroller projects, " ATmega32 microcontroller...... Listed unde

175.
THERMOMETER CIRCUIT DS1820 ATMEGA32 SIEMENS S65 LCD Thermometer circuit board ATmega32 used on the LCD display DS1820 sensor used in Siemens S65 mobile phone graphic LCD LS020 ATmega32 project's source code S65 LS020 bitmap bmp files for graphic LCDs and... Electronics Projects, Thermometer Circuit DS1820 ATmega32 Siemens S65 LCD "avr project, microcontroller projects, " Thermometer...... Listed under: Circuits

176.
TANK ROBOT ATMEGA48 BLUETOOTH JAVA PROJECT Introduction After two more complex robots (Eurobot2008 and Robot2), I decided to build a sma simple car. The choice fell on a plastic tune, which was controlled by two AA pencil monoculars - similar toys can be found in toy shops, on soils or in bazaars. Others are...... Listed under: Robotics - Automation Projects

177.
ATMEL ATMEGA8 NOKIA6100 LCD PCF-8833 APPLICATION Nokia 3310 screen already had several applications with bi-color LCD at this time I decided t experiment with it. Heavily on the market, the Nokia 6100 LCDs and their controllers for microchip using Atmel...Electronics Projects, Atmel Atmega8 N LCD PCF-8833 Application "atmega8 projects, avr project, microcontroller projects, "...... Listed under: LCD Projects

178.
TFT LCD OV7660 ATMEL ATMEGA32 APPLICATION EXAMPLE ILI9325 DRIVER Emerging technologies on the market with LCD prices quite fell microcontr applications proliferate mobile phone, mp4 and graphic LCDs became available, especially Atmel series with enhanced graphics LCDs can be used ATm 320... Electronics Projects, TFT LCD OV7660 Atmel ATmega32 Application Example ili9325 Driver "avr project, microcontroller...... Listed under: LCD Pro

179.
TFT LCD DIGITAL PHOTO FRAME ATMEGA128 SD CARD TSC2046 Digital Photo Frame TFT ATmega128 TFT source C code of practice are used to SPFD54 LCD 3.2 inch 320 × 240 size images displayed in the SD card. Source: ourdev.cn/ Digital Photo Frame... Electronics Projects, TFT LCD Digital Photo Fram ATmega128 SD Card TSC2046 "avr project, microcontroller...... Listed under: LCD Projects

180.
ATMEGA16 TOUCHSCREEN PROJECT TFT APP AVR GCC ILI9325 Touch TFT application based on ATMega16 processor used in the 16 MHz frequency driv ILI9325 OTM3225, source C code (AVR GCC)'s. Source: ourdev.cn 2.4-inch TFT LCD, point-screen work notes Alternative link: atmega16-touchscreen-pro app-avr-gcc-ili9325.rar... Electronics Projects,Atmega16 Touchscreen Project TFT App AVR GCC ILI9325 "avr project, microcontroller projects, " Touch..... under: LCD Projects

181. ATMEGA128 AVR GRAPHIC LCD APPLICATION SIEMENS S65 LS020 Siemens s65 using the Atmel ATmega128 caption to display graphics on the LCD all the resources an applicat prepared S65 LCD driver library, sample text and detailed graphics shared C code. S65 application is... Electronics Projects, ATmega128 AVR Graphic LCD Application Siemens S LS020 "avr project, microcontroller projects, "...... Listed under: LCD Projects

182. AT89C2051 DIGITAL SCALES CIRCUIT ATMEL This is a kitchen scale with a maximum weight of 2.5kg and an accuracy of 10g. Exceeding the range is ind... an acoustic signal and an LED. Weight is displayed on a four-digit LCD display. The weight also includes a weight-zero reset button. The power is solve... Listed under: Circuits

183. PROGRAMMED DOOR ALARM CIRCUIT ATTINY24 ATTINY13 CONTROLLED This simple mini-burglar alarm on the ATtiny 13 microcontroller is designed... apartments, offices, summer cottages ... When the reed switch opens, the alarm beeps or, with a little refinement, you can send an SMS from a mobil... phone. The alarm control is carried out...... Listed under: Circuits

184. ADC EXAMPLE ATMEGA8 DIGITAL VOLT METER AMMETER AVR PROJECT ADC - analog-to-digital converter (ADC-Analog-to-Digital Converter). Converts a... analog signal to digital. Bitrate ADC determines the accuracy of the signal conversion. Conversion time - respectively, the speed of the ADC. The ADC i... embedded in many microcontrollers of the AVR family and simplifies the use of the microcontroller in any regulation schemes...... Listed under: Meter... Instrument Projects

185. ATMEL APPLICATION NOTES AND SOURCE C ASM CODE Atmel's products and practices related to application notes prepared for the asm code source... language prepared by the majority of the samples. 138's application List: 1-Register and Bit-Name Definitions for the AVR... Electronics Projects, Atmel... application notes and source c asm code "avr project, microcontroller projects, "...... Listed under: Development Board - Kits Projects

186. RF TRANSCEIVER EXAMPLE WATER GUN PROJECT CIRCUIT TX434 ATMEGA8 RX434 The RF transceiver with ATmega8 prepared samples prepared with C... software has all the source code for the application circuit used joke 🙂 handmade by remote control a water gun at school students...Electronics Proj... Transceiver Example Water Gun Project Circuit TX434 ATMega8 RX434"atmega8 projects,...... Listed under: Game - Entertainment Projects

187. ATMEL ATTINY15 MICROCONTROLLER EXAMPLE DC TO DC CONVERTER CIRCUIT Atmel ATtiny15 Microcontroller DC to DC converter circuit 3.6 Li-Ion b... voltage of 5 volts raises a more detailed circuit attiny15 not a good example for software power control with microcontroller assembly language... prepared... Electronics Projects, Atmel ATtiny15 Microcontroller Example DC to DC Converter Circuit "avr project, dc...... Listed under: Circuits

188. REMOTE-CONTROLLED DIGITAL TIMER CIRCUIT WITH ATMEL ATTINY2313 Based on Atmel ATtiny2313 microcontroller circuit with the remote control f... reverse control can be done over time led display are viewing. ATtiny2313 by the time specified number 9 which is connected to...Electronics Projects,... Controlled Digital Timer Circuit with Atmel ATtiny2313 "avr project, microcontroller projects, " Based...... Listed under: Clock Projects

189. ATMEGA8 BIPOLAR STEPPER MOTOR DRIVER CIRCUIT L293B Bipolar stepper motor control circuit 6v ... 35v inter able to run power 1 amp on the circui... program, sensor, PWM, UART has links ATMega8 output used in motor drive l293b circuit of... Electronics Projects,ATMega8 Bipolar Stepper Motor Driv... L293B "atmega8 projects, avr project, microcontroller...... Listed under: Motor Projects

190. 220V SOLDERING IRON TEMPERATURE CONTROL WITH AT89C2051 LED DISPLAY Sold in the market potency heat settings with TRIAC 220v temperatur... controlled soldering iron more advanced version control AT89C2051 microcontroller is provided by heat setting 2 button is made with indicators, one... display... Electronics Projects, 220V Soldering Iron Temperature Control with AT89C2051 LED Display "avr project, microcontroller...... Listed under: Ten... Measurement Projects

191. ACTIVE ELECTRONIC LOAD CIRCUIT ATMEGA88 100W DUMMY LOAD In each electronic device in one form or another there is a power supply unit (PSU... course, because no one will work for free. Before connecting to the circuit, it would be nice to see how the PSU works at different loads. Personally, I a... Listed under: Circuits

192. STAR LED EFFECTS CIRCUIT ATTINY13 PROJECT Stars in the shape of hard work to prepare printed circuit board design for SMD LEDs to be mounted lik... deal of attention and effort, but finally emerged quite nice circuit noncontiguous... Electronics Projects, Star LED Effects Circuit ATTINY13 Project "avr p... projects, microcontroller projects, "...... Listed under: LED Projects

193. ELECTRONIC PIANO CIRCUIT ATTINY2313 SIMPLE AUDIO PROJECT Atmel ATtiny2313 two 1.5V AA batteries powered electronic piano circuit connected... (3V) can be operated. PB3 – PB4 16 on pins 15 and 32 ohm speaker connected to these pins as exit.... Electronics Projects, Electronic Piano Circuit Attir... Simple Audio Project "avr project, microcontroller projects, " Atmel...... Listed under: Game - Entertainment Projects

194. How to build alarm security system using motion sensor with PCB Prototyping Introduction Security is important for everyone from our homes to plac... work. You need to feel safe when you are sleeping at night. You might have important documents that you need to keep private. Sometimes you have... in your house that must be...... Listed under: Security - Safety Projects, Sensor - Transducer - Detector Projects

195. CNC PROJECT ATMEGA16 X-Y-Z MOTOR CONTROL CIRCUIT ATMega16 microcontroller based on a detailed cnc project with computer com RS232 on po... communicating project's source C code, schematics eagle CAM (graphic printout is used to direct the CNC circuitry and sent to)... Electronics Projects, C... Project ATMega16 X-Y-Z Motor Control Circuit "avr project, microcontroller projects, " ATMega16 microcontroller...... Listed under: CNC - Printing Machi... Projects

196. DSPIC33FJ128GP NOKIA 6100 LCD DRIVER CIRCUIT ATMEGA168   @ Erhan brother Atmega8 prepared with the application had shared (Atmel Atmega8... 6100 LCD (pcf8833) application) I In addition to the helpful one more example'll share the codes and microchip dspıc33fj128gp both the... Electronics... Projects, dsPIC33FJ128GP Nokia 6100 LCD driver circuit ATmega168 "avr project, dspic projects,...... Listed under: LCD Projects

197. AT90S8535 SG2524 PWM SOLAR PANEL PV INVERTER CIRCUIT Solar Energy PV inverter systems used in energy production a detailed study about all th... about the project (in English) is. PV conversion control is provided by Atmel microcontrollers at90s8535 (source software has... Electronics Projects, AT... SG2524 PWM Solar Panel PV inverter Circuit "avr project, microcontroller projects,...... Listed under: Solar energy projects

198. NOKIA LCD MODELS PROTEUS ISIS EXAMPLES CIRCUITS LIBRARY Nokia lcd screens, pic, atmel microcontrollers used in this project, with a lot of other... popular as talking about the proteus simulation model for the program, set up a virtual environment, try... Electronics Projects,Nokia LCD Models Prot... Examples Circuits Library "avr project, microcontroller projects, "...... Listed under: LCD Projects

199. FREQUENCY METER CIRCUIT LCR METER ATMEGA328 I have been thinking about building an LC meter for a while since I do not have a multimeter that is capable of measuring... inductance and while the multimeters I have can measure capacitance, they are not able to give accurate readings for small capacitance...... Listed under: Metering - Instrumer...

200. SMART REMOTE ATMEGA88 CIRCUIT COPY THE TWO BUTTONS This fun project lets you take control away from the person holding the remote control intercepting the invisible signals as they travel through the air so you can play them back to the TV or video machine. You can also "train" your Remote Hijacker...... Listed under: Development Board - Kits Projects

201. 24V 48W DIGITAL SOLDERING STATIONS ATMEGA8 After a year of using my assembled Microfibers according to the Jendy documents23 , I decided to build another (third) microfuel. I wanted to reduce the dimensions, use the 24V AC heating power, to adjust the temperature better and to add additional functions Features of micro-drives : temperature range 80 °...... Listed under: Other Projects

202. FAST FOURIER TRANSFORMATION FFT CIRCUIT ATMEGA8 SCT2024 LED DRIVER ATmega8 (TQFP32 package) based on FFT Circuit applied the entry sign led display (SCT2024 serial-interfaced LED driver 256 LEDs), you can see in the FFT circuit source C, hex codes have... Electronics Projects, Fast Fourier transformation FFT Circuit ATmega8 SCT2024 LED driver "atmega8 projects, avr...... Listed under: LED Projects

203. LED ANIMATION CIRCUIT ATMEGA168 Last year in one of my classes we were required to make an 'artefact' or something that reflects the interests of Most people make posters and the past two quarters that's what my class did too. Posters however are static, usually boring, and...... Listed under: LE

204. ILI9325 TOUCH-SCREEN PROJECT TFT ATMEGA644 ELT240320ATP Atmel is a great project with a series of applications can be made super graphics use project Atmega644 the ELT240320ATP GLCD (320 × 240) driver ILI9325 Simple as iPhone menu has pacman...Electronics Projects, ILI9325 Touch-Screen TFT Atmega644 ELT240320ATP "avr project, microcontroller projects, " Atmel is...... Listed under: Game - Entertainment Projects

205. LABORATORY ADJUSTABLE 0-24V DIGITAL POWER SUPPLY CIRCUIT ATMEGA8 Power supply circuit two separate sections consisted primarily power sol based on the current settings for the tl082 opamp used current voltage display section Atmel ATmega8 microcontroller used optionally this section ma not... Electronics Projects, Laboratory Adjustable 0-24v Digital Power Supply Circuit ATMega8 "atmega8 projects, avr project,...... Listed under: Developm Board - Kits Projects

206. CURRENT MEASUREMENT DATA LOGGER CIRCUIT ATMEL AVR, PIC Very high current of the current transformer and with microcontroller sensitive way to be recorded will be useful for source code with 2 sample application circuits one of the Atmel AVR ATMEGA48 88/168-P...Electronics Projects, Curren Measurement Data Logger Circuit Atmel AVR, PIC "avr project, microcontroller projects, "...... Listed under: Metering - Instrument Projects

207. AUTOMATIC RABBIT FEEDING SYSTEM ATMEGA8 TIMER In fact, feeding, feeding various timing circuits used for business. Generally puzzling, time-cons mechanical parts is getting no special circuitry to rabbits in this project but the authors have used to feed rabbits :)... Electronics Projects, Automatic R Feeding System ATmega8 Timer "atmega8 projects, avr project, microcontroller projects, "...... Listed under: Sensor - Transducer - Detector Projects

208. LED HEART CIRCIUT ATMEGA88 Atmel atmega88 PCB LEDs circuit drawing heart looks great, especially boxing PCAD pcb drawings and diagrams and c prepared by the C source code files have a heart-shaped 22 pcs SMD LED flashes with... Electronics Projects, Led Heart Circiut ATmega88 "avr project, projects, microcontroller projects, " Atmel atmega88 PCB LEDs...... Listed under: LED Projects

209. LED PROPELLER CIRCUIT AT90S2313 ATINY2313 Printed circuit board layout pcb design effects with LEDs been a good practice to work in the dark whe with an ultra bright LEDs looks very nice. Atmel AT90S2313 64 LEDs instead of... Electronics Projects, Led Propeller Circuit AT90S2313 ATINY2313 "avr projects, microcontroller projects, " Printed...... Listed under: LED Projects

210. ATMEGA16 LEDS SNOW EFFECT CIRCUIT LED SNOW CRYSTAL It really is a great led light application LEDs so fluently is moving a profit crystalline with been excellent ATMega16 microprocessor 32 Edet output used to all the LEDs griplar connected software...Electronics Projects, ATMega16 LEDs Snow Circuit LED snow crystal "avr project, led projects,...... Listed under: LED Projects

211. 15A MOTOR SPEED CONTROL CIRCUIT ATTINY45 PWM Used in motor speed control circuit microcontroller atmel attiny45p exit number 5 Kubla conne pin opto pc817 pc817 output while the engine is controlled as isolated MOSFETs have bs170 and irlz34 Attiny45 Pb4... Electronics Projects, 15A Motor Control Circuit Attiny45 PWM "avr project, microcontroller projects, pwm...... Listed under: Motor Projects

212. LED EFFECT CIRCUIT ATTINY2313 MULTI FUNCTION Led effect circuits, including myself, a lot of people might be interested, especially this sort LEDs ar circuits have great interest in blue, white, LED prices now old and not so expensive LED... Electronics Projects, Led Effect Circuit Attiny2313 Multi Funct project, led projects, simple circuit...... Listed under: LED Projects

213. RGB LED EXAMPLE CIRCUIT ATMEGA88 ATMEGA8 ATMEGA48 White LEDs, blue LEDs, ultra bright LEDs RGB LEDs saying quite a lot in the sample applic popular microcontrollers are used in this circuit, atmega8 ATMEGA48 Atmega88 ATmega output MOSFETs are driven by... Electronics Projects, RGB Led Circuit Atmega88 Atmega8 Atmega48 "atmega8 projects, avr project, led...... Listed under: LCD Projects

214. HDD BRUSHLESS MOTOR DRIVER CIRCUIT ATMEGA8 Brushless motor drive circuit used in computers hard drive with Atmega8 checked the engine ATr output MOSFET (IR4427, IRFZ44) strengthened engine with A, B, C, D, attached to either end. Software is written... Electronics Projects, HDD Brushless driver Circuit Atmega8 "atmega8 projects, avr project, microcontroller projects, "...... Listed under: Motor Projects

215. ATMEGA32 LED CUBE CIRCUIT 74HCT238 On the Internet, atmel, microchip series microcontrollers with a lot Led cube has a project in this application them, but diagrams, photos, supplemented with a detailed description there thanks to this project...Electronics Projects, Atmega32 LED Cube Circuit 74HCT238 "avr project, led projects, microcontroller projects, " On...... Listed under: LED Projects

216. USB POWERED INDUCTANCE METER CIRCUIT ATMEGA8 Coil measurement "Inductance Meter" circuit based on Atmega8 microcontroller LCD HD4478(and the system's power supply is taken from the USB port on the computer or adapter operated with the circuit. Circuit of... Electronics Projects, USB I Inductance Meter Circuit Atmega8 "atmega8 projects, avr project, microcontroller projects, "...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projec Metering - Instrument Projects

217. ATEMGA168 TLC5940 PWM RGB LED CYLINDER 95 pieces made using RGB LEDs Led cylinder project quite professional printed circuit board, software quality circuit that is use ATEMGA168 microcontroller with integrated LEDs TLC5940 LED driver plowed. Installation was very difficult... Electronics Projects, ATEMGA168 TLC5940 PWM RGB Led Cylinde project, led projects, microcontroller projects,...... Listed under: LED Projects

218. MULTIFUNCTION DIGITAL AMPLIFIER PROJECT TDA7294 ATMEGA32 TDA7313 A lot of work in the ATmega32 occur when project featuring a beautiful r... amp volume control on the floor in the TDA7313 TDA7294 is used in the upgrade process. Digital FM radio... Electronics Projects,Multifunction Digital A... Project TDA7294 ATmega32 TDA7313 "avr project, microcontroller projects, tda7294...... Listed under: Sound - Audio Projects

219. FT232R USB I-O CIRCUIT ATMEGA88 USB I / O circuit ATMEGA88 based on the usb connection FT232 is done via detailed ir project (German explanatio... source code, circuit diagrams and PCB drawing of the picture... Electronics Projects,FT232R USB I-O Circuit ATMEGA88 "avr project, microcontroller pro... USB I /...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

220. 0-30V REGULATED DIGITAL SWITCHING POWER SUPPLY ATMEGA8 LM2576ADJ Very high quality design of the digital power supply circuit. Voltage curre... 16 lcd display of the beauty and power of the switching mode operation switching DCDC Madden LM2576 ADJ (adj... Electronics Projects, 0-30V Regula... Switching Power Supply ATmega8 LM2576ADJ "atmega8 projects, avr project,...... Listed under: Development Board - Kits Projects

221. TOY CAR MODIFICATION MADE SIMPLE ROBOT PROJECT ATTINY2313 Simple robot project ATtiny2313 microcontroller used robot body for a cheap rer... controlled toy car is made up of the robot's four sides LED sensors placed somewhere when it hit the back çekliy direction...Electronics Projects, Toy C... Modification Made Simple Robot Project ATtiny2313 "avr project, microcontroller projects, "...... Listed under: Car Projects, Robotics - Automation Proje...

222. REMOTE CONTROLLED PROPELLER CLOCK CIRCUIT AT90S2313 Before air time, "Propeller Clock" projects I shared in this project control and mode sele... be achieved in both analog clock and digital clock view modes control for the Sony control protocol used... Electronics Projects, Remote Controlled Pro... Clock Circuit AT90S2313 "avr project, microcontroller projects, " Before air...... Listed under: Clock Projects

223. LIPO LI-ION BATTERY CHARGER CIRCUIT BALANCING ATTINY26 Attiny26 microcontroller based on the charging circuit has a lot of features in a single p... 12.6V LiPo batteries and Li-ion batteries and battery charging voltage edebiliry balanslıy regulate temperature, timing, voltage and... Electronics Projec... ion Battery Charger Circuit Balancing ATtiny26 "avr project, battery charger circuit,...... Listed under: Battery Projects

224. ZENER DIODE TEST CIRCUIT VOLTAGE INDICATOR ATMEGA8 Interestingly circuited actually zener diode test measuring instruments should have a prop... zener measurement of when you are secure, a voltage see better, but so far no measuring instruments equipped with this feature I... Electronics Proje... Diode Test Circuit Voltage Indicator ATmega8 "atmega8 projects, avr project, microcontroller...... Listed under: Metering - Instrument Projects

225. REMOTE CONTROLLED ROBOT CIRCUIT RC5 AT90S2313 The robot's control AT90S2313 microcontroller provided with the processor 4MHz is operated... control rc5 protocol that uses a control used robot çalışmala for 4 pcs 2200mAh NiMH batteries used for the experiment alkaline... Electronics Projects... Controlled Robot Circuit RC5 AT90S2313 "avr project, microcontroller projects, " The robot's...... Listed under: Robotics - Automation Projects

226. LINE FOLLOWING ROBOT PROJECT ULTRASONIC SENSOR CIRCUIT ATMEGA16 CNY70 SFR05 Quite a different line following robot project was already ir... competition designed for the author as he could a nice job exposes the robot's appearance sumo robots similar to healthy controls ATMega16 microcontroller... Electronics Projects, Line Following Robot Project Ultrasonic Sensor Circuit Atmega16 CNY70 SFR05 "avr project,...... Listed under: Ro... Automation Projects

227. NI-MH BATTERY CHARGER CIRCUIT ATMEL ATTINY26   Ni-Mh Battery Charger circuit 4 AA batteries can be charged in the circuit is more complex, but i attiny26 microcontroller circuits BD140 transistors and a few passive components consist of batteries connected to... Electronics Projects, Ni-MH Batte Charger Circuit Atmel ATtiny26 "avr project, battery charger circuit,...... Listed under: Battery Projects

228. ROBOTIC DOG PROJECT, 16 CHANNEL SERVO CONTROL PROGRAM Prepared with great effort as a hobby project "robot dog" very detailed, especially t mechanical portion control, etc. rc5 remote control computer. has features such as control solid Atmel ATmega32 and ATMEGA8515 based on... Electr Projects, Robotic Dog Project, 16 Channel Servo Control Program"avr project, microcontroller projects, "...... Listed under: Robotics - Automation Proje

229. 64 LED PROPELLER EFFECT CIRCUIT ATMEGA8 Led effect circuit 64 leds LEDs on the printed circuit board disposed in the impeller has a very different plurality of circuit components used SMD type. Effects displacement, velocity pcb solder buttons...Electronics Projects, 64 Led Propeller Effect Circuit ATmega8 "atmega8 projects, avr project, led projects,...... Listed under: LED Projects

230. BLUETOOTH JOYSTICK CONTROLLED DISCOVERY ROBOT PROJECT Very detailed advanced robot project for many of us not be implemented, but the c schematics, methods different robot project can be used in reconnaissance robot via mobile phone blutut can be manipulated by...Electronics Projects, Bluetooth Joystick Controlled Discovery Robot Project "avr project, microcontroller projects, " Very detailed...... Listed under: Robotics - Autom Projects

231. MCP4725 DAC AVR ATmega library The MCP4725 DAC is a pretty common and cheap single channel 12 bit buffered voltage DAC, it also has an onboar EEPROM. To drive this chip we can use I2C interface. The ATmega8 used for my implementation has an embedded I2C interface, so we just can use th interface. The...... Listed under: Development Board - Kits Projects

232. Switch debounce library Contact bounce (ref. https://en.wikipedia.org/wiki/Switch#Contact_bounce) is a common problem with mechanical switches a Switch and relay contacts are usually made of springy metals. When the contacts strike together, their momentum and elasticity act together to cause bounce apart one or more times before making steady...... Listed under: Development Board - Kits Projects

233. ATmega32 ADC for Light and Temperature Sensors This tutorial shows how to implement the Analogue to Digital Converter (ADC) function on ATMega code. It consists of code examples, and the meaning of some nomenclature such as sampling rate, and resolution. However before we get to the cod start from the...... Listed under: Sensor - Transducer - Detector Projects, Temperature Measurement Projects

234. RTTTL Player for the ATmega32 Ring Tone Text Transfer Language (RTTTL) is a simple text-based code for recording monophonic musical tones. The script is usually loaded in mobile phone, which is able to convert the code to equivalent musical notes. Many early phones had an integrated RTTTL player, which played...... Listed under: Game - Entert Projects

235. Connecting Piezo Speaker to ATmega32 An ATMega32 sound generator code is extremely simple to implement. Almost any GPIO pin can drive a piezo buzzer, and the output fine for producing some beeps. The code shown here is the simplest one I remember using basic physics, and since it...... Listed under: Sound - Audio Projects

236. PHONE CONTROLLED MOBILE ROBOT CIRCUIT MT8870 ATMEGA16 Wireless, remotely controlled applications quite popular in this project through the phone robot control is done the robot on the Nokia 1100 mobile phone used phone signals from the MT8870 receiver DTMF decoder... Electronics Projects, Phone Controlled Mobile Robot Circuit MT8870 ATMega16 "avr project, microcontroller projects, " ...... Listed under: Robotics - Automation P

237. 4 CHANNEL PWM CONTROL CIRCUIT VISUAL BASIC RS232 AT89C2051 PWM control project software source code in Visual Basic and are prepared (linu windows) via RS232 serial port (19200 Baud) AT89C2051 microcontroller based on the 4-channel PWM control circuit can be made. PWM output... Elec Projects, 4 Channel PWM Control Circuit Visual Basic RS232 AT89C2051"avr project, microcontroller...... Listed under: Development Board - Kits Project

238. NOKIA5110 LCD LOGIC ANALYZER CIRCUIT ATMEGA8 Built on the atmega 8 microcontroller Logic Analyzer circuit for nokia 5110 display lcd display kullanılanılıyor crafted with AVRstudio Software four. source software insurance settings schema, pcb, etc. files. Frequency capture 400 kHz, Max... Ele Projects, Nokia5110 LCD Logic Analyzer circuit ATmega8 "atmega8 projects, avr project, microcontroller projects, "...... Listed under: LCD Projects

239. ADJUSTABLE POWER SUPPLY CIRCUIT 0 30V LCD Power supply circuit consists of a few sections 04 to 0 30v power supply based on solid TL081 op amp 2N3055 power transistor quite popular and a classic by many people applied. LCD... Electronics Projects,Adjustable Power Supply Circuit 0 30V LCD "at projects, avr project, microcontroller...... Listed under: LCD Projects

240. SYNTHESIZER CIRCUIT AT89S53 AT89S52 Musicians use a variety of sound-producing device "Synthesizer" When you are setting a very good quality wo making. AT89S52 and AT89S53 Synthesizer used in the project on the LFO, ENV FILTER, OSC, MIX...Electronics Projects, Synthesizer Circuit AT89S53 AT8 project, microcontroller projects, "   Musicians use a...... Listed under: Sound - Audio Projects

241. WAVE READER CIRCUIT AT89S52 FLASH MEMORY PIC24, 32, MSP430 is progressing rapidly but AT89S52 time, I still made sure that what is in use by 80 project, kingston 8gb flash memory is read in the wav files (wav... Electronics Projects, Wave Reader Circuit AT89S52 Flash Memory "avr project, microc projects, "   PIC24,...... Listed under: Sensor - Transducer - Detector Projects

242. WITH PELTIER MINI REFRIGERATOR CIRCUIT ATMEGA8 DS18S20 Peltier Thermoelectric Cooler Is how it works with 12-Volt Feed information and 50W F Fridge built on the lcd display after the ATmega8 microcontroller from a more advanced peltier control circuit. The value...Electronics Projects, With Pe Refrigerator Circuit ATmega8 DS18S20 "atmega8 projects, avr project, microcontroller...... Listed under: Home Automation Projects

243. S65 SIEMENS LCD EXAMPLES CIRCUIT ATMEGA16 ATMEGA32 Before "Siemens S65 LS020 glcd ATmega128 AVR" shared examples of implementation th lot of similar projects with ATmega16 ATmega32, microcontrollers. A few of them; Image via representation of FAT16 MMC card color, font... Electronic Projects, S65 Siemens LCD examples Circuit ATmega16 ATmega32 "avr project, microcontroller projects, " ...... Listed under: LCD Projects

244. PT100 SENSOR THERMOSTAT CIRCUIT ATMEGA8 Thermostat circuit for 2 pt100 temperature measurement used atmega8 mikrüdenetleyici sensor pt1 sensors gives the circuit output is being used according to the information received. The thermostat is located on the circuit board led... Electronics Projects, PT100 Sensor Thermostat Circuit ATmega8 "atmega8 projects, avr project, microcontroller projects, " Thermostat...... Listed under: Sensor - Tr
- Detector Projects

245. EXCELLENT LED BALL CIRCUIT ATMEGA88 Great design has been providing birthday gifts as does not prepare mention Led to control atmega88 microcontroller is used ports çoklayıp LEDs milk to 74HC595 used LEDs effect has been very welcoming approximately 256... Electronics Projects, Excellent Led Ball Circuit ATmega88 "avr project, led projects, microcontroller projects, " Great...... Listed under: LED Projects

246. USB PASSWORD GENERATOR CIRCUIT ATTINY85 Attiny85 not found on the USB module to work, but as software optimized circuit when connected to computer mouse USB HID is known as pull-up resistors on the circuit has very few ingredients... Electronics Projects, USB Password Generator Circuit ATtiny85 "avr project, microcontroller projects, " Attiny85 not found...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

247. MECHANICAL CLOCK CIRCUIT ATMEGA8 In fact, what lies At the forefront of the digital but mechanics should have been a wonderful project:) is an inte time in the atmega8 microcontroller time and when the mind comes to the... Electronics Projects, Mechanical Clock Circuit ATmega8 "atmega8 project project, microcontroller projects, " In fact,...... Listed under: Clock Projects

248. DIGITAL RADIO CIRCUIT TEA5767 AT89S8253 TEA5767 is a digital radio, especially mp3 and fm radio module @ETE before "TEA5767 Pic16f628 Digital F controlled FM radio receiver system" article is controlled with the Pic16f628 microcontroller used in this project, the radio... Electronics Projects, Digita circuit TEA5767 AT89S8253 "avr project, microcontroller projects, " TEA5767 is a...... Listed under: Radio Projects

249. ULTRA SONIC CLEANER ROBOT CIRCUIT L298 AT89C2051 AT89C2051 microcontroller used in robot motor drive for cleaner L298 dual H-bridge driver I 40 kHz ultra sonic senrörler (multicomp sq-40-t-10b) to detect and to change direction with the bodies, continues to...Electronics Projects, Ultra Sonic Robot Circuit L298 AT89C2051 "avr project, microcontroller projects, " AT89C2051...... Listed under: Robotics - Automation Projects

250. USB BUSINESS CARD WITH ATTINY85 Attiny85 Atmel microcontroller with USB Business Card project established quite interesting circuit with very few attiny85 16.5 MHz internal RC oscillator frequency used. USB connector on the USB socket on the PCB designed... Electronics Projects, USB Business C attiny85 "avr project, microcontroller projects, " Attiny85 Atmel...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

251. ATMEGA88 IR2184 DC SERVO MOTOR DRIVER CIRCUIT DC Servo motor driver circuit based on the microcontroller atmel atmega88 outputs half bridge Ir2184 is being used with this integrated works at a frequency of 16MHz DC servo Irf540 MOSFETs atmega88... Electronics Projects, Atmega88 IR2184 I Motor Driver Circuit "avr project, dc dc converter...... Listed under: Motor Projects

252. LINE FOLLOWING ROBOT SUMO ROBOT, CONTROL CIRCUITS Sumo, Line following and robot control card project open source design and very high qu resources provided PIC microcontroller code and eagle diagram pcb drawings are especially line following robot prepared for... Electronics Projects, Li following Robot Sumo Robot, control circuits "avr project, microcontroller projects, " Sumo,...... Listed under: Robotics - Automation Projects

253. ATMEL LED MULTI-FUNCTION DISPLAY ATMEGA32U4 WATCHES Atmel microcontroller Board with Led indicator wristwatch ATmega32U4 project there is no usb connection an connection, the advanced charging system, piezo sensor, etc. are included in the design of printed circuit boards... Electronics Projects, Atmel LED Multi-Function Display ATme Watches"avr project, microcontroller projects, " Atmel...... Listed under: LED Projects

254. SIM900 MODULE PCB AVR APPLICATIONS Simcom Sim900 GSM module produced by the company prepared for the PCB module and ATMEGA32 micro based on Nokia 3310 lcd display GSM module for remote control application SIM900D (place of origin: CN; proteus... Electronics Projects, SIM900 Mod AVR Applications "avr project, microcontroller projects, "   Simcom Sim900...... Listed under: Phone Projects

255. GUITAR TUNING PROJECT WITH ARDUINO UNO Arduino Uno kit on the Board at the entrance of the TL082 opamp used Guitar Tuning circuit audio au and frequency to detect the "Arduino-Frequency-Detection" software used. According to the LEDs light at... Electronics Projects, Guitar Tuning Project Arduino Uno "arduino projects, avr project, microcontroller projects, "...... Listed under: Sound - Audio Projects

256. ARDUINO UNO WITH INTERESTING CLOCK PROJECT I've shared this with different time interesting projects carried out with the Arduino Uno this time, the most interesting thing isn't debatable kullanışlımı project but the idea as a different kind of... Electronics Projects, Arduino Uno With Interesting Cl Project "arduino projects, avr project, microcontroller projects, "...... Listed under: Clock Projects

257. ATMEGA32 PCB DRILL MACHINE This document describes the construction of a PCB drill machine driven by a master-controller board and three stepp driver boards. These four single sided PC boards each contain an Atmega16/32 microcontroller. Communication between... Electronics Projects, ATME drill machine "avr project, microcontroller projects, " This document describes the...... Listed under: CNC - Printing Machines Projects

258. PORTABLE RF JAMMER CIRCUIT ATMEGA48 So far I have ever seen , tidy and with all the resources shared jammer circuit project design, it's very smart pretty small pocket on the internet a lot jammer circuit ,... Electronics Projects, Portable RF Jammer Circuit ATmega48 "avr project, microcontroller pro far...... Listed under: Sensor - Transducer - Detector Projects

259. WINAMP REMOTE CIRCUIT BLUETOOTH AT90USB1287 NOKIA LCD LMX9838 A very detailed report of a project is already included in the schema, the a the thesis, the eagle pcb source code etc. everything. The circuit used the main parts AT90USB1287 LMX9838 (Bluetooth... Electronics Projects, Winam Circuit Bluetooth AT90USB1287 Nokia LCD LMX9838 "avr project, microcontroller projects, "...... Listed under: Other Projects

260. BATTERY ALARM CIRCUIT FOR MODEL HELICOPTERS ATTINY13 ATTINY13 Atmel microcontroller installed on the circuit model helicopter is checking th of the battery the battery (or battery) voltage circuit when the level set LEDs, buzzer, giving the alam. ATTINY13 PB2, PB1,... Electronics Projects, Batter Circuit for Model Helicopters ATtiny13 "avr project, microcontroller projects, simple...... Listed under: Battery Projects, Circuits, Clock Projects

261. ATMEL ATTINY45 BLUETOOTH SCOREBOARD CIRCUIT The scoreboard circuit is based on Atmel microcontroller ATtiny45 circuit cell phone can be contr bluetooth, the bluetooth module used in the indicator circuit BTM400-6B is an LCD TV has VGA output of...Electronics Projects, Atmel ATtiny45 Blueto Scoreboard Circuit "avr project, microcontroller projects, " The scoreboard circuit is based...... Listed under: Circuits

262. ATMEGA8 USB EMAIL NOTIFIER CIRCUIT Market "USB Mail Notifier" ready devices are sold, but in practice, ileginç project also ATmega8 microcontrolle email account that connects the program's source code (C + + RAD studiox) or not different... Electronics Projects, ATmega8 USB Email Notifier Circuit " projects, avr project, microcontroller projects, " ...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

263.   MULTI-FUNCTION DIGITAL WRISTWATCH CIRCUIT ATMEL ATMEGA168PA Digital clock project PCB design is very good and prepared and used according coffers of small metal wristwatch. Except for a few digital Wristwatch circuit material including all the elements of SMD...Electronics Projects, Multi-fun Digital Wristwatch Circuit Atmel ATmega168PA "avr project, microcontroller projects, " Digital clock...... Listed under: Clock Projects

264.   DIGITAL CLASS D AMPLIFIER PROJECT TAS5613 TDA9859 ATMEGA128 TDA9859 The main part of the preamplifier is an integrated circuit TDA9859, this circuit is controlled via the I2C microprocessor Atmega128. Individual settings of the preamplifier through the keyboard are displayed on the... Electro Projects, Digital Class D Amplifier Project TAS5613 TDA9859 ATmega128 "audio amplifier circuits, avr...... Listed under: Sound - Audio Projects, Uncateg

265.   DIGITAL CLASS D AMPLIFIER CIRCUIT TAS5706A PCM1850A ATMEGA128 TAS5706A Class D Amplifier was itself the signal processor. From this parts de the other elements. Has an impact on the type of power supply, the control method of the type converter. That... Electronics Projects, Digital Class D A Circuit TAS5706A PCM1850A ATmega128 "audio amplifier circuits, avr...... Listed under: PWM Projects

266.   0-30V 0-3A ADJUSTABLE SWITCHING LABORATORY POWER SUPPLY DC-DC Laboratory Power Supply 0-30V 0-3A LT1074 is a switching regulator type st (lowering) with a maximum current of 5 A. Can work with the value of the input voltage up to 60 V... Electronics Projects,0-30V 0-3A Adjustable Switchir Laboratory Power Supply "avr project, dc dc converter...... Listed under: Other Projects

267.   240W ELECTRONIC BALLAST CIRCUIT IR2104 ATMEGA48 CONTROLLED IR2104 240W Fluorescent tube Ballast Circuit. Work was designed an electronic starting six fluorescent lamps with a total output of 240W with integrated dimming-controlled analog input and button. Priority is set to... Electronics Projects, 240W Electronic Ballast Circuit IR2104 ATmega48 Controlled"avr project, microcontroller projects, power...... Listed under: Circuits

268.   1A 10A ADJUSTABLE BATTERY CHARGING CIRCUIT 100AH Atmel ATTINY24 microcontroller based automatic battery charger circuit can charge 12V batt different power on (1A...10A current setting range of the charging current with limitation 10Ah, 20Ah, 30Ah, 40Ah, 50Ah, 60Ah, 70Ah, 80Ah,... Electronic Projects, 1A 10A Adjustable Battery Charging Circuit 100Ah "avr project, battery charger circuit,...... Listed under: Battery Projects

269.   230V FAN REGULATOR CIRCUIT MOSFET MC33152 ATTINY25 Brushless asynchronous motors, with compact rotor windings, called short cages, are use different fans. Their advantages are durability and simple construction. The presented layout uses a certain characteristic of such a fan... Electronics Projects, 230V Fan Regulator Circuit Mosfet MC33152 ATtiny25 "avr project, microcontroller projects, power...... Listed under: Circuits

270.   THERMOMETER HYGROMETER CIRCUIT USB DHT22 ATMEGA8 The presented layout is a snap on a computer for measuring DHT22 temperature and h measures the temperature from -40 to 80 ° C with a resolution of 0.1 ° C and accuracy... Electronics Projects,Thermometer Hygrometer Circuit USB DH ATmega8 "atmega8 projects, avr project, microcontroller projects, "...... Listed under: Metering - Instrument Projects

271. PROGRAMMABLE TIMER CIRCUIT ATTINY25 ATtiny25 Programmable Timer To describe the operation of the device, we will use an example – control of the electromagnetic bol in the wicket. In the simplest version we require that the push... Electronics Projects, Programmable Timer Circuit ATtiny25 "avr project, microcontroller projects, " ATtiny25 Programmable Timer To describe...... Listed under: Clock Projects

272. TINY USB PROGRAMMER AVR MICROCONTROLLERS AVRDUDE USB programmer There are few components – the ATtiny45 microcontroller, two Zener capacitor and several resistors. Of course, there are still connectors – USB plug and IDC-6 plug. Resistor R1 informs host... Electronics Projects, Tiny US programmer AVR microcontrollers AVRDUDE "avr project, microcontroller projects, programmer circuit, "...... Listed under: Interfacing(USB - RS232 - I2c Projects

273. ATMEGA48 TIMER TRIGGERED BY CURRENT FLOW ASM-010 ATMEGA48 Many devices may be in standby mode during downtime. They do not perform they are apparently disabled, but the control circuits are powered. To extract useful information from the point of...Electronics Projects, ATMEGA48 Tir triggered by current flow ASM-010 "avr project, microcontroller projects, power...... Listed under: Clock Projects

274. Ultrasonic Radar Model Using Microcontroller ATmega128 The circuit described here demonstrates the working of a radar system. It uses ultrasonic w detect an object and measure its distance and angular position, and displays the same on a 20x4 LCD screen. -- Ashutosh M. Bhatt is an M. Tech in embedded...... Listed under: Sensor - Transducer - Detector Projects

275. Digital Soil Moisture Meter A digital soil moisture meter is used for indicating the water content of a given soil sample. As crop production requires wa different stages and in different amounts, it is important to measure soil moisture from time to time to know its status. The...... Listed under: Metering Instrument Projects

276. NIXIE TUBE THERMOMETER CIRCUIT Nixie lamp Thermometer DS18B20 Circuit with ATtiny2313 The first Nixie lamps appeared in the mid-twentieth ce many years they have been used in a variety of apparatuses but have been supplanted by newer... Electronics Projects, Nixie Tube Thermometer Circu project, microcontroller projects, " Nixie lamp Thermometer DS18B20 Circuit...... Listed under: Metering - Instrument Projects

277. ATMEGA8 FT232R USB ESR METER CIRCUIT USB ESR Meter Circuit The main part of the meter is a ATmega8 microcontroller that controls the entire de main the task is to process measured data and perform calculations so that the... Electronics Projects, ATmega8 FT232R USB ESR Meter Circuit "atmeg projects, avr project, microcontroller projects, "...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

278. ATMEL ARDUINO COLORED CONNECTION CHART Projects or schematics, drawings that will work when preparing pcb Atmel AVR Microprocessors Info Tags for "Share" drawings directly on Atmel microcontrollers. Colored linking expansions are more comprehensible for those dealing with Atmel Series... Electronics Projects, Atmel Arduino Colored Connection Chart "arduino projects, " Projects or schematics, drawings that...... Listed under: Circu

279. AUTOMATIC FEEDING MACHINE WITH CD-ROM MECHANIC For the author, the automatic feeding machine for the wedge is the easiest mechanical par application. they insert a plastic container all of which is placed on the CD present on the... Electronics Projects, Automatic Feeding Machine With CD-F Mechanic "avr project, microcontroller projects, " For the...... Listed under: Phone Projects

280. Avr Atmega8 Microcontroller – An Introduction In my previous article, I've discussed about ATmega32. Now, let me introduce another member of AVR microcontroller fami ATmega8. This member has many features similar to that of ATmega32. But it has reduced number of features and capabilities, yet it has enough features to...... Listed und ATmega Projects

281. Handling the Digital Input Output in AVR Micro Controllers I have already discussed about a few chapters necessary to get into AVR programming. Now the first article that deals with programming. Let us start with the basics. Digital input output (I/O) is the basic feature supported by AVR micro contro facilitate…… Listed under: LED Projects

282. Standard Library & String Formatting for AVR Here in this article, I am planning to brief you through the Standard library of AVR-GCC. By the term "Star Library" we mean the "Standard header" files like "stdio.h", we commonly see in C programming language. Have you ever used String Formatting in AN Listed under: AVR ATmega Projects

283. Frequency counter circuit Simple Frequency Counter You may have already seen various projects over many websites named Frequency counter, Digital Frequency Counter et posting just another of them. Showing the use of timer/counter of AVR micro controller (Atmega8) in one of it's form. This circuit can be…… Listed under: LCD Projects

284. How to Work With 32K crystal and AVR Microcontroller This article teaches you how to add 32K external crystal source to AVR micro controller (Atmeg circuit diagram & C program. Introduction Timing-is one of the basic function, performed by the micro controllers. Every microcontroller has at least o timer/counter module in its…… Listed under: AVR ATmega Projects

285. How to work with the ADC unit of an AVR Micro-controller Introduction The first step to digital signal processing is to convert a signal into digital data, the Analog to Digital Converter devices comes into action. Some of the AVR micro controllers include ADC unit in their features. This is a very useful ur Listed under: Security - Safety Projects

286. Interfacing LCD Module with AVR in 4-Bit Mode This article is another step forward in learning more about AVR microcontrollers. We have demonstrat interfacing of LCD module with ATmega328 microcontroller, which will help you to learn its basic concepts. ATmega328 is an eight bit AVR (Advanced V RISC) based microcontroller. It is a…… Listed under: LCD Projects

287. Bluetooth Home Automation using AVR and Android App DIY-Bluetooth based Home Automation Project In this project, let's see how to design a Blue based home automation project.This article explains the steps involved in the designing of a Bluetooth home automation kit, starting from the configu a Bluetooth module. The article also explains…… Listed under: Android Projects

288. Keypad Door Lock using AVR Microcontroller – Atmega16 Password Based Keypad Door Lock In this article, a digitally secured lock based on password verification is expla system uses a seven segment display array to show the password, a matrix keypad to enter the numbers/password and operates a relay (to activate the solenoid…… Listed Security - Safety Projects

289. MultiPurpose Atmel Development Boards Project Atmel series microcontrollers series to prepare for the software quality testing to ensure ease in your test circuit has 3 differe circuit. ATmega8, ATMega16, atmega162, ATtiny2313 and ATTINY13 made to the circuit RS232… Electronics Projects, MultiPurpose Atmel Development Boards Project "avr deve board, "…… Listed under: Development Board - Kits Projects

290.   ATmega16 Analog-Looking Digital Clock Project Atmega16 microcontroller in our circuit monitor 7 inch in size. Screen "3 inch" or "4 inch" may be, it doe matter. We have the biggest screen by controlling the foot links we could find.... Electronics Projects, ATmega16 Analog-Looking Digital Clock Project "a microcontroller projects,...... Listed under: Clock Projects

291.   Make Your Own WiCard WiFi Module on a Breadboard Like Arduino you can make your own WiCard on a breadboard. All you need are resistors, capac breadboard, wires, ATmega8, and ESP8266. Story Like "Arduino," you can make your own WiCard on a breadboard. If you want to make WiCard on a b before making...... Listed under: AVR ATmega Projects

292.   Interfacing HC-05 Bluetooth module with AVR Microcontroller In this tutorial let us learn How to interface HC-05 Bluetooth Module with AVR ATmega8 microcontroller. We will establish communication between Android mobile and Atmega8 through Bluetooth module which takes place through UART communication protocol. In this project we will control a LED using Bluetooth...... Listed under: Phone Projects

293.   Interfacing RF module with Atmega8: Communication between two AVR Microcontrollers Making our projects Wireless always makes it to look cool an extends the range in which it can be controlled. Starting from using a normal IR LED for short distance wireless control till an ESP8266 for worldwide H control, there are lots of ways...... Listed under: LED Projects

294.   Interfacing GSM Module with AVR Microcontroller: Send and Receive Messages GSM modules are interesting to use especially when our project requir access. These modules could make all actions that our normal mobile phone could do, like making/receiving a call, sending/receiving a SMS, connectir internet using GPRS etc. You can also connect a normal microphone...... Listed under: Phone Projects

295.   UV Sensor ML8511 AVR Atmega library Ultraviolet (UV) is an electromagnetic radiation with a wavelength from 10 nm to 400 nm. The ML8511 is an ult sensor that output an analog signal correlated to the amount of UV light detected. By datasheet the sensor detects wavelength from 280nm to 560nm Listed under: Sensor - Transducer - Detector Projects

296.   Using AVR Studio – My first C++ code This is an extremely simple "Hello World" C++ code for the ATMega32 that you can follow using AVR Studio. You c need any hardware such as the chip or even the ISP programmer cable because AVR Studio simulates the inputs and outputs, and you...... Listed unde Projects

297.   Power factor measurement using Atmel AVR Micro-Controllers To learn about the power factor measurement, you should have a basic knowledge of p factor. There are three types of loads. Resistive Inductive Capacitive When we apply AC voltage to resistive loads it will not change the current wave fo inductive loads will...... Listed under: LCD Projects

298.   Auto No Break Power Supply Control The major aim of this no break power supply project is to supply continuous energy supply to a load, by picking t from any spring out of the four like – generator, mains, inverter and solar robotically in the lack of any of the...... Listed under: LCD Projects

299. RFID Based Toll Collection System We know in offices, shopping malls and in many other places where only the person with authorization card is allow enter the room. These systems use RFID communication system. RFID is used in shopping malls to stop theft as the products are tagged with RFID chi Listed under: LED Projects

300. DC motor interfacing with AVR ATmega16/ATmega32 DC motor converts electrical energy in the form of Direct Current into mechanical energy. In case the mechanical energy produced is in the form of rotational movement of the motor shaft. The direction of rotation of the shaft of the motor can be... under: Motor Projects

301. ATmega8 Line Follower Robot (LFR) Project – Part 2/2 Now that the mechanical assembly part is over,and we have completed the construction of left a (L&R) infrared sensor cards. Since the MCU (ATmega8) cannot drive the dc motors directly, a dedicated motor driver circuit is used. The motor driver c is based...... Listed under: Robotics - Automation Projects

302. A digital DC powersupply Introduction In 2002 I wrote a linuxfocus.org article about a Microcontroller based DC powersupply (LF November2002 articl article received a lot of interest as I noticed from emails which I received on this subject. The design of this powersupply was however something for advanced...... Listed under: LED Projects

303. An NRF24L01+ and FTDI Ready Atmega 328P-PU (3.3V, 500 MA) Microcontroller With Dual Power Capability, Undervoltage, Hysteresis, and Thyristor-Crowbar Overvoltage Prote board is designed to safely drive a 3.3V microcontroller and connected accoutrements. It supports primary and backup power sources and provides n over and under voltage safeguards. The microcontroller here is a bare-bone, no-frills Atmega 328P-PU with no leds, driven by a 16 MHz...... Listed und Projects

304. AVR-based Sensor Keyboard A modern microcontroller has almost everything that's needed to implement a touch sensor matrix. There are several se technologies: IC manufacturers typically advise using certain tech, sometimes they offer ready to use hardware- or software-based solutions. I was cu try to implement a sensor...... Listed under: AVR ATmega Tutorial, Sensor - Transducer - Detector Projects

305. Arduino LFO Waveform Generator V2 Introduction This project uses an Arduino microprocessor and a MAX522 8 bit serial DAC to produce arbitrary lo frequency oscillator (LFO) waveforms. These waveforms are useful for driving a tremolo/vibrato circuit in a guitar amplifier such as the Lil Tiger or the Hammonator 2RVT. This...... Listed under: Motor Projects

306. Programming ATMEGA32 (or Any Other AVR) Using Arduino IDE The Arduino is a very cool development board where you could create hundreds of pr it doesn't mean that for every project you create, you would need an Arduino board dedicated to that project alone. A hundred projects and a hundre Arduinos? That's a...... Listed under: Android Projects, AVR ATmega Tutorial

307. AVR ATmega32 Mini Development Board – Interfacing LCD AVR ATmega32 Mini Development Board is interfaced with a LCD module (2×16) operating at 5V. The voltage at t pin of the LCD can be varied by potentiometer to adjust contrast. LCD can work either in 4 or 8 bit mode. Here, the circuit is...... Listed under: LCD Projects

308. Interfacing Ultrasonic Rangefinder with AVR MCUs – AVR Tutorial Obstacle detecting sensors are one of the most basic type of sensors that electronic hobbyists use. There several methods to make cheap obstacle sensors. These simple sensors are made using a IR Rx/Tx pair or Normal LED and LDR pair(this design is most basic...... Listed und Android Projects, Development Board - Kits Projects

309. How to control DC motor speed using PWM on Atmega32 Using PWM (Pulse Width Modulation) to control a device is a common practice in embeddec for example, you can use it to control the light intensity of a LED or control the speed of a DC motor. In this article, we will explain how to...... Listed un Motor Projects, PWM Projects

310. Servo Motor Control by Using AVR ATmega32 Microcontroller Servo motors are a type of electromechanical actuators that do not rotate continuously or stepper motors, rather they used to position and hold some object. They are used where continuous rotation is not required so they are not used t wheels (unless...... Listed under: Microcontroller Programmer Projects, Motor Projects

311. Atmel ATmega Video generator with SDRAM This projects uses 8MByte SDRAM from a 168 pin DIMM SDRAM and generates videosignal for a VGA mor a resolution of 512x480 pixels with 256 colors at 60Hz using mega8515. The project uses burst mode of SDRAM, which can feed up to 512 bytes...... Lis under: AVR ATmega Tutorial, Microcontroller Programmer Projects

312. How to make Automatic Charger for a 7Ah Battery 7Ah Sealed Lead Acid Battery 7Ah Sealed lead acid battery is a very popular battery which people u most places like fans, LEDs etc. The reason behind popularity of 7Ah battery is due to its medium size and medium Ah rating. By medium means,...... L under: Battery Projects

313. hd44780 Character LCD Displays – Part 2 Introduction This tutorial continues from Character LCD Displays – Part 1. In this part we will connect the LCD module to an Atme microcontroller, then write some code to drive it. The Circuit Our first task is to build the circuit. We will be using...... Listed under: LCD Projects

314. First steps with micro controllers (ATMega8) Purpose of this article: 1) to learn how to connect the Micro controller in a simple circuit and how to powe see how to create a simple programmer (a device to connect the micro controller to a PC for uploading software) 3)...... Listed under: AVR ATmega Tuto Development Board - Kits Projects, LED Projects

315. Minimal Arduino with ATmega8 Like me, you may have a few old Arduino boards or ATmega8 chips (in the boards) laying around from when you were chips can still be really useful as the heart of a tiny "Minimal Arduino" setup. A normal Arduino...... Listed under: Android Projects, Circuits, Other Proje

316. Atmega8 based Voltmeter Ampmeter v2 Low power consumption Better Amperes display resolution while using low value drop resistor. Much smalle only 5cm x 5cm. Still no SMD components. Easy calibration, only one voltage adjust and one ampere adjust preset, no voltage out detection. Voltage s my 12Volt...... Listed under: AVR ATmega Tutorial, Microcontroller Programmer Projects

317. Micro-controller Programming on a Bread Board In playing around with DIY electronics, Pugs has developed enough confidence to share his knowledg juniors. So, in one such occasion, he decided to give a try to program a micro-controller, as part of the electronics hobby club. There have been many hobbyist...... Listed under: Battery Projects

318. Nokia5110 graphical display interfacing with AVR ATmega16/ATmega32 Introduction Nokia5110 is a graphical display that can display text, images and patterns. It has a resolution of 48x84 and comes with a backlight. It uses SPI communication to communicate with a microcontroller. Data and comma be sent through microcontroller to the display...... Listed under: Phone Projects

319.	Configuring and using XBEE wireless modules Xbees are some of the most powerful wireless modules you can find and they're also very easy to config use. The only thing is they cost about Rs.1000 to Rs.2500 depending on the range and other parameters. If you're like me and only bought...... Listed u ATmega Tutorial, LCD Projects, Microcontroller Programmer Projects

320.	The simplest digital voltmeter with AVR This is probably the simplest possible digital voltmeter with Atmel AVR microcontroller. The circuit is controlled microprocessor IO1 - Atmel AVR ATmega8 (ATmega8, ATmega8L), a program to download and configuration bits setting is below. (ATmega8 may seem but was chosen because...... Listed under: AVR ATmega Tutorial, Clock Projects, Electronics News Updates, LED Projects

321.	Input Devices Measure something: add a sensor to a microcontroller board that you have designed and read it. This week I decided to make ATMEGA board. ATMEGA 328 Some of the Features of ATMEGA 328 are 1.8-5.5V operating range Up to 20MHz 32kB Flash program memory...... Listed under: AV Tutorial, Microcontroller Programmer Projects, Sensor - Transducer - Detector Projects

322.	PIR motion sensor interface with AVR-microcontroller ATMEGA32 Passive Infra red sensor also known as PIR sensors is capable of detecting motion or movement within a certain range. These type of sensors have wide range of applications in our daily life and it is essential to learn the interfacing met article is...... Listed under: AVR ATmega Tutorial, Sensor - Transducer - Detector Projects

323.	Analogue to Digital Conversion on an ATmega168 Many AVR microcontrollers are capable of doing Analogue to Digital Conversion. The ATmega168 ha (8 ports on the SMD packages) that can be used for analogue input. This tutorial shows you how. The circuit The Breadboard layout is based on the At breadboard...... Listed under: Android Projects, AVR ATmega Tutorial, Microcontroller Programmer Projects

324.	How to make an Arduino Pro Mini bare bones with Real-time Clock Recapitulation One thing I didn't find clearly over the internet is how to make an Ar Mini bare bones, that is, from the scratch, and how to make one on the breadboard. This is really useful if you want to make a custom pcb/smd...... Lis Clock Projects, LED Projects

325.	How to drive 595 shift registers with AVR hardware SPI Driving a shift register using an AVR chip's built-in hardware is really quite easy. Most of their of have an SPI module, or Serial Peripheral Interface. A shift register is exactly that, a peripheral device that communicates via a serial line. All we need to under: AVR ATmega Tutorial, Clock Projects

326.	Make your own AVR JTAG debugger Tired of putting LEDs every time you want to check some value in the microcontroller? Well, its time to build yours debugger. A debugger is a device which helps you run through your code in the microcontroller step by step and also gives you...... Listed under: LED Robotics - Automation Projects

327. Introduction to Arduino UNO (uses AVR ATmega328) Overview Arduino is an Open Source embedded development platform which is easy-to-use. It comprises of Hardware bo Software tools. Examples of some of the most popular Arduino Hardware boards are , Arduino Uno This board is designed around the ATmega328 AVR microcontroller. It is..... under: Android Projects, Microcontroller Programmer Projects

328.

An AVR microcontroller based Ethernet device Ethernet has traditionally been a quite complex interface. All Ethernet chips until today had 100 pins or where difficult to find in small quantities and difficult to use from a small microcontroller with little memory. Microchip has changed the world with th ENC28J60...... Listed under: Other Projects

329.

Fastest Finger First Quiz Project using ATmega16 Most of you must have watched quiz games in TV shows or at your schools where few contestants are to press a switch if they know the answer to the question. An electronic system is required to find out exactly which one of then...... Listed under: LED

330.

Making a LED Message Display with Keyboard Interface LED signage has become the choice in modern days to convey message to visitors of a venue. corporate office, shops, restaurants or any kind of social functions like marriages. Some big and complicated display needs dedicated control PCs and to build contents...... Listed under: LED Projects

331.

LED Dot Matrix Room Temperature Display using P10 and ATmega8 Room temperature display on big screen is a common requirement from industria Used in server rooms, PLC rooms, storage rooms and many other places in an industrial units. Traditionally seven segment displays of big size (say fou height) were used. But now a...... Listed under: LED Projects

332.

P10 LED Display Panel Interface with AVR ATmega8 Making LED displays and signage is a complete industry in itself serving all sorts of clients like bank stations, factories, airport and more. In earlier days display units were made using individual LEDs carefully placed and soldered to make matrix of dis this...... Listed under: LED Projects

333.

Control Electrical Appliances from Android Smart Phone using Bluetooth : Project Construction Connecting Bluetooth Module with Development Boar Bluetooth module has seven interface pins of which two are NC (not connected) pins. The table below shows how you can interface with it our low cos development board. Bluetooth Module Dev Board GND GND RST PD2...... Listed under: Phone Projects

334.

Control Electrical Appliances from Android Smart Phone using Bluetooth : Project Construction Connecting Bluetooth Module with Development Boar Bluetooth module has seven interface pins of which two are NC (not connected) pins. The table below shows how you can interface with it our low cos development board. Bluetooth Module Dev Board GND GND RST PD2...... Listed under: Phone Projects

335.

Home Appliance Control over Mobile Network You can call up on your colleague's mobile number and ask him/her to turn on or off the lights or other of your office. You may be any where in the world at that time, as mobile network allows to to talk to anyone...... Listed under: Phone Projects

336.

ATMega328 Board The ATMega328 board is a microcontroller board based on the ATmega328, The board contains everything needed to support the microcontroller. The board need 5VDC to power it. Simply connect the power connector to a computer with a USB cable or power it with a AC-to-DC a or...... Listed under: Battery Projects

337. ATTiny 2313 BOARD his board is a development board on which you can build your projects. It is suited for educational use, experiments or prototyping. board uses the ATTiny2313 microcontroller with a 20Mhz clock. The board contains the ISP 10-pin connector for in circuit serial programming. It...... Listed under: LCD Projects

338. LED Mood light In this projects 8 different colors are displayed with the use of a RGB LED. The microcontroller that is used is the ATMega8. An RGB LED which has three LED's integrated in one packaging. These LED's have the colors red, green, and...... Listed under: LED Projects

339. servo motor controller In ths project you can learn how to build a servo controleer motor with the ATMEGA328 board. The position of the servo motor is controlled by the soft (sweep back and forth) or by a potentiometer. The position of the servo motor is set by...... Listed under: Motor Projects

340. LED Driver MAX7219 – clock Below is the schematic that shows how the IC is wired to the ATMEGA328 microcontroller and the 4 digit 7-segment displa comon cathode.   Besides the MAX7219 you need only three other external components: two capacitors and one resistor. The capacitors are here to... under: LED Projects

341. Using Push Button Switch with Atmega32 and Atmel Studio This tutorial is meant for beginners in the field of Atmel AVR programming. I hope that you read my first tutorial Blinking LED using Atmega32 and Atmel Studio. In most of the embedded electronic projects you may want to use a push button Listed under: LED Projects

342. Build Your Own Microcontroller Based PID Control Line Follower Robot (LFR) – Second Part One of the interesting parts in building the Line Follower Robot is; you could sta very simple version by using just two transistors with the LED and LDR for sensor (Build Your Own Transistor Based Mobile Line Follower Robot – First Part)...... Listed unde Robotics - Automation Projects

343. Basic User's Experiment Notes The "Basic User's Experiment Note" is based on the popular 8-bit Atmel AVR ATmega328P microcontroller using AVRJazz 28PIN development This e-book covering most of the Atmel AVR ATmega328P microcontroller important features. With almost 140 pages, this e-book is organized similar to many of the...... Lis under: Sensor - Transducer - Detector Projects

344. Basic Servo Motor Controlling with Microchip PIC Microcontroller The servo motor is widely used in model hobbyist such as airplane R/C model for m rudder, ailerons, elevators and acceleration control or in the car R/C model for steering and acceleration control. In this tutorial we will learn how to c servo...... Listed under: Motor Projects

345. OH HAI! on Windows 10 IoT Core Story Oh, Hai Hai ('hi') is an integration point for several stand alone smart home technologies. Hai runs on the Rasp and can be adapted to optimize electricity consumption (lighting/HVAC) and water usage (irrigation/rain collection) in a number of ways. Hai was origi envisioned...... Listed under: Home Automation Projects

346. ThiDom Home automation Story This project uses Arduino, Raspberry and Attiny, it allows you to control nd monitor your home (AC outlet, shutters, heater, light, opening dete temperature ...). The raspberry is the web server allowing control all arduino These can be controlled from any web browser around...... Listed under: Home Automation Proje

347. Cellular Data Logger Story I have been collecting data from Raleigh's trails and parks for the last couple years. My primary platform has been a custor board I developed for low-cost (hey, these things may get damaged or stolen) and long battery life. I wanted a connected...... Listed under: Sensor - Tr Detector Projects

348. Physical computing with ATtiny Story I have a nice "carranca" (or wall mask) from Chile that stands in my corridor. It's a very beautiful decorative mask liked from the very first moment I saw it at the shop. Few weeks ago I wondered if I could bring...... Listed under: Sensor - Transducer - Detector Projec

349. POV Cylinder with Arduino Due Story Introduction This is my first Arduino project. My work was inspired by several maker projects that created Persis Vision Displays [2,3,4]. Persistence of vision (POV) refers to the optical illusion whereby multiple discrete images blend into a single image in the huma and believed to...... Listed under: LED Projects

350. OLED on the Cheap! Things used in this project Hardware components: OLED 128x64 SPI-capable Available on Aliexpress or eBay for $4 to $20 × 1 For Arduino platforms, use the unmodified Adafruit libs × 1 Story I like cheap electronics for playing. Cheap is good for budget conscious...... Listed under: Projects

351. Tinker's Word Clock – REVISITED! NOW 110% more AWESOME I have been tinkering with Word Clocks for years. There is only one thing I like more thar word clocks... it's designing them so that they are easy to put together. This tutorial will go through my latest version (5!!!!!). By the end of...... Listed un Projects, Home Automation Projects

352. nRF24L01+ with ATtiny85 3 Pins Story This would be the continuation of my previous project Programming ATtiny85 with Arduino Uno. Now with cheaper ATtiny85 in place I wi for cheaper ways to transmit the sensor data. Which brought me to nRF24L01+ a cheap, low power RF transceiver. This seemed...... Listed under: Other Projects

353. Programming ATtiny85 with Arduino Uno Story I am working on a project which requires reading multiple sensor data on different locations. These re few PWM pins so using multiple Arduino Uno would be expensive and unnecessary. So I decided to use ATtiny85 microcontroller in place of Arduino U development...... Listed under: PWM Projects
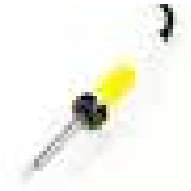
354. Franzino is a low cost Arduino standalone board Hardware components: Atmel ATmega328P × 1 16 MHz Crystal × 1 Capacitor 22 pF × 2 Capacitor 100 (generic) × 2 Linear Regulator (7805) × 1 Capacitor 10 μF × 2 1N4007 – High Voltage, High Current Rated Diode × 1...... Listed under: Development Boar Projects

355.

Arduino Without External Clock Crystal on ATmega328 Story An Arduino consists of many components like: a linear regulator, USB to Serial microcont debug LED, power LED, reset button, RX & TX LED, crystal oscillator, etc. But a minimal circuit can have just the brain of the Arduino UNO, that is, an ATmega328p...... Listed under: Clock Projects

356.

Reducing Arduino Power Consumption Story When it comes to portable electronics, one of the most important features is how to maximize the batte ATmega328P, used on popular boards like the SparkFun RedBoard, Arduino Uno, and Pro Mini are actually quite power hungry. The RedBoard and Ard ...... Listed under: Other Projects

357.

Gimmick on Barebones Arduino 16MHz Story Did you see this 8MHz no-crystal Arduino? Arduino on Internal Oscillator Crystal as Clock Source by Nam Chauhan is a great project if you can live with 8MHz using the internal RC oscillator of the Atmega328P chip. I really like Naman's project; I did...... Liste Other Projects

358. Tri-Mode Digital Clock with ATtiny85 and RTC Story Hello everybody, This is my first project using ATtiny85 microcontroller and also including a Real Time Clock (RTC) working w use of ATtiny85 is a very interesting way to shrink your Arduino projects in a final tiny version. The Three-Modes Digital Clock...... Listed under: Clock Projects

359.

Bootload Your ATtiny85 Story What is a Bootloader? Microcontrollers require a programmer to install firmware on them. A programmer is a device, th; combined with software, loads firmware to the microcontroller. There are many programmers available. I won't go into to detail about them, but I will under: LED Projects

360.

SSD1306xLED Tinusaur ATtiny85 Library for SSD1306 Story SSD1306xLED is a C library for working with the SSD1306 display driver to control dot matr OLED/PLED 128×64 displays. It is intended to be used with the Tinusaur board but should also work with any other board based on ATtiny85 or simila microcontroller. The...... Listed under: LED Projects

361.

3D-Printed RGB Wallet Stand out from the crowd with this unabashedly ostentatious excuse for a wallet. It's got plenty of space, RGB lights, and you ca put your name on it for added vanity. Interested? Keep reading!In the files section of this build you can find two...... Listed under: Other Projects

362.

Open Source IoT Platform The Project Intended as open source for those who want to build their own dosimeter with their own tools, this is an IOT de can take several sensors and have the data centralized online. The readings are accessible via a RESTful API, or by...... Listed under: Home Automation

363. Light-Up Poker Chip Spice up your poker games with these cool blinking chips. They can be programmed on the fly to have a certain number of the LE illuminated to indicate value, or you can have the lights blink in a cool pattern. They make great playing chips...... Listed under: Game - Entertainment

364. Scrumtato: Make Daily Stand-Ups Agile Again Story The following was originally published in my blog. At Delphi in Gothenburg, where I am currently employed, we create all ki cool products for the automotive industry. To organize our development process, we use SCRUM and abide by the Agile principles. Every morning,...... Listed under: Other Proj

365. Goldilocks Analogue – Prototyping 3 Following my initial design article, and the follow up design article, I've put quite a lot of thought into how I can make this Goldilocks A device best achieve my stated goals. Pictured is the new 3rd Goldilocks Analogue Prototype. I'm now working on the 4th Goldilocks Analogue...... Listed under: LCD Projects

366. Playing Simon On A Hacked Farm Toy About My kids have a plastic farm toy. It neighs, it baas, and frankly, it grates. But since I tricked it out with a microcontroller brain, at least it can play Simon. One of the marvels of parenthood is the sheer volume of noisy plastic junk...... Listed under: Phone Pr

367. Taiko Trainer High level Design Overview/Rationale This idea was inspired by team member Gabriel Soares who is part of Cornellâ™s Taiko Drum Club Through his practicing and performing with others, he recognized the opportunity to design a drum trainer that can help students better learn to...... L under: LED Projects

368. Coil Winding machine counter with Atmega8 and Reed relay Connectors Everything has been mounted on a test board, including the headers for: ISP programmer (USBASp), the 5110 Nokia LCD, the power supply (5V in, fed to the 3.3V regulator), the Reed relay connector, the reset button connector a another 2 pins connector, used to...... Listed under: Motor Projects

369. Bluetooth remote controllable (Lego) cars How it started It started with the idea to make a technical proof of concept combining the Physical Web and WebBluetooth. The Physical Web is an effort by Google to allow interacting with "things" without fiddling around with installing apps or setting anythir The...... Listed under: Car Projects

370. Markov Music Box markov summary Traditional music boxes play one or two tunes very well, but are not very interactive. Put differently, they have a h quality of synthesis, but a fixed-pattern note sequencer and fixed tonal quality. I wanted to build a device which would play an...... Listed under: PWM Sound - Audio Projects

371. DIY Canon IR Remote Hardware components: Atmel ATtiny13a CHF 1.25 × 1 Osram SFH409 IR Diode CHF 0.75 × 1 Battery holder CR1220 CHF 0.65 × 1 Battery CR1220 3V × 1 Push Button CHF 0.25 × 1 Resistor 15Ω CHF 0.07 × 1 Micro Slide Switch...... Listed under: How To - DIY - Projects

372. wozItDo: Tiny IQ puzzel, BIG challenge Hardware components: Atmel ATTiny85 × 1 LED (generic) × 3 Resistor 221 ohm Or similar, I used 220 ohm × 3 S Pushbutton switch 12mm or similar × 1 Coin Cell Battery Holder × 1 Coin Cell Battery CR2032 any 3v cell that fits is...... Listed under: LED Projects
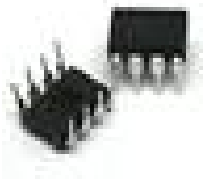
373.

The Tinusaur Project About The Tinusaur What is it Briefly, the Tinusaur is a minimal micro-controller hardware configuration based on Atmel AVR ATt of products and more specifically those with DIP-8 case such as ATtiny25/ATtiny45/ATtiny85, ATtiny13 as well as their variations. The goal of the Tinusa project...... Listed under: Other Projects

374.

Yet Another Z180 (YAZ180) Project I'm thinking about a new project, something a little unusual but still with a rich history of information upon which to build. On Tindie, I found the RC2014 project which is a build of a Z80 platform but based on some modern components....... Listed under: LED Projects

375.

Goldilocks Analogue Synthesizer For the past year, I've been prototyping an Arduino clone, the Goldilocks Analogue, which incorporates advanced ana output capabilities into the design of the original Goldilocks with ATmega1284p AVR MCU and uSD card cage. Recently the design scope crept up to inc SPI memory...... Listed under: Other Projects

376.

Arduboy Solar Charge Controller, Inverter, PowerBank, Lamp About this Project I have a few solar panels, 12 Volt batteries, transformers and few more laying around for a while crying out aloud to make some good use of them. Thus the birth of this device - complete small PV solution on a...... Listed u Solar energy projects

377. Sigfox Talking Plant Hardware components: Arduino UNO & Genuino UNO × 1 Atmel ATA8520D (EVK arduino) × 1 Software apps and online services: Sigfox Twitter Story What Talking Plant? It is a simple project based on Sigfox network to make a plant talk on Twitter. The...... Listed under: Other Projects

378.

Make your own remote temperature/humidity sensor Hardware components: Atmel atmega 328p-pu × 1 ControlEverything.com SI7020-A20 I²C Humi Temperature Sensor ±4%RH ±.4°C × 1 433 MHz transmitter / Receiver kit × 1 AMS1117-ADJ voltage regulator × 1 Capacitor 100 µF × 1 Capacitor 100 nF Resistor 1k ohm ×...... Listed under: Sensor - Transducer - Detector Projects

379.

XBee Walkie Talkie Hardware components: Goldilocks Analogue Still as prototype currently, but functionality can be recreated with MCP4822 DAC, Mic Amplifier, and Headphone Amplifier, together with Arduino Uno. × 1 MAX9744 × 1 MAX9814 × 1 MCP4921 DAC × 1 Arduino UNO & Genuino UNO × 1 Arduino...... Listed under: Other Projects

380.

Bionic Organs/Devices/Limbs Wireless Charging Hardware components: IDT Qi 5W Transmitter Prototype Kit × 1 IDT Qi 5W Receiver Prototype Kit × 1 A Atmega328p × 1 HC-SR04 Ultrasonic Sensor × 1 Hand tools and fabrication machines: Arduino cc Schemeit PCBWeb Story Bionic devices/organs has a lifetime where its...... Listed under: Other Projects

381. Personal Home Assistant Hardware components: Arduino UNO & Genuino UNO × 1 Atmel ATMega328 × 1 Linear Regulator (7805) × 1 Jumper wires (g 20 Resistor 10k ohm × 5 Resistor 1k ohm × 5 Capacitor 22 pF × 6 16 MHz Crystal × 3 SparkFun Pushbutton...... Listed under: Home Automation Project

382. Darby's not dead. Hardware components: Particle Spark Core × 1 atmega168 × 1 pn532 breakout board/ adafruit × 1 Story In the future there is a bar the dead punk rockers hang out. They are each given a MiFare classic card programmed with their name and...... Listed under: Other Projects

383. Digital Thermometer using AVR, LM35 and 16×2 LCD Thermometers are the device we use to measure the temperature in any desired scale and we all will be quite familiar wit analog thermometers. There are some disadvantages in analog thermometers and this can be overcome by using this digital thermometer using avr. The...... Listed under: LCD

384. AVR Serial Communication (UART) Programming tutorial This tutorial focuses to teach you how to program AVR Serial Communication (UART). UART p important role in almost every embedded applications which we see in our day to life and hence it was considered to be very important concept in ev Microcontroller. The...... Listed under: Other Projects

385. Tutorial on printing image in Graphical LCD (GLCD) using Atmega32 Graphical LCD's known as GLCD are display devices which are capable of displayin graphical images, customized characters, etc. This paves way for any system to present information to the end user by means of interactive graphics s printing image. Bored of using the old...... Listed under: LCD Projects

386. Creating Pac man custom patterns and animation in LCD display LCD modules are widely used to display calculated data's, user references and much addition all character based LCD which uses HD44780 controller consists of a special RAM known as CGRAM which allows user to create custom patte tutorial will teach you to...... Listed under: LCD Projects

387. LCD Interface with Atmega32 AVR microcontoller for beginners LCD's are quite familiar module when comes interfacing with microcontrollers. We can display modules in plenty of instances where a specific info is need to be displayed for the viewers. This article explains LCD interface with Atmega32 a family Microcontroller and display...... Listed under: LCD Projects

388. Digital Clock using AVR Atmega16 Microcontroller Digital clocks revolutionize the way we live our daily life as it helps people to stick with their schedul article will teach you to build your own Digital clock using DS1307 RTC Chip with Atmega16 microcontroller. As we all know that DS1307 is a...... Listed Other Projects

389. Volt-Amp meter using AVR microcontroller Voltage and current are two most important parameters of electricity. This project teaches you to build a simple volt-amp meter usi microcontroller. This project may not enable you to build a high end measurement tool but will be a good diy project which gives a...... Listed under: Metering - Instrument Pro

390. Door/Window alarm circuit Door or Window alarm circuit have been used widely in many homes to detect intrusion. A simple search in internet might [...] lot of alarms for you to buy. But making your own alarm will be something special and that's the purpose of this...... Listed under: Other Projects

391. Automatic plant watering system using AVR(Atmega16) Microcontroller Plant watering system evolved through various stages where primitive irrigatio[...] possess many drawbacks as it fails to conserve water and human energy. So introducing Automation in it can help us to overcome these drawbacks a[...] way to conserve water. This can be done...... Listed under: Other Projects

392. ATmega32 Switch Toggle Program ATMega32 switch code is extremely simple to implement, and this article looks into how to write the code to make a[...] light up when a switch is pressed. The atmega32-switch-code.c program tests the switch input to the ATMega32 Development System. There are many[...] Listed under: LED Projects

393. ATmega32 blinking LED Lights Using the ATMega32 microcontroller to flash or blink some LEDs is extremely simple and this tutorial shows how to mal[...] blinker circuit including the example program code to blink eight LEDs. In this tutorial, you will learn how to make a program to blink...... Listed under: [...] Projects

394. Intelligent temperature monitoring and control system using AVR microcontroller Controlling temperature has been a prime objective in various appli[...] including refrigerators, air conditioners, air coolers, heaters, industrial temperature conditioning and so on. Temperature controllers vary in their com[...] and algorithms. Some of these use simple control techniques like simple on-off control while others use...... Listed under: Temperature Measurement [...]

395. GSM Based Home Automation GSM based home automation, project allows you to control electrical appliances using your mobile phone SMS. It cons[...] ATmega8 microcontroller, SIM300 GSM modem, Relays. There are many Home Automation Systems available in our market. Most of these are simple [...] appliances controlling systems like DTMF controlled...... Listed under: Home Automation Projects

396. GSM Based Fire Alarm System GSM, Microcontroller Based Fire detection and SMS Alert system, it uses LM35 Temperature Sensor and MQ2 for Smok[...] and 16x2 LCD is used to display temperature and Smoke Level, Over limit set points are set inside the program you can modify it as per...... Listed und[...] Security - Safety Projects

397. Password based door locking system Password based door locking system, uses Matrix keypad to enter the password, This project is extended to ope[...] Remote RC-604, In this project all required data is given Circuit diagram, C code, PCB design and All related data, This project is based on...... Listed un[...] Security - Safety Projects

398. AVR Microcontroller based Temperature Monitoring and Control System AVR Microcontroller based Temperature Controller, it uses LM35 Temperatur[...] for measurement of temperature and 16x2 LCD is used to display temperature set point, Heater Status and current temperature, It controls temperat[...] turning on and off of the heater using relay. This project is...... Listed under: Sensor - Transducer - Detector Projects, Temperature Measurement Projects

399.   Bluetooth based home automation Bluetooth based home automation, project allows you to control electrical appliances using your android mobile
         consists of ATmega8 microcontroller, HC-06 Bluetooth module, Relays. There are many Home Automation Systems available in our market. Most of th
         simple home appliances controlling systems like DTMF controlled...... Listed under: Home Automation Projects

400.   Fingerprint based security system This AVR microcontroller based project demonstrates Finger print based access control / security system, in this pro
         have provided all required data, PCB, Code, Circuit Diagram, Proteus Simulation. This project operates a relay based on valid finger detection. It is prov
         6-Keys for...... Listed under: Security - Safety Projects

401.   Token number display system using microcontroller Bank token number display project is build using ATmega8 Microcontroller and ULN2003 for drivi
         LED display, PCB layout, Circuit diagram are self explanatory. It is capable to display three digits, its simple project using microcontroller. Token issue s
         are ideal for banks, airports, public...... Listed under: LED Projects

402.   16×2 LCD interface with microcontroller Interfacing with Hitatchi 44780 The purpose of this page is to give a brief tutorial on how to interface with Hit
         44780 based LCDs. I have tried to provide the all the data necessary for successfully adding LCDs to your application. The most common connector.....
         under: LCD Projects

403.   DS1307 RTC Interfacing with AVR microcontroller In this tutorial we will learn How to interface RTC DS1307 with AVR microcontroller. We are using Atm
         the demo. GENERAL DESCRIPTION The DS1307 serial real-time clock (RTC) is a low-power, full binary-coded decimal (BCD) clock/calendar plus 56 byte:
         SRAM. Address and data are...... Listed under: Clock Projects

404.   Analog to Digital Converter AVR C Programming One of the important features in today's modern microcontroller is the capability of converting the ar
         signal to the digital signal. This feature allows us to process the analog world easily such as temperature, humidity, light intensity, distance, etc; which
         captured by electronics sensor...... Listed under: Microcontroller Programmer Projects

405.   AVRJazz Mega168/328 Learning and Development Board The AVRJazz Mega168 board from ermicro is designed to be used both as the AVR microcontr
         learning and development board. The AVR Jazz Mega168 board is stand alone microcontroller module equipped with the latest Atmel high performan
         power technology AVR ATMega168 or ATMega328 microcontroller...... Listed under: Development Board - Kits Projects

406.   Introduction to AVR Microcontroller Pulse Width Modulation (PWM) PWM is used in many industrial mostly for controlling the motor speed. The PWM
         because it's the most efficient method comparing to the analog one. That's why most of the modern microcontrollers today have this features build in
         does this PWM works...... Listed under: PWM Projects

407. Atmel AVR ISP Microcontroller Programmer Project One of the frustrating part in learning AVR microcontroller for the beginners is the AVR microcontroller programmer. The q
     how to program my AVR mircrocontroller; actually if you googling on the internet and search for AVR ISP Programmer there are plenty information; start from...... Listed under
     Microcontroller Programmer Projects

408. AVR Twinkle Twinkle Using PWM Project Would be interesting if we could make our microcontroller to sing for us not just beeping or blinking; this proj about using the powerful AVR ATmega168 16-bit PWM feature to produce accurate musical notes such as playing the child's favorite Twinkle-Twinkle L Star...... Listed under: PWM Projects

409. AVR LCD Thermometer Using ADC and PWM Project Sometimes we need our microcontroller to interact with more human readable information. It wi better for us if we could make it display the words not just blinking the LED. Today most modern gadget such as mobile phone and PDA, use LCD (Liqu Crystal...... Listed under: PWM Projects

410. Controlling DC motor with AVR ATtiny13 PWM and ADC Project It's interesting to explore what we can do with this tiny 8 pins; 8-bit microcontroller. The is the smallest and cheapest Atmel AVR 8-bit microcontroller families but yet, it's loaded with sophisticated peripherals such as two 8-bit PWM channe channels 10-bit ADC....... Listed under: PWM Projects

411. Build Your Own Microcontroller Based PID Control Line Follower Robot (LFR) – Second Part One of the interesting parts in building the Line Follower Robot is; you could sta very simple version by using just two transistors with the LED and LDR for sensor (Build Your Own Transistor Based Mobile Line Follower Robot – First Part)...... Listed unde Robotics - Automation Projects

412. Transforming your AVR Microcontroller to the I2C or TWI Slave I/O Expander Project The I2C bus (read as I squared C) is one of the most important em system serial bus interface first introduced by Philips in 1980; using just two lines called SCL (serial clock) and SDA (serial data) respectively make the I perfect...... Listed under: Other Projects

413. Developing Embedded Application with BASIC Language on the Microchip PIC18F Microcontroller using the Amicus18 Development system The BASIC (Beginners' All-purpose Instruction Code) language has been known as one of the popular high level language choice in embedded system today. In fact the born and development of the personal co (PC) we use today has been influenced by the used of...... Listed under: Development Board - Kits Projects

414. Build your own stopwatch using Maxim MAX7219 Serially Interfaced, 8-Digit LED Display Drivers One of the basic usage of the TIMER peripheral on ev microcontroller is to provide the accurate timing mechanism. Using the TIMER peripheral as the basic timing, we could easily develop a stopwatch and to the 8-Digit seven segment numeric LED display. Thanks...... Listed under: Clock Projects

415. Building the I2C Smart DC Motor Controller with Atmel AVR Microcontroller – Part 1 The idea of building my own I2C (read as I square C) smart DC motor controller is came when I was learning and playing together with my son on his LEGO® MINDSTORM® NXT 2.0 about a year ago. The NXT sophisticated controller also...... Listed under: Moto

416. Telepresence Robot using Microchip PIC16F1829 and Atmel AVR ATmega168 I2C Smart DC Motor Controller Microcontroller – Part 2 The I2C (read as I square C) smart DC r controller is designed using the Atmel 8-bit AVR Atmega168 microcontroller and configured to act as the I2C slave device where it could be controlled by other microcontro microprocessor through the I2C SDA (serial data)...... Listed under: Robotics - Automation Projects

417.   The LED Chasing Effect Project using Atmel AVR Microcontroller One of the interesting projects for most of the embedded beginners enthusiasts or ho to build the LED chasing effect. In this project we are going to use both the Arduino IDE and Atmel AVR Studio to program the AVR ATMega168 microcc therefore you...... Listed under: LED Projects

418.   How to use I2C-bus on the Atmel AVR Microcontroller I2C (read as I Squared C) bus first introduced by Philips in 1980, because of its simplicity and flex I2C bus has become one of the most important microcontroller bus system used for interfacing various IC-devices with the microcontroller. The I2C bu only...... Listed under: Other Projects

419.   Interfacing GSM Module with Atmega32 AVR microcontroller GSM (Global System for Mobile Communication) technology lets user to communicate wi across mobile networks hence it offers a vast area of coverage. Interfacing GSM technology with microcontroller will enable us to extend the commun cover large area. This tutorial will teach you...... Listed under: Other Projects

420. Integrating Wiznet W5100, WIZ811MJ network module with Atmel AVR Microcontroller The rapid penetration of the internet networks into many of today's modern homes and gadgets (e.g. smart phone and smart pads) opening a tremendous useful and interesting embedded system application that could be integrated into our house or known as th intelligent house. For...... Listed under: Internet - Ethernet - LAN Projects

421.   Using Serial Peripheral Interface (SPI) Master and Slave with Atmel AVR Microcontroller Sometimes we need to extend or add more I/O ports to our microcontroller based project. Because usually we only have a limited I/O port left than the logical choice is to use the serial data transfer method; wh usually only requires from one up to...... Listed under: Other Projects

422.   Working with the Comparator Circuit Sometimes in the embedded system world we need to process the analog world and sending the signal to the microcontroller when the analog signal exceed some predetermine limit we've set. Some example of this situation is to send the interrupt signal to th microcontroller operation...... Listed under: Development Board - Kits Projects

423.   Using Transistor as a Switch Most of microcontrollers work within 5 volt environment and the I/O port can only handle current up to 20mA; therefore to attach the microcontroller's I/O port to different voltage level circuit or to drive devices with more than 20mA; we need to...... Listed under: Other Pr

424.   Working with AVR microcontroller Communication Port Project Back in the old days the COM port or known as RS-232 (EIA-232 standard) is one of the communications protocol and hardware use in many computer system installation start from small UNIX machine to the mainframe. The RS-232 prot used by terminal such...... Listed under: Other Projects

425. Microwave Controller using ATmega8 – AVR Project The user interface has the following parts. Output Device: A 16×2 alphanumeric LCD Module is used as the main output can display numbers, alphabets and few symbols. It can show two line and each line can have 16 characters. The backlight enables the...... Listed under: LCD Projects

426.   Stepper motor control with an ATmega8 microcontroller This note provides basic implementation details and procedural information to design and as stepper motor system. The controller discussed here is the ATmel mega8, an 8-bit microcontroller (MCU). The note consists of a general description ar highlights of implementing a basic stepper motor...... Listed under: Motor Projects

427. Interfacing Servo Motor with Atmega32 Microcontroller Servo Motor is a DC Motor equipped with error sensing negative feedback to control the exact position of the shaft. Unlike DC Motors it will not rotate continuously. It is used to make angular rotations such as 0-90°, 0-180° etc. Stepper Motors ca...... Listed under: Motor Projects

428. Interfacing DC Motor with Atmega32 Microcontroller In some of your electronic projects you may want to control a DC Motor with Atmega32 Microcor We can't connect a DC Motor directly to a microcontroller due to following reasons. A microcontroller can't supply the current required for the working Motor. ATmega32 Microcontroller can source or...... Listed under: Motor Projects

429. Interfacing LCD with Atmega32 Microcontroller using Atmel Studio As we all know LCD (Liquid Crystal Display) is an electronic display which is commo used nowadays in applications such as calculators, laptops, tablets, mobile phones etc. 16×2 character LCD module is a very basic module which is co used by electronic hobbyists and is used in...... Listed under: LCD Projects

430. Blinking LED using Atmega32 Microcontroller and Atmel Studio Similar to printing 'Hello World' in C or C++, the very first step towards programming a microcontroller is Blinking a LED with a delay. Atmega32 is a very popular high performance 8 bit AVR Microcontroller. For this example project we need two registers...... Listed under: LED Projects

431. Interfacing rotary encoder to Atmega32 Recently I was working on a project that involved rotary encoder. I thought I'd share some thoughts on how ro encoder can be interfaced and programmed. Actually it is easy to work with rotary encoders - interfacing is simple – only three wires are required...... I under: LCD Projects

432. Graphical LCD Text Display The Graphical LCD Text Display is complete!   I've used the same Atmel ATMega8 controller that I used in the Composite Vic Display.   The interface is the same as well; an 8 bit parallel port with a strobe input and a busy output. ...... Listed under: LCD Projects

433. An advanced energy saver project with DTMF capabilities to use electricity efficiently by reducing the unwanted uses. INTRODUCTION: A lot of electri wasted due to ignorance or fault of the user. Sometimes a person in the room turns on all the electric equipments which is of no use to them. As an e supposedly a person enters in the hall or conference...... Listed under: Other Projects

434. Analog to Digital Converter of ATmega32 with LED Display Microcontrollers are capable of detecting binary signals: is the button pressed or not? These digital signals. When a microcontroller is powered from five volt, it understands zero volts (0V) as a binary 0 and five volts (5V) as a binary 1. But the re Listed under: LED Projects

435. 4X4 Keypad Interfacing with ATmega32 and LED Display Keypads are parts of HMI or Human Machine Interface and play really important role in a sma embedded system where human interaction or human input is needed. Matrix keypads are well known for their simple architecture and ease of interf this project, we will...... Listed under: LED Projects

436.	4X4 Keypad based Password with ATmega16 and LED Display Security is a prime concern in our day-today life. Everyone wants to be as much secured possible. Keypad based password is one of the many method and the most common and easy one to provide security to any system. In this project, w

Listed under: LED Projects

437.	4X4 Keypad based Password with ATmega32 and LCD Display Security is a prime concern in our day-today life. Everyone wants to be as much secured possible. Keypad based password is one of the many method and the most common and easy one to provide security to any system. In this project, w

Listed under: LCD Projects

438.	3-axis Accelerometer Sensor-ADXL335 Interfacing with ATmega32 ADXL335 accelerometer sensor is a MEMS (Microelectromechanical systems) sensor can measure static acceleration of gravity in tilt-sensing applications, as well as dynamic acceleration resulting from motion, shock, or vibration. The accelerometer sensor is used in mobile devices, gaming systems, disk drive protection, image stabilization,...... Listed under: Sensor - Transducer - Det Projects

439.	Accelerometer based Hand Gesture Controlled Wheel Chair with ATmega32 for Physically Handicapped In this project, we will learn How to design an Accelerometer based Hand Gesture Controlled Wheel Chair with AVR ATmega32 Microcontroller for Physically Handicapped. Here, we will use our han gestures as input signals to drive the wheel chair in different direction and we will...... Listed under: LCD Projects

440.	DS1307 RTC based Digital Clock Designing in 12 Hour Format with ATmega32 and 7-Segment Display A digital clock is a type of clock that displays the t digitally (i.e. in numerals or other symbols), as opposed to an analog clock, where the time is indicated by the positions of rotating hands. The clock/ca provides seconds, minutes, hours information. The clock...... Listed under: Clock Projects

441.	AVR uartConfig – an atmega and arduino eeprom config library Update to version 2014-06-13 AVR uartConfig is a small footprint library you can use to your micro eeprom through uart communication. AVR uartConfig is a set of tools running on Windows, Linux and Mac, made up or: a avrgcc firmware commandline utility...... Listed under: AVR ATmega Projects

442.	Accelerometer and Relay based Hand Gesture Controlled Wireless Home Automation System with ATmega32 using 433MHz RF In this project, we will to design an Accelerometer and Relay based Hand Gesture Controlled Wireless Home Automation System with AVR ATmega32 microcontroller using 4 RF. Here, we will use different hand gestures as input signal to control the appliances i.e 2 bulbs...... Listed under: LCD Projects

443.	Password Protected BT136 Triac based Keypad Controlled Wireless Home Automation System with ATmega32 using 433MHz RF-I In this project, we wi How to design a Password Protected BT136 Triac based Keypad Controlled Wireless Home Appliances System with AVR ATmega32 microcontroller usir 433MHz RF Part-I. Here, we will use the 4X4 keypad as the input device to enter the password and...... Listed under: Home Automation Projects

444.	LM35 Temperature Sensor Interfacing with ATmega32 and LED Display LM35 series is a low cost and precision Integrated Circuit Temperature Sensor output voltage is proportional to Centigrade temperature scale. Thus LM35 has an advantage over other temperature sensors calibrated in Kelvin as t don't require subtraction of large constant voltage to obtain...... Listed under: LED Projects

445. Atmega 32u4 Based Wireless USB Keyboard How a generic keyboard is made has been already explained in the Atmega 32u4 Based Generic USB Keyboard Project. In this proj wireless keyboard will be designed. For making a wireless keyboard, there will be two circuits involved in the project - a transmitter...... Listed under: Other Projects

446. Atmega 32u4 Based LED Status In the Atmega 32u4 Based USB Controlled LED Series Project, it was demonstrated how to use control transfer to rece from computer to the peripheral. In this project, it will be demonstrated to transfer data from microcontroller to the host computer. For this, the...... L under: LED Projects

447. Atmega 32u4 Based Wireless USB Mouse How a generic mouse is made was explained in the Atmega 32u4 Based Generic USB Mouse Project. In this wireless mouse will be designed. For making a wireless mouse, there will be two circuits involved in the project - a transmitter circuit which...... Listed u Other Projects

448. Atmega 32u4 Based USB Speaker A speaker is a device that produces sounds from the electrical signal having audio encoded. The speakers usually ha mm jack for audio output from the computer. Nowadays USB interface is also gaining popularity for interfacing audio devices with the computer. A lo under: Other Projects

449. Atmega 32u4 Based USB Musical Keyboard The music keyboard is one of the most common musical instruments. The electronic musical keyboards ha around for a long time. The electronic music keyboards synthesize musical sounds electronically according to MIDI (Musical Instrument Digital Interfa standards. Fortunately, the USB protocol does have provision...... Listed under: Other Projects

450. Atmega 32u4 Based USB EEPROM Reader External memories are frequently used to store and carry computer data. The USB flash drives are quite co nowadays. This project is an attempt to demonstrate making of USB storage devices. The project converts an external EEPROM which basically has I2 to an USB...... Listed under: Other Projects

451. Atmega 32u4 Based USB Controlled LED Series Throughout this USB series, different types of USB devices have been designed and developed. These were enumerating with the host computer and then were using Class Specific transfers for further USB communication. Like the Keyboard, Mouse an devices were using interrupt transfers for...... Listed under: LED Projects

452. Atmega 32u4 Based USB Controlled Servo Motor In this project, a device will be designed which will allow controlling a servo motor from the desktop on USB interface. For controlling a servo motor, PWM output needs to be generated from the microcontroller. The length of the ON time of the PWM.. under: Other Projects

453. Atmega 32u4 Based USB Digital Voltmeter In this project, a digital voltmeter will be designed which will show the voltage reading on a desktop applica device will read analog voltage with respect to the ground, digitize the reading and send the reading to personal computer on USB interface. The devic Listed under: Other Projects

454. Attiny85 As a Step/Dir Stepper Motor Controller Somewhere in Greece, someone did something never done before... Seen those things before? Thing: Thing: 3 Oh, you have! You bought one of them you say? Oh... Don't worry, I did too. They did the job, yeah. But we paid for them...... Listed under: Mo Projects

455. Custom PCB for Lights, Temperature, Video OSD and VTX PSU upgrades to HKing Rattler RC Car I've had the HobbyKing Rattler for some time now and making small modifications here and there which have accumulated over time and has gotten to the point where it would be nice to have everything of custom PCB. Here's how everything looks...... Listed under: Temperature Measurement Projects

456. Open Programmer – USB programmer for PIC, EPROM, ATMEL, SPI Open Programmer – An open source USB programmer for PIC micros, I2C-SPI-MicroWire-OneWire-UNIC EEPROMs, some ATMEL micros, generic I2C/SPI devices and (soon) other devices. Completely free and Open Source (including firmware) Programs PIC10-12-16-18-24, dsPI EEPROMs type 24xxxx (I2C), 25xxx (SPI), 93xx6 (MicroWire), DS24xx (OneWire), 11xxx (UNIO),...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

457. Updating electricity meter to communicate via WLAN A while ago Farnell sent email to me and offered one (inexpensive) product as a sample in exchange for mentioning it at I browsed for a while for an interesting part and settled with Microchip MRF24WB0MA/RM WiFi module (Order code 1823142). This module...... Listed under: Home Automation

458. Using Maxim DS1307 Real Time Clock with Atmel AVR Microcontroller Using Atmega32 Building our own digital clock is one of the dreamed project by the hobbyist or anyone that want to learn or involve seriously in the embedded system world; the ability to integrate time, day and date to the embed system is one of...... Listed under: Clock Projects

459. Single Chip Computer: Easy to Produce AVR BASIC Co This instructable will document and explain my latest project, a standalone computer system ba a single chip (IC); the ATmega 1284P. The 1284P is responsible for all aspects of the system, including running the BASIC interpreter, generation RCA vi signals and reading keyboard input....... Listed under: Android Projects

460. Doppler Radar for Collision Avoidance Introduction My project uses Doppler radar sensors in order to provide the user with movement, speed, and di information of their environment. An array of Doppler radar sensors are placed on the user�s head and vibration motors are placed on the user�s neck, back,...... Listed under: Sensor - Transducer - Detector Projects

461. Drums Anywhere: solution to making a great drum beat Using 3D-printed boxes Introduction "The sound and experience of drums... Any time, anywh any object." -Project Soundbyte It's Friday night and you're hanging with your friends at home. There are no parties tonight and you have seen everyth Netflix already - you're bored out of your...... Listed under: Sound - Audio Projects

462. Ultrasonic range-finder with haptic feedback Introduction "An ultrasonic range-finding hat with variable haptic feedback for obstacle detection." -Proje Bite For our ECE 4760 final project, we designed and implemented an ultrasonic range-finding hat that uses haptic feedback to alert its wearer about d in his or her path. The...... Listed under: Sensor - Transducer - Detector Projects

463. Autocross/Track day Data Logger for BMW E36 M3 Customer's Voice "Hello, I am interested in a race car logger than will be able to display and log crucial information during a and track events. I am interested in tracking vehicle speed, RPM, engine coolant temperature and lateral g-forces. Ideally, the data can be...... Listed under: Car Projects

464. Touchpad Figure Recognition Our project implements a touchpad input system which takes user input and converts it to a printed character. Currentl device only recognizes the 26 letters of the alphabet, but our training system could be easily generalized to include any figure of completely arbitrary s Listed under: LCD Projects

465. Capacitive Touch with Atmel's AT42QT1070 Touch Sensor IC Rather than using an out-of-the-box capacitive touch solution for my projects, I thought I'd attempt making my breakout board. The idea is to use a sensor capable of triggering normal digital input pins using touch. This post covers the selected touch sensor IC,...... Listed under: Sens Transducer - Detector Projects

466. AVR ATtiny USB Tutorial Part 2 This is the second part of my USB tutorial for ATtiny2313 and V-USB library. In the first part we learned how to get 3.3V to power our circuits. In this part, we will expand our setup with following parts: Larger breadboard and additional...... Listed under: Interfacing(USB - -ISP) Projects

467. AVR Atmega audio input RMA using FFT Radix-4 audiogetradix4 is a simple library you can use to interface with a ac audio input. It reads data from an and returns the RMS value of the input using DFT Radix-4 algorithm. The discrete Fourier transform (DFT) converts a finite list of equally-spaced...... Lis under: Sound - Audio Projects

468. Irradiance/Illuminance Meter using TLR235R sensor with AVR Atmega The TSL235 is a light-to-frequency converter. This library reads TSL235 output fr and convert it to irradiance, and then to illuminance. Irradiance is the power of electromagnetic radiation per unit area (radiative flux) incident on a su expressed in watt per square metre, the...... Listed under: Metering - Instrument Projects

469. An AVR Atmega LCD Menu builder library lcdmenu1 is a simple and small lcd menu builder for AVR Atmega. It works with only 4 buttons (up, down, right, left), additional butto added. It can also store values to eeprom User can use button up and down to list menu categories, right...... Listed under: LCD Projects

470. An optical dust meter that uses the GP2Y1010AU0F sensor library made with AVR Atmega This project is a dust detector that use the GP2Y1010AU0F s Attached you can also find the GP2Y1010AU0F sensor library for AVR Atmega.GP2Y1010AU0F is a dust sensor by optical sensing system. An infrared e diode (IRED) and an phototransistor are diagonally arranged into this device....... Listed under: Sensor - Transducer - Detector Projects

471.   AVR Atmega dehumidifier controller board, update This project is an update to the previous dehumidifier based you can here: http://davidegironi.blogspot.it/2013/04/avr-atmega-dehumidifier-controller.html This update adds some usefull functions. The main issue that i' the microcontroller crash, that happens sometimes. I've noticed that sometimes the controller stop running, crash or doesn't works as...... Listed unde - Transducer - Detector Projects

472.   A simple brushless sensorless motor driver for AVR Atmega Brushless electric motor (BLDC motors) are synchronous motors that are powered by a D source via an integrated inverter/switching power supply, which produces an AC electric signal to drive the motor. For an introduction to BLDC motors look at my sensored motor driver...... Listed under: Motor Projects

473.   An AVR Atmega based PID magnetic levitator This is a magnetic levitator implemented using Atmega8 microcontroller. Magnetic levitation is a methoc an object is suspended with no support other than magnetic fields. To make a magnet levitate, an hall sensor is attached to a coil. The coil acts as an... under: Sensor - Transducer - Detector Projects

474.   A led matrix Mask built on AVR ATmega8 AVR Mask1 is a led mask built around 74hc595 shift register and 8x8 led matrix. The "Dylan Dog" comics dec conjunction with his stands, make it good looking.t has 4 8x8 led matrix, 2 for the mouth, and 2 for eyes. When the user...... Listed under: LED Projects

475.   A simple Sound Pressure Level Meter (SPL) dB audio meter using AVR ATmega A sound level meter or sound meter is an instrument which measures s pressure level. Sound pressure level (SPL) or sound level is a logarithmic measure of the effective sound pressure of a sound relative to a reference va measured in decibels (dB)...... Listed under: Sound - Audio Projects

476.   SD card logger library with log rotation that fits on ATmega8 This library implements an SD card Data Logger that runs on ATmega. It has a small footp can be loaded on an ATmega8, leaving space for user code. It supports SD and microSD cards formatted with FAT16. It also features log rotation.The "I FAT...... Listed under: Memory - Storage Projects

477.   A Pickup Winding machine built on an ATmega8 The core of this project is an ATmega8. It features: wind counter slow startup automatic stop configura motor speed configurable winds 2 directions If you are looking for a CNC version: you can find it here: http://davidegironi.blogspot.it/2016/06/a-cnc-p winding-machine-built-on.html This winder has an LCD display that will show...... Listed under: Motor Projects

478.   USB AVR programmer I've already had a programmer for Atmel's AVR microcontrollers, but I couldn't use it in my lab, because my laptop doesn't have port. So I decided to make a new programmer with USB connection. I've found an open source programmer AVR doper, and...... Listed under: LCD Pro

479.   RSS Reader using AVR mega8 I spent part of an afternoon developing a hardware RSS reader (most of my time was spent on the python side of things pretty simple and uses an AVR microcontroller connected to a computer via a serial cable Hardware I am using the Dragon...... Listed under: LCD Projects

480. Veronica – VRAM I considered subtitling this article, "adventures in breadboard noise", since that's what I spent most of my time dealing with. In any case, let's recap where Veronica's video generator was generating a stable VGA signal. In addition, a test pattern was being displayed...... Listed under: LCD Projects

481. RFID based security system using AVR ATmega32 microcontroller RFID technology brought a great revolution in our life as it simplifies the machine communication. RFID's are used almost everywhere today Schools, hospitals, industries and much more. This article teaches you to build a simple RFID security system using AVR microcontroller which is reliable...... Listed under: Security - Safety Projects

482. AVR HVSP Fuse Resetter description in working w/ 8 or 14 pin avr devices, i would sometimes want to use the RESET pin as io as the io pin count is low doing so will disable further programming via SPI. i do not need a full blown HV...... Listed under: AVR ATmega Projects

483. AVR Thermostat This thermostat is built around an ATMega164 and a TC1047A temperature sensor. It controls your furnace and air conditioner. It is n programmable, although it has a clock and is capable if some additional code were written (any volunteers?). The unique feature is that instead of a b of buttons...... Listed under: Temperature Measurement Projects

484. Week 11: Networking with ESP8266 For this week I set out to make a board that will show realtime MBTA bus arrival times using the ESP8266 wifi mod LCD. Seemed doable. People of the internet have been excited about the ESP8266 lately. Here is a snapshot of google...... Listed under: LCD Projects

485. Building a Wifi Radio – Part 7, Building an LCD Display This is the seventh part of an ongoing series about building a low cost, open source streaming internet radio. If you already, check out the previous parts (see the links at the end of this article) for some background about the project. In part...... Listed under: LCD Projects

486. CT Sensor on AVR ATmega A CT (Current Transformers) sensor is a device used to measure alternating current. A CT sensor, like other current transfor made by a primary winding, a magnetic core and a secondary winding. The primary winding is often a single wire passing through the main...... Listed Sensor - Transducer - Detector Projects

487. Reading temperature on AVR Atmega using a thermistor with NTCtemp library 02 A thermistor is a type of resistor whose resistance varies significantl temperature, more so than in standard resistors. NTCtemp is a simple AVR library to read temperature from a thermistor connected to an atmega mid library implements three models convert adc value read from analog...... Listed under: Temperature Measurement Projects

488. CMR Robot Arm Our project was mainly designed for the Cornell Mars Rover project team (CMR), which will be using the robotic arm for competition t complete many different tasks in the deserts of Southern Utah. For our ECE 4760 final project, we created the control systems for...... Listed under: Ro Automation Projects

489. AVR 16bit Stereo Wave Player Introduction This project aims to implement a cost-effective wave player based on AVR (ATmega / ATiny Series) with CD-, Quality, which can play 8-bit/16-bit Mono/Stereo standard RIFF (Resource Interchange File Format) wave files. This project can be applied into many applications such as bus /...... Listed under: Sound - Audio Projects

490.   Drive a stepper motor with acceleration and deceleration using an Allegro driver on ATmega8 The stepper motor is an electromagnetic device that cor digital pulses into mechanical shaft rotation.Most common types of stepper motor can be bipolar or unipolar, depending on the winding. To make a s motor move, motor windings must be loaded in the correct order. A...... Listed under: Motor Projects

491.   InLinea01: A PID controlled line following robot build on an ATmega 8 InLinea01 is a simple PID controlled line following robot. This is not speed orient follower, this is just a prototype I built to experiment with this type or machines, though it can be the first step to build a faster one. The goal of a...... L under: Robotics - Automation Projects

492.   A DIY A4 Laser Engraver made from a scanner and a printer on ATmega328 This "Get Ready For Win98" Laser Engraving Machine it's built using an old and an old printer. A laser engraving machine is a tool that uses lasers to engrave an object. I've an old broken scanner and an old printer lying aroun by this instructables...... Listed under: CNC - Printing Machines Projects

493.   CT Sensor on AVR ATmega A CT (Current Transformers) sensor is a device used to measure alternating current. A CT sensor, like other current transfor made by a primary winding, a magnetic core and a secondary winding. The primary winding is often a single wire passing through the main...... Listed Sensor - Transducer - Detector Projects

494.   A web configurable Xively logger, build on AVR ATmega328 Xively (formerly Cosm and before that Pachube) is a platform devoted to simplifying the interconnection of devices and data with applications on the Internet of Things. It is an on-line database service allowing developers to connect senso data (e.g. energy and environment data from objects,...... Listed under: Sensor - Transducer - Detector Projects

495.   Cheap CO2 meter using the MQ135 sensor with AVR ATmega MQ135 is an Air Quality Sensor suitable for detecting of NH3, Alcohol, Benzene and othe The description below, is what i derive from the poor datasheet of this sensor, it may be uncorrect, so if you have suggestions please leave me a feedl The...... Listed under: Sensor - Transducer - Detector Projects

496.   A simple brushless sensored motor driver for AVR Atmega Brushless electric motor (BLDC motors) are synchronous motors that are powered by a DC source via an integrated inverter/switching power supply, which produces an AC electric signal to drive the motor. Additional electronics control the in output amplitude and waveform (and therefore percent of...... Listed under: Motor Projects

497.   PWM Motor Driver with MOSFET H-Bridge and AVR ATmega8 Here is a very simple project of controlling a small DC-motor (taken from an old personal player) with ATmega8. The ATmega8 is having three PWM channels, out of which two are used here. PWM waveforms are fed to MOSFET (RFD3055) H- Here, direction is...... Listed under: Motor Projects, PWM Projects

498.   Atmel AVR ATMega16 Interfacing WIth 16×2 char LCD An alphanumeric low cost LCD Display is very essential for may small and big projects to Display type of information. Hitachi HD44780 Chipset based 16x2 char LCD is Really very cheap and easily available in the local market. Project Description:- project we are going to...... Listed under: LCD Projects

499. An AVR-Based Microstepping Bipolar Chopper Stepper Motor Driver (STMD) Features Open Source - The schematic, parts list, and software are all free downloadable! Hobbyist-friendly - No surface mount parts means allows this drive to be easily repaired! DMOS driver chips rated at 55V and 3 Amps. availability - Electronic parts are all...... Listed under: Motor Projects

500. LCD Interfacing with AVR Interfacing LCD Display in 8bit Mode I've already discussed about the LCD display in a note here in this website. You can read on character LCD Display here. Now let us come to the interfacing side of LCD. Let us see the 8bit...... Listed under: LCD Projects

501. How to Establish A PC-Micro controller USART communication Introduction USART is one of the primitive inter-device communication protocols. It is not used in modern comp still, a few mother boards come with the module necessary for an USART communication. Here, in the case of PCs, the port is known as COM port...... Listed under: AVR ATmeg

502. How to Interface an External EEPROM with AVR Atmega32 In this article, we will explain how to communicate to an external EEPROM from the AVR Atr MCU using the I2C communication protocol. So let's begin our tutorial on how to interface an EEPROM (AT24C16A) with AVR Atmega32. You will usuall external EEPROM...... Listed under: Sensor - Transducer - Detector Projects

503. Worry-Free Automatic Timed Plant Feeder Description Do you often forget to irrigate your plants? Do you have to ask your neighbors to take care of th your whole families are out for a vacation? Don't worry any more! Here is a solution. This embedded system, worry-free automatic timed plant...... List LCD Projects

504. Week 11: Networking with ESP8266 For this week I set out to make a board that will show realtime MBTA bus arrival times using the ESP8266 wifi mod LCD. Seemed doable. People of the internet have been excited about the ESP8266 lately. Here is a snapshot of google...... Listed under: LCD Projects, S Transducer - Detector Projects

505. Color Video Game on AVR Introduction Our project is to make a color video game that runs primarily on the ATmega 1284P. To do this, we adhered to standard for color video. The sync signals used for NTSC are generated on the ATmega 1284P itself, and all game...... Listed under: Game - Entertainme Projects

506. Working with Atmel AVR Microcontroller Basic Pulse Width Modulation (PWM) Peripheral Pulse Width Modulation (PWM) is a technique widely used in switching circuit to control the amount of power given to the electrical device. This method simply switches ON and OFF the power supplied to the ele device rapidly. The average amount of energy received...... Listed under: PWM Projects

507. How to interface RFID with AVR ATmega32 microcontroller RFID is most arguably a evolutionary wireless technology which boosted working of embedded devices up to great r there is plenty of systems and devices working based on this technology. This article is focused to teach you how to interface RFID with AVR microcont
Listed under: AVR ATmega Projects

508. Remote Temperature Monitoring using GSM – AVR Project Temperature monitoring have wide application in daily life. In modern day keeping an eye on temperature of pla as server rooms, hospital rooms, warehouses and green houses can help solve many problems. But with the use of normal temperature sensors, someone needs to go..... under: Temperature Measurement Projects

509. ATMega16 AVR Microcontroller Seven Segment Digital Clock The ATMega16 Seven Segment Digital Clock In this ATMega16 AVR project we will be desig implementing a digital clock with the aid of a Atmel AVR ATMega16 microcontroller and Seven Segment Displays. As such before going through this dig AVR project it is...... Listed under: Clock Projects

510. Servo motor control using AVR Servo motors are so called "closed feedback" systems. This means that motor comes with control circuit, which senses mechanism is in desired location and if not it continuously corrects an error until motor reaches proper point. Servo motors are widely used in robotic Listed under: Motor Projects

511. Running TX433 and RX433 RF modules with AVR microcontrollers Sometimes in embedded design you may want to go wireless. Might be you will wan various readings of remotely placed sensors, or simply build a remote control for robot or car alarm system. Radio communications between two AVR microcontrollers can be easy when...... Listed under: Robotics - Automation Projects

512. Obstacle Avoiding Robot using AVR ATmega32 – Part II Hello and Welcome back to the second part of Obstacle Avoiding Robot Tutorial. In the last part we studied the drive and the mechanical construction of our robot. In this part we will make the sensor part. The sensors will help our robot detect...... Listed under: Robotics - Automation Pro

513. Weeks 11-12: AVR USB Devices and Programming One of the relatively unexplored topics in this week's lecture was USB, the ubiquitous protocol that a computers to communicate with peripheral devices (containing microcontrollers). Creating a USB device allows any computer to talk to it without the specialized software and hardware we've been using...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

514. Lab: DC Motor Control Using an H-Bridge Introduction Contents [show] In this tutorial, you'll learn how to control a DC motor's direction using an H-bridge. To reverse a DC mc need to be able to reverse the direction of the current in the motor. The easiest way to do this is...... Listed under: Motor Projects

515. Final Project: built a sous-vide immersion cooker For my final project I built a sous-vide immersion cooker: Sous-vide is a method for cooking food in a temperature-controlled water environment for longer than normal cooking times, at an accurately regulated temperature. Sous-vide cookers are ofter high-end restaurants. In the past few...... Listed under: Temperature Measurement Projects

516. Arduino Robotic Arm In this tutorial, we design an Arduino Uno Robotic Arm. Entire arm will be designed from some scrap material and servos. Entire of construction has been explained in detail below. The arm has been built with cardboards and the individual parts have been locked to...... Listed un Robotics - Automation Projects

526. 0-25V Digital Voltmeter using AVR Microcontroller In this project we are going to design a 25V range digital voltmeter by using ATMEGA32A microcontroller. In ATMEGA, we are use 10bit ADC (Analog to Digital Converter) to build a digital voltmeter. Now the ADC in ATMEGA can not take a input…… Listed under: Metering - Instrument Projects

527. Distance Measurement using HC-SR04 and AVR Microcontroller In this tutorial we are going to discuss and design a circuit for measuring distance. Thi developed by interfacing ultrasonic sensor"HC-SR04" with AVR microcontroller. This sensor uses a technique called "ECHO" which is something you ge sound reflects back after striking with…… Listed under: Calculator Projects

528. Touch Keypad Interfacing with ATmega32 Microcontroller In this tutorial we are going to interface a 4x2 (8 key) touch keypad with ATMEGA32A microco We all know keypad is one of the most important input devices used in electronics engineering. This module does not have actual keys, but have spec designed capacitive metal pads,…… Listed under: LED Projects

529. 4×4 Keypad Interfacing with ATmega32 Microcontroller In this tutorial we are going to interface a 4x4 (16 key) keypad with ATMEGA32A microcontrolle know that keypad is one of the most important input devices used in electronics projects. Keypad is one of the easiest ways to give commands or instr an electronic…… Listed under: AVR ATmega Projects

530. Flex Sensor Interfacing with AVR Microcontroller In this tutorial we are going to interface FLEX sensor with ATMEGA8 microcontroller. In ATMEGA8, we use 10bit ADC (Analog to Digital Conversion) feature to do this job. Now the ADC in ATMEGA cannot take a input more than +5V. [caption id="attachment_34862" align="aligncenter"…… Listed under: Sensor - Transducer - Detector Projects

531. Joystick Interfacing with AVR Microcontroller In this tutorial we are going to interface a joystick module with atmega8 microcontroller. A JOY STICK is ar module used for communication. It basically makes easy the user machine communication. A joystick is shown in below figure. [caption id="attachme align="aligncenter" width="600"] Joystick Interfacing with AVR Microcontroller[/caption]…… Listed under: AVR ATmega Projects

532. Anti-Theft Alert System using ATmega8 Microcontroller In this project we are going to make a vibration alert system with ATMEGA8 microcontroller. Th be used as a theft alert system, for that we are going to interface tilt sensor with ATMEGA8. A tilt sensor is shown in below figure. [caption id="attachment_34853" align="aligncenter"…… Listed under: Sensor - Transducer - Detector Projects

533. 100mA Ammeter using AVR Microcontroller In this project we are going to make a low range ammeter using ATMEGA8 microcontroller. In ATMEGA8, w going use 10bit ADC (Analog to Digital Conversion) feature to do this. Although we have few other ways to get the current parameter from a circuit, we under: AVR ATmega Projects

534. Light Intensity Measurement using LDR and AVR Microcontroller In this project we are going to interface LDR with ATMEGA8 microcontroller, and with can measure LIGHT INTENSITY in the area. In ATMEGA8, we are going to use 10bit ADC (Analog to Digital Conversion) feature to measure the light inte LDR is a transducer…… Listed under: AVR ATmega Projects

535.　Fire Alarm System using AVR Microcontroller In this project, we are going to make a Fire Alert System using ATMEGA8 microcontroller and fire sensor. sensor can be of any type, however we are using IR (Infrared) based Fire Sensor. Although IR based Fire Sensors have some disadvantages mostly of ir it...... Listed under: Security - Safety Projects

536.　Alarm Clock using ATmega32 Microcontroller In this project we are going to design a simple Alarm clock using ATMEGA32 timers. ATmega32A microco has a 16 bit timer, and we will be using that timer to count the seconds and develop a digital clock. [caption id="attachment_34830" align="aligncenter width="650"] AVR Microcontroller Based Digital Alarm...... Listed under: Clock Projects

537.　Introduction to Octocoupler and Interfacing with ATmega8 In this tutorial we are going to interface an Optocoupler with ATMEGA8 microcontroller. Octocouplers are fascinating devices used to isolate the electronic and electrical circuits. This simple device isolates the sensitive electronics from robu electronics like motors, yet keeping the load in control over the source. [caption...... Listed under: AVR ATmega Projects

538.　How to establish UART communication between ATmega8 and Arduino Uno? Here we are going to establish a communication between an ATmega8 microcontroller and Arduino Uno. The communication established here is UART (Universal Asynchronous Receiver Transmitter) type. It's serial commu By this serial communication data can be shared between two controllers, which is a required in various embedded system...... Listed under: Android

539.　8×8 LED Matrix Interfacing with AVR Microcontroller In this session we are going to design an 8x8 LED display with 8x8 LED matrix and ATmega8 micro which can show alphabets or names. [caption id="attachment_34818" align="alignnone" width="650"] LED Matrix Interfacing with AVR Microcontroller A 8x8 LED matrix contains 64 LED (Light Emitting Diodes) which...... Listed under: LED Projects

540.　Make Your Own Homemade Arduino Board with ATmega328 Chip Arduino is an open-source development platform for engineers and hobbyists to de electronics projects in an easy way. It consists of both a physical programmable development board (based on AVR series of microcontrollers) and a p software or IDE which runs on your computer and used to write and upload...... Listed under: Arduino Programmer Projects

541.　Scrolling Text Display on 8×8 LED Matrix using AVR Microcontroller In this tutorial we are going to design an 8x8 LED Matrix Scrolling Display using ATN which will show scrolling alphabets. 8x8 LED Matrix contains 64 LEDs (Light Emitting Diodes) which are arranged in the form of a matrix, hence the na matrix. We are...... Listed under: LED Projects

542.　Atmega 32u4 Based USB Data Logger (Part 23/25) In this project, a device will be designed that will read analog data from any analog sensor and will s digitized form of that data to a personal computer on USB interface. On PC, a desktop application will store the data in an excel...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

543.　Controlling a BLDC Motor with an ESC REQUIREMENTS: 1. Microcontroller (AtMega 16) 2. A Brushless DC motor (BLDC) 3. An Electronic Speed Controll Power source to drive the motor (LiPo battery) DESCRIPTION: Brushless motors have much more satisfying results as compared to brushed motors. T difference between them is...... Listed under: Motor Projects

544. AT89C2051 Development Stick 89C2051 Development Stick kit offers an easy way of interfacing 89C2051 compatible MCU's. Slim design with plug in type approach Voltage reg board for stable and regulated supply to the MCU RESET switch for resetting the MCU 0592 MHz Crystal 4K external EEPROM Power-On...... Listed under: Development Board -

545. EGYDuino – Arduino compatible board EGYDuino is a DIY Arduino clone made on a single sided PCB board. It's simple and cheap to build using home PCB fabrication meth it's 100% compatible with Arduino. Description ATmega8 takes care of the USB to serial communication and should be burned with...... Listed under: Android Projects

546. ATmega64 Development Board This project is a development board for Atmel ATmega64 microcontroller and can be used to easily develop custom AV firmware or as an introduction board to microprocessors and programming. A development board is better to be used instead of a breadboard setup facilitates...... Listed under: Development Board - Kits Projects

547. DigiPot – Rotary Encoder Digital Potentiometer Description The "potentiometer" is actually a rotary encoder (TW-700198) connected to a microcontroller that reads the sig and convert it to a value that is displayed on 7-segment displays. The value also is sent via i2c/spi/serial/usb to the host. Also 3 LED and...... Listed under: AVR ATmega Proje

548. Atmega168 TV-B-Gone Yes, I know what you are thinking: "oh no, please not another TVBGone..." Anyway, this instructable is for the newbies as me w still experimenting with Arduino, and prefer to program an Atmega168 in Arduino than an AtTyny85 with other methods. This circuit is...... Listed unde Automation Projects

549. Arduino atmega644/1284 clone This project is about to DIY an Arduino board wth an ATMEGA644P or 1284P to have more INPUTS/OUTPUTS than on atmega328P. You can buy an arduino mega but it's more expensive. The microcontrollers will be bootloaded with Sanguino and the project seems to b Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

550. Small Footprint ATMega328P Board For my Word Clock project, for which I built a custom 8 x 8 LED Matrix with controller, I needed a much smaller fo DIY-Duino (board for an ATMega328P microprocessor), one that would have all of the main functionality of my previous DIY-Duino boards (such...... Lis under: Development Board - Kits Projects

551. Flames effect with a 8×8 LED Matrix and ATMega328 A while ago I found some blog posts explaining how to use a LED matrix as a pendant (http://hackaday.com/2013/01/10/8 matrix-pendant-sealed-in-a-block-of-epoxy/ and https://sites.google.com/site/tinymatrix/). The 8x8 matrix pendant looked cool, but it was missing detailed information on wh to use and how to solder everything together....... Listed under: LED Projects

552. Remote controlled switch using Atmega 328p Ever dreamt of controlling an appliance like a CFL or a fan at your finger tips and thinking for a cheap so Well, then you are looking at the right instructable!! This instructable will provide you with a cheap and best possible solution to control...... Listed und Automation Projects

553. Easy Technique for Bootloading Atmega328pu and Atmega328p-pu# Xolcano it is very difficult to bootload Atmega chips when you don't have proper knowledge about device signature ! each chips are associated with its own Signature.at the beginning I found very difficult in uploading bootloader file Atmega 328pu and Atmega 328p-pu , although their...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

554. Digital Wall clock Using Atmega-8 and RTC Clock is one of the most essential house hold things. There are various types of clocks like good old Pendulu Analog clocks and the now trending modern Digital clocks. Digital clocks has many advantages over the analog clocks like the Accuracy in time, easy.... under: Clock Projects

555. Running an HD44780 Display off the ATmega on a Gertboard There was a thread on the Raspberry Pi forums about running a 16x2 HD44780 based di the ATmega chip on the Gertboard. I normally use a shift register to run my display, so I wasn't much help to them. I decided to try and...... Listed unc Projects

556. How to fix dead atmega and attiny avr chips Atmega fusebit doctor, as name says it, device for repairing dead Atmega and Attiny family AVRs by writir fusebits. Most common mistakes or problems are a wrong clock source (CKSEL fusebits), disabled SPI programming (SPIEN fuse) or disabled reset pin fuse). This simple...... Listed under: How To - DIY - Projects

557. Getting Started With the ATMega328P In the Internet of Things movement, people across the globe are connecting their stuff – TVs, pets, even houseplants - to the internet an transmitting all sorts of data. If you're going to be a part of that movement, or want to dabble in creative...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

558. ATmega DIP40 Minimal Board After I wrote several articles about using ATmega microcontrollers (DIP40) in Arduino environment I had some feedback asked how to be effectively put into operation this project. As I came into the Arduino world from classical microcontrollers development world, I have Listed under: Development Board - Kits Projects

559. Program an ATmega168/328 with codebender If you want to use an inexpensive ATmega168 or ATmega328p for your project, but you want the simpli arduino code and codebender, this tutorial will guide you through! A brand new ATmega microcontroller does not come preconfigured to use with Arc code. So...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

560. Alarm clock Using Atmega-328 and RTC Hi everyone! This is my first instructable! After reading hundreds of instructables, I decided to make one myse one of the most essential house hold things. There are various types of clocks like good old Pendulum clocks, Analog clocks and the now trending...... under: Clock Projects

561. Atmega Alarmclock & Thermohumidity meter First, let me introduce you my project. I made an Alarm clock with extended functionality & thermomete humiditymeter. Everything started when my friend (who used to bring me some old electronic rubbish and I used to check if there's not something us brought me...... Listed under: Clock Projects, Metering - Instrument Projects

562. Interfacing Analog Joystick with AVR ATmega32 If you have played games on console you must be knowing what a joystick is. In games a joystick is gen used to control the motion of character or a vehicle (like plane or car). Joystick give a very realistic two dimensional control! Joystick are...... Listed unde Interfacing(USB - RS232 - I2c -ISP) Projects

563. Working with TWI (I2C) sensors / Devices Introduction The I2C is a multimaster, multislave serial single-ended computer bus and was invented by Phili 1982. The atmel microcontrollers use a compatible to I2C serial bus that is named TWI (Two Wire Interface). The TWI supports serial communication and 400 kHz. The...... Listed under: Sensor - Transducer - Detector Projects

564. Boolean Algebra Calculator Power Supply: It can be defined as a device that supplies electrical energy to one or more electric loads. The term is most applied to devices that convert one form of electrical energy to another, though it may also refer to devices that convert...... Listed under: Calculator P

565. Automatic Railway Gate Controller with High Speed Alerting System The main aim of this project is to operate and control the unmanned railway gate proper manner in order to avoid the accidents in the unmanned railway crossing. In a country like ours where there are many unmanned railway cros accidents are increasing...... Listed under: Security - Safety Projects

566. Interfacing 16X2 LCD to AVR Microcontroller Well this is not different from the way interfacing the LCD to 8051 or PIC microcontroller. The crystal osc provide the clock to the microcontroller. The capacitors connected to the crystal will act as filters and help the crystal to resonate and oscillates...... Lis LCD Projects

567. Water Level Indicator The Water Level Indicator employs a simple mechanism to detect and indicate the water level in an overhead tank or any other container. The sensing is done by using a set of nine probes which are placed at nine different levels on the tank...... Listed under: Sensor - Transducer Detector Projects

568. DTMF Controlled Home Automation System Circuit Generally, appliances used in our home are controlled with the help of switches. These days, you c automation of these appliances using many technologies. This article presents the controlling of home appliances using DTMF technology. DTMF is ac Dual Tone Multi Frequency. So, just...... Listed under: Blog, Home Automation Projects

569. 2 Digit Up/Down Counter Circuit Generally, one can see the digital displays which display the score when buttons are pressed on score boards. The main heart of this score bo digits up/down counter circuit. The 2 digits are displayed on two 7 segment displays. This article describes 2...... Listed under: Calculator Projects

570. Digital Temperature Sensor Circuit Temperature sensors are widely used in electronic equipments to display the temperature. You can see the digital displaying the room temperature value. It is due to the temperature sensor embedded in it. Generally, temperature value is analog. It is converted to value and...... Listed under: Temperature Measurement Projects

571. RFID Based Attendance System – Circuit, Working, Source Code Attendance in colleges is generally paper based which may sometimes cause errors. Taking attendance ma consumes more time. So the proposed attendance system uses RFID technology to take attendance. In this system, each student is issued an RFID tag. Controlling unit is i institute....... Listed under: Sensor - Transducer - Detector Projects

572. Auto Intensity Control of Street Lights treet lights are controlled manually in olden days. These days automation of street lights has emerged. But one observe that there is no need of high intensity in peak hours i.e. when there is no traffic and even in early mornings. By reducing the...... Listed under: Transducer - Detector Projects

573.
Street Lights that Glow on Detecting Vehicle Movement Street lights are switched on depending on the intensity of the Sun light on LDR. If the intensity Sunlight on light dependent resistor is low, its resistance value is high. This value increases and becomes high when it is completely in dark. This resist Listed under: Sensor - Transducer - Detector Projects

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574.
Sun Tracking Solar Panel As the non renewable energy resources are decreasing, use of renewable resources for producing electricity is increasing. So are becoming more popular day by day. We have already read a post about how to install solar panel for home. Solar panel absorbs the energy...... Lis under: Sensor - Transducer - Detector Projects

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575. Line Follower Robot using Microcontroller When robot is placed on the fixed path, it follows the path by detecting the line. The robot direction of motion depends on the two s outputs. When the two sensors are on the line of path, robot moves forward. If the left sensor moves...... Listed under: Robotics - Automation Projects

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576.
Density Based Traffic Signal System using Microcontroller Nowadays, controlling the traffic becomes major issue because of rapid increase in automol also because of large time delays between traffic lights. So, in order to rectify this problem, we will go for density based traffic lights system. This articl you how to...... Listed under: Car Projects

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577.
PWM Based DC Motor Speed Control using Microcontroller In many applications, it is important to control the speed of DC motor where precision and protection are essence. Here we will use a technique called PWM (pulse width modulation) to control the speed of DC motor. We can achieve speed co DC motor...... Listed under: PWM Projects

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578.
Biometric Attendance System Circuit Biometrics is the emerging technology used for identification. Biometric refers to automatic identification of a pe based on biological characters such as finger print, iris, facial recognition, etc. In this article finger print based attendance system is proposed. Attenda educational institutions, industries will require...... Listed under: Sensor - Transducer - Detector Projects

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579.
Temperature Controlled DC Fan using Microcontroller Generally, electronic devices produce more heat. So this heat should be reduced in order to pro device. There are many ways to reduce this heat. One way is to switch on the fan spontaneously. This article describes a circuit that automatically, swit fan...... Listed under: Temperature Measurement Projects

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580.
GSM Module SIM300 Interface with AVR Amega32 A GSM/GPRS Module like SIM300 can be used for any embedded application that requires a long ra communication, like a robot in Chennai controlled by a person sitting in New Delhi! Or simply a water pump in a rice field turned on in the morning..... under: Interfacing(USB - RS232 - I2c -ISP) Projects

581.   Ultrasonic Rangefinder HC-SR04 Interfacing with ATmega8 In this article I will describe how to interface a Ultrasonic Range Finder Module with a AVR A microcontroller. I will provide a HEX file which you can burn into your ATmega8 directly to quickly test this whole setup. Ultrasonic range finder modul find...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

582. Microwave Controller using ATmega8 – AVR Project Pause Function You can press STOP/Clear button during countdown phase to pause the timer and to switch of the asso relay of selected function (microwave or grill). This will enable you to open the door of oven and have a look at the food being...... Listed under: Home Automation Projects

583.   Simple Single Motor Control using AVR ATmega16 Microcontrollers are good when it comes to brain, but to do anything in real world they need muscle Their muscles are electromechanical actuators like motors. Their are several types of motor available to do various type of motion. The simplest of the Listed under: Motor Projects

584. Microwave Controller using ATmega8 – AVR Project The user interface has the following parts. Output Device: A 16×2 alphanumeric LCD Module is used as the main output can display numbers, alphabets and few symbols. It can show two line and each line can have 16 characters. The backlight enables the...... Listed under: Home Automation

585.   AVR Dual RGB Matrix Driver Multiplexing LEDs can be tricky, but we're working with RGB LEDs, so think of each RGB as three individual LEDs. For an 8 that is 192 total LEDs on a single matrix. Even though there are only 32 connection pins, it is...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projec

586.   AVR Chronograph from concept to PCB A chronograph is a device used to measure the speed of a passing object. In it's simplest form, this involves tv of some kind that 'see' the object, some device that can measure time, and some output to deliver the data to the user....... Listed under: Developmen Kits Projects

587.   Clock/temperature LED display This project is based on the timer/counter 0 example. It shows time, date and temparature on 7 segment displays. Inst LCD display the time is shown on a four digit 7 segment display with common cathode. The date and temparature is shown on...... Listed under: Clock LED Projects, Temperature Measurement Projects

588. Running LED bicolor This is a good project for beginners. It is easy to build.This running LED light uses seven bicolor led's red and yellow, they light up in a pattern that can be within the program code.The program code is written in assembler. ATMELs AVR STUDIO...... Listed under: LED Projects

589.   LED thermometer his project shows the temperature on a three digit 7-segment display, it measures the temperature from -9.5 to 99 degrees Celcius steps, or from 0 to 210 degrees Fahrenheit in 1.0 degrees steps. Because of the LED display the temperature is also...... Listed under: LED Projects, Ter Measurement Projects

590. LCD interface This example is based on a LCD module with the Hitachi HD44780 LCD-controller.You can get these displays in various kinds, from 1 to 4... from 8 to 40 characters per line. A display with 16 characters per line and 2 lines is used in...... Listed under: LCD Projects

591. RGB LED color mixer Page 1 of 4 An RGB LED is a LED which has three LED's integrated in one packaging. These LED's have the colors Red, Green, and... RGB LED used here is a hyperflux LED with common cathode, which can draw 20mA current. Such a...... Listed under: LED Projects

592. Stepper motor driver With this circuit you can drive a unipolar stepper motor. It operates in full step mode. The AVR attiny2313 micro controller contr... pulses for the stepper motor. The pulses are amplified by the ULN2003 driver. The driver accepts 5V inputs, the output for the...... Listed under: LED P...

593. LED VU meter Schematic and build Below is the schematic of the LED VU meter. The circuit is builds with the ATMega328 board an two LED boards co... it. You can also build it on a breadboard. For more detail: LED VU meter... Listed under: LED Projects

594. Temperature indicator This project uses a Dallas DS1621 temperature sensor which indicates the temparature of the device. The temperature sensor... thermal alarm output, which becomes high when the temperature of the device exceeds a user defined value. When the temperature drops below a u... defined...... Listed under: Temperature Measurement Projects

595. Running LED's using ATTiny2313 This running LED or LED chaser is a good project for beginners in the microcontroller technology. It is easy to build, a... assembler program code can be easily adapted. This running LED light has 15 red 3mm LED's. The 15 outputs of ports B and...... Listed under: LED Pr...

596. Running LED's This small project let you make running leds. For this project you need a attiny2313 microcontroller and 8 leds and 8 resistors. The leds... programmed so that they show differrent patterns. Hardware The leds are connected to PORTB of the microcontroller via the...... Listed under: LED Pr...

597. PC stepper motor driver With this circuit you can control two unipolair stepper motors in full step mode via the RS232 serial port of your PC. A termina... program such as Hyperterminal can be used to control the stepper motors. The stepper motors can be driven one at a...... Listed under: Motor Project...

598. Photocell or LDR A photocell or photo resistor is a Light Dependent Resistors (LDR). LDR's are sensors that detect light. They are small, inexpensive, lo... easy to use and don't wear out. Overview A photocell or photo resistor is a Light Dependent Resistors (LDR). LDR's are sensors that...... Listed under: S... Transducer - Detector Projects

599. Electronic cricket his electronic cricket is a fun project. A real crickets chirp at night and faster in warmer temperatures. A cricket chirp is composed of a group of three sinus w... single frequence of about 5kHz. occurring in rapid succession. Introduction This electronic cricket is...... Listed under: Game - Entertainment Projects

600. Relais Driver Board This is a peripheral board with 4 relais, rated at 5A/250V each. The board has a ML10 output connector for connection with the AT2313 Project board. It has LED's for indication which relais is switched on. Hardware The circuit is simple, it consists…… Listed under: Development Board - Kits Projects

601. Dot matrix display This is a Dot Matrix Scrolling Sign. A Dot Matrix Display has an 5x7 led matrix with 5 columns and 7 rows. The display is controlled by ATMega328 microcontroller board. The rows are controlled by PORTB of the microcontroller, while PORTD puts the data…… Listed under: LED Projects

602. Clock/temperature LED display This project is based on the timer/counter 0 example. It shows time, date and temparature on 7 segment displays. Inst LCD display the time is shown on a four digit 7 segment display with common cathode. The date and temparature is shown on…… Listed under: Clock

603. LCD/switch interface Page 1 of 2 This board can directly connected to the STK 500 board or the ATTiny2313 ISP program board with a 10 pole flatcable pin header of the STK500 and the 10 pin header of the LCD/Switch board. The display has…… Listed under: LCD Projects

604. Digital Book Cricket with ATtiny 85 The project described here is a digital implementation of "book cricket game" which students normally use to play i childhood time. The heart of the project is 8 bit MCU from AVR family called ATtiny85. ATtiny85 are small and cheap microcontrollers which are conver Listed under: Game - Entertainment Projects

605. Attendance System using AVR and RFID This project aims to automate the process of taking attendance on pen and paper and prevent any fraudulent uses RFID tags to record attendance. Each student is assigned a unique tag, which he/she is required to swipe over the reader to give his/her…… Listed Interfacing(USB - RS232 - I2c -ISP) Projects

606. Interfacing Serial Bluetooth Modem with Computer using ATmega16 This article would give you a general idea about how to setup and interface any E modem with your computer. There are many types of Bluetooth modems available in market, which vary in quality, cost, range, etc. Some of the well Serial Bluetooth modems…… Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

607. Smart Home Automation using AVR in this technological world, automatic systems are being preferred over manual system. In this series Home Autor plays an important role for humans. In this unit we talk about basic needs to understand the project well and also for its future advancements. We are Listed under: Home Automation Projects

608.

Interfacing 4-wire Resistive Touchscreen with ATMega16 Microcontroller Touch screens are two dimensional input devices. Nowadays most of the elec
gadgets use them. Laptops, smart phones, tablets and even some home appliances like washing machines & microwave ovens also use a touch scree
nowadays. Why Touch screens? Touch screens are preferred over keypads…… Listed under: LCD Projects

609.

How to Interface a GSM (SIM 300) Modem with ATmega32 to Send and Receive SMS What is a GSM Modem? GSM stands for Global System for Mobile
Communications.It is a standard set developed by the EuropeanTelecommunications Standards Institute (ETSI) to describe protocols for second gener
digital cellular networks used by mobilephones. A Modem is a device which modulates and…… Listed under: Interfacing(USB - RS232 - I2c -ISP) Project

610.

AVR I/O Ports AVR microcontrollers are the advanced microcontrollers. From 1996 onwards these are come into existence. In AVR family there are so r
controllers are available. Mainly the AVR family is sub grouped as ATmega, ATtiny, Xmega, UC3, SAM3 and SAM4. In these form 8 to 32…… Listed under
Interfacing(USB - RS232 - I2c -ISP) Projects

611.

Fastest Finger First Circuit using ATMega16 Fastest Finger first circuit is basically used in quiz type games where the reaction speed of a participant is s
The circuit enables us to identify who responded first to the question by triggering a visual and audio indication. Components Required 1 x ATMega16
development…… Listed under: Game - Entertainment Projects

612.

DIY: Retro Style Analog Volt Meter using Servo Motor Digital equipments have rapidly replaced Analog equipments in the long run. Well that is becaus
former has lot of advantages over the latter. But do you miss those retro style analog measuring instruments? Those pointy indicators and graduated
Well I do and so…… Listed under: Metering - Instrument Projects

613.

embRACE: The Embedded Race embRACE, a game developed on the embedded platform, entirely coded in assembly language. The game has been
programmed on an ATMega16 micro-controller, interfaced with a 16x2 LCD display module. The game possesses an interactive user interface and exc
features like: -Main Menu -Pause Menu -Real…… Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects, LCD Projects

614.

Latitude & Longitude Display System Using GPS & AVR Microcontroller This project is a reference to budding engineers or a helping hand to those who
work and interface a GPS Receiver with microcontrollerand making their own channel to communicate with satellite, seeking for some useful informat
satellite to make a effective and…… Listed under: GPS Based Projects

615.

Controlling RGB LED colour using Atmega16 This tutorial will give you a brief introduction to the concept of colors and how different colors can be pro
using RGB LED. The color would be controlled using an ATMega16 microcontroller. RGB LEDs are basically the combination of the 3 LEDs (Red, Green a
Listed under: LED Projects

616.

Speed and Direction Control of Stepper Motor using AVR Microcontroller Stepper motor can be termed as digital motor because it operates on pulses
AC or DC motor that rotates continuously, stepper motor rotates in steps. It rotates in number of steps as per applied number of pulses. Stepper mot
in many applications…… Listed under: Motor Projects

617. Accelerometer Based Hand Gesture Controlled Robot In many application of controlling robotic gadget it becomes quite hard and complicated when there comes the part of c
it with remote or many different switches. Mostly in military application, industrial robotics, construction vehicles in civil side, medical application for surgery. In this field…… Li

626.   GSM Based AC Appliance Control This project would show you how to control an AC appliance remotely from anywhere using your mobile phone. This project is useful in various applications. Say for example a farmer can switch ON or OFF the motor pump present near his field remotely....... Listed un[der] Phone Projects

627.   Cell Phone Controlled Pick and Place Robot Conventionally, wireless controlled robots uses circuits, which have a drawback of limited working range, l[imited] frequency range and limited control. Use of mobile phones for robotic control can overcome these limitations. It provides the advantages of robust co[ntrol,] working range as large as the coverage...... Listed under: Robotics - Automation Projects

628.   Light Tracker Demonstration Electricity is the most required and important element of human life. We cannot imagine our day to day life without elect[ricity.] Electricity is generated using conventional (coal, diesel) and non conventional (water, wind, sunlight) energy sources. The recent and latest trend is to [generate] electricity...... Listed under: Metering - Instrument Projects

629.   Variable Power Supply with LCD Are you an electronic hobbyist? Then an adjustable power supply is a must for your various needs. This project explai[ns how to] make a LM317 based adjustable power supply unit with a digital display. Components Required 1.   LM317 IC 2.   Resistor – 240 Ohms 3.   ...... Listed [under:] LCD Projects

630.   Interfacing Triple-Axis Accelerometer with AtMega16 Requirements AtMega 16 IC/development board 3-Axis accelerometer LCD screen 16X2 (for displ[aying X, Y] and Z data) Description This project makes use of three out of the eight ADCs present in AtMega16 IC to display the corresponding digital data of X, Y [and Z] outputs...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

631.   Atmega32 avr based Drone Quadricopter atmega32 avr based Drone Quadricopter: Introduction Our project is a novel hand held controller in which w[e use an] accelerometer to wirelessly control the motion of a Parrot AR Drone Quadricopter. Rationale: The main idea of our project was building a cool glove co[ntroller] for...... Listed under: Drones

632.   Audio Tone Generator using AVR Microcontroller The circuit presented here demonstrates how to generate Audible Frequency from an AVR Microcont[roller. The] output of Microcontroller is always digital so to generate audible sound at the outset first it needs to be converted into Analog. A DAC (Digital to Analo[g] Converter) is used...... Listed under: Sound - Audio Projects

633.   Stepper Motor Angle Control using AVR Microcontroller There are many applications in which it is required to set the position of an object at a desire a[ngle.] Some of the examples are 1.   Satellite Dish Antenna positioning The Satellite Dish Antenna should be in straight alignment with Satellite in Space to [properly] receive...... Listed under: Motor Projects

634.   Bluetooth Controlled Portable LED Display The aim of the project is to make a portable LED display from SMD LEDs and to display the custom progra[mmed] patterns at our command. The core application of the project is to act as a portable display for event organisers or exhibitionists or consultants to...... [Listed] under: LED Projects

635. Coin Operated Timer Control Power Supply Box to Control AC Appliances Saving electricity is a major concern for domestic and industrial units. We always try hard to save ele[ctricity. There are] many ways to reduce our electricity bills, but due to some known and unforeseen circumstances our efforts do not normally transform in saving electricity. Adding to...... Liste[d]

636. Sleeping Security – Smart Keypad Lock using AtMega16 This project is just a smart version of any keypad lock. What's smart about it is that it can detect whether it is needed by or not and accordingly switches itself to take a sleep. Making a microcontroller to sleep reduces power consumption…… Listed under: Security - Safety Projects

637. DIY – Waveform Generator using AVR Microcontroller To interface 8-bit DAC with AVR microcontroller ATMega32 and generate different waveforms like Wave, Sine Wave, Triangular Wave, Staircase Wave and Saw-tooth Wave. Instruments · AVR Development Board · ADC – DAC card · Digita Oscilloscope (DSO) · Power Supply Apparatus · Connecting…… Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

638. Fully Customized Device On/Off Timer Timers are used in many different applications for example in Industrial Applications, to switch ON or switch Ol device or a machine load for a specific period of time. In the same way the timers are used in Domestic Appliances like in Air Conditioners,…… Listed u Clock Projects

639. Mobile – Gesture Controlled Car REQUIREMENT: AtMega 16 microcontroller L293D motor driver IC Bluetooth module (HC05) Chassis Motors & Wheels phone (Android + Bluetooth compatibility) Battery (for car section) DESCRIPTION: Have you ever wondered of operating a toy car with you own mobile Yes I have made such…… Listed under: Car Projects

640. Un-interruptible Bench-top DC Power Supply With Display This tutorial explains how to make your own power supply unit for all your electronics ande system experiments. It also has a backup battery which will be used in case of power cuts and a display. Components Required 1. SLA 12V battery 2 Banana Jack…… Listed under: LCD Projects

641. Fingerprint Detection using Microcontroller REQUIREMENTS: AtMega 16 Microcontroller (development board) Fingerprint scanner module (R305) 16X2 Alphanumeric LCD (for user display) DESCRIPTION: In today's secure world biometric safety is on the top. Unlike other techniques which make use of and numbers, that are needed to be remembered, biometric techniques…… Listed under: LCD Projects

642. Controlling a BLDC Motor with an ESC REQUIREMENTS: Microcontroller (AtMega 16) A Brushless DC motor (BLDC) An Electronic Speed Controller (ESC source to drive the motor (LiPo battery) DESCRIPTION: Brushless motors have much more satisfying results as compared to brushed motors. The ba difference between them is that in a…… Listed under: Motor Projects

643. How to display text on 16×2 LCD using AVR microcontroller (ATmega16) This article is in continuation to the article Single character LCD display using A aforesaid article shows how to display a single letter on LCD. Moving forward towards learning to work with LCD, this article explains how to display a LCD. Displaying…… Listed under: LCD Projects

654. How to interface LCD in 4 bit mode with AVR microcontroller This article explains interfacing of LCD with ATmega16 using 4-bit mode. In this mode only four pins are used for sending data and command instructions. This mode has the advantage over the 8-bit mode as it uses less number of pins. The remaining pins of...... Listed under: LCD Projects

655. SPI (serial peripheral interface) using AVR microcontroller (ATmega16) There are different protocols for serial communication between two deceives like SPI, I2C etc. Before selecting any communication protocol, data transfer rate is an important parameter. SPI transfers data at high speed data. AVR microcontroller contains on chip SPI interface. This article will explore...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

656. How to use fast PWM (Pulse Width Modulation) Mode of AVR microcontroller Timer This article is in continuation of PWM generation using AVR timer. previous article, PWM generation using Phase correct PWM mode is described. However, there are some applications like DAC, power regulation and rectification etc. which require high frequency PWM wave. The PWM generation...... Listed under: PWM Projects

657. Phase Correct PWM (Pulse Width Modulation) Mode of AVR microcontroller Timer Pulse Width Modulation is well known technique for controlling pow electronics devices like SCR, IGBT etc. PWM is also used in motor speed controlling. Square wave generation by using AVR timers is explained in previo The AVR timers have feature of PWM wave generation...... Listed under: PWM Projects

658. Waveform Generation using AVR Microcontroller (Atmega16) Timers At times we come across applications or situations wherein we need to generate waves with the microcontroller. The square wave can be generated by programming a pin which toggles between 0 and 1 with a certain time delay. Alternatively, the inbuilt feature of AVR...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

659. Serial communication (USART) with different frame size using AVR microcontroller The previous article explains serial communication using 8-bit data AVR microcontroller also supports serial data transfer with frame size of 5, 6, 7 and 9 data bits. The size of data frame can be adjusted according to ap For example, consider a system that...... Listed under: LCD Projects

660. How to use External (Hardware) Interrupts of AVR Microcontroller (ATmega16) This article introduces the concept of interrupts and the different types interrupts in AVR Microcontroller (ATmega16). Interrupt as the name suggests, interrupts the current routine of the microcontroller. Microcontroller e) instructions in a sequence as per the programs. Sometimes there may be a need...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

661. How to interface LED with AVR Microcontroller (ATmega16) ATmega16 has 32 I/O pins to communicate with external devices. Before interfacing with e devices, these pins must be cofigured as input or output pin. This article demonstrates the basic I/O operation of ATmega 16 using LEDs. All the four p be configured to...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

662.	How to interface keypad with AVR microcontroller (ATmega16) Keypad is most widely used input device to provide input from the outside world to the microcontroller. The keypad makes an application more users interactive. The concept of interfacing a keypad with the ATmega16 is similar to interfac[...] any other microcontroller. The article...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

663.	How to interface Servo Motor with AVR Microcontroller (ATmega16) Servo motors find huge applications in industries in the field of automation, contr[...] robotics. The servo motors are well known for their precise control and work on the principle of servo mechanism. The servo motors can be made to [...] precise angle using...... Listed under: Motor Projects

664.	How to use I2C / TWI (Two Wire Interface) in AVR ATmega32 This article explores the TWI interfacing between two ATmega32 controllers. Readers are a[...] go through TWI Communication and TWI registers of ATmega32 before going further. TWI works in four modes: 1.	MASTER as a transmitter. 2. [...] as a receiver. 3.	SLAVE as a...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

665.	How to take input from a particular pin of ATmega16 For understanding the human needs a system must be able to take input from user. The devices [...] be used to take input for a system are keypad, touch screen, etc. In the article LED blinking, the microcontroller drives the LED or in embedded langua[...] Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

666.	How to interface serial ADC0831 with AVR microcontroller (ATmega16) ADC is an electronics device that converts the analog signals to digital number [...] proportional to the magnitude of voltage. The ADC chips like ADC0804, ADC0809 etc., give 8-bit digital output. The controller device needs eight pins t[...] the 8-bit data (For more details about...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

667.	How to configure Watchdog Timers of AVR Microcontroller (ATmega16) Some high end applications require multiple or critical calculations to be done [...] microcontroller. This may lead to cases when the controller enters into wrong or infinite loops. As a result of this, the system either hangs up or gets [...] The solution to...... Listed under: Clock Projects

668.	How to interface GPS with AVR microcontroller (ATmega16) GPS modem is a device which receives signals from satellite and provides information abo[...] latitude, longitude, altitude, time etc. The GPS navigator is more famous in mobiles to track the road maps. The GPS modem has an antenna which re[...] satellite signals and transfers...... Listed under: GPS Based Projects

669.	Interfacing SD Card with AVR Microcontroller This project explains how to interface the SD card with an AVR microcontroller. In this project an ATMEGA16 microcontroller is used. The microcontroller runs on 5V power supply with a built in crystal frequency of 8 MHz. A 2GB SDSC card from [...] is used in this particular project,...... Listed under: Memory - Storage Projects

670.	How to Program in Boot Loader Section In the AVR microcontroller the flash memory is divided into two parts, namely Application Section and Boot L[...] Section. A code can be programmed into either the Application Section or the Boot loader Section (BLS). The code programmed into the Application s[...] runs normally and...... Listed under: LCD Projects

671. How to Initialize Peripherals from Boot Loader Section In almost all the microcontroller codes the peripheral initialization functions like uart initialization, spi initialization are v[...] along with the different application codes. These initialization functions are actually repetitions of the original initialization functions. The same is the case with the external ha[...]

initialization like...... Listed under: LCD Projects

672. How to Use SPM for Flash to Flash Programming The Self Programming Mode (SPM) is a feature which enables a microcontroller to program its own fl memory. Using the SPM a microcontroller can program itself with an SPM code. The SPM is commonly used with the microcontroller Boot-Loader cod help to program the...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

673. How To Use SPM To load Application from EEPROM In any microcontroller the Boot-Loader is the first code which executes before the application cod The major function of the Boot-Loader is to load the application code into the flash memory of the microcontroller and execute it. In AVR microcontro Self Programming Mode...... Listed under: LCD Projects, Memory - Storage Projects

674. How To Write a Simple Bootloader For AVR In C language The BootLoader is a code which executes when a microcontroller is powered ON or reset. It l sets an environment for the application code to execute. It is the Boot-Loader that sets the hardware and loads the application code from any storage or received...... Listed under: LCD Projects

675. LCD Scrolling Display Module A microcontroller is a device which has an inbuilt processor surrounded by few dedicated hardware modules. Once the microcontroller initializes them they start operating on their own. In case of an ADC it will do the sampling and digital to analog conversion all by itself under: LCD Projects

676. Electronic Voting Machine using Internal EEPROM of AVR The microcontroller based voting machines made the process of voting and counting the vot easier than before. Previously the votes were marked in paper which are then stored safely in a box and inside a well secure room for days. The proce separating...... Listed under: LCD Projects

677. Setup Arduino Software for Atmega328P with Internal Crystal on Breadboard A breadboard Arduino will require an Atmega328P controller for these instructions. Note the "P" at the end of the name. You cannot use an Atmega328 because it has a slightly different device id number. It will require a d board configuration. Instructions for that are...... Listed under: Development Board - Kits Projects

678. Playing video on nokia color LCD using an ATmega32 video Playing video on nokia color LCD using an ATmega32 Hi, I am introducing my new video player made using an atm microcontroller and nokia color LCD. I got a 65K color LCD from an old nokia 6030 mobile phone. I directly soldered 10 thin...... Listed under: LCD Projects

679. Make yourself a homemade clock with thermometer using ATMEGA128 In this step by step I wanna share my experiment with ATMEGA128 timer and using DS1307 and NTC to display homemade clock and thermometer. It displays hour,minute,second, day of week, day of month, month, and year, ar temperature in celcius Enjoy the project......... Listed under: Clock Projects, Home Automation Projects

680. MultiFunction LED Game Using An ATmega32 Microcontroller First are my answers to the Make-To-Learn Contest: What did you make? I made a multi- LED Array Program, like my previous one with Arduino UNO, but this time I made it with an ATmega32 microcontroller. I used regular C code to progra and...... Listed under: LED Projects

681. Setup Arduino Software for Atmega328P with Internal Crystal on Breadboard A breadboard Arduino will require an Atmega328P controller for these instructions. Note the "P" at the end of the name. You cannot use an Atmega328 because it has a slightly different device id number. It will require a d board configuration. Instructions for that are...... Listed under: Microcontroller Programmer Projects

682. Burn Arduino Bootloader on Atmega-328 TQFP and DIP chips on Breadboard Parts required (Hardware) Arduino Uno Board (1) TQFP 32 to DIP 28 Ada Link Atmega TQFP 32 pin chip (1) Atmega DIP 28 pin chip (1) 10K resistor (1) 16MHz crystal (1) 18pf - 22pf capacitor (2) Tact Switch (1) Jumper wires (few Listed under: Other Projects

683. Burn BootLoader into Atmega328P using Arduino Diecimila I have an old Arduino Diecimila and some new Atmega328P-PU chips. Shouldn't have but some without bootloader to save some dollars. What next? search instructables to see if I can burn bootloader to ths chips. Unluckily not working. An message "avrdude: stk500_getsync():...... Listed under: Other Projects

684. Create yourself ATMEGA128 a simple tone generator Hello guys, In this project I want to share my experiment on ATMEGA128 generating a simple ton created 8 tones (1 octave) Let's get started!! Step 1: Prepare the components Let's prepare the components, We need : 1. Speaker, just buy...... Listed Sound - Audio Projects

685. Bootloading and Mounting Arduino Atmega328 – I made it at TechShop This Instructable shows how to bootload and mount an Atmega328, Atmega3 Atmega328p-pu for any project. This is a great way to save money by purchasing Atmega328 DIP package microcontrollers instead of using the Arduir development board itself. I put this together at techshop to...... Listed under: Other Projects

686. Use ATmega328 Chip as a Storage Device and Store Text and Images in it Hi everyone! In this instructable, I am going to show you how to store text an in a small ATmega328P chip. Lets get started! This article is also available on Jordan's Lab Notebook! Step 1: Things Needed Things Needed: - Arduino L ATmega...... Listed under: Other Projects

687. Create yourself a message flasher with ATMEGA128 Guys, I wanna share my experiment on creating a message flasher with ATMEGA128 and LCD 16x done on your weekend.... Step 1: Prepare the components I prepare all the components below, The most importants are ATMEGA128 TQFP 64 and LC Another...... Listed under: Other Projects

688. Atmega16/32 Development Board With LCD This instructable shows, how to do your own development board for Atmega16 or Atmega32 processors. Internet is full of home made development boards, but I think that, there is room left for another one. This board have been very useful on my project Listed under: Development Board - Kits Projects

689. RGB Rotary Encoder with PWM and ISRs Using an ATmega328 Description A long time ago I bought a couple RGB rotary encoders from Sparkfun beca were cheap and I was already spending a bunch on other stuff. I thought they would be neat for some interfaces since it includes a push button. The service routine...... Listed under: PWM Projects

690. Make yourself a speaking ATMEGA128 Guys, In previous weekend, I made myself a speaking ATMEGA128. I used ATMEGA128 and LM386 as an amplifi get started Step 1: The part I need for this project These parts are needed for this project : 1. LM386 2.ATMEGA128 3.USBISP 4.AVRStudio 5. Small...... L under: Sound - Audio Projects

691. I2C Bus for ATtiny and ATmega I love the Atmel AVR microcontrollers! Since building the Ghetto Development System described in this Instructable, I've had no end of fun expe
with the AVR ATtiny2313 and the ATmega168 in particular. I even went so far as to write an Instructable on using switches…… Listed under: Other Projects

692. Interfacing GY 26 with atmega640 Hello friend once again with new instructable in this I will show you how to interface GY 26 with UART when I started
on this very less resource where availble over internet .Thus i thought to share my piece of work .GY 26 is…… Listed under: Interfacing(USB - RS232 - I2
Projects

693. Using Atmega32 with Arduino IDE Over time I have used all kinds of Atmel microcontrollers in various projects. One of the most suitable was ATmega3
a small collection of development boards for Atmega32/16, some bought as-is, some made on stripboard. Although the original Arduino boards offer:
pleasant…… Listed under: Other Projects

694. Standalone Arduino / ATMega chip on breadboard Step 1: Parts needed I bought my parts from Digikey and Sparkfun Electronics - they're 2 of my favo
places to buy components. Anyway, here's the list: #1 - (Qty: 1) - ATMega328 chip with Arduino bootloader pre-installed ($5.50) #2 - (Qty: 1) - 5VDC Swi
Listed under: Development Board - Kits Projects

695. Burning atmega328-pu and atmega328p-pu bootloader Burning the boot loader in an atmega328 could be somewhat tricky but if u follow these step:
youll be able to bootload any type of atmega328 micro controller .. Step 1: "setting up the hardware" -List of stuff you'll need: - An Arduino board…… L
under: Other Projects

696. Homemade singing ATMEGA128 Hello guys, After experimenting with 8 octave tone generator, Now, I'm continuing on creating a singing ATMEGA128
started, no more delay…. Step 1: Prepare all the parts needed… Let's prepare the part we need, 1. ATMEGA128 2. The board itself, I created my…… List
Home Automation Projects

697. Speech Synthesis on Atmega128 I had this one project where the device was supposed to speak out the output. And I was too Lazy to actually go and build a PC based applicat
not that lazy to make it on a micro controller. So here is some of…… Listed under: Other Projects, Sound - Audio Projects

698. Standalone Atmega328 We all have a deep fondness to our Arduino with its familiar shades of blue/green, but the time has come to explore other pro
options. One that involve fewer pieces, fewer parts, and fewer dollars. Building a standalone Atmega328 is far simpler than you might…… Listed unde
Projects

699.   The Bat Hat Using Atmega1284 Introduction "An ultrasonic range-finding hat with variable haptic feedback for obstacle detection." -Project Sound Bite ECE 4760 final project, we designed and implemented an ultrasonic range-finding hat that uses haptic feedback to alert its wearer about obstacles in path. The...... Listed under: Sensor - Transducer - Detector Projects

700.   Ultrasonic Pathfinder Using Atmega1284 Introduction: Our final project for the ECE 4760 course consists of a wearable device to provide aid for the vis impaired. An ultrasonic distance sensor located on a hat collects data of the surrounding environment scanning the area ahead of the user, and uses Listed under: Sensor - Transducer - Detector Projects

701.   Acoustic Wayfinder Using Atmega1284 Our acoustic wayfinding device utilizes ultrasonic range finders and haptic feedback to facilitate indoor navigat the visually impaired. The technique of acoustic wayfinding uses auditory cues, such as sounds from the natural environment or sounds created artifi determine an individual's surrounding physical space...... Listed under: Sensor - Transducer - Detector Projects

702.   Clap-E acoustic tracking robot using atmega1284 An Introduction For the ECE 4760 final project, we designed and built a sound follower robot named its name implies, Clap-E receives a clap sound and moves toward the source of clapping. It has the ability to change its position after multiple claps..... under: Robotics - Automation Projects

703.   Acoustic Impulse Marker Using Atmega1284 Introduction "A device that tracks sound impluses with a three microphone array" We designed and build dimentional Acoustic Impulse Marker system which is capable of detecting a sharp sound anywhere in its vicinity and precisely marking its source vec servo based pointer....... Listed under: Sensor - Transducer - Detector Projects

704.   Rock-Paper-Scissors-Spock-Lizard Game Using Atmega1284 Introduction This project implements rock-paper-scissors game that displays on the TV sc camera to capture human gesture and doing image processing. Rock-paper-scissors-spock-lizard game is very popular among teenagers. Our idea co a very popular American comedy: Big Bang! In this TV show we...... Listed under: Game - Entertainment Projects

705.   Automobile parking simulator Using Atmega1284 1. Introduction The game consists of two levels. In each level, a LCD TV screen displays the 2-D top v a parking lot, and the player needs to park the car into the proper parking spot by operating on a fake steering wheel,...... Listed under: Car Projects, G Entertainment Projects

706.   Infrared Theremin Using Atmega1284 Introduction A modern-day twist on the classic theremin musical instrument. This project uses two IR sensors a ATMEGA1284P microcontroller to create an inexpensive, easy-to-use theremin. The theremin is a musical instrument which is controlled by the electromagnetic field your body body produces naturally. One...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

707.   GPS Running Watch Using Atmega1284 Runners who have moved to a new city may get lost trying to remember the route they carefully planned at ho Instead of stopping the run to pull out a phone, wait for the map to load, find where you are, and determine where you...... Listed under: GPS Based Projects

708. DJ Party: A Collaborative Music Teacher using Atmega1284 Introduction "This device allows friends to learn songs, create their own songs, and collabo merge them." Our final project for ECE 4760 is a fully customizable button keyboard that has a variety of features to allow for collaborative music-mak between friends. Each keyboard has eight...... Listed under: Sound - Audio Projects

709. Wireless Pedometer Using Atmega1284 Introduction There's a simple question asked by runners, walkers, joggers, and anyone who moves. How fast am I going? Runners wan themselves, athletes are trying to train for events, and even on a day to day basis you might wonder how far you...... Listed under: Radio Projects

710. Stabilized Gimbal System Using Atmega1284 This webpage describes the development of a Stabilized Gimbal Control System for the CUAir team, Corr University's Unmanned Air Systems Team. The Stabilized Gimbal Control System will help the CUAir team compete at the Association for Unmanned V System International (AUVSI) Student Unmanned Air Systems...... Listed under: Security - Safety Projects, Sensor - Transducer - Detector Projects

711. Laser Tag with wireless logging using Atmega644 Introduction "A new spin on Laser Tag with Wireless Real-Time Updates" For our ECE 4760 final proje designed and built our own laser tag system. We included many traditional laser tag features, but then added our own 4760 twist. For the purposes of Listed under: Other Projects

712. Gesture Based Security Lock Using Atmega1284 Introduction Our final project is to design a security system which can be unlocked by means of a stor gesture pattern. The idea is to create a box like assembly, in which the user places his hand, makes a defined gesture and unlocks the system....... Liste Security - Safety Projects

713. Pushup Trainer Using Atmega1284 For our ECE 4760 final project, we choose to develop an electronic push-up trainer that could monitor people's mo provide training package to optimize their push-up exercise and body health. A distance meter will be used to figure out whether the posture of the p Listed under: Medical - Health based Projects, Sensor - Transducer - Detector Projects

714. ColdRunner – A Temperature Feedback Running Band Using Atmega1284 For our ECE 4760 final project, we designed and built a running band that pr feedback to users with temperature and vibration. This provides an unique way to monitor running habits with temperature feedback. The running ba attaches to a user's upper arm and counts...... Listed under: Temperature Measurement Projects

715. Servo-Controlled Fire Extinguisher Using Atmega1284 Introduction We have created an autonomous, servo-controlled fire extinguisher that is capable photo sensors and a water nozzle along two axes to detect and extinguish candle fires a short distance (about 1 ft.) away using a small burst of water. inspiration originally...... Listed under: Sensor - Transducer - Detector Projects

716.	The Webcam Mouse Using Atmega1284 For our ECE 4760 final project, we designed and built a pointing device with webcam-color-tracking based mo control. Our implementation allows the user to wear a set of finger-sleeves complete with buttons for clicking and scrolling and a red LED for color-tra cursor control to…… Listed under: How To - DIY - Projects

717.	Automated Drink Mixer Using Atmega1284 Abstract The automated drink mixer takes orders from a push-button menu, and moves a regular 16-ound under a series of inverted bottles while dispensing specified amounts of mixers to make perfect non-alcoholic beverages. Introduction If you've been to a crowded bar or…… Listed under: Home Automation Projects

718.	A Touchscreen Chinese Chess App Using Atmega1284 With the increasing popularity of smartphones and tablet computers, touchscreen has become most common user interfaces encountered today. The idea of this project came from some apps on the smart phone. It is very interesting to play a vi Chinese chess on…… Listed under: Game - Entertainment Projects

719.	Beacon: A Zero Instruction Navigation Device Using atmega1284 Introduction to the Device Beac0n allows us to explore the tacit human understandin technological feedback. The Beac0n is a gps pathfinder that is designed to be completely intuitive to the user. The goal is for the user to pick up the de with…… Listed under: GPS Based Projects

720.	Acoustic Modem Using Atmega1284p Data transmission over sound is used in many communication protocols, the most common being Dual-Tone M Frequency signaling (DTMF). It is used to dial phone numbers and the frequency combinations chosen for the digits are very familiar to the general pu was also used in…… Listed under: Sound - Audio Projects

721. A Moving Alarm Clock Using Atmega1284 Introduction We implemented a prototype for a moving alarm clock which runs away from the user when they try to silence the alarr all the features of a "regular" alarm clock: settable time and alarm, snooze, and alarm on/off. The alarm clock displays…… Listed under: Clock Projects

722.	Precision Cooker: A Temperature Controlled Cooker Using Atmega1284 Precise time and temperature control are critical when cooking. Slight deviatio either temperature or cooking time can ruin delicate ingredients. Despite this fact, most modern day stovetops provide no data regarding their curren temperatures and do not have built in timers. The stovetops that…… Listed under: Home Automation Projects

723.	Eye Mouse Using Atmega1284 Our final project moves and clicks a mouse cursor on a computer screen by tracking where the user's eye-movements infrared eye-tracking technology and a gyroscope. The motivation for this project came from thinking about applications of infrared technology. We na our ideas down to…… Listed under: Sensor - Transducer - Detector Projects

724.	Scan-E: An optical blood pressure sensor Using Atmega1284 Introduction For this project, we created a noninvasive heart rate and blood pressure measurement tool with the intention of gathering data for large-scale analysis for the automatic prediction of heart disease. In modern society, patier have access to a wealth of electronic data concerning…… Listed under: Sensor - Transducer - Detector Projects

725. Low-Budget Laser Projector Using Atmega1284 Introduction For our ECE 4760 final project, we designed a low-budget laser projector system. The pro broken into main sections: the custom hardware designed and fabricated to make up the projector, the circuitry controlling the hardware, and the cus software controlling the circuitry. We...... Listed under: CNC - Printing Machines Projects

726. Autonomous Air-Hockey Goalie Using atmega 1284 This project is intended to perform the role of a goal-keeper in the popular arcade game Air Hocke project, the robot shown below senses a puck coming toward it and moves in the direction of the puck's motion so as to stop it....... Listed under: Gam Entertainment Projects, Home Automation Projects

727. NFC Transmitter and Receiver Using Atmega1284 Introduction Our project is building one set of NFC module including a NFC transmitter and a NFC re both using ATmega1284p microcontroller. We will be using coupled coils to transmit message modulated by a high frequency carrier, whose frequenc standard frequency for Near...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

728. Remote Controlled POV Display Using Atmega1284 Introduction For our ECE 4760 final project, we designed and implemented a remote controlled pe of-vision (POV) display that is able to display multiple patterns based on remote input. The primary components of the display are a rotor and a moto rotor is mainly consisted...... Listed under: LED Projects, Sensor - Transducer - Detector Projects

729. POV Magic 8 Ball Using Atmega1284 1.Introduction In our final project of ECE 4760, we designed a magic 8 ball, which is a rotating POV (persistence of display controlled by voice commands. In our design, users can ask yes/no based questions via a small speaker, and the rotating POV part...... Listed u Game - Entertainment Projects

730. The Air Mouse Using Atmega1284 Introduction "A wireless mouse unit that requires no flat surface by using ultrasonic positioning." For our ECE 4760 project,we have designed a surface-less mouse interface using ultrasonic transmission as our final project in this class. The idea is to have a ultrasonic transmitter as...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

731. EEG Magic Cat Ears Using Atmega1284 Kang Li(kl694) and Zhenxuan Qiu(zq39) For our ECE 4760 final projec, we built a pair of toy "cat ears" using electroencephalography (EEG) with the AVR microcontroller. The basic function of it is that it can change the gesture of the "Ears" based on the particip Listed under: Game - Entertainment Projects

732. Drumming Teaching and feedback device Using Atmega1284 For our ECE 4760 final project, we designed and built a drum trainer that can be attache Japanese drum surface and will detect and wirelessly transmit different drum hit types to other players' drum trainers. The trainer is able to determin the...... Listed under: Sound - Audio Projects

733. Thermistor Respiratory Monitor Using Atmega1284 Our final project for ECE 4760 is a respiratory monitor that was designed for low-resource environ The device calculates a patient's breathing rate by detecting changes in temperature when the patient breathes through a mask. Features of the devic an alarm through a piezoelectric...... Listed under: Medical - Health based Projects

734. Glove Mouse Using Atmega1284 For our ECE 4760 final project, we designed and built a wireless computer pointing device with accelerometer based movement control. Our implementation allows the user to wear a set of hardware (a glove and connected armband) and control a cursor through diff hand orientations and...... Listed under: Sensor - Transducer - Detector Projects

735.   Hand-Motion Chess Using Atmega1284 An Introduction "A glove embedded with accelerometers to play a hand motion-controlled chess game" projec soundbyte For our ECE 4760 final project, our team designed and built a system with the ability to play the game of chess using embedded gloves. Ead wears a...... Listed under: Sensor - Transducer - Detector Projects

736.   Color to Sound Player Using Atmega1284 Introduction We created a device that determines the RGB content of a surface and then speaks the color or musical tone at the sound frequency mapped to the color. The device can convert the color to sound directly or function as a cassette...... Listed unde Audio Projects

737.   Multi-functional Music Box Using Atmega1284 Our final project is to build a multifunctional music box. This music box can generate different songs in instrument sounds, i.e. piano, organ, by FM synthesis. The theme and harmony are in two different channels. Besides, the music box can also be elect piano...... Listed under: Sound - Audio Projects

738.   Muscle music control Using Atmega1284p Introduction For our ECE 4760 Final Project, we use an infrared LED and phototransistor armband to detect inflections in arm and wrist movement which are used to manipulate the volume and speed of pre recorded songs. By pumping your fist, you will cha the...... Listed under: Sound - Audio Projects

739.   Digital Reversi board using Atmega644 Introduction For our final project in ECE 4760, we designed and implemented a Reversi board consisting of har microcontroller, and a touch screen. Sixty-four bicolor (red and green) LEDs were implemented as the black and white pieces of the game. Players cou light...... Listed under: Development Board - Kits Projects

740.   Audio Spectrum Analyzer Using Atmega644 Our ECE 4760 final project was an audio spectrum analyzer that would display a histogram-style visualizat audio signal. We were able to successfully display the frequency spectrum content of an audio signal in real-time using a black and white histogram visualization with bins...... Listed under: Sound - Audio Projects

741.   Virtual Archery Using Atmega644 Introduction We decided to create a virtual archery game for our ECE 4760 final project. This game consists of an ATmega1284P microcontroller, a TV for display, and multiple pieces of hardware. All of these devices communicate together to simulate a three-round archery with...... Listed under: Game - Entertainment Projects

742.   Optical microphone and spectrum analyzer Using Atmega1284 We implemented an optical microphone which converts distant vibrations, including so an audio signal. Measuring the reflection of a laser beam from windows or glass, it possible to hear sounds near the target. The system also includes f spectrum analysis with a real-time display...... Listed under: Radio Projects, Sound - Audio Projects

743.   IFF System for Infantry Using Atmega1284 Introduction "An encrypted laser-based friend-foe identification system to prevent friendly fire in battle" Th implements an Identification Friend-or-Foe (IFF) system for use by soldiers to prevent friendly-fire. The inspiration for the project is derived from Ident Friend-or-Foe (IFF) transponder systems currently used on fighter...... Listed under: Sensor - Transducer - Detector Projects

744.   GPS and compass guided car Using Atmega644 For our final project, we built a self-driving car that takes in inputs for a final destination and drives its
             its initial location to the final destination. The idea for this final project requires an LCD to display the location that the car is...... Listed under: Car Proje

745. Persistance of Vision Clock Using Atmega644 The goal of our project was to create a persistence-of-vision (POV) analog clock using an LED display. The clock has a visual alarm
             which lights up the entire display for two seconds if it reaches an alarm time. The current time and alarm times...... Listed under: Clock Projects

746.   Virtuoso: A Touchscreen Music App Using Atmega644 n our final project, we designed an electronic multifunction instrument with a LCD touch screen
             microphone. The user can play three kinds of instruments on it -- xylophone, flute and piano. Each instrument has a different interface and timbre. Th
             part has...... Listed under: Sound - Audio Projects

747.   NFC Secure Data Storage Using Atmega644 Summary "Enabling secure storage capabilities for sensitive data through standardized methods of encryp
             multiple agent distribution." Our group chose to implement a secure form of storage for sensitive information such as passwords or identification nur
             This is modeled after Shamirs secret sharing algorithm. It...... Listed under: RFID - NFC Projects

748.   Ultrasound Gesture Detection Using Atmega644 Introduction In this project, ultrasound around 24kHz was used to detect movement near an object. \
             hand or other solid object near the source of the ultrasound (speaker) causes a shift in the frequency of the sound, which is then detected by a microp
             Listed under: Sensor - Transducer - Detector Projects

749.   Wireless, voice-controllable, household system Using Atmega644 Motivation We design a smart home control system which allow people control their
             devices by voice command at home. This is a wireless, voice control system. People could control almost all the facilities at home including lights, fans
             back ground music. Right...... Listed under: Sound - Audio Projects

750.   Solar Powered Pulse Oximeter and Heart Rate Meter Using Atmega644 Introduction Pulse Oximeter is a non-invasive medical diagnostic device used t
             the oxygen saturation of the blood. Heart rate meter detects the number of beats per minute of the patient, normally referred to as bpm. The pulse o
             designed using an infrared and...... Listed under: Medical - Health based Projects

751.   RoboSLR Using Atmega644 Introduction Robo-SLR provides a remotely controllable stand for a Canon EOS 550D DSLR camera, allowing for adjustable
             pan functionality along with the ability to remotely view through the camera's viewfinder and take photos. An ATmega1284 microcontroller is used to
             camera functions as...... Listed under: Robotics - Automation Projects

752. Radio Station Tracker Using Atmega644 Our project is inspired by the commercial product, PicoDopp, which uses a similar scheme for foxhunting. Fox [...] a contest where participants try to locate a transmitter, called the fox, simply by monitoring the signals it transmits. Typically this is done using highly [...] antennas...... Listed under: Radio Projects, Sensor - Transducer - Detector Projects

753. OBD-II Autocross/Track Data Logger for BMW E36 M3 Using Atmega644 Customer's Voice   top "Hello, I am interested in a race car logger than will be [...] display and log crucial information during autocross and track events. I am interested in tracking vehicle speed, RPM, engine coolant temperature and [...] forces. Ideally, the data can...... Listed under: Car Projects

754. Brain-Computer Interface Using Atmega644 Introduction Our goal was to build a brain-computer interface using an AVR microcontroller. We decided [...] least invasive way of measuring brain waves would be using electroencephalography (EEG) to record microvolt-range potential differences across loca [...] the user's scalp. In order to accomplish this,...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

755. Digital Saxophone Using Atmega644 Abstract My final project was the design of a digital saxophone which can reproduce the sound of an actual saxo[...] through digitally synthesized electrical waveforms. The digital saxophone consists of a microphone to sense the user blowing into a mouthpiece, pus[...] to control the note...... Listed under: Phone Projects

756. Virtual Saxophone Using Atmega644 Our ECE 4760 final project was to create a virtual saxophone that uses Direct Digitial Synthesis (DDS) to synthesi[...] output notes. Pushbuttons are connected to a PVC pipe to mimic the saxophone's mechanical structure, and a microphone that detects noise is used [...] determine...... Listed under: Phone Projects, Sensor - Transducer - Detector Projects

757. Auto-composing keyboard Using Atmega644 Project Overview We designed an electric piano that automatically composes a piece of music for the ECE 4760 final project. All th[...] need to do is to select a mood of the music and play two notes upon which the music is based, and...... Listed under: Development Board - Kits Projects, Sound - Audio Projects

758. MicroKart 644 Using Atmega644 The Micro Kart 644 is a mobile device that provides additional capability to the traditional RC car experience. Allowab[...] functions are recording multiple tracks, which consist of all user controls sent to the car over a 25 second interval, and replaying the tracks so the...... L[...] under: Car Projects

759. Touchpad Figure Recognition Using Atmega644 Our project implements a touchpad input system which takes user input and converts it to a printed c[...] Currently, the device only recognizes the 26 letters of the alphabet, but our training system could be easily generalized to include any figure of comple[...] arbitrary shape,...... Listed under: Development Board - Kits Projects, LED Projects, Sensor - Transducer - Detector Projects

760. Battle video game Using Atmega644 Introduction Our project is a simple game where two players control tanks in a stage with the ultimate goal of de[...] each other. User input is achieved through the use of keypads, which are used to both control the tanks and fire missiles at one...... Listed under: Gam[...] Entertainment Projects

761. Sign language translator Using Atmega644 Introduction "A portable Glove Based Sign Language Translator with LCD Display, Speech Synthesis, and Sign Language Education Software" Sign language is a language through which communication is possible without the means of acoustic sounds. Instead, language relies on sign patterns, i.e., body language, orientation...... Listed under: Sensor - Transducer - Detector Projects

762. Evolutionary Altitude Control for a Helicopter Using Atmega644 Overview For our ECE 4760 project, we developed a self learning 1 degree of freedom helicopter using a neural network learning algorithm and infrared (IR) distance measurement. The primary goal is to increase the helicopter height to level in the quickest amount...... Listed under: Game - Entertainment Projects

763. Digital Stethoscope Using Atmega644 "A digital stethoscope that can amplify, play, and record heart signals in real-time." Project Soundbyte The purpose project was to design and implement a digital stethoscope to serve as a platform for potential computer aided diagnosis (CAD) applications for the de cardiac...... Listed under: Medical - Health based Projects

764. Power Manager: Remote Power Control Through LAN using Atmega644 Introduction Overview PowerManager is a remote power management system be controlled through a web browser on a local area network (LAN). Devices plugged into PowerManager's outlets can be turned on or off with the clic button on a webpage. PowerManager runs...... Listed under: Internet - Ethernet - LAN Projects

765. Heliowatcher solar tracker Using Atmega644 Documentation HelioWatcher: Automatic Solar Panel Control Jason Wright (jpw97) and Jeremy Blum (jeb3 Introduction We designed and built a system to automatically orient a solar panel for maximum efficiency, record data, and safely charge batteries. Us module and magnetometer, the HelioWatcher allows the...... Listed under: Sensor - Transducer - Detector Projects

766. Cooking Assistant for Automatic Temperature Control Using Atmega644 In some cooking scenarios, it is desirable to achieve a specific object tempera keep the object at that temperature. However, it is difficult to maintain a constant temperature without constant attention. To aid cooking in this scen created a device that can be...... Listed under: Temperature Measurement Projects

767. SousVide immersion cooker using Atmega644 About What is this thing? For our ECE4760 Spring 2012 (Microcontrollers) Final Project at Cornell Univer decided to create a sous-vide cooker (a type of immersion cooker) that can maintain a set temperature for extended periods of time. It can auto-calcu appropriate time...... Listed under: Home Automation Projects

768. BrainMap: fNIR imaging of the brain Using Atmega644 Introduction Our project records and extracts event-related features from a 36-point relative bl oxygen concentration sensor array from the surface of the brain. We chose this project because of a combined interest in brain-computer interfaces. attempt to balance cost, complexity, and sensor density, we...... Listed under: How To - DIY - Projects, LED Projects

769. MAD-DOG Kick-Awesome Wi-Fi Audio Streamer Using Atmega644 Introduction "We developed a wireless receiver capable of receiving and playing auc transmitted over an 802.11 Wi-Fi network" project soundbyte For our ECE 4760 final project we developed a wireless receiver capable of receiving and audio transmitted over an 802.11 Wi-Fi network. Our system...... Listed under: Radio Projects

770. Remote Controlled DMM With Minimum Mass Wireless Coupler Using Atmega644 Introduction In this project, we built a digital multi-meter utilizing no communication concept. The system established a bidirectional wireless communication between the measurement unit and the base unit. The meas unit is in charge of measurement and transmitting the result to the base, while the...... Listed under: Sensor - Transducer - Detector Projects

771. Seven day alarm Using Atmega644 Introduction The variability of a college student's class and school work schedule gives way to an abnormal sleep/w pattern that is not experienced any other age group. Few lucky students have the pleasure of having all their classes start at the same time every day. under: Clock Projects

772. A Budget Pachinko Machine Using Atmega644 Pachinko is a game in which a ball drops down through a large quantity of pegs and the objective is to ball in a fixed basket. The concept behind our machine is novel in that it was built using mostly discarded and salvaged...... Listed under: Game - Enter Projects

773. Quadcopter Using Atmega644 Introduction Many embedded systems use sensors that combine an accelerometer and a gyroscope. Quadcopter is on examples of that. Already-built cheap toy-like quadcopters are available on e-bay around at $25~$30, but many hobbyists and avid AVR programmers own quadcopters. We thought...... Listed under: Game - Entertainment Projects

774. Ultrasonic Security System Using Atmega644 Introduction We were inspired to build an ultrasonic security system for our final project by our housing this summer. Security is an important part of home, especially if we are going to share a house with prior strangers without a lock on our room...... Lis Security - Safety Projects

775. Smart Trash system Using Atmega644 Introduction top For our final project, we have designed and built a 'proof of concept' prototype for Project Green Stations, an externally student group with the following mission statement: Project Green Stations is all about changing the way people see the environment. Imagine the...... Listed under: Other Pro

776. GPS Tracking Device for Cornell Engineering Quad Using Atmega644 Introduction "A GPS tracking devices capable of telling the user his/her approxim distance to buildings and attractions on a map downloaded from a remote station" -Project Soundbyte For our final project in ECE4760, we designed a tracking device that has a capability of downloading...... Listed under: GPS Based Projects

777. Autonomous Board Erasing Robot Using Atmega644 Abstract -A Roomba for boards For our ECE 4760 final project we created a board climbing robot cleaning the board autonomously. The robot uses neodymium magnets to stick to the board and moves across it with two continuous servo motors. bumper...... Listed under: Robotics - Automation Projects

778. Self-Reliant Power and Data Management System Using Atmega644 Introduction The tags used to monitor wildlife can either be passive or active. Pas simply identify an individual, whereas active tags may send out a radio beacon or even collect data. These active tags, more commonly referred to as " loggers", are typically battery powered,...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

779. A Wireless Programmable Pace Clock Using Atmega644 For our ECE 4760 final project, we designed and built a wirelessly programmable digital pace c a large format LED display and Android smartphone control and programming. This original design achieves the functionality of commercailly availabl clocks but with an intuitive user interface...... Listed under: Clock Projects

780. Rock Band Vocal Bot Using Atmega644 We have created a device that interprets the NTSC video signal from the video game Rock Band and outputs au signals via a pair of speakers to simulate a human singer playing the vocalist part. We chose to pursue this project since we were interested...... Listed Game - Entertainment Projects

781. DJ Multitouch — A FTIR Touchscreen Device Using Atmega644 Overview The DJ Touch is a portable turntable touchscreen and interactive LED display. goal was to produce a low cost touchscreen device, and demonstrate its application in a common consumer application. Out of an interest in electron and with the knowledge of...... Listed under: LCD Projects

782. FaceAccess — A Portable Face Recognition System Using Atmega644 We created a standalone face recognition system for access control. Users enroll system with the push of a button and can then log in with a different button. Face recognition uses an eigenface method. Initial testing indicates an 88 successful login rate with...... Listed under: Sensor - Transducer - Detector Projects

783. Voice decoder for vowels Using Atmega644 Introduction In our final project, we created a smart voice decoder system that is capable of recognizing vo human speech. The audio input is sampled through a microphone/amplifier circuit and analyzed in real time using the Mega644 MCU. The user can re analyze...... Listed under: Other Projects

784. Ahhhh...BIU! video game Using Atmega1284 Introduction EVERYONE LOVES GAMES! In this project, I built a video game controlled by people's voice. Th about jet fighters. People can play the game by themselves or with friends. The system recognize the command by distinguish "ahh" and "Biu". The fig shoot...... Listed under: Game - Entertainment Projects

785. Wireless, web-based, cardiac monitor Using Atmega644 Introduction "A composite personal health monitor solution bridges the gaps between patient doctors." ---Engineering Goodwill This project creates a portable device implementing wireless technology and taking full advantage of the wide-sprea Internet to provide a convenient solution to monitor human health. The health information...... Listed under: Other Projects

786. A Portable, Automated, web-based Bird Trapping Mechanism Using Atmega644 Background We designed and implemented an automated, portable b trapping mechanism, along with an associated system which is scalable Every year between early May and mid-June large amounts of tree swallows m Ithaca, NY area to mate. The study of these birds invariably require a...... Listed under: Motor Projects

787. Autonomous visually steered car Using Atmega644 Introduction For our final project, we re-engineered a remote control car to autonomously navigate through a track by dete lanes and centering itself between them as well as detect objects in front of it and avoid collision. The RC car detects lanes through image input...... Listed under: Car Projects

788. Step Sequencer Drum Machine Using Atmega644 Overview [top] As avid audiophiles, we wanted to apply our newly acquired knowledge of microcont build a fun consumer electronic device. Our project is a step sequencer drum machine. The user is able to program a 16-step percussion pattern usin; wide...... Listed under: Other Projects

789. LED-Following K'NEX Car Using atmega644 Introduction In a Nutshell Our ECE 4760 final project was a car made of K'NEX that follows a LED strip. Wha For this project we made a K'NEX car that follows a path made by a LED strip. We used two phototransistors to...... Listed under: Car Projects, LED Proj

790. Rock-Paper-Scissors Sensor Gloves Using atmega644 For our ECE4760 final design project, we designed and built a two player game system for rock-p scissors. Our implementation involved the use of two sensor gloves (one for each player) that tracked bends in the user's fingers, to determine the sy out by each...... Listed under: Game - Entertainment Projects

791. Ear Trainer Using Atmega644 Introduction Our project is a self-contained system that helps people develop the musical skills of perfect pitch and relat Push buttons allow the user to navigate a graphical user interface (GUI) on a liquid crystal display (LCD). In perfect pitch training mode, a note...... Liste Sensor - Transducer - Detector Projects

792. TI Calculator Wireless Chat Using Atmega644 INTRODUCTION: Our project is a wireless communication link which interfaces to the serial ports on the TI-84 calculators. SUMMARY: Our group created a wireless communication system for the widely popular TI 83/84 calculators. The system interfaces to calculator through their 2.5mm serial...... Listed under: Calculator Projects

793. Sonar SensCap Using Atmega644 SensCap is a device that guides the visually impaired around obstacles. Introduction We designed and built a device worn on the head and around the hip to aid the visually impaired maneuver around obstacles. It provides information about obstacles near and arou Listed under: Sensor - Transducer - Detector Projects

794. A Keyboard Synthesizer Workstation using Atmega644 Our Keyboard Synthesizer project aims to create a multi-instrument keyboard that can record s different synthesized instruments and play back the track simultaneously. We took a children's toy keyboard and adapted the printed circuit board wit play a range of notes from various musical...... Listed under: Sound - Audio Projects

795. Ultrasonic Spheroid Levitation Device Using Atmega16 Introduction The goal of this project was to design and build a gaming device capable of levitati pong ball at varying heights based on the proximity of the user to the device, utilizing a multi-tasking kernel on the ATMega16 platform. The project incorporates...... Listed under: Game - Entertainment Projects

796. Compact Guitar Pedalboard Using Atmega644 Introduction For our ECE 4760 final project, we designed and built an electric guitar pedalboard that wi an analog audio signal from a guitar and add analog effects such as equalization, gain control, as well as digital effects such as distortion, compression Listed under: Sound - Audio Projects

797. Embedded Foot Pronation Detection Using Atmega644 Introduction and Rationale Our ECE 4760 design project integrates three different kinds of sen measurements to track a user�s movement speed, regularity of gait, force on impact, pronation of foot, as well as other information that may be use podiatrist. We believe there...... Listed under: Sensor - Transducer - Detector Projects

798. Human Tracking Fan System Using Atmega644 For our final project we decided to construct a human tracking rotating platform that supports a fan. T platform, using dual element Pyroelectric Infrared Sensors (PIR) sensors, rotates itself independently to direct air flow to whatever position a person n In addition, the fan…… Listed under: Sensor - Transducer - Detector Projects

799. Invisible band Using atmega644 Introduction The goal of this project is designing microcontroller operated drum set and guitar which are only consist of drums sticks, pedals, This is done by implementing accelerometers which are connected to the microcontroller. By swinging the sticks and picking the guitar in…… Listed under: Sound - Audio Proje

800. Sheet Music Notator Using Atmega644 Introduction We created a system that takes input from a piano and displays the musical notation for it on a te screen. The system uses hardware amplification and filtering of a microphone output with code in C compiled on two Atmel Mega644 microcontroller basic…… Listed under: Sound - Audio Projects

801. ToneMatrix Touch Sequencer Using Atmega644 ToneMatrix Touch by Jane Park, Michael Chin We can be reached at {jp624 | msc247} at cornell dot ed touch-based, interactive matrix that plays music corresponding to active grids and displays playback state using LEDs Introduction The ToneMatrix To aka Teenage Mutant Turtle)…… Listed under: LED Projects

802. Automated grapefruit segmenter Using Atmega644 Part I. High Level Design 1   Rationale and Problem Overview As regular grapefruit consumers, bo could appreciate the value in automating the cutting procedure. We saw the problem as suitable for a final project because it is [very] challenging whi requiring a combination of…… Listed under: Home Automation Projects

803. Motion Sensing PowerPoint Controller Using Atmega644 Introduction For our Final Project in ECE 4760, we built a controller that interfaces with a com running a PowerPoint display through USB. The device can control slide transitions based on hand motions or button presses as well as play MP3 files detects…… Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

804. Heat Control System Using Atmega644 Introduction This project was the first stage of developing a controller for a radiant floor heat system. The microcontroller will use inputs from thermostats, thermocouples, a flow meter, and pressure switches to control the operation of the pumps and valv achieve improved efficiency of…… Listed under: Temperature Measurement Projects

805.   XBee RF Smart Energy Compliant Power Meter Using Atmega644 Motivation >A breaker-level power metering device for measuring energy on 4 different circuit lines and wir outputting that energy data onto Google PowerMeter. Useful Links Google PowerMeter Smart Energy Alliance DOE - SmartGrid Energy Efficient Products Similar Projects Zigbe Relay Control & Power Monitoring…… Listed under: Metering - Instrument Projects

806. 3D Paint Using Atmega644 "A 3D canvas on which the artist can draw using trilaterated coordinates from ultrasonic delays." Project Soundbyte For ou project in ECE 4760, we designed and implemented a three-dimensional paint program consisting of hardware, a microcontroller, and a PC running M three modules…… Listed under: Home Automation Projects

807. Hand controller for Parrot AR Drone Quadricopter Using Atmega644 Introduction Our project is a novel hand held controller in which we use an accele to wirelessly control the motion of a Parrot AR Drone Quadricopter. Rationale: The main idea of our project was building a cool glove controller for a fl platform, a quadrotor...... Listed under: Robotics - Automation Projects, Sensor - Transducer - Detector Projects

808. Human Tetris — Video object tracking Using Atmega644 We have created a real-time video object tracking / shape recognition device, and a fun game demonstrate its abilities. For our project, we wanted to push the video sampling and processing capabilities of the ATmega644 8-bit microcontroller. U high-speed analog-to-digital converter as...... Listed under: Sensor - Transducer - Detector Projects, Video - Camera - Imaging Projects

809. Auditory navigator Using Atmega644 Introduction Navigation in the past has primarily relied on the use of a map, compass or other devices that must interpreted visually. This project demonstrates the ability to navigate a user based on synthesized directional audio which allows the user to move to a Listed under: GPS Based Projects

810. USB wireless tilt mouse Using Atmega644 Introduction We created a handheld mouse device that measures its tilt and then wirelessly transmits the d base unit, which is connected to a PC through a USB cable and can be recognized by certain modern computers as an actual mouse. The purpose...... under: Interfacing(USB - RS232 - I2c -ISP) Projects

811. Automated Rock Band player Using Atmega644 Introduction For our final design project, we built an automated Rock Band player that can beat any R song by decoding the Xbox 360 video output and sending the appropriate button push and strum signals to a modified Xbox controller. This project w particularly...... Listed under: Sound - Audio Projects

812. Automated Pavlovian Classical Conditioning of Insects Using Atmega644 Introduction Several studies have shown that various insects possess learning approach researchers use to demonstrate such abilities is to "teach" the insect to exhibit a specific behavior in response to a stimulus. This "teaching" called Pavlovian conditioning. Such studies...... Listed under: Sensor - Transducer - Detector Projects

813. CMOS Camera Rock Paper Scissors Game System Using Atmega644 Introduction We created a rock paper scissors game that utilizes a CMOS camera determine what hand the human player plays. The player is required to wear a glove that has black tape taped on each finger. When the player plays the camera...... Listed under: Game - Entertainment Projects

814. RFID sales checkout system Using Atmega644 Introduction The Elevator Pitch We successfully implemented a prototype RFID checkout system that wi consumers to instantly pay for their entire purchase upon arrival at the register, increasing customer satisfaction, reducing retailer costs, and ultimate lowering consumer prices. Summary Shopping in the present day...... Listed under: RFID - NFC Projects

815. RFID based Mobile Payment System Using Atmega644 Introduction and Rationale We used our ECE 4760 final project as a platform to develop a proo concept for Mivo. Mivo is a low-cost, stripped down mobile payment system. Our prototype combines Radio Frequency Identification (RFID), Security F Authentication and Ethernet Data Transfer to...... Listed under: RFID - NFC Projects

816. Talking voltmeter Using Atmega644 The Handy Lab Buddy is a tool every ECE should have. The four features of this tool include a talking voltmeter, lo voltage averager, and frequency measurer. As a cheap and accurate device that outputs whatever being measured through speakers, it's one of its..... under: Metering - Instrument Projects

817. Heart Rate Display LED T-Shirt Using Atmega644 Introduction We have designed and built a LED t-shirt capable of displaying the heart rate of the wea pulsing LED heart. Largely, our project consists of two components: the plethysmograph and the LED display. How we came up with the Idea We had.. under: LED Projects, Medical - Health based Projects

818. Gesture Based Touchpad Security System Using Atmega644 Introduction The purpose of the project is to present a new approach on the design of security systems by using a sensitive device. Security is a permanent concern in a variety of environments ranging from physical access restriction in home and industrial settings Listed under: Security - Safety Projects

819. Flexicopter Using Atmega644 Introduction The purpose of our project is to control a toy helicopter using flex sensors attached to a glove. The flex sen intended to replace the remote control that is generally used to fly the helicopter. Additionally we also created another mode which will...... Listed und - Transducer - Detector Projects

820. Acoustic Data Modem Using Atmega644 Introduction For our final design project, we designed and built a prototype acoustic modem to serve as a ph transport layer for digital communications. It converts between a digital communications scheme (RS-232) and an acoustically coupled communicatio of our own design. Our project consists...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects, Other Projects

821. Adaptive Alarm Clock Using Atmega644 Introduction Elevator Pitch / 1-second Description An adaptive alarm clock that chooses the optimal time to w the user using an accelerometer that detects his/her body movements. Goals The goal of our final project was to create an alarm clock that is able to.. under: Clock Projects

822. Zigbee Wireless Relay Control and Power Monitoring System Using Atmega644 Introduction We designed a system for wirelessly controlling relays and monitoring current. This is used for a home load simulation. By wirelessly turning relays on and off by sending commands from a PC to a microcontro can change the total load (current) to our...... Listed under: Metering - Instrument Projects

823. Low-Cost Portable Potentiostat for Biosensing Applications Using Atmega644 Introduction This project involves the design and construction of a low-c portable potentiostat capable of performing cyclic voltammetry on three-electrode electrochemical systems. A potentiostat is an instrument used in c and biological tests that controls the voltage between two electrodes, working and reference, at a...... Listed under: Other Projects

824. Point of Sale Terminal Using Atmega644 Introduction Point of Sale systems typically can cost up to thousands of dollars we do it very simply for seventy. For small stores, point systems can be very expensive. One thousand dollars for a piece of machinery whose functionality is quintessentially simple can...... Listed under: Development Board - Kits Pr

825. FM Radio Receiver Using Atmega644 Introduction The goal of our project was to design a low cost and user-friendly FM radio receiver. Our project use receiver integrated circuit to perform the pre-processing units that are needed before the desired audio signals can be heard. The radio frequency is... under: Radio Projects

826. Mister Gloves – A Wireless USB Gesture Input System Using Atmega644 Introduction Mister Gloves is a wireless USB gesture input system that enable to use a computer by performing intuitive hand and finger motions in the air. While wearing a glove controller on the right hand, the user can move th by forming...... Listed under: Robotics - Automation Projects

827. Accelerometer Based Hand Action Recognition using Atmega644 Introduction We created a wearable game controller that uses accelerometers to acq action of the hand and then maps an action to an arbitrary keystroke. The types of actions we are trying to recognize should be suitable as input contr video games. We placed...... Listed under: Robotics - Automation Projects, Sensor - Transducer - Detector Projects

828. Home energy managment Using Atmega644a Introduction Our project implements a smart algorithm in order to power a house with a photovoltaic, k or the power grid. For this project, we worked closely with a research team whose goal is to power a home with minimal power from the power grid. . under: Home Automation Projects

829. Self-Adaptive Hybrid Electro-Magnetic Levitation and Active Balancing System Using Atmega644 Introduction In short, our project is just an isolated flo plate. Just as our title explained, it is mainly a floating plate that is segregated from all outside vibration using electromagnetic force. This purpose of t is to design a system that complements common...... Listed under: Metering - Instrument Projects

830. Digital Oscilloscope Using Atmega644 Introduction The goal of our project is to design a digital oscilloscope with 20 kHz bandwidth. The scopes that we use in ECE 4760 lab cos one thousand dollars. The motivation of our project is to produce an affordable, easy to make oscilloscope for...... Listed under: Metering - Instrument

831. Optical eye tracking Using Atmega644 Introduction We have endeavored to develop a means by which eye gaze can be detected. This goal was achieve the same principles learned in Lab4, where we recorded the motor speed of a small hub fan using the combination of IR emitter plus phototransistor, under: Sensor - Transducer - Detector Projects

832. Guitar Blocks Using Atmega644 Introduction We present to you, the ultimate guitar -- no strings attached (literally)! This guitar features an infrared str system and a fret board with physical buttons. It sounds like a real acoustic guitar and it works like a real acoustic guitar, but in the...... Listed under: S Audio Projects

833. Haptic Exercise Coach Using Atmega644 Introduction The goal of this project was to assist the user in learning the proper technique for a physical exercise, in our case a dumb curl. As our understanding of biology and anatomy improves, the design of physical exercises is improved by the application...... Listed under: Medical - Health based Projects

834. ATmega644 JTAG Debugger Introduction The purpose of this project was to design and implement a debugger for the ATmega644 that communicated its JTAG interface and was capable of controlling program execution by setting breakpoints and accessing registers and memory. We have three main in this report:...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

835. Ultrasonic Haptic Vision System using Atmega644 Introduction The ultrasonic haptic vision system enables a person to navigate hallways and around objects without sight, through the use of an ultrasonic rangefinder that haptically interfaces with the user via tiny vibrating motors mounted on the us The idea behind this project...... Listed under: Sensor - Transducer - Detector Projects

836. Haptic appointment manager Using Atmega644 Introduction The Haptic Appointment Manager manages all of an individuals appointments, ensuring right location by subtly guiding them throughout the day. This system uses a GPS receiver and a compass to maintain awareness of its absolute and rotational...... Listed under: GPS Based Projects, Sensor - Transducer - Detector Projects

837. 3D ultrasonic mouse Using Atmega644 Introduction Ultramouse 3D times the delay of high-frequency sound waves from the unit held by the user to three receivers and passes this information along a serial cable to the computer. The accompanying open-source API provides easy functions that let Win32/C++ application...... Listed under: Sensor - Transducer - Detector Projects

838. 3D scanner Using Atmega644 Introduction This goal of this project is to make an effective, low-cost 3D scanner. Summary Our project implements the necessary for a laser triangulation 3D scanner as well as a PC user interface for controlling the scanner and acquiring data via an Ethernet connection under: Interfacing(USB - RS232 - I2c -ISP) Projects

839. Gesture Recognition Based on Scratch Inputs Using Atmega644 Contents Introduction High Level Design Program/Hardware Design Results of the Des Conclusions Appendix A: Commented Code Gesture Recognition Code PC Interface Code Appendix B: Schematics Appendix C: Cost Details Appendix Appendix E: Gestures References Introduction Our project utilizes a microphone placed in a...... Listed under: Phone Projects

840. LED Sensor Piano Keyboard Using atmega644 Introduction Our project utilizes an array of LEDs that work as light sensors to generate a musical tone, simulating a piano keyboard. The basic idea is to use LEDs as both emitters and sensors. For our project specifically, we used a total of 63 LEDs,...... Lis under: Development Board - Kits Projects, LED Projects, Sensor - Transducer - Detector Projects

841. Touchpad/Infrared Music Synthesizer Using Atmega644 Touchpad/Infrared Music Synthesizer "Generate music with your laptop touchpad!" Wei-jiunn Kalina Jordanova The Touchpad Infrared Music Synthesizer uses a laptop touchpad and an infrared distance sensor to control tone, volume and decay musical notes. Operating in one of six modes, this...... Listed under: Sound - Audio Projects

842. Der Kapellmeister Using Atmega644 Introduction This project is implemented with a glove, resembling a conducting baton that analyzes gestures and interprets them into mu elements. Der Kapellmeister is a simple tool that tests a user's ability in basic conducting, using a real conducting baton. As a user performs a...... Liste Robotics - Automation Projects, Sound - Audio Projects

843.

IR harp using Atmega644 INTRODUCTION Wouldnt it be cool to be this guy? Powerful laser shining into the audience, playing strings by sweeping you across the beams, rocking out in a room full of fog and fawning girls? We thought so. It turns out lasers are expensive, fog...... Listed under: LED Projec

844.

Digital Receipts System Using Atmega644 Introduction Our final project is a conceptual prototype of a digital receipt system. The basic idea is when m purchase with a credit or ATM card, the transaction information is automatically packaged and sent to a webserver where it can be logged in a...... List Other Projects

845.

ODB-II Automotive data interface using Atmega644 Our goal for this project was to build an OBD-II compliant device that would communicate with an enabled car and read back real time data as well as perform basic performance testing and diagnostics. If you've ever had to take your car into the...... under: Interfacing(USB - RS232 - I2c -ISP) Projects

846.

Traction control system Using Atmega644 Introduction For our ECE 4760 Final project we have developed a traction control system that detects wheel adjusts the velocity of the wheels accordingly. Robotic vehicles are becoming increasingly complex and often need high levels of movement control. Sp when the wheels of...... Listed under: Sensor - Transducer - Detector Projects

847.

ACL Research: Foot Acceleration Sensor Atmega324p Introduction This project was designed to aid a research study by Cornell Professors Bob Nafis a Gao on the reasons behind the higher rate of ACL injuries suffered by female athletes. This injury rate can be up to three to eight times higher than.... under: Sensor - Transducer - Detector Projects

848.

Fart Intensity Detector Using Atmega644 INTRODUCTION Our project is a fart intensity detector which ranks fart magnitude on a scale from 0-9 accord gas concentrations. The inspiration for this project was to determine who could generate the worst flatulence measurable in a personally unbiased m To...... Listed under: Sensor - Transducer - Detector Projects

849.

Dual-Channel Mobile Surface Electromyograph Using Atmega644 Introduction For our final project, we built a surface electromyograph to collect and data on muscle activity, which supports two channels, implements wireless transmission, and can be worn as mobile unit. Surface electromyography (noninvasive technique to record the activation signals of...... Listed under: Phone Projects

850.

Tissue Impedance Digital Biopsy Using Atmega644 Introduction Our project measures and analyzes the electromechanical properties of tissue using a containing a microarray of electrodes, to aid as a tool in predicting the health of the tissue sample. "Despite significant efforts to develop early detecti strategies for breast cancer, the diagnostic...... Listed under: Medical - Health based Projects

851.

GPS Data Logger with Wireless Trigger Using Atmega644 Introduction The goal of this project was to create a portable GPS logger that could be wirele triggered by an external device, such as a camera. Our device that we have designed operates in two modes. The first works as a basic GPS logger, wh Listed under: GPS Based Projects

852.   Self-Adjusting Window Shade Using Atmega644 Introduction The self adjusting window shade will automatically raise, lower, open, and close your blin itself. A computer terminal acts as a remote to broadcast instructions to the window shade via RF. These manual adjustments are stored into the microcontrollers system along with the…… Listed under: Home Automation Projects

853.   Weather Canvas Using Atmega644 Introduction The Weather Canvas is a robust outdoor weather monitoring system coupled with an indoor LED disp outdoor system consists of a microcontroller, temperature sensor, humidity sensor, home-made anemometer, a Hot Wheels radar gun modified to m precipitation, and a solar panel to measure…… Listed under: LED Projects

854. Autonomous Self-parking car Using Atmega644 Introduction We created an RC Car that can identify a parking space and parallel park by itself. The RC Car drives down a street for a parking space to its right using a distance sensor. When the car has identified a space, the car…… Listed under: Car Projects

855.   The Autonomous Tennis Ball Picker Using Atmega644 Introduction and Motivation In the tennis and sports equipment market, there are very few adva electronic devices assisting in the feeding and picking of tennis balls or any other kind of balls. Tennis players do not prefer picking up over five hundr after a…… Listed under: Sensor - Transducer - Detector Projects

856.   BalanceBot Using Atmega644 Introduction The Balance Bot is a singular axis self balancing robot that is capable of adjusting itself to changes in weigh position. We developed the Balance Bot (BB or B2) from a single servo and a single accelerometer. This was very much a proof…… Listed under: Moto

857.   Multiple PID motor controller (with Wiimote!) using Atmega644 Introduction The main idea for our project was to implement an inexpensive solution t current CU Snake Arm motor-driving system by using a Mega644 microcontroller instead of multiple 3-Amp motor controllers as the snake arm was o intended to be driven. Since we used…… Listed under: Microcontroller Programmer Projects

858.   Wireless Persistence of Vision Device with Realtime Control Using Atmega644 Introduction We set out to make an easy to interact with, highly custimiz display In deciding on a project we looked for a challenge that would have a good mix of hardware and software problems. We ended up primarily concentrating on looking at unusual…… Listed under: Microcontroller Programmer Projects, Radio Projects

859.   Programmable RGB Spinning LED Display Using Atmega32 Introduction For our final project, we built a mechanism that spun a linear array of seven L velocity that made it appear as if a message was being displayed using persistence of vision for the human eye. To accomplish this, we first had…… Lis under: LED Projects

860. Alarm clock with speech synthesis Using Atmega32 1. Introduction We designed an intelligent alarm clock which can be programmed from the computer to speak custom mes also detect whether the user is on his bed or leaving his room. Sensors are pervasive in industrial, aerospace, and medical fields. Although they can…… Listed under: Clock Pro

861. Blackout game Using Atmega32 1 Introduction Black Out is an electronic puzzle game that is a derivative of Lights Out released by Tiger Toys in 19[...] with a few additional twists. The game consists of a 4 by 4 grid of LEDs with each LED having a...... Listed under: Game - Entertainment Projects

862. ESD Foam Touch Controlled Brick Blaster Using Atmega32 Introduction As technological devices become more advanced and a bigger part of our daily [...] user interface of devices is becoming more important; intuitive and modern interface provides a real means of transferring the pure computational p[...] device to the user experience....... Listed under: Sound - Audio Projects

863. NES EMULATION USING ATMEGA32 OVERALL DESIGN GOAL The overall goal of our project was to recreate the Nintendo Entertainment System (NES) u[...] Atmel Microcontrollers. We decided early on the adding audio to the mix was likely going to be too much work in the time that we had to...... Listed un[...] Sound - Audio Projects

864. Laser Audio Transmitter Using Atmega32 Introduction This project is a proof-of-concept device that transmits an audio signal using a laser beam, whil[...] removing the need for the user to align the beam themselves. For our project, we created a mono-axial transmitter/receiver setup that converts an ar[...] audio signal, via a...... Listed under: Radio Projects, Sound - Audio Projects

865. Voice Tuner and its Effects Using Atmega644 Introduction Sound Bite Our project implements a tuner that continuously outputs the frequency of an i[...] microphone signal with a high degree of accuracy. Project Summary This project's goal is to use a sensitive microphone, computer speakers and a pro[...] designed circuit so that for...... Listed under: Sound - Audio Projects

866. Wireless Music Player Using Atmega32 Our wireless music player allows the user to listen to uncompressed digital audio streamed over a wireless link. The music player reads[...] uncompressed audio data from an SD card in an immobile "base station." A pair of Xbee transceiver modules are used to stream data...... Listed unde[...] Projects

867. Multisensor Data Transmission Using Atmega32 Introduction For our final project we built a prototype of a circuit intended for a picosatellite that mea[...] temperature and acceleration, sending the information wirelessly back to a base station receiver. The N-Prize is an amateur rocketry competition chal[...] groups to launch a very small...... Listed under: Sensor - Transducer - Detector Projects

868. Heliostat Skylight Using Atmega644 Introduction With the increasing awareness of sustainable and green building, more and more people are concern[...] the efficiency of energy use at home and at work. For our ECE 476 Final Project, we developed a microcontroller-based, interior illumination system - T[...] Heliostat Skylight. By...... Listed under: LED Projects

869. Wii Conductor Using Atmega32 Introduction Our project can be described as a simplified implementation of Wii-Music, utilizing a Nintendo Wii Remote (Wiimote) to play a ges[...] based music game with the player as a virtual music conductor. We decided to do this project since it exploited two of the Wiimotes...... Listed under: Interfacing(USB - R[...]

870.   Musical Blocks Using Atmel ATmega 644 ntroduction The purpose of this project is to create musical blocks that output music without requiring some musical talent. Musical Blocks tracks the position of the blocks on a flat surface in a range seen by the Wiimote. The path of the blocks...... Listed unde Audio Projects

871.   Programmable Synthesized Guitar Using Atmega644 Introduction Our project recreates the experience of playing an acoustic guitar electrically using sensors, push buttons and the Karplus-Strong algorithm. Our basic idea is to model an acoustic guitar as closely as possible and then implement add functions not available to the conventional guitar....... Listed under: Sound - Audio Projects

872.   Robot Plotter Using Atmega32 Motivation Deciding a direction of the final project in ECE 4760 can be very difficult. With small Micro Controller Unit, w everything. We felt compelled to find something very creative and ingenious and had looked around our surrounding and have found...... Listed under - Automation Projects

873.   PowerBox: The Safe AC Power Meter Using Atmega32 Introduction We designed a device that measures and graphs various aspects of AC power and computer-controlled remote switch. With the recent push for green energy and environmental friendliness, more and more people are concerned ab personal daily power usage. We developed...... Listed under: Calculator Projects

874.   Rhythm Ring: Interactive Rhythm Sequencer Using Atmega32 I. Introduction The Rhythm Ring interactive rhythm sequencer is an engaging musical de enables the user to create a plethora of rhythms and beat patterns with the touch of their own fingers. Besides being fun to play with, the Rhythm Rin provides a tangible...... Listed under: Sound - Audio Projects

875.   Trumpet MIDI Controller Using Atmega32 The Trumpet MIDI Controller allows trumpet players the freedom of synthesizing from and composing on th instrument. The Trumpet MIDI Controller combines custom hardware and software with the Yamaha Silent Brass pickup mute to convert any standard into a fully functional MIDI controller...... Listed under: Sound - Audio Projects

876.   Air Drums Using Atmega32 Introduction One Sentence Sound Bite Air Drums is an electronic drum kit played in the air that eliminates the need for ta pads. Summary We created an electronic percussion set with three upright percussion sounds and a floor bass drum sound. The upright instruments. under: Sound - Audio Projects

877.   Dueling Banjos Using Atmega32 Introduction Our project was to create two individual microcontrollers that can play banjo notes cooperatively to play songs using nothing but sound to communicate and synchronize. Humans have had the ability to synchronize musical instruments together to achiev coordinated multi-part song for...... Listed under: Sound - Audio Projects

878. Intelligent wireless pedometer Using Atmega32 Introduction For our ECE 476 Final Project, we have built an intelligent, wearable pedometer. This wireless pedometer can calc many useful statistics such as the number of steps a user has taken, the distance and the speed the person has walked/run, as well as the...... Listed u
Internet - Ethernet - LAN Projects

879. Networked Biometric Authentication Using Atmega32 Introduction: Due to the increasing need for securing data and places, the biometric authentica industry is seeing large market growth. We decided to build a scalable, small, and efficient device that can be used to secure doorways throughout a We use a FingerPrint Cards...... Listed under: Calculator Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

880. Virtual Keyboard Using Atmega32 Introduction It is becoming increasingly difficult for users to interact with the slew of portable gadgets they carry, es the area of text entry. Although miniature displays and keyboards make some portable devices, such as cell phones and PDAs, amazingly small, users do...... Listed under: Development Board - Kits Projects

881. 5x5x5 LED Cube – Orientation Independent 3D Display Using Atmega32 Introduction Our project, in one sentence, is an orientation independent 3D L display. We were inspired by various videos on youtube of similar cubes but also by the idea of creating an interactive 3-dimensional display. We built LED cube display and controller board...... Listed under: LED Projects

882. BordFree Using Atmega32 Introduction BordFree is a resurrection of the classic Microsoft hit SkiFree featuring an innovative tilt-control scheme. Bordl places users in the boots of a snowboarder navigating a challenging ski slope. BordFree players will see their character on a color TV scrolling from bo top...... Listed under: Game - Entertainment Projects

883. High Speed Photography Controller Using Atmega32 The goal of this project was to build a versatile, yet easy to use, sensor-triggered camera controll speed photography. Dan Furie (djf35) Scott Linderman (swl28) High Level Design Inspiration Our motivation came from photographs that captured a v moment in time, such...... Listed under: Sensor - Transducer - Detector Projects

884. 3D Maze in a Box video game Using Atmega32 Introduction Maze in a Box is a portable game in which you tilt a TV to navigate your way around a 3D r created Maze in a Box as a challenge to generate 3D looking graphics using the...... Listed under: Game - Entertainment Projects

885. 3D Video Game Control Using Atmega32 Introduction Our project is a 3-dimensional game control for a video game displayed on a black and white te set. Motivation and Overview In the recent push in technology, many new computer and game interfaces have been created, many of which include w control. Our...... Listed under: Game - Entertainment Projects

886. Gesture-driven Tetris Using Atmega32 Introduction Our project takes a classic video game and adds a twist with a handheld, gesture based controller. SUPER TERRIFIC AMAZING TETRIS EXTREEEEEEEEEEEME!!!!!!! We decided to undertake this project because the idea of combining the massive coding r for the Tetris game with the...... Listed under: Robotics - Automation Projects

887. Data Acquisition System With Controller Area Network and SD Card Using Atmega32 Introduction This project implements a high speed data acquisiti using Mega32 microcontrollers and a Controller Area Network (CAN). Recording data is essential to testing and developing a racecar. Recording what sensor is doing can tell an engineering how the car is performing, and...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

888. Automotive On-Board Diagnostics Reader Using Atmega32 Introduction Our project is a hand-held device that is capable of communicating with any v that uses pulse-width modulation (PWM) data-link layer. Such devices are commonly referred to as On-Board Diagnostic scanners. Vehicles that typica into this category are Fords made between 1996 and...... Listed under: Car Projects

889. Adaptive 60 Hz Noise Cancellation Using Atmega32 An active noise canceler to eliminate the 60 Hz noise found in electrical signals due to AC power-lir contamination. 60 Hz noise is frustrating for anyone trying to make sensitive measurements of low voltage processes (eg. Electrocardiogram measure record audio from electrical instruments (eg. guitar...... Listed under: Sound - Audio Projects

890. Neural Net Helicopter Using Atmega32 Introduction and High Level Design Our project was to design a two degree-of-freedom stationary helicopter, autonomously controlled evolving neural network. A normal helicopter has six degrees of freedom, which makes any form of control exceptionally hard, let alone autonomous What our design...... Listed under: Game - Entertainment Projects

891. Accelerometer Controlled R/C Vehicle Using Atmega32 INTRODUCTION In our final design project for ECE 476: Microcontrollers, we decided to build a controlled, using accelerometers, by a remote control that wirelessly transmits, using RF technology, data to the vehicle to move in any direction. The accelerometers will be mounted on a...... Listed under: Car Projects

892. ROBOT ARM Using Atmega32 Introduction Our project is a twenty four and half inch aluminum frame robotic arm with four degrees of freedom. In ou we made the arm the second player in the classic game of Tic-Tac-Toe to demonstrate its programmable repeatable motion. The arm consists of...... L under: Robotics - Automation Projects

893. Help Quit Smoking Watch Using Atmega32 Introduction: The Help Quit Watch is a watch that smokers can wear to help them quit smoking. The Help C contains a smoke detector that detects whenever the smoker smokes and plays an encouraging clip to help the smoker stop. It then records statistics under: Medical - Health based Projects

894. Electronic Impact Vest Using Atmega32 Our one sentence "sound byte"... *POP* Finally, a fair and balanced way to score Tae Kwon Do matches withou moaning and groaning of everyone. The Electronic Hogu system uses piezoelectric force sensors to determine how much force is delivered by the imp a...... Listed under: Sensor - Transducer - Detector Projects

895. TriWheeler robot Using Atmega32 Introduction The TriWheeler is a radio-controlled robot with three wheels. The lack of the fourth wheel is far from th thing that renders it distinctively different from typical radio-controlled units. In addition to the capability of being freely controlled with a remote cont The...... Listed under: Robotics - Automation Projects

896. Music Wand: Real-Time Optical Scanning of Sheet Music Using Atmega32 Introduction The Music Wand is a device that optically reads printed sheet music in real-time and syn the notes which are read from the page. The device uses a linear image sensor mounted on the end of a handheld wand to scan printed sheet music...... Listed under: Sound -

Projects

897.   Teaching an old clock Using Atmega32 While exuding retro style, the alarm clock in its original state lacked many desirable features of today's alarm cl
only controls consisted of a single on/off switch. It also lacked AM/PM indication, making it impossible to sleep for more than 12 hours. Our project.....
under: Clock Projects

898.   Shark Tag Microcontroller Platform Using Atmega32 Introduction The goal of this project was to develop a working bench-top microcontroller platform
shark tag. It is to be used for on-animal, in-situ data logging applications involving sharks and potentially other large pelagics. For this project I used th
Mega32 microcontroller...... Listed under: Sensor - Transducer - Detector Projects

899.   Ghost Writing Robot Using Atmega32 Summary We used two stepper motors to drive a steel ball scavenged from a ball-bearing. These motors were
by a PS/2 mouse wirelessly using the RCR-433 and RCT-433 receiver/transmission combination mentioned in lecture. We then took the PS/2 protocol,
compact, modified existing...... Listed under: Robotics - Automation Projects

900.   Rocket Inertial Navigation System using Atmega32 Introduction Was that a ... projectile? a rocket? an [XXXXX] missile? That was a dynamically controlle
parachute guidance system looking for its target. The purpose of this project was to design a dynamically controlled parachute guidance system usin
ATmega32 microcontroller. A set of...... Listed under: Sensor - Transducer - Detector Projects

901.   Guitar Tuner Using Atmega32 Introduction: Motivation for Design The Mechanix is a motorized guitar tuner for a standard 6-string electric or acoustic
bridge guitar. Named in honor of Megadeth guitar legend Dave Mustaine, the Mechanix is a unique and innovative product which has numerous pate
possibilities. Traditional handheld...... Listed under: Sound - Audio Projects

902. SCHEME INTERPRETER USING ATMEGA32 Introduction The purpose of this project is to create a Scheme interpreter using C language and Mega32 microprocessor. Using limite
resource and memory in the microprocessor, the interpreter should function and work for basic Scheme commands. The main target of the project is
Listed under: Microcontroller Programmer Projects

903.   Mini-Golf Simulator Using Atmega32 Introduction This project simulates 9 holes of a minigolf course using the TV to display the course (top down view
anchored plastic ball containing two accelerometers, and a putter. Summary We used a hollow plastic ball containing two accelerometers for each pla
with...... Listed under: Game - Entertainment Projects

904.   Battle Tank – A 3d Atmega32 Based Video Game Introduction Our project is a wireframe 3D video game based on the classic Atari arcade game, Battle
(Copyright Atari Corp, 1980). For those that have never heard of the game, Battlezone is a game in which the player maneuvers a tank through a flat
environment,...... Listed under: Game - Entertainment Projects

905. LaserSimon – An Innovative Take On An Exciting Game Using Atmega32 Inspiration Our project was first inspired by our shared enjoyment of classic laser tag. We initially starte
with a game in mind that entailed playing two player laser tag with remote-controlled helium blimps. Due to a number of logistical issues that came up while...... Listed under:

Entertainment Projects

906.

Snake Arm Glove Project Using Atmega32 Introduction For our project, we designed a glove that can be used to control the Cornell University robotic thereby enabling a surgeon to remotely operate the snakearm as a colonoscope in conjunction with a vision guide system (aka TV goggles). The glove Listed under: Robotics - Automation Projects

907.

Wiimote Crane Using Atmega32 I. Introduction We used the Wiimote's IR tracking capability and Bluetooth to wirelessly control a robotic crane arm. T Wiimote is a powerful gadget and we wanted to build a new hack with it. Our crane is composed of three servo motors, one of which...... Listed under Entertainment Projects, Robotics - Automation Projects

908.

Radio Frequency Beacon Finder Using Atmel Mega32 This project is a radio frequency receiver that will help the user the trace the direction and distar operating at 433MHz frequency. In this ECE 476 final project, we have built a radio frequency receiver unit with an LCD screen that will...... Listed unde Projects

909.

A portable, color, tilt-controlled video game system Using Atmega32 Introduction The Weeboy is a portable color video game system that is not deper stationary displays or external power sources and features novel tilt-based control. Our purpose for designing this project was to demonstrate that a portable video game system could be implemented...... Listed under: Game - Entertainment Projects

910.

TouchPad video game Using Atmega32 Content Page 1.   Introduction 1.1   Sound-Bite Our final project recreates Rush Hour as a video game played using a touchpad implemented using 2D electric-field (E-field) sensors. 1.2   Motivation Rush Hour appealed to us as one of the better pu there. Its level of difficulty...... Listed under: Game - Entertainment Projects

911.

Laser Pong Using Atmega32 Wall of Pong is a fast-moving, interactive, laser-based pong game playable on any flat surface. The system uses a digitally laser projection platform to draw a pong ball onto any flat surface. This allows for a large playing area that can be set up...... Listed under: Game - Ente Projects, LED Projects

912.

Movement to Music: A Wearable Wireless Motion Sensor system Using Atmega32 Introduction In this digital age, new interfaces for musical expressio much broader musical possibilities than have ever existed before. There is a constant quest to be in harmony with one's instrument so that music can freely from the imagination and take form effortlessly....... Listed under: Sensor - Transducer - Detector Projects, Sound - Audio Projects

913.

Music-controlled Puppet Using Atmega32 Introduction The purpose of this project was to design a dancing puppet which is musically controlled by th microcontroller. This is a simple, inexpensive dancing puppet, which can dance to any tune you want. For as little money as possible, you can bring Pir to...... Listed under: Sound - Audio Projects

914. Line-following car Using atmega32 Introduction   Our project is a battery-powered toy car that is able to follow a path against a background of contrasting color. <> front of the car is fitted with an array of three photosensors, which allows the car to detect the path...... Listed under: Car Projects

915.   PeanutBot, The Audio Homing Robot Using Atmega32 Introduction Sensing in autonomous vehicles is a growing field due to a wide array of military a
reconnaissance applications. The Adaptive Communications and Signals Processing Group (ACSP) research group at Cornell specializes in studying var
aspects of autonomous vehicle control. Previously, ACSP has examined video…… Listed under: Robotics - Automation Projects

916.   Model retina: color tracker Using Atmega32 Objective and Background <> Objective: The gift of sight is precious; that is why we tried to model an artifi
with the properties of color detection, saccades, and pursuit tracking. Structure of a Retina: A retina lies in the back of the eye and…… Listed under: Se
Transducer - Detector Projects

917.   Evolving neural robot Using Atmega32 Introduction Our final project in ECE 476 is a mobile robot with a developed neural network such that it evolves
collisions into a circular vertical white wall while traveling at the fastest speed and straightest line possible without human intervention or external co
…… Listed under: Robotics - Automation Projects

918.   MCU MIDI synthesizer using Atmega32 Introduction Our final project is a music synthesizer that is capable of producing a variety of musical sounds, b
the attack, decay, sustain, release times, and applying special effects such as a low pass filter or a halftone shifter. Our original interest for this…… List
Sound - Audio Projects

919.   AirJam: wearable air guitar Using Atmega2 Introduction Why a working, wearable air guitar? Bottom line, it's just that cool. Who doesn't want a machir
take their jamming and turn it into rock they can hear? With just a glove, a pick and a little practice you can rock the…… Listed under: Sound - Audio Pr

920.   UDP/Ethernet Controlled Temperature Regulator Using Atmega32 Introduction This project implements a microcontroller based temperature regulato
Ethernet port on any common personal computer. As the world becomes more networked, the power of our ability to communicate with many differe
systems instantly continues to prove it's worth…… Listed under: Temperature Measurement Projects

921.   Morse code interpreter, with speech synthesis Using Atmega32 Introduction This project implements a system that translates Morse Code to text and
and translates text to Morse Code. With our limited experience with Morse Code, our first task was to do some research on the components of Morse
the standards associated…… Listed under: Sensor - Transducer - Detector Projects

922.   Complex impedance analyzer Using Atmega32 Introduction Our device is an impedance analyzer that determines the complex impedance of any R-C
within an impedance range. Our original plan for creating this device was to develop a body fat measurer, a portable device that could allow users to i
their health…… Listed under: Other Projects

923.   iPod controller Using Atmel Mega32 Introduction Have you ever imagined, "What does that cable I plug into my iPod every day actually do, and how d
advantage of it for myself?" We did too, and that's what we aimed to do with our 476 project. The iPod is,…… Listed under: Interfacing(USB - RS232 - I2
Projects

924. USB Magnetic Mouse/Touchpad Using Atmega32 Introduction This project implements Hall effect sensors and a magnet to mimic the function of a typical mouse (similar to a tablet pens function). Many digital artists draw with mice on computer or use tablets. However, tablets are often very expensive. U mouse...... Listed under: Sensor - Transducer - Detector Projects

925. Braille reader using Atmel mega32 Introduction BlindAid is a portable tool that reads Braille and signals close objects. It is ideal for those unfortunate who just turned blind and have not mastered Braille reading and blind cane usage. It can also be used as a learning instrument that helps...... Listed u Home Automation Projects

926. Ultrasonic ParKontroller Using Atmel Mega32 Introduction Are you afraid that your brand new Hummer is going to get scratched while parking it in a tight space? Do you have backing your large Mercedez S-class into your small garage? Fear no more! Our ultrasonic ParKontroller can sense how far you...... Listed under: Car I

927. Retractable Alarm Clock (RAC) Using Atmel Mega32 1.1 Motivation: Alarm clocks are essential in almost everyones daily life. For most of us, we start of the sweet noise of our alarms. While some people wake up instantaneously to the first chirp of an alarm, some struggle everyday to get out...... Listed Clock Projects

928. Automatic pet feeder Using Atmel Mega32 Introduction Our project is an automated pet feeder that is controlled by a wireless infra-red remote control lovers, we understand that the responsibilities of life sometimes inhibit pet owners from properly caring for their pets. Pet care should be fun, not bur and...... Listed under: Home Automation Projects

929. Programmable medication scheduler using atmel mega32 Introduction The Newest Innovation in Patient Compliance The Portable Programmable Me Scheduler (PPMS) is a modern solution to the century old problem of patient compliance, featuring four medication bins, audio/visual alarms, a graph and serial communication with a Java Swing PC GUI. The conjunction...... Listed under: Medical - Health based Projects

930. CalcParser Using Atmel Mega32 Introduction CalcParser is a command line calculator. Controlled by a serial connection, CalcParser parses and evalua arithmetic expression and has the capabilities to perform symbolic polynomial differentiation with respect to a user-defined variable. It can also evalu differentiated expression at a given constant...... Listed under: Calculator Projects

931. Firefly synchronization Using Atmega32 Introduction This project implements a 2D matrix of bidirectional LEDs to simulate how fireflies in a populatio synchronize their flashing. Fireflies are an extraordinary species of bioluminescent animals which are able to synchronize the timing of their light emis within a flashing population. In places...... Listed under: Development Board - Kits Projects

932. Graphing calculator Using Atmel Mega32 Introduction A perfect tool for high school students that will pursue a career in engineering, the graphing and statistics calculator cor functionality of a scientific calculator with graphing capabilities as well as being able to compute simple statistics. The purpose of this calculator is...... Listed under: Calculator

933. Speech Recognition Jukebox Using Atmega32 Introduction For the Final Project in ECE 476: Designing with Microcontrollers, Robbins and Saha develop Speech Recognition Jukebox, comprised of a speech recognition system that activated a simple music player. The speech recognition system was cap recognizing four commands and could cycle through...... Listed under: Development Board - Kits Projects

934. Sound Source Triangulation Game Using Atmega32 Introduction The goal of this project is to determine the time and location of a sound source in all dimensions (x,y,z) using an economical and easily reproducible setup. To accomplish this goal, we decided to try and triangulate the sound source usir Listed under: Game - Entertainment Projects

935. Touch Screen Controlled R/C Car Using Atmel Mega32 Introduction For our final design project, we chose to build a touch screen radio controlled car. Essentially, the RC car will follow a path drawn by the user on the touch screen as it is drawn in real time. Speed and direction of the car...... Listed und Projects

936. AppleII emulator Using Atmel Mega32 The goal of this project was to develop a system capable of emulating an Apple II personal computer. This proje attempted to reconstruct a functional Apple II emulated on Atmel ATmega32 processors. Due to time constraints, a fully functional Apple II was not pr however,...... Listed under: Microcontroller Programmer Projects

937. HDD analog clock with LCD touchscreen Using Atmel Mega32 Introduction The clock is one of the oldest inventions in human history and has been us centuries as in instrument for measuring time. There are many ways to implement this ancient technology by simple and practical methods. However [caption id="attachment_18482" align="aligncenter" width="531"] HDD...... Listed under: Clock Projects, LCD Projects

938. CUAUV Voltage Sniffer Using Atmel Mega32 Introduction The Cornell University Autonomous Underwater Vehicle team (CUAUV) is an undergraduate engineering team that de builds a fully autonomous, robotic submarine. Over the past year, the team – of which both Manoj Lamba and Ian Wang are members – has had a stri Listed under: Metering - Instrument Projects, Sensor - Transducer - Detector Projects

939. CUsat diagnostic board using Atmel mega32 1 Introduction Our final project is the CUSat Diagnostic Board (CUDB). This board will be used for monito system health as well as performing various functions allowing for easy integration and debugging of CUSat components. [caption id="attachment_18 align="aligncenter" width="600"] CUsat diagnostic board using Atmel...... Listed under: Development Board - Kits Projects

940. SearchBot Using Atmel Mega32 Introduction The SearchBot is a fully functional model car that can be controlled wirelessly through the PC or autonon search for red balls scattered on a flat surface. Autonomous vehicles are just now being realized in labs around the world and will soon have major..... under: Car Projects

941. Robotic Vacuum Cleaner Using Atmel Mega32 Introduction As our final project, we decided to design and build a robot capable of vacuuming the floor of a room or area witho human interaction other than just starting the unit. We realized the need for a cheap and convenient product that can...... Listed under: Robotics - Automation Projects

942.

Cooler-Bot Using Atmel Mega 16L Introduction Cooler-Bot is an autonomous vehicle that uses ultrasonic transducers to sense distance and direction t remote ultrasonic mobile unit that it is designed to follow. Our original goal was to design a vehicle that would carry a beverages for the user and follo Listed under: Car Projects

943.

MCU/FPGA color video Game Platform Using Atmel Mega32 Overview: A system consisting of an ATMEL MEGA32 chip, Altera FLEX10K FPGA, and a libr source code for the Atmel processor to generate 256-color VGA video signals in real time optimized for game development. Introduction: The Nintend Entertainment System sports 2 KB of RAM...... Listed under: Game - Entertainment Projects

944.

Musical Water Fountain Using Atmega32 Introduction: Our final project is a musical water fountain loosely based on the fountain in front of the famed basic idea of the project is to take an input from an iPod (or any sound source), sample the sound and...... Listed under: Sound - Audio Projects

945.

Machine de Karaoke Using Atmega32 Introduction Sound bite Our project is a karaoke recording machine which is capable of removing the voice com a music file and storing the users singing voice with the background music to an external compact flash memory. It can also be used as a...... Listed ur Sound - Audio Projects

946.

Dual Control R/C Car Using Atmega32 The purpose of this project was to take a traditional remote controlled car and create our own control mechanis control the car, we used a dual-axis accelerometer and LEDs (light emitting diodes) configured as photo-detectors. The control mechanism was selecte single pole...... Listed under: Car Projects, Game - Entertainment Projects, Sensor - Transducer - Detector Projects

947.

Guitar Synthesizer and Game Using Atmega32 Introduction Compose your own virtual guitar masterpiece or follow along with a preprogrammed clas experience needed! We developed a guitar synthesizer with video component inspired by the popular video game Guitar Hero. The original game con only reproducing popular rock and roll songs...... Listed under: Game - Entertainment Projects

948.

Self-powered solar data logger Using Atmel Mega32 Introduction: My project is a self-powered solar data logger. Put out in the sunlight, it will measure level and log this to memory to be later downloaded to a computer. The system is powered by a small solar panel and battery. Summary: The...... Liste Battery Projects

949.

Lighting control system Using ATMEL Mega32 Loucetios™ is a state-of-the-art, self-configuring lighting control system solution for bedrooms, offices a perimeter areas. Under automatic operation, the system senses luminosity inside and outside a room, controls the angle of the blinds and dims the la maintain a prescribed level of illumination inside...... Listed under: Home Automation Projects

950. Intelligent Multimedia System Atmel mega32 Introduction This project implements a multi-function multimedia system that allows the user to sing with the music video and ge some fancy sound effects. In recent decades, multimedia becomes quite popular in our daily life. In fact, multimedia system has existed for a long tim Listed under: Game – Entertainment Project Ideas, Sound - Audio Projects

951. Ultrasonic spotlight tracker using Atmel mega32 Introduction A spotlight that follows you on its own! The ultrasonic spotlight tracker is a system that u wireless beacon to track a targets location using both RF signals and ultrasound waves. It then drives a light source to point at the location of...... Liste Sensor - Transducer - Detector Projects

952. Galvanic skin response meter using Atmel mega32 Introduction Our project measures the user's skin conductance for monitoring his or her mental st Summary Medical experiments have shown that the magnitude of the electrical conductance in a person's skin is directly correlated to their emotiona The short term changes in electrical conductances...... Listed under: Metering - Instrument Projects

953. RFID Security System Using Atmel Mega32 Introduction and Motivations: For our final project, we designed and built (and exhaustively tested) an RFID proximity security system for use with Cornell Identification cards, which have been RFID-embedded since fall of 2003. The idea for this project was so spawned from our general...... Listed under: RFID - NFC Projects, Security - Safety Projects

954. VOICE RECOGNITION SECURITY SYSTEM USING ATEGA32 When we think of programmable speech recognition, we think of calling FedEx customer serv center with automated voice recognition response systems. We also think of PC-based speech recognition Dragon NaturallySpeaking. Now we took th further. We are talking about speech recognition in...... Listed under: Security - Safety Projects

955. SecureLED: Better Access Control Using ATMega32 Introduction Overview SecureLED is an optical access control device which replaces current RFID or Strip technologies with a cryptographically secure, contact-less device which communicates over commodity Light Emitting Diodes (LEDs). Project Sum project started with one central premise: current physical access control systems...... Listed under: LED Projects

956. Capacitance sensor MIDI keyboard Using Atmel mega32 Introduction The objective of this project was to build a keyboard based on capacitive sensors MIDI encodings for all notes played. The output from the sensors is detected by the MCU using its ADC capability. The sound is...... Listed under: Senso Transducer - Detector Projects

957. The Grillzilla Using ATMega32 Introduction: One Sentence Sound Byte: "Grillzilla - A wireless meat grilling thermometer which alerts the user whether entrée is cooked according to USDA recommendations via LCD and voice feedback." Summary of what we did: As the weather starts to get warmer a c type...... Listed under: Home Automation Projects, RFID - NFC Projects

958. Sign language coach Using Atmega32L Introduction Objective The goal of this project is to design a useful and fully functional real-world product that translates the movement of the fingers into the American Sign Language. Background The American Sign Language (ASL) is a visual language based or gestures. It...... Listed under: LCD Projects, Robotics - Automation Projects, Sensor - Transducer - Detector Projects

959. Radial Chalker Using Atmel Atmega32 Introduction We developed a new way for student groups to chalk advertisements for events. This project is a r printing device for drawing with chalk/markers on flat surfaces. High-Level Design dea Rationale and Sources Anyone who has done any sidewalk chal knows that it is...... Listed under: Motor Projects

960. GoConn Bicycle Computer Using Atmega 32 Introduction This project is a bicycle computer that includes velocity monitoring, calorie computation, an audio/visual alarm, and a wireless remote. Bicycles are great for transportation as well as exercise. Unfortunately, many bicycles across campus and a world are stolen everyday. We designed a computer...... Listed under: How To - DIY - Projects

961. Handwriting Recognition System Using Atmel Mega32 I.   Introduction Simply write; your computer will undersand! We have designed and impleme Handwriting Recognition System using a touch screen from a Palm Pilot m125, a black and white TV and a Mega32 microcontroller. Unfortunately, due lack of specifications regarding the built-in...... Listed under: LCD Projects, Sensor - Transducer - Detector Projects

962. Programmable remote control Using Atmega32 Introduction The goal of our project was to develop a remote control whose buttons would be readily programmable by recor signal from another remote control. After revising several standards on infrared signals, we determined that the approach to take was to record the si Listed under: Sensor - Transducer - Detector Projects

963. Flat Bed Scanner Using Microcontroller Introduction   Quite possibly the slowest and lowest resolution of any scanner on the market today, but it sur mesmerizing to watch.. and it actually works!   That's about the best way to describe this behemoth of a project, which involved countless hours of b ...... Listed under: CNC - Printing Machines Projects

964. Digital Stethoscope Using Atmega32 Introduction Our project is a digital stethoscope that displays your heartbeat on any television. It also calculates I minute and alerts you if your rate falls out of a specified range. [caption id="attachment_17908" align="aligncenter" width="234"] Digital Stethoscope I Atmega32[/caption] At the highest level, the...... Listed under: LCD Projects, Medical - Health based Projects, Sensor - Transducer - Detector Projects

965. TRISHUL -Autonomous navigating robot Using Atmel Mega32 Introduction We decided to do this project due to our keen interest in the robotics. We w looking for a project that involved a perfect mix of hardware and software complexity. This project enabled us to use new hardware such as sensors, s motors...... Listed under: Robotics - Automation Projects

966. Nova Strike video game Using Atmega32 Introduction Nova Strike is a 2D space shooter game implemented with an Atmel ATmega32 microcontroller. inspiration came from our love of video games and fond memories of playing space shooters on our TI-89 graphing calculators in high school (instead attention in calculus...... Listed under: Game - Entertainment Projects

967. Digital Compass Using Mega 32 I. Introduction The goal of this project is to build a digital compass that displays both the direction and cardinal points television. Other functionalities were added to complement the sensor interface, such as, temperature display, magnetic declination input and disabil At the...... Listed under: Sensor - Transducer - Detector Projects, Temperature Measurement Projects

968. MiniGolf video game with putter Using Atmel Mega32 Our project is creating a miniature golf game, complete with a putter and golf ball to simulate a real putting stroke. We c construct a mini golf game because not only is it interesting, but it has a large balance of computer programming as...... Listed under: Game - Entertainment Projects

969. Electr-O-Sketch Using Atmega 32 Introduction We created a project in which a user could control the movement of an Etch A Sketch using a typical ser The public was introduced to the EAS in 1960 and since then it has stayed virtually the same. This nostalgic toy is...... Listed under: Sensor - Transduce Detector Projects

970. Pong2 Using Atmel Mega32 Our final project is a portable, dedicated PONG2 video game unit for use with a home television. Introduction PONG, a vic that simulates a game of Ping-Pong between two players, has a long and pervasive history, and is said to be the first video...... Listed under: Game - Entertainment Projects, LCD Projects

971. Handheld Ultrasonic Rangefinder Using Atmel Mega32 Introduction Our ultrasonic rangefinder is capable of allowing the user to determine his or her from an object or wall. When deciding on what type of project to design and construct, we decided that we wanted to create something that would ha practical...... Listed under: LCD Projects, Sensor - Transducer - Detector Projects

972. Beverage Monitor Using Mega32 Introduction We created a wireless device to affix to the bottom of a pitcher that alerts the wait staff when the pitche empty. We used the a priori knowledge that when a pitcher is empty the pitchers bottom is perpendicular to the ground. By...... Listed under: Sensor - Transducer - Detector Projects

973. The Ultimate MP3 Radio Using ATMega32 Introduction Perusing through the impressive list of past projects, we decided to make our final project a co of two technologies—wireless technology and the MP3 player. Specifically, we decided to create an MP3 player that broadcasted the songs to an FM d this...... Listed under: Internet - Ethernet - LAN Projects, Sound - Audio Projects

974. SmartBlinds Using Mega32 Overview The SmartBlinds system uses a microcontroller to control the angle of a set of miniblinds used at home, in the classroom, or on the job. U SmartBlinds, a user can more effectively control the light coming into the room, or have an alarm that...... Listed under: Home Automation Projects

975. Keypaw Using Atmel Mega32 1 Introduction The Keypaw is a 12-button input device that provides computer users with an ergonomic, fully-configurab alternative to the traditional QWERTY keyboard. The Keypaw is a microcontroller-driven device with 12 buttons mounted on two handsets; 1 button is for each finger, and 2...... Listed under: Development Board - Kits Projects

976. Home Security System Using Atmel Mega32 Introduction This is a digital home security system with voice feature which can monitor room temperatu motion, and windows & doors. The goal of this project is to utilize the after-market parts and build an integrated home security system. Besides tradit magnetic switch equipped...... Listed under: Security - Safety Projects

977. A Wand Based Barcode Scanner Using Atmel MEGA32 Introduction: Our project is a UPC-A Barcode Scanner complete with a pricing/description database interface. Our origin this project was to build a standard barcode scanner from scratch, but as the project evolved so had to our specification of the project. We initially sought...... Listed under: Me

978. Implementation of a (31, 16) BCH code on a Microcontroller Using Atmega32 Introduction: Error correcting codes are used throughout digital communication systems today. Cell-phones, CD players, satellites, digital pagers and many other communication devices all use varying amounts of error control to achieve a certain degree of accuracy in transmitting information. The idea behind error control codes...... Listed under: Radio Projects

979. The Breath-o-Matic Using Atmega32 Introduction Let us introduce the Breath-o-Matic alcohol sensor. The Breath-o-Matic is an electronic, non-invasive way of measuring a human's blood alcohol content (BAC). Its elegant, yet discombobulated design embodies a cheerful mix of mechanical and semiconductor components. Simply blowing into the mouthpiece causes the Breath-o-Matic...... Listed under: Sensor - Transducer - Detector Projects

980. TV/Keypad Interface for Winamp Using Atmel MEGA32 MP3 is presently a household term; the reader will likely own a few, barring any intervention from practical to sit in front of a monitor and keyboard when you want to listen to music (e.g. in a car, on...... Listed under: Interfacing(USB - RS232 - I2c -ISP)

981. Eye in the Sky Security System Using Atmel Mega32 Introduction We have used the Atmel Mega32 AVR microcontroller to construct an affordable, high security system designed to protect valuables in a single room of a house or property. According to national surveys conducted by the department of property crimes are ten times...... Listed under: Security - Safety Projects

982. Xylophone Using Mega32 Introduction Our final project is a programmable, self-playing xylophone with random melody generation and a pitch detection interface. From early mechanical devices to todays musical greeting cards, history has seen numerous examples of automated music machines. This project represents a quick, modern take on...... Listed under: Sound - Audio Projects

983. Scorched Earth video game using Atmel Mega32 For our design project, we decided to replicate the video game known as Scorched Earth: The Mother of all Games where two tanks fire missiles at one another by adjusting angles and power while adjusting for variable wind. The objective of Scorched Earth ...... Listed under: Game - Entertainment Projects

984. Wonderswan Development Cartridge Using Atmel Mega32 Introduction Short Summary This project allows a Wonderswan developer to upload 64 kB of code/data and execute it on real Wonderswan handheld gaming hardware. Long Summary We started by opening up one of our Wonderswan cartridges identifying the various chips and circuitry found inside....... Listed under: Game - Entertainment Projects

985. Star Duel video game Using Mega32 1. Introduction 1.1 Project Summary Our project is a space dogfighting video game where two players attempt to each other using a variety of ships and weapons. The battlefield is a 128x100 pixel area on a TV, and a small planet resides in the...... Listed under: Game - Entertainment Projects

986. The Big Red Guide Using Atmel AVR Mega32 If this is your first time on the Cornell Campus, you need not worry! Cause we have the best guide for you! Introduction The Cornell is quite large, and finding your way around can get a bit frustrating. The Big Red Guide is a...... Listed under: GPS Based Projects, Security - Safety Projects

987. MISSILE COMMAND USING ATMEL MEGA 32 Introduction For my ECE 476 Design Project, I built Missile Command using the Atmel Mega 32 microcontr version of Missile Command is based on Ataris 1981 version. After looking at some of the past ece476 final projects, I noticed no one had tried to...... under: Game - Entertainment Projects

988. 3D gForce Mouse Using Mega32 Introduction "Our 3D gForce Mouse will enable use to move the curser in the air freely with the capacity of scrolling" rationale for this design is two fold. We wanted to do this design because we wanted to make a zero-impact pointing device for...... Listed under: Sens Transducer - Detector Projects

989. Stationary Helicopter Using Atmel Mega32 Intro Summary Thinking about what a CDE (culminating design experience) should be, we devised a project combines the microcontroller programming principles learned in ECE 476: Microcontroller Design with the control theory concepts learned in ECE 472 Feedback Control Systems to create an academically viable...... Listed under: Motor Projects, Sensor - Transducer - Detector Projects

990. INFRARED TRACKING SYSTEM USING ATMEGA32 Introduction Infrared (IR) Our project is an infrared (IR) tracking system. A beacon, placed on the obje tracked, continuously emits infrared signals in all directions. The signals coming from the beacon are detected by 2 IR receivers mounted on 2 stepper which rotate...... Listed under: Featured, Game – Entertainment Project Ideas, Sensor - Transducer - Detector Projects

991. Arkanoid Video Game using Atmega32 Introduction [caption id="attachment_16604" align="aligncenter" width="224"] Arkanoid Video Game using Atmega32[/caption] High Level Design After working with the ATmega family of processors for the first six lab assignments, and working extensively w generating television screen images, we decided that a video game would be a viable...... Listed under: Game - Entertainment Projects

992. Reversi Video Game Using ATmega32 Introduction "Our project implements the game, Reversi, on TV with a smart artificial intelligence and a host of o game. We were so excited when we found out that we can actually build it for our 476 final project. We looked...... Listed under: Game - Entertainment

993. Guitar Special Effects Using Atmega32 <Introduction> In the last few decades technology has constantly pushed music further and further into the dig Digital technology has infiltrated all aspects of music-making, from its creation to its recording, editing and production. We have decided to join this te movement by fitting...... Listed under: Sound - Audio Projects

994. Tap the Dance using Atmel Mega163 Introduction Nowadays in the video gaming industry, one of the most popular categories of game is music and m simulation game. There are games where players are required to play the drum according to the matching signals and the music of the game; there a Listed under: Game - Entertainment Projects

995. kaOS operating system and loader using atmega32 Introduction We have created a real-time, multithreaded, preemptive operating system called kaO Atmel Mega32 microcontroller, which loads and executes programs from a Secure Digital or MMC card. We wrote this OS and created the SD/MMC ca as a final project for Cornell's...... Listed under: RTOS - OS Projects

996. Keyboard mania using Atmega32 INTRODUCTION "Keyboard mania gives users an opportunity to learn and gain a unique taste of playing an electron without the presence of a music teacher." Summary of our Project We designed an electronic musical instrument, called keyboard mania, able to play of...... Listed under: Sound - Audio Projects

997. ECE 476 Spring 2005 by Arthur Zhang (ayz2) and Yewen Ying (ydy2) using atmega32 Introduction Soundbyte TV Jezzball with dangling mouse, created ECE476 students Arthur Zhang and Yewen Ying, is a hot, new, cool, retro look back to when times were simpler, computers were slower, and TV's were white. Overview From the beginning, because of...... Listed under: Game - Entertainment Projects

998. Duckhunt video game using Atmel Mega32 Introduction to Duck Hunt For our final project in ECE476, we implemented a multi-duck and multi-player version of the Nintendo Duck Hunt on the Atmel Mega32 microcontroller. In 1985, Nintendo released a game for the Nintendo Entertainment System (NES) called Duck Hunt, Listed under: Game - Entertainment Projects

999. The Contender video game using Atmel Mega32 Introduction The pitch "The Contender" is an interacting boxing game in which the player actively par the game with real time punching, ducking, dodging, etc. The Description and Motivation This game is a twist of a popular arcade game called "Mocap short for...... Listed under: Game - Entertainment Projects

1000. The Big Red Juicer using Atmel Mega32 Introduction The Juicer is a wirelessly controlled, programmable juice maker which will mix each ingredient of the exact proportions every time. The Juicer will take a recipe selection serially via either the keyboard or the wireless remote and dispense the juices Listed under: Home Automation Projects

1001. Color Tetris video game using ATMega32 Color TET Brief DescriptionThe project is a color "Tetris" based game compatible with NTSC TV. Summary an motivationThe project basically utilizes a Mega32 chip, along with a RGB-NTSC converter and a sync generator to produce color on a standard NTSC T code for a...... Listed under: Game - Entertainment Projects

1002. WeatherDog Using ATMega32 Introduction Our project was a real-time weather update system that accepted an airport code from the user via a keyb looked up the code on an internet database, and displayed the resulting weather information on a television screen. We used the PS/2 protocol, betw Listed under: LCD Projects, Metering - Instrument Projects

1003. AirMouse using ATMega32 I. Introduction The Cornell University Airmouse Initiative is a motion sensing glove with buttons on it that plugs into your co to function as a mouse. Many tasks that are performed on the computer require the use of both a keyboard on the mouse, and...... Listed under: Sens Transducer - Detector Projects

1004. Neural net robot using ATMega32 Introduction Our project consisted of an elementary eight neuron network that used Hebbian Learning to train a robot to respond intelligen input light stimuli. First, we decided upon a task that would accurately denote Hebbian learning. One of the most common examples of conditional...... Listed under: Robotics

Automation Projects

1005. Wireless Electromyograph using ATmega32 Introduction This project implements a wireless surface electromyograph that displays the signal using a t as an oscilloscope. Electromyography detects the electrical signals that the human body generates to contract muscles. Detecting very low voltages in milliVolt range on the skin surface is not...... Listed under: Internet - Ethernet - LAN Projects, LCD Projects

1006. Stepper Motor Indexer & Decoder ECE 476 Using ATmega32 1. Introduction For our final project we built an ATmega32 based stepper motor controller measures the angular position of the motor shaft using an optical encoder and quadrature decoder. Our system performs 3 basic functions: (1) Comn with a PC by means of a...... Listed under: Motor Projects

1007. A Microcontroller Based Turbidity Meter using AtmelMega32 Introduction Low-Cost Turbidity Meter for Underdeveloped Countries Our project is a col with an independent research project being conducted by senior civil and environmental engineering student James Berg. The goal of this project is to low cost turbidity meter for use in under...... Listed under: Metering - Instrument Projects, Temperature Measurement Projects

1008. A Motion Capture System Using Accelerometers using AVR Mega32 By: Kris Young and Dan Li See the results section for movie clips of the motion cap system in action. Abstract Human-Computer interface may perhaps be both the most limiting and liberating aspect of humans working with compute for instance, limit the input complexity...... Listed under: Metering - Instrument Projects, Video - Camera - Imaging Projects

1009. Wireless Telemetry using Atmel Mega32 I.Introduction Soundbyte:A Wireless Data Telemetry system that receives acceleration, proximity and external temperature data from a remote vehicle and displays them on an NTSC television screen. The rationale behind this project is to provide the user with information regarding the vehicles acceleration, proximity to other...... Listed under: Metering - Instrument Projects

1010. Portable Security System Using ATMega 32 Introduction Consider you are in a research lab that handles highly hazardous material. You don't want anybody to enter the room, come close to the door. Or consider yourself doing something highly confidential in a room that you would like to know if...... Listed under: Security - S Projects

1011. Blood Pressure Monitor Using Mega32 Introduction Our final project is to design and build a portable blood pressure monitor device that can measur blood pressures and heart rate through an inflatable hand cuff. The device is consisted of three main parts: external hardwares (such as cuff, motor, v Listed under: Medical - Health based Projects

1012. Missle Command video game using Atmega32 1. Introduction Brian Smith and Cem Ozkaynak, two Seniors enrolled in ECE 476 at Cornell University, s rekindle the mood of impending nuclear annihilation by distant 'Evil Empires' through the classic 1980's video arcade sensation Missile Command. [ca id="attachment_16403" align="aligncenter" width="600"] Missle Command video...... Listed under: Game - Entertainment Projects

1013. BlindBot usisng Atmel Mega32 MCU Introduction   Our project is an autonomous toy car that tracks a high pitched audio signal. Using two microphones, a microcontroller, an motors on an existing remote controlled car and, we implemented our own control logic to detect high pitched 3.5kHz audio signals...... Listed under: Game – Entertainment P

Ideas, Robotics - Automation Projects

1014.

Super Breakout using Atmel Mega32 Get ready for the next generation of the classic game Breakout which features a standalone device, interactive us control, and new and improved game modes including two player cooperative and competitive modes. Introduction Breakout is a game of speed, skill anticipation. The player will…… Listed under: Game - Entertainment Projects

1015.

Connect Four with Programmable Infrared Receiver Atmel Mega32 We have designed a programmable infrared receiver which can utilize any pulse co signal to play Connect Four from a remote distance. The programmable infrared receiver device we have created can decode any pulse-width modula of an IR remote control, store it in…… Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects, Radio Projects

1016.

MIDI DRUM CONTROLLER USING MEGA 32 MICROCONTROLLER [INTRODUCTION] MIDI Drum Controller Our Final Project for ECE476 was to build a M MEGA 32 microcontroller. We wanted to make an actual product that can produce "good-quality" percussion sounds. Our drum machine would be pla keyboard…… Listed under: Sound - Audio Projects

1017.

Inverted Pendulum Balancer Using Atmel Mega32 Introduction The goal of this project was to build and implement an inverted pendulum balancer, in vertical two dimensional plane, using Proportional-Integral-Derivative (PID) feedback control. [caption id="attachment_16620" align="aligncenter" widt Inverted Pendulum Balancer Using Atmel Mega32[/caption]   The inverted pendulum balancer is a radio controlled car…… Listed under: Game - Entertainment Projects

1018.

Vocal Trainer Using Atmel Mega32 Introduction With the Vocal Trainer, expect to resurrect your singing, and ultimately become a vocal expert! The pu this Vocal Trainer, designed by Anderson Lin and Jerry Chiang, is to train people in singing accurate pitches, and ultimately become a vocal expert. Als Listed under: Sensor - Transducer - Detector Projects, Sound - Audio Projects

1019.

Variable Traffic Controller Introduction Our project is a Traffic Controller that is sensible to traffic condition and adjust the traffic lights accordingly. Ou tries to simulate the traffic at an intersection, and with the use of sensors (Hall Effect in our case), we adjust the traffic of…… Listed under: Car Projects

1020.

RoboDog using ATMega32 Introduction The project, Robodog?is an autonomous car that follows sound. The car can follow almost any audible sound human can create by using three onboard microphones. This project was possible because of the fact that the speed of the sound is relatively slow co Listed under: Game - Entertainment Projects, Robotics - Automation Projects

1021.

PC temperature control using Atmel Mega32 Abstract Our project is a standalone temperature and fan monitoring and control unit for the PC. It uses temperature readings to adjust fan speeds in order to regulate temperature and noise. The system is flexible in that it can be configured to be either.. under: Temperature Measurement Projects

1022. MOS 6502 Emulation on an Atmel Mega32 ECE 476 - Spring 2003 Christopher Foster and Jeff Puchalski When Chris and I first started tossing around project ideas, I sputtered Wouldn't it be cool if we could emulate a Nintendo using some Atmel chips?' Chris replied 'Ooh, that'd be awesome, then…… Listed under: Other Projects

1032.   Laser Communications System Using ATMega32 Introduction Laser communications systems are wireless connections through the atmosphere. They similarly to fiber optic links, except the beam is transmitted through free space. While the transmitter and receiver must require line-of-sight condition have the benefit of eliminating the need for broadcast rights...... Listed under: Internet - Ethernet - LAN Projects

1033.   Digital Mirror Message Machine Introduction For our final project, we decided to build a digital message machine which displayed on a mirror. This is variation from other digital message machines we had seen in stores and in past final projects. Instead of quickly moving a wand of LED's...... Listed u Projects

1034. Memory Video Game Using Atmel Mega32 Introduction The main goal of this project was to write and develop a graphical version of the card game commonly referred to as M for use on an Atmel Mega32 microcontroller unit. Memory is a card game where the player tries to match pairs of...... Listed under: Game - Entertainm Projects

1035.   TREASURE HUNT OF THE HIGH SEAS ATMEL MEGA32 INTRODUCTION Sail the high seas searching for treasure and protecting your ship from pirates in game in which a system of lasers discerns the direction of wind and you specify wind magnitude, sail height, and rudder position. Originally, we had th of...... Listed under: Game - Entertainment Projects

1036.   PacMan Video Game Using Atmel AT90S8515 microcontroller Introduction The goal of our project was to replicate the great arcade classic Pac-Man or in black and white. The inspiration for this project came from our love of video games and our introduction to NTSC TV signal generation in Labs 3 and Listed under: Game - Entertainment Projects

1037.   SpaceInvaders Video Game Using Mega32 Introduction Our final project is the classic Atari version of space invaders on the MEGA32. The story: A hor space invaders are attempting to land on the planet's surface. You play a heroic pixilated thing on the ground trying to stop them one bullet...... Listed Game - Entertainment Projects

1038.   Space Fighter Video Game Using ATMega32 Introduction Our project is a fighter game. The user controls a fighter, which moves around the TV screen starts the game with a defined number of lives. It has two kinds of enemies: the asteroids and the monsters. Asteroids drop randomly from the...... Lis under: Game - Entertainment Projects

1039.   Frogger Video Game Using Atmel Mega32 Introduction Sound Bite One word: FROGGER!! Why Frogger? We chose Frogger for several reasons. First, we that it is an entertaining game, which is complex enough to implement as a project. Second, Frogger allows us to use knowledge that we have acquire this...... Listed under: Game - Entertainment Projects

1040. MIDI synthesizer Using Atmega32 Introduction: MIDI Synthesizer Our Final Project for ECE 476 was building a MIDI synthesizer using a MEGA 32 microcontroller. At first we wa tear apart an old keyboard and use the MCU to decode directly from the sensors which detected key presses. We then...... Listed under: Development Board - Kits Projects

1041.   Radio Control Car using Mega32 Introduction: We like car and we like to build our own Atmel Mega32 MCU based radio-controlled NSX. We set three g
the initial project proposal and they are as the following: (1) Build a RC NSX with the same performance as the original car. ...... Listed under: Car Proje

1042.   Sound Effects Processor Using Mega32 Introduction As you can see from the title, our project, in a nutshell, is a Sound Effects Processor (for the lack c
name), which is capable of taking an audio input, adding effects to it digitally and passing an analog output to an...... Listed under: Sound - Audio Proje

1043.   BattleShip Game using Atmel Mega32 Introduction : For our final project, we decided to create the classic game of Battleship that was displayed on a T
controlled by keypad inputs. We both enjoyed playing the board game when we were young and we occasionally would do battle against each...... List
Game - Entertainment Projects

1044.   Wireless Keyboard Using Atmega32 Introduction: For our project, we designed a wireless keyboard that uses RF to transmit signals to the computer. In
design, we use a regular, 102 key ps/2 keyboard and connect it to our transmitter circuit. On the computers side, we connect our receiver circuit...... Lis
under: Internet - Ethernet - LAN Projects

1045.   TV Minesweeper Using Atmel MEGA 32 Introduction For our final project, we have decided to build a minesweeper game with a microcontroller and a
mouse to be displayed on the TV. Minesweeper is a famous game that comes with the MS-Windows operating system, and the objective of the game i
Listed under: Game - Entertainment Projects

1046. Vehicle Performance Meter Using Atmel Mega32 INTRODUCTION The DomMeter is a car performance meter that measures acceleration to compute values important to car
enthusiasts. Specifically, the DomMeter calculates the 0-60mph time, 0-30mph time, 0-100mph time, quater mile, eighth mile time and braking time, t
acceleration during that interval, distance travelled...... Listed under: Metering - Instrument Projects, Temperature Measurement Projects

1047.   Tetris Video Game Introduction For our 2003 ECE476 Design Project, we designed a Tetris game that was playable via a 16 button keypad and was disp
a black and white television at a resolution of 128x100.� The heart of the hardware system consists of the ATMEL Mega32...... Listed under: Game -
Entertainment Projects

1048.   Cornell Hockey Using Atmel Mega32 News April 27, 2003 The project is due for us tomorrow, since we have the Monday evening lab slot. We spent a li
in the lab fixing the last few bugs, tweaking a little, and taking some pictures. We have an enclosure for the...... Listed under: Game - Entertainment Pr

1049. Gray-scale Graphics: Dueling Ships A 4-bit gray-scale video system demonstrated by a multiplayer game Our project displays a 128-by-96-pixel image in 4-bit gray-scale (16 inte
using a memory-map compression scheme. The equivalent uncompressed display would require 6-KB of memory (128 � 96 pixels � 4 bits/pixel = 6,144...... Listed under: Gan

1050.   Laser Light Show Using Atmega32 Introduction Single sentence summary A programmable laser light show that allows the user to specify the pattern via three motor speeds and the length of time that this pattern is held. Project Summary For this project, we designed a system to guide a laser...... Listed under: Sensor - Transducer - Detector Projects

1051.   Wireless Drawing Device Using Atmel Mega163 Introduction: For our final project, we want to build a wireless drawing device. The user uses a keypad mouse to draw on the TV through a wireless communication medium (RF - 433.92 MHz). The user should be able to move the drawing pointer...... Listed under: Internet - Ethernet - LAN Projects

1052.   IntelliBOT Using Mega 32 Introduction For our final project we decided to build a robot that could navigate from one location to any given target and a robot body used a very primitive design that included a cardboard box for the body and Minute...... Listed under: Robotics - Automation Projects

1053.   Sheet Music Generator using Mega32 Microcontroller Introduction If you are a music buff, then our sheet music generator will be the answer to your You plug in the instrument of your choice and as you play the keys our system will create the sheet music that attests to your musical...... Listed under: Audio Projects

1054.   Multi-Zone Fire Alarm System Using Mega32 Microprocessor Introduction We designed a multi-zone fire alarm system with a VT100-compatible user i The system is microprocessor controlled using the Mega32 microprocessor. The system communicates to the VT100-compatible user interface via a R connection. A fire is detectable by a number of fire detection devices...... Listed under: Security - Safety Projects

1055.   PC-CONTROLLED SCANNING TUNNELING MICROSCOPE Using ATMega163 INTRODUCTION For our final project, we designed a scanning tunneling mic (STM) that could be used to gather information about the surface topography of metals and semiconductors at the sub-micron scale. The STM is cont from a graphical user interface running on a PC. The...... Listed under: Other Projects

1056.   Tic-Tac-Toe on TV Using Atmel Mega163 Adventures in TV land   The goal of this project was to play a simple game outputted to a television via d signal generation into a composite video input of a television. Obviously, the outputting of material to a television is the most challenging...... Listed u Game - Entertainment Projects

1057.   Hard Drive Based AVR Programmer Using Mega163 The project which we are presenting is not the project we presented in our proposal. We initially p build a WWVB time-code receiver, which would demodulate a 60 kHz signal and extract an extremely precise time according to the National Institute c Standards and...... Listed under: Microcontroller Programmer Projects

1058. Autonomous Car Introduction Let us begin with one key observation: cars are cool.   From consumer transportation to manufacturing to childrens' toys, vehicles in their many some of today's most influential machines.   Autonomous vehicles are already in use in many manufacturing facilities, and they are also...... Listed und Projects

1059.   Safety-sensor vehicle using Mega163 Introduction cars and vehicles have been integrated into society as one of the most efficient, easiest, accessible transportation available. But while it is a convenient and common means of transportation, it is also an incredibly dangerous mode of transport. Thou people die...... Listed under: Car Projects

1060.   MP3 Player Using Atmel Mega103L Introduction Using MPEG Layer-3 compression, 40 MByte audio files have been compressed to approximately 3.5 I With the wide availability of MP3 files via the Internet, portable MP3 players have become increasingly popular. MP3 players are currently available the either Compact Discs, SmartMedia, Compact...... Listed under: Sound - Audio Projects

1061.   Digital Music Synthesizer Using Atmel 90s8515 chip Introduction: Our ECE 476 Spring 2002 final project is a musical synthesizer that mimics the sound produced by a piano and a clarinet. We wanted to create a device that could produce different musical signals by direct digital synthesis. Using Fourie of the signals,...... Listed under: Sound - Audio Projects

1062.   The Rotating Globe Using Atmel Mega163 Introduction For years scientists and scholars alike have been plagued by one common obstacle which, unti proven to be impossible to overcome. How do you find the country you want on a globe? Sure, the easy answer is to just use the longitude...... Listed Motor Projects

1063.   Spring 2002 Gmouse Using Atmel ATMEGA163 Introduction With all focus of computer technology advancement placed on processors and memory, s the most simple of components are overlooked. This is especially the case with the mouse, a device that has changed very little since its conception b still retains its...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

1064.   Laser Tag Introduction What is Snipertag? Snipertag is a variation upon the very popular 'Lasertag' game. In 1986, a company called Worlds of Wonder combat game that worked around a set of commercially produced toy laser guns and sensors. As...... Listed under: Game - Entertainment Projects

1065.   Fish: Video Controller Introduction: The basis of this project is to create the game fish on the Atmel board. In the game fish, the big fish eat the small fi your job is to eat the fish smaller than you while not getting eaten by those bigger...... Listed under: Game - Entertainment Projects, Video - Camera - I Projects

1066.   Fertilizer Feed Rate Controller Abstract For a final project for EE 476 at Cornell University under the instruction of Bruce Land I designed and built a fe flow rate control unit tailored to the needs of Lin Davidson. Instead of conventional mechanical drive methods, the delivery rate was controlled...... Lis Home Automation Projects, Motor Projects

1067.   gEECShip Introduction Sound byte For our final project, we are redesigning the classic battleship game to suit the needs of engineers. We are removin need for communication, but keeping the feel of battleship. So what are we really doing? Instead of having engineers mumble battleship...... Listed un - Entertainment Projects

1068. Final Project EKG Monitoring System Introduction Unexpected cardiac death, also known as sudden death is a frequently fatal form of arrhythmia whi more than a quarter of a million people each year in the United States. Confronted with the devastating effects of unexpected cardiac death and with pursuit...... Listed under: Medical - Health based Projects

1069. Larry Pellach and Brian Silverstein Introduction Imagine being able to monitor the status of a given room or area from anywhere in the world, at anyti today�s booming technological atmosphere, this dream doesn�t sound so far off. However, imagine being able to do this cheaply, while not sacrific efficiency...... Listed under: Temperature Measurement Projects

1070. Analog Modem Design Project Introduction: We thought it would be interesting to try and construct a simple modem out of the ATMEL 8535. The main motivation for doing th test some DSP theories about the effects of transmission power, noise, and modulation technique on the bit error...... Listed under: Phone Projects

1071. Security Entrance System Overview: Our security system is a stand alone device that allows access to registered users identified by their magnetic car project, "access" is represented by a lit LED, showing how the system could be used to control an external locking mechanism.)The system includes fe Listed under: Security - Safety Projects

1072. EE476 – Final Project Hummer RC Truck Introduction: For our final project, we decided to enhance the controls of a Hummer RC truck. Our main objec to demonstrate that an Atmel microcontroller together with basic hardware building blocks can replace all of the car's original circuitry. Improving the handling...... Listed under: Car Projects

1073. EE 476 Final Project Portable MP3 Player Introduction In the recent years, the MPEG Layer III (MP3) music compression format has become an extrem popular choice for digital audio compression. Its high compression ratio, and near CD quality sound make it a logical choice for storing and distributin especially over...... Listed under: Sound - Audio Projects

1074. Autonomous Vehicle INTRODUCTION As technology develops, computers are making people's lives progressively easier and safer. Someday they will drive automobiles, resulting in reduced deaths and accidents. We decided to make a prototype of a self controlled car. We started with a Hot Shot II.... under: Car Projects, Radio Projects

1075. Design of a REE476 Final Project: eal-Time Digital Guitar Tuner Introduction The goal of this project is to design an algorithm for a real-time digital guit and implement it using an Atmel AT90S8535 microcontroller. Each of the six strings of a guitar has a unique fundamental frequency, and our goal is tc this...... Listed under: Microcontroller Programmer Projects, Sound - Audio Projects

1076. Whack-A-Cap: miniature representation of a popular amusement game Introduction: Our final project code calls for the implementation of an amusement game often banner "Test-Your-Strength" or less accurately (but more commonly) known as "Whack-a-Mole." Our machine is in essence a miniturized version of what can be found in most theme

across the...... Listed under: Game - Entertainment Projects

1077. CU Organizer Introduction: One of the newest and fastest growing additions to the digital age in the 1990s has been the handheld personal computer little flash memory and a good LCD, anything is possible and commercial products like the 3Com PalmPilot� and IBM Workpad� are...... Listed under Projects

1078. Automatic Etch-A-Sketch Controller Introduction For our final project, we set out to write a Controller for the classic toy, the Etch-A-Sketch. What this b means, is that we use an Atmel micro controller to control two stepper motors connected to the knobs of the Etch-A-Sketch. Thus, an order...... Listed Microcontroller Programmer Projects

1079. EE476 Final Project Real-time Debugger By Emre Tezel & Cagdas Ozgenc Objective: To design a debugger that is capable of tracing AT90S1200 user pro while the micro-controller is attached to external peripherals. The debugger will be able to display I/O activities, and dump the values of the registers. Required: Atmel STK-200 starter kit (kit includes...... Listed under: Microcontroller Programmer Projects

1080. Clifford Systems JI1000 Car Alarm System Introduction The design philosophy behind the JI1000 is a simple, yet powerful microcontroller based mobile system. At the heart of the JI1000 is the Atmel AT90S4414 8-bit RISC microcontroller. We used the 4414 for this design because a microcontroller is we for a security...... Listed under: Car Projects, Security - Safety Projects

1081. Eye Snake Soundbyte If you ever thought you couldn�t control things with your eyes, think again � here�s the game Snake that allows 4 modes of n game play with buttons or with your eyes, using electro-ocular potential. Project Summary While brainstorming for a 476 final project...... Listed under Entertainment Projects

1082. Hangman! Introduction For our final project, we used an Atmel AT90S8535 microprocessor to create a hangman game. The letters are displayed on a 16-character LCD, and are ("guessed") using a 16-button keypad. The 8 LED's on the Atmel development board are used as our "hanging...... Listed under: Game - Entertainment

1083. Programming the Game Simon Introduction Many of the simpler electronic games of the past decade can be easily programmed on the AVR microcor we are using this semester, using only the lights and switches available on the evaluation boards. For our final project we programmed the game Simo using...... Listed under: Game - Entertainment Projects

1084. A m -Controller Based Thermostat Using Atmel AT90S8535 microcontroller Introduction The goal of our final project was to design a thermostat using AT90S8535 microcontroller. The thermostat was to compute the current temperature once per second and then send an on/off signal to a heating dev would then regulate the temperature to...... Listed under: Temperature Measurement Projects

1085. Bar Inventory System: Drinking for Class Instead of Because of Class Introduction Project Summary Our project is an expandable bar inventory system that implements wireles communication. The bar inventory system was an interesting project, because it involved both hardware and software together, since we are comprised of one analog designe

computer programmer, both of...... Listed under: Arduino Programmer Projects

1086. RC Car Controller Using Atmel 4414 chip Overview: We decided to build transmitter and receiver modules for a radio-controlled (RC) car, as well as imp variable-speed motor control and a continuous steering function. The simple speed controls included in most RC kits seldom offer more than three fo speeds and one reverse...... Listed under: Car Projects

1087. Sine Wave Synthesizer Introduction Every group wants their final project to be something that will be remembered long after they're gone. Some do h sophisticated and complex projects that entail upwards of a hundred hours to complete. Yet others go out of their way to develop something 'cool'..... under: Sound - Audio Projects

1088. Temperature and Pressure Control using the AT90S8535 Overview: This project involves the implementation of control and monitor for dual processes pressure and temperature. The input control is a 16 button keypad and the output is monitored in a 16 character LCD The device can be widely deploy Listed under: Temperature Measurement Projects

1089. Automated Juice Mixer Introduction Sound Bite The Automated Juice mixer is a juice mixing device that allows user to create desired drinks with up to different ingredients through a user friendly interface. Summary Mixing juices can be a very tedious job. We have created a juice mixer...... Listed und Automation Projects

1090. Leonardo Arduino clone a single-sided PCB using ATmega32U4 DESCRIPTION This project is to make a clone of Arduino Leonardo in a simple way.That the distribution of the pin does not match the standard Arduino (have to make many jumpers on the motherboard or use both sides). However, most Leonardo characteristics are...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1091. Head-Controlled Keyboard And Mouse using ATmega32 Easy Input is a head-controlled keyboard and mouse input device for disabled users. The syste accelerometers to detect the user's head tilt in order to direct mouse movement on the monitor. The clicking of the mouse is activated by the user's e blinking through...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Sensor - Transducer - Detector Projects

1092. How to drive 595 shift registers with ATmega168 Driving a shift register using an AVR chip's built-in hardware is really quite easy. Most of their offering SPI module, or Serial Peripheral Interface. A shift register is exactly that, a peripheral device that communicates via a serial line. All we need to...... Liste AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1093. HexiLogger, an Arduino based data logger using ATmega328 The purpose of this project was to create a simple, portable device that would periodicall sensors and then store the sensor data so it could be retrieved later. The result is the HexiLogger, "hexi" because it can support up to six different sen inputs...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1094. Enhancing An FM Transmitter's Firmware using ATmega48 This hack is about rewriting the firmware of PLL FM transmitters based on AVR microcontrollers to add more functionalities. They're commonly available on eBay from various sellers and for prices ranging from $40 to $80, depending mostly on the RF output power. If you don't..... under: AVR ATmega Projects, Radio Projects

1095. 4-key keyboard using ATtiny85 Introduction: A good while back, I made the 1-key-keyboard project. Ever since it has always been in the back of my min ATTiny microcontroller, which I used in this project, had still 3 IO ports which were unused. Only recently I've found the...... Listed under: AVR ATmega P Interfacing(USB - RS232 - I2c -ISP) Projects

1096. RSS Reader using ATmega8 microcontroller I spent part of an afternoon developing a hardware RSS reader (most of my time was spent on the python things). It's pretty simple and uses an AVR microcontroller connected to a computer via a serial cable. Hardware I am using the Dragon...... Listed unde ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, LCD Projects

1097. Virtual Archery using ATmega1284P Introduction We decided to create a virtual archery game for our ECE 4760 final project. This game consists of an ATmega1284P microcontroller, a TV for display, and multiple pieces of hardware. All of these devices communicate together to simulate a three-round archery with...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1098. Arduino – Modifying a Robot Arm using ATmega328 Essentially another tutorial involving controlling DC motors. In this post I'm going to first alter a ro had built previously from a beginners kit so that it can be controlled from Arduino. Then I'm going to write a series of posts on different...... Listed und ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Robotics - Automation Projects

1099. Honey I Shrunk The Arduino using ATmega328p As you might be able to tell from recent posts, I've been doing quite a bit of work with an Arduino. I've at least one project that I'd like to make a little more permanent, rather than it just being a bunch of...... Listed under: AVR ATmega Projects, Interfacing RS232 - I2c -ISP) Projects

1100. Homemade VGA Adapter using ATmega644 Introduction Motivation The goal of our project is to create a VGA video adapter. This "homemade video card" should be able to co any monitor that subscribes to VGA standards with a standard connector and display the desired material reliably. The challenges involved here...... Listed under: AVR ATmega How To - DIY - Projects, LCD Projects

1101. DIY Polygraph Mask using ATmega32 Introduction A polygraph (often and incorrectly called a 'lie detector') is a machine which plots in real time severa biological signals such as pulse rate, galvanic skin resistance (GSR), blood pressure, and breathing rate. This machine, in conjunction with a certified ex then...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1102. USB Sensors with ATtiny Microcontrollers Working with embedded electronics, you will eventually ends up with some sensor between your hands, her how to make a graph out of it! This project involves a light sensor, a tiny 8-pin AVR USB key with the V-USB stack, a GNU/Linux system...... Listed under ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Sensor - Transducer - Detector Projects

1103. An electronic dice using ATmega8 Abstract: Travel to outer space sounds very exciting but now we are here in our space ship and we have about 10 sq meters for 5 people. It will take another week until we reach the first space station. I took my mp3 player with...... Listed under: AVR ATmega Projects, Projects

1104. Algorithmic 8-bit workshop using ATMega328 I was asked to give a workshop regarding sound art in Super Public Art School that is held at Titanik-gall Turku. As I have been working lately with microcontroller based sound synthesis I searched for a good topic around this area. So the idea...... Listed un ATmega Projects, Other Projects

1105. Watch controlled robot using AVR microcontroller Here is my Chronos watch controlled rover. The rover has a CC1110 minikit that receives SimpliciTI from the watch and sends this to an Arduino (AVR) over serial. The Arduino controls the motors and the servo controlling the robot arm. I have called Listed under: AVR ATmega Projects, Robotics - Automation Projects

1106. Solar Power / Panel Inverter – Grid-Intertie Inverter using Attiny45 For the last year I've been working on a prototype for a Solar Inverter that can be Grid Intertied. A solar inv the 12V DC (or other voltages) from the solar panels and converts it to 120V AC which is the power that most...... Listed under: AVR ATmega Projects, Battery Projects

1107. DigiThermo 0-100.0 °C using AT89C4051 Introduction The DigiThermo is a device designed for measuring time and temperature used in chemistry lal The circuit of Digithermo employs a 89C4051, 20-pin CMOS Microcontroller with built-in 4kB code memory. Temperature was measured by LM35D, Na Semiconductor Temperature sensor producing 10mV/°C. The CA3162, 3-digit...... Listed under: AVR ATmega Projects, Temperature Measurement Proje

1108. Clock ControllerV1.1 using AT89C2051 Builda digital clock that turns AC load on/off with preset time. sourcecode with sdcc for 8051. The Clock Control V1.1was designed to be an exemplary of using 'C' language to control timer0interrupt, 7-segment LED and keypad scanning. It provides 1-bit sink curr output, for driving a...... Listed under: AVR ATmega Projects, Clock Projects

1109. Night Light Saver V5.0 using AT89C2051 Introduction The Saver V5.0 runs simple clock emulation program, turns a night light on and off with preset ti 19:00 to 22:00 everyday. The design features low cost, easy installation, no battery backup and no EMI. The AT89C2051 uses external oscillator genera schmitt...... Listed under: AVR ATmega Projects, Home Automation Projects

1110. Experimenting the 2051 withC Programming using 89C2051 Learn yourself, how to write a simple program using Clanguage for the 89C2051/89C405 source program, compile,and download the HEX code to the chip directly, connect DC adapter, seewhat happen after power up the board. No need IC circuit programmer,everything can be made...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1111. MakeYour Own Single-Side PCB for Easy-Downloader V1.1 using AT89C2051 The EasyDownloader V 1.1 , a Flash Writer for 89C2051/4051 which was d Wichit Sirichote, used a Double-SidePCB. I think, it's difficult to make my ownPCB by myself. So that I decided to design a Single-SidePCB instead. My f prototype board wasmade using hand-writing with...... Listed under: AVR ATmega Projects, Other Projects

1112. Easy-DownloaderV1.1 for ATMEL89C2051 Build your own a personal writer forprogramming HEX code into Flash based microcontroller AT89C2051(2k) andAT89C4051(4k). Sim hardware and Easy use software in DOS and Windowversion. Single-side and double side PCB files included.sourcecode with sdcc version! Introductio version of the Easy-Downloaderwas designed in 1997...... Listed under: AVR ATmega Projects, Other Projects

1113. Easy-Downloader V1.1 with SDCC using AT89C2051 Complete schematic, orcad pcb layout of Easy-Downloader V1.1 and modified firmware with sdcc. happy to use sdcc for writing firmware of my project. The compiled code is very compact and nice. After I succeeded writing a new firmware of xtimer downloader...... Listed under: AVR ATmega Projects, Other Projects

1114. AT89C2051 PROTO BOARD This single sided proto board provides an economical solution for developing and testing the projects around Atmel 20 pin controllers (89Cx051 & AVR) Figure 1 shows the circuit diagram of proto board. All port connections are available for user interface around the proto a Listed under: AVR ATmega Projects, Development Board - Kits Projects

1115. xTimer V1.0 using AT89C4051 microcontroller My wife asked me to find another timer for using in the kitchen. She got one already with analog setting needs one AA size battery. Digital setting may not easy for human interface. However I will make it for easy time setting. When...... Listed under: AVR A Projects, Clock Projects

1116. Night Light Saver V6 using AT89C2051 This new version has internal Ni-MH battery backup, reset button and simple time setting. Now the circuit board embedded with lamp fixture. Preset turn on period is from 18:00 to 22:00 everyday. You may let the saver turn on whenever you want. The period...... under: AVR ATmega Projects, Home Automation Projects

1117. AT89C4051 to work as a Real time Digital clock Its a digial clock which make use of AT89C4051 to work as a Real time clock. Figure 1 shows the circuit c for the digital clock. Port 1 of the controller (AT89C4051) is used as the data lines for the LCD (starting from pin 7-...... Listed under: AVR ATmega Projec Projects

1118. xTimer with 4094 using ATMEL89C2051 microcontroller The original version of xTimer used MAX7219 for driving 7-segment. This new design uses a cl CMOS shift register, 4094 for LED interface. Each 4094 drives a 0.5" 7-segment without the need of limiting resistor. The left-hand LED is timer functio buzzer alarm output....... Listed under: AVR ATmega Projects, Clock Projects

1119. AT89C4051 to work as a Real time clock Its a digial clock which make use of AT89C4051 to work as a Real time clock. Figure 1 shows the circuit diagram digital clock. Port 1 of the controller (AT89C4051) is used as the data lines for the LCD (starting from pin 7-...... Listed under: AVR ATmega Projects, Cloc

1120. Mathematical Manipulation of Pure Sine Wave Inverter Using Atmel 89S2051 Introduction Approach used for creating the pure sine wave described in paper is done through manipulation of mathematical representation of the original sine wave. It is done by dividing half the sine wave into m (even n segmentations, where area under a quarter of...... Listed under: AVR ATmega Projects, PWM Projects

1121. Testing Device for DiSEqC-Switches using ATtiny13-20PI This is my first AVR-project on this page. The DiSEqC-Tester allows to test DiSEqC-switches that uses 1.0 or 1.1 protocol Switches with 2.0 and 2.1 protocol have backwards compatibility with 1.0 & 1.1 respectively and also may be tested). The device every second sends a...... Listed under: AVR ATr

1122. Atmel AVR Infrared Downloader using ATmega8 AVR IR Downloader is one of final assignments at Electrical Engineering Brawijaya University of Malang, Indonesia. The basic idea was came from our lecturer at campus, Ir. Nanang Sulistyanto. If this project was successfully made, it will be used to program automatic machine's uC...... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1123. Flickr images on a Nokia LCD using ATmega48 LCDs are often used in microcontroller projects. Most used are these green character displays with two rows to display menus, status or debug messages. With mass production of mobile phones, color LCDs get that cheap, that they can be used as replac Some...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, LCD Projects, Phone Projects

1124. USB AVR in-system Programmer using ATtiny2313 Introduction. Nowadays, USB is the most popular connection between PC and peripherals such as A programmers, printers, scanners etc. For that reason I had to modify my old serial AVR In-System-Programmer (ISP) to work with USB connection. You "use a USB to Serial adaptor to...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Microcontroller Programmer Project

1125. USB controlled DDS signal generator with ATmega88 A simple signal generator which produces sine waves (or any waveform really) at audio frequenc DDS and is controlled a USB serial connection. Only 2 chips are used in this circuit. The AVRATmega88 which produces the signal, and an FT232R for th interface....... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects, Radio Projects

1126. AvrUsb500 — an open source Atmel AVR Programmer using ATmega8 Why Stk500 and USB? Until the beginning of this year a simple parallel port prog was the only good programmer as it could be used for any device. All device dependent information is stored in the programmer software on your co The problem is however...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Microcontroller Programmer Projects

1127. HVProg using ATmega8535 microcontroller Compatible with AvrStudio Supports all AVR Controllers Parallel and serial High-Voltage-Programming Sma easy layout with only a few parts STK500 protocol Schematics and board layout available Introduction The project started as an enhancement of Mar Thomas Evertool project. He has rebuilt the AVRISP...... Listed under: AVR ATmega Projects, Development Board - Kits Projects

1128. The WhereAVR using ATmega8 microcontroller Introduction The WhereAVR is a small, lightweight, low-power, and low-cost APRS tracker with a full con of analog and digital I/O, as well as the ability to decode ax.25 packets. This allows for the reception of remote commands without the need for a "real Listed under: AVR ATmega Projects, Sound - Audio Projects

1129. Video Overlay using ATmega8 microcontroller A few years ago I set about trying to design a very cheap and simple way to superimpose flight data on being transmitted over amateur television. Specifically, the data would include things like Latitude, Longitute, and Altitude, among other text including identifier...... Listed under: AVR ATmega Projects, Video - Camera - Imaging Projects

1130. Stealth USB CapsLocker using Tiny45 microcontroller This device plugs into a USB port and implements a USB HID keyboard. Instead of doing anything useful, it waits between seconds and 8 minutes and sends the scancode for the Caps Lock key. This will toggle the Caps Lock status on or off....... Listed under: AVR ATmega Projects, Interfacing(USB - F -ISP) Projects

1131.

etherrape using ATmega644 microcontroller Project Overview short description: microcontroller with ethernet usability status: beta start: April 2006 p Atmel ATmega644 Abstract With this project, we'll be creating hard- and software for enabling ethernet on an Atmel microcontroller. fd0 first built a pr of it on lochraster and then made...... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1132.

AVR DDS signal generator V2.0 using ATmega16 Finally second and improved AVR DDS signal generator is here. First AVR DDS V1.0 generator was only attempt of running DDS algorithm without any amplitude control. This time I still wanted to keep things simple like minimum count of widely accessib components circuit, single...... Listed under: AVR ATmega Projects, Radio Projects

1133.

Atmel AVR-firmware based universal USB-Interface using ATTiny2313 Scanning the web on microcontroller based USB solutions, I stumbled over Obje Development's freeware USB solution based on Atmel's AVR architecture. I decided to build up their reference design PowerSwitch with an ATTiny231 Since I never used AVR chips before, the first challenge was...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1134.

A Portable Battery-Powered Roguelike Video Game using ATmega32 I. Introduction This project is a portable battery-powered video game based on th cult classic PC game "Rogue". I designed a hardware-based roguelike video game because I am a long-time Rogue addict and thought it would be cool portable plug-and-play imitation....... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1135.

Evertool using ATmega16 microcontroller Evertool is an AVRISP/STK500-protocol and JTAGICE compatible Programmer/JTAG debugger. ISP Programme compatible with Atmel AVRISP, directly accessable with AVRStudio and avrdude JTAG debugger compatible with Atmel JTAGICE, directly accessable with AVRStudio and AVaRice Evertool supports all AVR devices Atmel supports with their AVRISP and JTAGICE....... Listed under: AVR ATmega Projects, Develo Board - Kits Projects, Microcontroller Programmer Projects

1136.

The Tuxgraphics AVR NTP clock using ATmega168 The Network Time Protocol (NTP) has revolutionized the world. Suddenly one could have anywhere world accurate time and date. NTP is a simple UDP based protocol and can be implemented in a Microcontroller. Using the tuxgraphics ethernet boar LCD display we...... Listed under: AVR ATmega Projects, Clock Projects, LCD Projects

1137.

Printed circuit board 'Multiuse tiny1' using ATmega8 Project overview This small PCB, which I named Multiuse tiny1 was originally designed to convert controllers to USB. Since there is not a lot of space availabe inside an SNES controller, I designed the PCB to be as small as necessary. The PCB has...... under: AVR ATmega Projects, Development Board - Kits Projects

1138.

Cheap and Simple Learning Board using AT89S51 Build your own a cheap simple Microcontroller learning board S-52. The board is based on ATMEL's chip AT89S51, AT89S52, or AT89S53. This board can be used by beginners for learning Assembly and C language programming. Single sided PCB file in Introduction I...... Listed under: AVR ATmega Projects, Development Board - Kits Projects

1139.

Sensor Interfacing using ATmega8 microcontroller If you've ever tried to hook up a 3.3V sensor to a 5V micro, you know what I'm talking about - conne these two can be a problem! There are several ways in which a 3.3V device can be safely connected to a 5v microcontroller....... Listed under: AVR ATm Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Sensor - Transducer - Detector Projects

1140. The Prototino™ using ATmega168 microcontroller What is a Prototino™?   The Prototino™ is an Arduino clone with a built in prototyping area.   Design to make a permanent version of your project once you have perfected it on a breadboard but without the expense of embedding your original Arduino i Listed under: AVR ATmega Projects, Development Board - Kits Projects

1141. How-To: Super simple serial terminal using ATMEGA128 This hack shows how to make a dumb terminal out of a keyboard, LCD screen, and an 8-bit microcontroller. From time to time, a portable dumb terminal can be handy for when you have to rescue a headless server that's acting up or if you.... under: AVR ATmega Projects, How To - DIY - Projects, LCD Projects

1142. The Game of Life using ATtiny2313 microcontroller The reason for making this project is that I was always fascinated by Conways Game of Life. It's a g demonstration of the fact that simple things with a very simple set of rules can do wonderful things: spawn more of them, modify themselves, do...... under: AVR ATmega Projects, Game - Entertainment Projects, LCD Projects

1143. HappyJTAG2 – JTAG AND SPI AVR8 interface using ATmega32 New version released ! V2.45 (Check version list for details) This construction is based on HappyJTAG Idea, to implement JTAG interface into target avr system and debug it remotly via USB, without specific JTAGICE hardware. All job is done by softraware. HappyJTAG version is...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1144. Tetrapuzz – Tetris clone for AVR using ATmega168 This is a projected that I finished development on over a year ago and I'm just now getting around t documenting it. I wanted to program Tetris from scratch and make it modular so it could be used with different displays. Right now I know...... Listed u ATmega Projects, LCD Projects

1145. Dot Matrix Arduino Clock using ATMega168 The great adventure that is building clocks continues. Points of interest in this build is that it was the first got to play with the dot matrix display I picked up over winter break, and it's the first time I've soldered and used...... Listed under: AVR ATmega Project Projects

1146. ATtiny breadboard headers using ATtiny2313 These tiny controller boards are build to provide a quick start for projects with 8 and 20 pin AVR microco e.g. ATtiny13, ATtiny45, ATtiny85 and ATtiny2313. They don't include any fancy stuff, they are just as simple as possible. Where is the problem? Whenev Listed under: AVR ATmega Projects, Development Board - Kits Projects

1147. Arduino-based master clock for schools using ATmega128 If your school, or kids school, or other location relies on a central master clock that is broke may have a use for this device. New master clocks are available of course, but school budgets are under extreme pressures, and it really is a...... Listed AVR ATmega Projects, Clock Projects

1148. FabISP, a fab-able in-system programmer using ATtiny44 The FabISP is an in-system programmer for AVR microcontrollers, designed for production within a FabLab. That is, it to program the microcontrollers on other boards you make, using nothing but a USB cable and 6-pin IDC to 6-pin IDC cable. It's based on...... Listed under: AVR ATmega Project Microcontroller Programmer Projects

1149. SD/SDHC Card Interfacing with ATmega8 /32 (FAT32 implementation) Hi friends, Here is my project on interfacing of SD Card (microSD). microSD cards available very cheap nowadays, a great option for having a huge memory in any embedded system project. It is compatible with SPI bus, so the interfacing easy. SD card...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Memory - Storage Projects

1150. AT89LP2052 / AT89LP4052 Parallel Port Programmer Programming the AT89 LP2052/LP4052 Flash Memory, Lock Bits and User Fuses The AT 89LP2052 89LP4052 microcontroller provide two interfaces with same command format for device programming. The serial ISP Programming interface of the n 2052/4052 microcontroller needs one additional SS Signal for device programming. This SPI signal will...... Listed under: AVR ATmega Projects, Microco Programmer Projects

1151. Batwatch using ATtiny13V microcontroller Overview Batwatch is a simple monitor for a solar panel battery charger, using an Atmel ATtiny13V. It period measures the charge current and battery voltage, and shows them by blinking two LEDs. I built this circuit into the plug of a VW solar charger panel..... under: AVR ATmega Projects, Battery Projects

1152. Minimalist Arduino using ATMega328P microcontroller Overview Here at the Transistor, we love the Arduino platform, so we decided to make our own Clone. The Minimalist Arduino is designed for use in permanent or custom circuits on solderless breadboards, stripboard, or custom PCBs. It contains bare minimum parts...... Listed under: AVR ATmega Projects, Development Board - Kits Projects

1153. AVR DDS signal generator V1.0 using ATmega8 Sometimes when tuning various electronic hardware we need simple signal generator with various wav and frequency. One of the options is to by a professional with variable gain professional coating and many additional functions. But if you are an ama might want to build...... Listed under: AVR ATmega Projects, PWM Projects

1154. GSM Remote Control – GSM Module This GSM Mobile is used for our Remote Control (for example Gate Control, Temperature Control....). We use the word 'module' because, u what we did in our remote control projects, this time around the mobile phone is not mounted on a printed board, but rather on...... Listed under: AVR ATmega Projects, Phone

1155. HUB ISP – Solving the USB-Only "Chicken or Egg" Problem using ATMEGA328P Many excellent ISP (In System Programming) designs exist for 8 bit AVR microcontrollers. However, most require a pre-programmed microcontroller, or the "Chicken or Egg" problem: you can't program microcontrollers unl have one already programmed. Parallel Port or Serial Port solutions have existed, but many...... Listed under: AVR ATmega Projects, Interfacing(USB - R -ISP) Projects

1156. Interfacing Atmel AVR with Graphics Liquid Crystal Displays using ATmega32 AVR SED1520 Library This is a C-library for avr-gcc/avr-libc to access SED1 graphics-LCDs. The modules used to develop the library only support "write to LCD", read-modify- write on the display RAM is not possible. So this Lib a "framebuffer" which holds the display-content in...... Listed under: AVR ATmega Projects, LCD Projects

1157.   AVR Thermometer using AT90S2313 microcontroller Introduction I bought the LED module from BanMor' last week, just 30Baht. The moduleprovide a multiplex of 4-digit common anode LED, that's great.See the soldering pad of these signal in the 1st picture below. I thought,my friend gave me the AT chip, and with…… Listed under: AVR ATmega Projects, Temperature Measurement Projects

1158.   Signal Microcontroller Simulator using AT90S8515 Introduction: The purpose of this project was to extend the Mixed Signal AVR simulator written in Fa that any single-issue microprocessor could be included in the simulation environment rather than limiting the simulations to systems based around A AT90S8515 series microcontrollers. In order…… Listed under: AVR ATmega Projects, Radio Projects

1159.   Air-Mouse using ATmega32 microcontroller I. Introduction The Cornell University Airmouse Initiative is a motion sensing glove with buttons on it that your computer to function as a mouse. Many tasks that are performed on the computer require the use of both a keyboard on the mouse, and…… Lis AVR ATmega Projects, Home Automation Projects, Sensor - Transducer - Detector Projects

1160.   kaOS operating system and loader using ATmega32 Introduction We have created a real-time, multithreaded, preemptive operating system called kaO Atmel Mega32 microcontroller, which loads and executes programs from a Secure Digital or MMC card.We wrote this OS and created the SD/MMC car as a final project for Cornell's ECE…… Listed under: AVR ATmega Projects, RTOS - OS Projects

1161.   RFID security system using ATmega32 microcontroller Introduction and Motivations: For our final project, we designed and built (and exhaustively test RFID-based proximity security system for use with Cornell Identification cards, which have been RFID-embedded since fall of 2003. The idea for this pr sort of spawned from our general…… Listed under: AVR ATmega Projects, RFID - NFC Projects, Security - Safety Projects

1162.   The Reflow Soldering Oven with LCD Display using ATmega32 Introduction Our project consists of making a reflow soldering device using a normal toa with a graphical LCD display for control and GUI. Soldering is an important and difficult task for custom printed circuit board design especially for inte circuits that come as chip…… Listed under: AVR ATmega Projects, Home Automation Projects, LCD Projects

1163.   Self-powered solar data logger using ATmega32 Introduction: My project is a self-powered solar data logger. Put out in the sunlight, it will measure the and log this to memory to be later downloaded to a computer. The system is powered by a small solar panel and battery. Summary: The…… Listed und ATmega Projects, Battery Projects, Metering - Instrument Projects

1164.   Wall of Pong using ATmega32 microcontroller Wall of Pong is a fast-moving, interactive, laser-based pong game playable on any flat surface. The syste digitally controlled laser projection platform to draw a pong ball onto any flat surface. This allows for a large playing area that can be set up…… Listed AVR ATmega Projects, Game - Entertainment Projects

1165.   A Wearable Wireless Sensor System using ATmega644V Introduction In this digital age, new interfaces for musical expression provide much broader m possibilities than have ever existed before. There is a constant quest to be in harmony with one's instrument so that music can flow freely from the im and take form effortlessly……. Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Sensor - Transducer - Detector Projects

1166. Design a Customizable Virtual Keyboard using ATmega32 Introduction It is becoming increasingly difficult for users to interact with the slew of portable gadgets they carry, esp the area of text entry. Although miniature displays and keyboards make some portable devices, such as cell phones and PDAs, amazingly small, users' hands do…… Listed und

ATmega Projects, Sensor - Transducer - Detector Projects

1167.   Adaptive Cancellation of Periodic 60 Hz Noise using ATmega32 An active noise canceler to eliminate the 60 Hz noise found in electrical signals due to A
          line contamination. 60 Hz noise is frustrating for anyone trying to make sensitive measurements of low voltage processes (eg. Electrocardiogram
          measurements), record audio from electrical instruments (eg. guitar...... Listed under: AVR ATmega Projects, Sound - Audio Projects

1168.   The Self-Driving Toy Car using ATmega1284 microcontroller "A car that can track its own location and calculate the direction and distance needed to ge
          destination given by user inputs." Elevator Pitch For our final project, we built a self-driving car that takes in inputs for a final destination and...... Listed
          AVR ATmega Projects, Game – Entertainment Project Ideas

1169.   RFID Checkout System Design using ATmega644 microcontroller The Elevator Pitch We successfully implemented a prototype RFID checkout system th
          enable consumers to instantly pay for their entire purchase upon arrival at the register, increasing customer satisfaction, reducing retailer costs, and u
          lowering consumer prices. Summary Shopping in the present day usually...... Listed under: AVR ATmega Projects, RFID - NFC Projects

1170.   Project Development Board using ATTiny2313 microcontroller This is my first time using the AVR. I like to learn using the ATTiny 2313, because it is fas
          MCS-51, cheap and the circuit is very simple. The chip has only 20 pins. I was interested because I want to build a simple...... Listed under: AVR ATmega
          Development Board - Kits Projects

1171.   Data Acquisition System using ATmega8 Introduction We can use a PC for connecting the homemade data acquisition hardware and produce the GUI
          friendly graphical presentation easily. One of the project that uses Visual Basic is the Data Acquisition & Logging System using AT89C51 made by Abba
          In...... Listed under: AVR ATmega Projects, How To - DIY - Projects, Temperature Measurement Projects

1172.   ATMEL AVR ATMega 8535/16/32 and ATMEL AT89S5x Family Learning Kit Both Mainboard Features Pin compatible for 40-pin AVR and AT89S5x family
          Microcontrollers Single sided PCB, header for 4 I/O ports, ISP port and RS-232 port Built in +5V voltage regulator LM7805 with heatsink Built in +5V an
          (depend on input voltage) with terminal screw...... Listed under: AVR ATmega Projects, Development Board - Kits Projects, Home Automation Projects

1173.   AVR Programmer using ATTINY2313 microcontroller INTRODUCTION AVR910 is a very useful programmer. It can program almost complete range of A'
          The original version made by Klaus is here, http://www.mikrocontroller-projekte.de/Mikrocontroller/AVR-Prog/AVR-Programmer.html. The programme
          capability of AVR chips. AVR910 first appeared in AVR910 application note by ATMEL. It is one...... Listed under: AVR ATmega Projects, Microcontroller
          Programmer Projects

1174.   4×4 keypad example using AVR-GCC C language This is as simple routine how to read 4x4 keypad keys using AVR-GCC language. The keypad is connect
          microcontroller 8 bit port. In this example it is B port. You can change ports depending on your needs – this is only an example...... Listed under: AVR A
          Projects, How To - DIY - Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1175.   Servo motor control using Atmega8 microcontroller Servo motors are so called "closed feedback" systems. This means that motor comes with control
          which senses if motor mechanism is in desired location and if not it continuously corrects an error until motor reaches proper point. Servo motors are
          used in robotics,...... Listed under: AVR ATmega Projects, Motor Projects

1176. AVR LCD menu routine using ATmega8 microcontroller Lets have some practice and write simple AVR LCD menu routine. For this we need to write LCD library. I decided not to use one from AVRLIB. LCD controlling isn't difficult just a few lines of code unless you want to make it more...... Listed under: AVR ATmega Projects, LCD Projects

1177. Simplified AVR LCD routines using ATmega8 microcontroller Controlling numeric LCD isn't so tricky as it may look like. O course you can find numbers libraries. One of more universal you can find in AVRLIB library for WinAVR AVR GCC compiler. Main disadvantage of such universal libraries that they c all...... Listed under: AVR ATmega Projects, LCD Projects

1178. Measuring motor speed and display result on LCD using ATmega8 microcontroller For measuring motos speed there can Optical interrupter used like This is a device where IR LED and photo-transistor is coupled in to plastic housing. The gap between then allows interrupting signal with opaque mate this way switching the output from ON to...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, LCD Projects, Motor Proje

1179. AVR-GCC 4 bit and 8 bit LCD library using ATmega8 microcontroller Standard alphanumeric LCD display controlled by 74HC164 LCD controller can acce data bytes or 4 bit nibbles. Earlier my 4 bit and 8 bit LCD libraries were split in separate files as they were used in different projects. Now they are mer Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, LCD Projects

1180. Output number when button is pressed using Atmega16 microcontroller This is simple demo program of reading button state, lighting LEDs, sending information via USART. 8 buttons are connected to Atmega16 port A, 8 LEDs to port B via current limiting resistors. While none of buttons arent presse running light on LEDs performed,...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1181. Simple signal drawing on graphical LCD routines using Atmega8 microcontroller During spare time I have been playing with graphical LCD. This time I display simple signals that are stored in microcontroller memory. The idea was to read signal values from look-up table and display waveform on Grap To make things more interesting...... Listed under: AVR ATmega Projects, LCD Projects

1182. Programming AVR ADC module with WinAVR using Atmega8 microcontroller Most of AVR microcontrollers have Analog to Digital Converter (ADC) integ to chip. Such solution makes embedded designers life much easier when creating projects and programming them. With no need external ADC PCB ta space, easier to create programs – it saves time...... Listed under: AVR ATmega Projects, How To - DIY - Projects, Interfacing(USB - RS232 - I2c -ISP) Proje Sensor - Transducer - Detector Projects

1183. Running TX433 and RX433 RF modules with AVR microcontrollers using Atmega8 Sometimes in embedded design you may want to go wireless. Might will want to log various readings of remotely placed sensors, or simply build a remote control for robot or car alarm system. Radio communications be two AVR microcontrollers can be easy when...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Radio Projects

1184. Interfacing rotary encoder to Atmega32 Recently I was working on a project that involved rotary encoder. I thought I'd share some thoughts on how rotary encoder can be inte and programmed. Actually it is easy to work with rotary encoders - interfacing is simple – only three wires are required...... Listed under: AVR ATmega Projects, Interfacing(USB I2c -ISP) Projects

1185. Temperature sensor with time and date display on graphical LCD using Atmega32 Some time ago I've build a prototyping board with graphical LCD. It served for various small projects and prototypes. Had a spare temperature sensor DS18B20 and decided to put simple temperature display project. G board is equipped with Atmega32 microcontroller running at 16MHz. DS18B20...... Listed under: AVR ATmega Projects, LCD Projects, Sensor - Transduc Detector Projects

1186. AVR-GCC LCD library – mixed pin support using Atmega328P Some time ago we have posted alphanumeric AVR-GCC LCD library. It works fine in 8-bit a modes. But it has some limitations that some people may find annoying. One of them is requirement that LCD pins has to be byte aligned for instance Listed under: AVR ATmega Projects, LCD Projects

1187. Led Blink Code – Hello World Led using atmega16 in C Configuring the microcontroller before running it the first time: Fuse bytes : high and low Progr once before you start using the micro-controller Disable JTAG to free up PORTC for normal use Set the correct clock clock option With the hardware se run...... Listed under: LED Projects

1188. Remote Control based Robot using C language Concept The customer's demands were to develop and build a kit, consisting of a small mechatronic sy educational concept. In particular, he asked for a driverless robot for training purposes abroad. The idea behind this is that our customer needs a kit f sending...... Listed under: Game - Entertainment Projects, Robotics - Automation Projects

1189. On/Off Controller – Interfacing Touch LCD LC7981 using ATMega Microcontroller Concept of Touch LCD LC7981 using ATMega An on-off controller is th simplest form of a temperature control device. The output from the device is either on or off, with no middle state. An on-off controller will switch the only when the temperature crosses the...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects, LCD Projects

1190. Multichannel USB Analog Sensor using ATMega48 Microcontroller Sometimes it's tempting to re-invent the wheel to make a device function exactly th want. I am re-visiting the field of homemade electrophysiology equipment, and although I've already published a home made electocardiograph (ECG) revisit that project and make it much...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects, Sensor - Transducer - Detector Projects

1191. Door Chime Privacy Sentry using Attiny12 An ATtiny12 controller as a timer and some switching circuitry turns the doorbell off for 10 hours at the sam each day. The string of resistors across the top of the board are series connected to make a 728 Ohm 2 watt resistor. The...... Listed under: Home Auto Projects, Security - Safety Projects

1192. DIY USB password generator using ATtiny Microcontroller Having done half a dozen V-USB tutorials I decided it's time to whip up something cool. As U keyboards were an area untouched, I decided to make a small USB HID keyboard device that types a password stored in EEPROM every time it's attach Listed under: How To - DIY - Projects

1193. Barker Code-Locked Loop Synchronous Demodulator using ATtiny2313 microcontroller A simple, low component count phase locked loop that locks detects the amplitude of an incoming baseband 7 bit Barker code using a switched resistor demodulator that is driven directly by a microcontroller's pins. • Balanced modulators using resistors and a microcontroller's...... Listed under: Other Projects

1194.   Prime Calculator is Complete using ATMega8 Microcontroller My microcontroller-powered prime number generator/calculator is virtually complete! Al I'm planning on improving the software (better menus, the addition of sound, and implementation of a more efficient algorithm) and hardware (a bett enclosure would be nice, battery/DC wall power, and a few LEDs on the...... Listed under: Calculator Projects

1195.   LED Dog Collar using ATTINY2313 Microcontroller LED Dog Collar So this is a pretty simple project, but I thought it was a clever idea. I have 2 dogs, a la lab mix. The lab "Sunshine" likes to runaway a lot if we let her outside at all. She always...... Listed under: LED Projects

1196.   Making a USB based AVR Programmer using ATMEGA8 Microcontroller Around time when I was beginning to learn about microcontrollers I had excha laptop with a senior at college for his desktop - that's because the only way I knew how to program an ATMEGA chip was through either a serial port o Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects, Microcontroller Programmer Projects

1197.   BUILD A SIMPLE SERIAL PROGRAMMER FOR AVR DEVICES using ATtiny2313 Microcontroller Atmel described a simple programmer based on the AT90S (NOT the AT90S1200A) controller in their application note, AVR910 (a modification to use the AT90S2313 is also given below).The circuit is so small and was able to put two of them together without using...... Listed under: Microcontroller Programmer Projects

1198.   LED DOT Matrix Pong using ATMega16 Microcontroller The classic pong game. Two players. Press the buttons to move paddles up/down. Ball bounce forth. If you fail to catch it, your opponent gets one point. Score difference is showed with blue LEDs. Blue LED = lead by one point. If you...... Listed un Projects

1199.   How to control Stepper Motor using AT89C51 Microcontroller As explained in earlier article, Stepper motor is operated by energizing the stator coils ir ordered sequence. When the input sequence of signal is applied to the motor leads, it starts rotating in steps. AT89C51 microcontroller has a current r 50mA. It can...... Listed under: How To - DIY - Projects, Motor Projects

1200.   LED Menorah using ATtiny13 microcontroller Last week on hack-a-day I saw their post on an LED Menorah that was powered by a 9v battery with the l controlled by dip switches. I thought to myself, "gee, that's not a very creative design". There was redemption in the minimalist designs linked...... Liste LED Projects

1201.   PS/2 to C64 Mouse Adapter using ATmega8 microcontroller A pixel artist friend of mine wanted a mouse to try his skills on a real C64. I thought I coul by making an adapter that would allow a regular PS/2 mouse to be used with a Commodore 64. The most popular and...... Listed under: Development Kits Projects

1202. MP3 Player using ATMega128 microcontroller History I decided to do this project for several reasons: first I like music, second I have a huge collection of MP3, and third I wante able to play them anytime in my living room. I began the project with one major restriction,...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects, Sound - Audio Projects

1203. How to drive 595 shift registers with AVR hardware SPI using ATmega168 microcontroller Driving a shift register using an AVR chip's built-in hardware i quite easy. Most of their offerings have an SPI module, or Serial Peripheral Interface. A shift register is exactly that, a peripheral device that communic serial line. All we need to...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1204. ATtiny12 fuse restorer using microcontroller This restores the fuses in an ATtiny12 via High Voltage Serial Programming. Plug an ATtiny12 into the 8 pir and hold down "GO!" button. The LED will come on at the end of the programming process, which only takes a couple hundred millisecond. The...... Li: under: AVR ATmega Projects

1205. LED Matrix Display using TD62783 microcontroller Last Sunday I gave a workshop in TOG as part of it's Engineers Week 2011 activities. We spent the d assembling a 8×8 Red/Green LED Matrix Display circuit which I designed in strip board. The circuit forms an interface between a micro controller and Listed under: LED Projects

1206. 3 channel, 8 bit EEPROM DAC with DS interface using ATtiny12 microcontroller •Low power •EEPROM memory for autonomous operation, 16 bytes ava general purpose use. •Low cost This device provides three channels of 8 bit pulse-width modulation. Output pulse duty cycle ranges from 0 to 255/256 steps. DACs may be loaded by the DS...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

1207. AvrPhone using ATmega128 microcontroller AvrPhone is a simple mobile phone with touchscreen. His brain is AVR ATmega128 microcontroller (128 kl kB SRAM) and user interface, the 2.4 "LCD display with touch foil and ILI9325B controller, equipped with a 16-bit bus. The communication with the old module...... Listed under: Phone Projects

1208. Real Time Clock/Calendar/Alarm with Interpreter for battery backed-up and battery powered operation with DS interface using ATtiny12 Based on the ATtiny12L-4PI microcontroller -A real Time Clock/Calendar for less than US$1.50 in moderate quantity.   This is the timekeeping test circuit. It includes transistor circuit to switch in the 5V power supply when present and drop back to the 3v battery...... Listed under: Battery Projects, Clock Projects

1209. DS interface test tool using ATtiny2313 microcontroller The DS protocol was designed to provide firmware-based bidirectional host-to-slave inter proc communications for situations in which no hardware solution is available and the host and/or the slave in incapable of tending the interface in real tir only specialized hardware required is two bidirectional...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

1210. Audio Spectrum Monitor using S1D15200 microcontroller This is an evaluation use of a small graphics LCD module. Last summer, SG12232C graphic L module has been sold sold for 1500 Yens from Akizuki Denshi and I bought it. However I could not find good application for the LCD module and it wa Listed under: Sound - Audio Projects

1211. Minimum Mass Waveform Capture using AVR microcontroller Capturing repetitive waveforms at 1 million samples per second using PWM and a comp Download AVR Studio Source wfcao 030326 .asm The impetus for developing this technique came from my own need to capture repetitive waveforms least expensive and lowest part-count means possible....... Listed under: Metering - Instrument Projects

1212.	AVR mod player using ATmega325 microcontroller In 2006, I took part in an electronic demo competition on a Dutch forum (see this topic). Because co demos like they used to have on old machines like the Amiga or Commodore are harldy made anymore since hardware has come such a long way,..... under: Sound - Audio Projects

1213.	Longboard Wheel Display using AVR microcontroller If you're a resident of Seattle, I highly recommend you check out the Bubble events group. One of regular events over the summer is something called "Nocturnal Push" where you can get decked out in your best glow gear and cruise the Alki Beach.. under: LED Projects

1214.	AttoBasic HOME using Atmega168 microcontroller This is the central location for resource for all versions of AttoBasic for Atmel AVR controllers and A computers Devices directly supported include ATMEGA328, ATMEGA168, ATMEGA88M, ATMEGA32U4, ATMEGA32, ATMEGA163, ATMEGA8515, ATTINY2 AT90S8515, AND AT90S2313 Versions of AttoBasic run on several AVR controllers with 2K...... Listed under: Home Automation Projects

1215.	A Superhet/Direct Conversion AM receiver for 181.818 kHz using Attiny2313 Downloads Download the AVRStudio assembly source vlflo13041105A.as format) Download the AVRStudio Hex file vlflo13041105A.hex (html format) Photo of completed receiver. Its pocket sized, but not intended to be used because the antenna is a highly directional ferrite loopstick. Its only a matter...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects, Sound - Aud

1216.	1750 Meter Lowfer Band amplitude modulated RF source using ATtiny2313 microcontroller Download the firmware: mor040220BBeacon.asm [caption id="attachment_8672" align="aligncenter" width="389"] The oscillator board is not much more than the 74HC4060 oscillator/divider. The crystal is in a made by cutting down an IC socket.[/caption] This is a low power signal source I put together one evening to...... Listed under: Metering - Instrument P

1217.	Frequency Meter with 100 MHz RF desktop channel using ATtiny2313 microcontroller This basically the frequency meter section of the frequency met generator based on the AT90S2313 described elsewhere on this site, combined with the 100 MHz RF interface described in the page about the RS-232 MHz RF desktop channel adapter. Built and align this...... Listed under: Metering - Instrument Projects

1218.	RS-232 to 100 MHz RF desktop channel adapter using ATtiny2313 microcontroller Downloads AVR Studio assembler source code 2jun2002version.asm Studio hex file 232lin.hex This is an adapter that allows a terminal to communicate via a 100 MHz data channel with peripherals on the same desk top Keystrokes from the terminal are are received through the RS-232...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

1219.	Low cost RF for simple data link and remote control using ATtiny12 microcontroller Wireless data links don't have to be difficult to build or adjust They built quickly using inexpensive and readily available parts. Overview This is a simple, low cost RF data link that can send data reliably over a distance o two...... Listed under: Interfacing(USB - RS232 - I2c -ISP) Projects

1220. Minimum Mass Wireless LCD Display using ATtiny2313 microcontroller A 2 line X 16 character LCD display that is battery operated and works without an external connection. T MinThe basic Minimum Mass Wireless Coupler technology is described and links to other projects on this site that use the Minimum Mass Wireless Coupler are...... Listed unde Internet - Ethernet - LAN Projects, LCD Projects

1221.   A Low Power PLL FM Transmitter using LMX1601 and ATtiny2313 microcontroller An LMX1601 Phase locked loop, a discreet FET VCO, and an AVR micro controller combine to make a stable, easy to use monophonic FM transmitter that includes a an audio activated switch that turns the transmitter on o its being used. Notice: Before operating...... Listed under: Radio Projects

1222.   A Simple FM Stereo Transmitter using ATTINY12 microcontroller The parts to the right of the green capacitor are the FM radio transmitter. The parts b the 8 pin DIP and the transmitter are the resistor matrix. One capacitor, C5, is mounted on the back of the board, and one other capacitor, C11, had.... under: Radio Projects

1223.   DIY mobile phone – Create your own mobile phone This DIY cell phone created at MIT manages to have something for just about every major contem subculture or hipster subset I can think of. Nerds and tinkerers? Check. Wooden case for the steampunk set? Check. Huge antenna for the retro, skinn wearing set? Check. Big...... Listed under: How To - DIY - Projects, Phone Projects

1224.   Are you being spied – A Simple Field Strength Indicator (field strength meter) This project is a broadband field strength sensing probe that has a 15cm It is able to detect radio energy and read the output on a common multimeter millivolts scale. It can be used to test 4MHz, 35 MHz, 55 MHz, 100 MHz, ... Listed under: Blog, Circuits

1225.   What is a stun gun – How to Make Stun Gun What is Stun Gun An electroshock weapon is an incapacitant weapon used for incapacitating a person by administering electric shock aimed at disrupting superficial muscle functions. One type is a conductive energy device (CED) fires projectiles that admir shock through a thin, flexible wire. Other electroshock weapons such as stun guns, stun batons,...... Listed under: Blog, Circuits

1226.   How a Microwave oven works? Bill details how a microwave oven heats food. He describes how the microwave vacuum tube, called a magnetron, gene radio frequencies that cause the water in food to rotate back and forth. [caption id="attachment_8043" align="aligncenter" width="563"] microwave in structure[/caption] He shows the standing wave inside...... Listed under: Blog, Circuits

1227.   Multifunction 330 MHz Remote Control With an ATTINY2313 Simulating the PT2264 Encoder This 330 MHz remote control sends timed sequences of c pulses to accomplish complicated tasks. You can probably tell that I used a lot of solder flux on this board. Lots of flux not only helps the solder wet to copper, but it also...... Listed under: AVR ATmega Projects, Radio Projects

1228.   Circuit and firmware to support Seiko-Epson G1216B1N000 dot graphics display using ATtiny2313 A serial interface and bias supply for the Seiko-Epso G1216N000 using an AT90S2313 because there just aren't enough applications examples for this display on the web. Download Assembler source cod looking for an LCD display that I could use to display waveforms on...... Listed under: AVR ATmega Projects, LCD Projects

1229.   A serial interface for the Truly MTC-C162DPLY-2N using ATmega8515 The 10k potentiometer, just above the ISP connector near the lower middle of th used to adjust the display contrast according to your vertical viewing angle. DOWNLOADS ATTINY2313/AT90S2313 AVRStudio assembler source, LDCbutons040904Ca.htm ATTINY2313/AT90S2313 AVRStudio assembler source, UPDATED FOR COMPATIBILITY WITH NEWER VERSIONS OF THE...... Lis AVR ATmega Projects, LCD Projects

1230. Simplest LED Flasher Circuit As simple as it gets and still works This LED flasher occurred to me while reading about negative resistance in transistors. reported that Leona Esaki, who was at Sony at the time, had been surprised to see a negative resistance region while investigating...... Listed under: AV Projects, LED Projects

1231. A 1.5 Volt, 1970's Style LED Flashing Red Caboose Marker Light using tiny microcontroller A circuit that drives a red LED from a 1.5 volt battery and sim incandescent light. Duty cycle can be changed by selecting resistor values. Photo 1. This printed circuit board is 3 cm long. The first prototype was mac through hole parts....... Listed under: AVR ATmega Projects, LED Projects

1232. White LED Stroboscope Finally, white LED's are bright enough to use in a practical stroboscope. This circuit can operate as a bench-top stroboscope th conjunction with an oscilloscope or frequency meter and bench top power supply can accurately measure rotational speeds, or it can be operated har held...... Listed under: AVR ATmega Projects, LED Projects

1233. White LED Battery Powered Power Failure Light Overview Where I live most of the time, the AC power drops out upon occasion. This used to leave me around in the dark for a flashlight. I could have bought a battery-backed up "emergency light" for about US$35, but being basically metal boxes...... Lis AVR ATmega Projects, Battery Projects, LED Projects

1234. Atmega8 Pinout Diagram ATmega8 is an atmel's low-power 8-bit AVR RISC-based microcontroller combines 8KB of programmable flash memory, 1KB 512K EEPROM, and a 6 or 8 channel 10-bit A/D converter. The device supports throughput of 16 MIPS at 16 MHz and operates between 2.7-5.5 volts. [id="attachment_7971"...... Listed under: Blog, Circuits

1235. SKL14 -1A Schottky diode will fit everywhere SKL14 can be used in switch-mode power supplies or as protection diodes and thanks their really miniatu dimensions, they are also suitable at the lack of PCB space. SMT Technologies enable a substantial increase of current density thanks to a very good h transfer from...... Listed under: Blog, Circuits, News

1236. A White LED Night Light Design BUT FIRST AN IMPORTANT NOTE: This project uses lethal voltages. If you are not experienced in working with lethal vc read this project, but don't build it. You only have one life, and AC power can take it from you very quickly, or leave you...... Listed under: AVR ATmega F Home Automation Projects, LED Projects

1237. Series Connected Voltage Boost Circuit for a Battery Operated LED Lantern Photo. This is the test circuit -the basic driver is only two transistors, two re the circuit was evaluated using a white LED, but when it was time to button it up and archive it, I replaced the expensive white LED with a cheap green under: AVR ATmega Projects, Battery Projects, LED Projects

1238. FAST PRECISION LED DRIVER What it is The circuit allows a precision regulated drive current to be set to drive an LED, and in response to a TTL level signal, the LED is switched with rise and fall times of less than 500 nanoseconds and less...... Listed under: AVR ATmega Projects, LED Projects

1239.

Remote Controlled (R/C) Airplane LED Flasher using ATTINY12 microcontroller Downloads Download the AVRStudio assembly source for the program: T12astrobe081028A Download the AVRStudio assembly source for the include file: T12astrobe081028A.hex Find updates at www.projects.cappels.org This was designed to flash a pair of LEDs to be mounted on the wing tips of a Parkzone Citabria...... Listed under: AVR ATmega Projects, LED Projects, F Projects

1240.

Single and Two Cell White LED Drivers Without Inductors Three inductor-free circuits that allow a white LED or UV LED to be driven from one (1.5 volt) flashlight cells (3 volts total) are described. The circuits on this page are: The two cell (3 volt) circuit four transistors. The simple single cell...... Listed un ATmega Projects, Battery Projects, LED Projects

1241.

1 Watt White LED Power Supply Circuit for battery operation Download FreePC project file, gerber and png copper and silk-screen: 1wattledbuck.zip Introduction I have some 1 watt warm white LEDs left over from a project and the application for them was obvious: A better battery operated lamp fo when the power fails, which it does...... Listed under: AVR ATmega Projects, Battery Projects, LED Projects

1242.

Attention-Getting Auxiliary Warning Light Flasher/Driver Overview The circuit shown in Figure 1 is capable of driving an LED array requiring up to seve with a burst of flashes before coming on until power is removed. It is intended to be used as an auxiliary warning light driver. The initial...... Listed und ATmega Projects, LED Projects, Security - Safety Projects

1243.

White LED Drive Circuit using Tiny microcontroller Be Careful About Peak Current A note of caution: These LEDs are comparatively expensive, so I sugg putting a small resistor (1 to 10 Ohms) in series with the cathode of the LED and measuring the peak current as inferred from the IR drop using...... Lis AVR ATmega Projects, LED Projects

1244.

Low Capacitance Scope Probe Adapter An adapter to allow low capacitance probing of high frequency circuits. Overview My boss, Dave, said "Just hold probe close to the cathode lead." Dave had worked at Tektronix for many years, and his ability to make difficult measurements was second only to his under: AVR ATmega Projects, Metering - Instrument Projects

1245.

AC Current Probe for Oscilloscopes Overview I needed several current probes when designing the deflection circuits and high voltage supply for a com display monitor, and the lab in which I was consulting only had one current probe, which I shared with the other four engineers on the project. We..... under: AVR ATmega Projects, Metering - Instrument Projects

1246.

A Portable Precision Voltage Reference using microcontroller Introduction It has been said that a man with one watch knows what time it is, but a mar watches is never sure. The same can be said for a person who has more than one voltmeter. In my situation, I have several...... Listed under: AVR ATm Projects, Metering - Instrument Projects

1247.

Simple LM335 Thermometer using microcontroller Not too many parts. When a voltmeter is connected across the outside terminals of the output cor display reads out in degrees C. I've been fascinated by the LM335 for some time -maybe my obsession with stability finally gave way to my fascination Listed under: AVR ATmega Projects, Metering - Instrument Projects

1248. Minimum Mass Waveform Capture and Display using AT90S2313 microcontroller A 128 x 64 graphic LCD is in the clear plastic box at the top. It is conn the waveform capture and control unit in the green pencil box below the display. Downloads AVR Studio 3.5 ASSEMBLY SOURCE for the waveform ca controller....... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1249. Broadband RF Field Strength Probe using Atmel AT90S1200A AVR controller Download auto-zero assembly code This broadband probe has a small an (about a 15 cm length of insulated wire). Radio Frequency energy coupled to the antenna is detected and made available to drive millivolt level signals input of a DVM (Digital Volt Meter)....... Listed under: AVR ATmega Projects, Radio Projects

1250. A Field Strength Meter Using A Biased Schottky Detector using microcontroller Downloads Download the Download FreePC files in and the detector bo layout png file in zipped forma: schottkydedtector080309 Find updates at www.projects.cappels.org Starting to do a little work at 330 MHz, I decided t existing field strength meters were not adequate for for my...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1251. Precision Audio Frequency Peak Detecting Probe using microcontroller This is a handy companion for a digital voltmeter. Its allowed me to do a lot of used to use my oscilloscope for, and in addition it measures voltages to much greater precision.Using an LM324 quad op amp, this peak detector prov ...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1252. Cellphone Operated Robot using ATmega16 AVR microcontroller This Instructible is entered in the Category: 13 - 18 of the National Robotics Week Rob Contest MY URL-http://avadhutelectronics.blogspot.com/ MY Email-avadhut.deshmukh@gmail.com Video :Cellphone Operated Robot Step 1 Compo Required Component Required: IC1 - MT8870 DTMF decoder IC2 - ATmega16 AVR microcontroller IC3 -...... Listed under: AVR ATmega Projects, Phone Robotics - Automation Projects

1253. HF AC Millivoltmeter Adapter using microcontroller Encased in a pencil box to keep the point-to-point wiring on the back of the board from shorting to and things on the workbench, the plastic case also holds the offset and gain post as well as the input connector and the switches that...... Listed under ATmega Projects, Metering - Instrument Projects

1254. PHduino pH Meter Using Arduino About This project describes an open software open hardware pH meter using an Arduino/Freeduino board. In othe this is an electronic circuit to be connected with a glass electrode pH sensor. It was possible by the idea from my friend Mr. Denis Vidal, the...... Listed AVR ATmega Projects, Metering - Instrument Projects

1255. A Microcontroller Based Digital Lock-In Milliohmmeter using ATtiny2313 microcontroller Download: assembler source mhm031002A.asm A milliohmm just the tool for checking trace resistance on a printed circuit board, tracking down shorted traces, and measuring the contact resistance of a switch o connector. Its the kind of tool that would come in real handy occasionally,...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1256. Dutchtronix AVR Oscilloscope Clock using Atmega328 microcontroller Hardware features: Connects to your analog scope in X-Y mode using BNC cables or probes (1x, 10x) Us Atmel AVR Atmega328p with 32KB flashmemory On board 5V power regulator for use with user provided wall adapter (8-15V DC center positive) Power plug (5.5mm...... Listed AVR ATmega Projects, Clock Projects

1257. I2C Tiny USB using ATtiny45 microcontroller Attach any I2C client chip (thermo sensors, AD converter, displays, relais driver, ...) to your PC via USB ... q and cheap! Drivers for Linux, Windows and MacOS available. The i2c-tiny-usb project is an open source/open hardware project. The goal of i2c-tiny-us Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1258. TRUE RMS-TO-DC Adapter For DVM using microcontroller Specifications Input: AC, DC or AC+ DC to > 10 KHz Ranges: 200 mv, 2V, 20V, 200V, 600V full s Accuracy: ±1%, depending on divider resistor selection Crest Factor: 1 to 3, up to 5 with degraded accuracy Input impedance: 1 Megohm shunted by 2 Listed under: AVR ATmega Projects, Metering - Instrument Projects

1259. MMC/SD/SDHC AVR Interface using ATMega8 microcontroller MMC/SD/SDHC card library This project provides a general purpose library which implen and write support for MMC, SD and SDHC memory cards. It includes low-level MMC, SD and SDHC read/write routines partition table support a simple FAT16/FAT32 read/write implementation The circuit The circuit which...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects - Storage Projects, Security - Safety Projects

1260. A Pretty Good Wattmeter For Bench Use using microcontroller Briefly, • AC True Watts using two quadrant multiplier • Optimized for 120 VAC (can be c 15 watt full scale (can be changed) • Uses DVM floating on AC Neutral as display • Requires moderately high level of analog circuit skill • Very...... Listed AVR ATmega Projects, Metering - Instrument Projects

1261. RS-232 Freq. Meter/Pulse Generator Based on Atmel ATtiny2313 using microcontroller Simplicity in circuitry was the design direction. Zero mass (firmv with no physical components) would the ultimate achievement. This instrument doesn't have any front panel controls because the user interacts via a terminal program at 9600 baud. I needed a frequency meter for...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1262. Analog audio panel for PC using ATMega328 microcontroller Have you ever struggled with audio settings in control panel in middle of a VoIP call? Or, wondered if the other gu you properly? I have. My work requires great deal of remote conference calls using PC. The first thing I wonder always...... Listed under: AVR ATmega Projects, Sound - Audio Pr

1263. Preamp and 330 + MHz Prescaler for A Little More Serious Frequency Meter using microcontroller A preamp that drives the CMOS counter input and a 10 prescaler to extend the range of A Little More Serious Frequency Meter(elsehwhere on www.projects.cappels.org). (Above) Enclosed in a 16 cm x 16 plastic box, the preamp has a 60 cm cable...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1264. A Little More Serious Frequency Meter using ATtiny2313 microcontroller This is design for a frequency meter based on AVR microcontrollers. Maximun frequency is specified to be 30 MHz in the multi-chip configuration, and in single-chip configuration, there are both 5 MHz and 10 Mhz versions operat 10 and 20 MHz crystals, respectively....... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1265.   HF/VHF/UHF TEST OSCILLATOR using microcontroller Its built into a plastic project box with an aluminum cover (on the bottom). The controls are as fo Large golden knob is coarse tuning, small black knob with a blue index stripe is fine tuning, the green LED is the power on indicator, the...... Listed und ATmega Projects, Metering - Instrument Projects

1266.   RF Inductance Meter using microcontroller I needed a way to measure hand-wound RF inductors in my second lab, and since I would only be doing th occasionally, I didn't need anything fancy, and since once a friend finishes his AT90S1200-based design, I plan to make one myself, I figured I'd...... Liste AVR ATmega Projects, Metering - Instrument Projects

1267.   LC Determination by Resonant Frequency Measurement using microcontroller A well known L/C measurement circuit is pressed into service to make a bones measurement circuit. Download the AVRStudio assembly source: lgm031227I.asm Download the AVRStudio hex file: lgm031227.hex Left-to-righ volt regulator, the LM393 oscillator (a 0.047 uf capacitor is mounted on the...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1268. Battery Checker Circuits using microcontroller The "Battery Good" checker. When the button is pressed, the green LED will glow if the battery voltage is above the preset thresl version has a higher parts count than the "Battery Low" version, but a bonus is that it can drive an LED...... Listed under: AVR ATmega Projects, Battery Projects

1269.   A 1 Khz Digital Sine Wave Signal Source using ATmega8515 microcontroller • 1 Khz From a Quartz Crystal • 1 V P-P Sine Wave Calibrated Output • 1 KH: Wave Output • 900 mv Inverted Sine Wave Output (Uncalibrated) Downloads Download the WINAVR main source for the 2313 version of the firmware 2313sine.c Download the...... Listed under: AVR ATmega Projects, PWM Projects

1270.   A Noise Generator per IEC 268-1, IEC 268-5, and IEC 268-7 A related article on this site: True RMS-To-DC Adaptor for DVM Introduction This project cam when I needed to perform some reliability tests on some headphones according to IEC 268-7. The test requires operating the headphones at their rat power for a number...... Listed under: AVR ATmega Projects, Sound - Audio Projects

1271.   MAX038-Based Sweep/Function Generator With Markers using AVR ATtiny2313 microcontroller Take Maxim's MAX038 function generator chip, add so and you have a pretty nice tool for the bench. Downloads: Main Circuit Schematic Power Supply Schematic You can build this with switches instead of you don't want to use a micro controller. Here...... Listed under: AVR ATmega Projects, PWM Projects

1272.   An Isolated Adjustable Auto transformer using microcontroller This is a means of testing AC mains operated circuits at variable AC voltages, and it als isolation to allow safe measurements of that circuit. A fused isolation transformer and a variable auto transformer connected together in a grounde box. What...... Listed under: AVR ATmega Projects, Home Automation Projects

1273.   A 10 Bit LED Digital Panel Meter With Auto Ranging Based On The ATMEGA8 Downloads Download the AVRStudio assembly source for the program: M8DPM091109A.asm Download the AVRStudio hex file: M8DPM091109A.hex Find updates at www.projects.cappels.org Overview - A 10 bit digital pan for positive voltage only. - Input resistance: about 130k - Ranges: 0 to 10.20 volts and 0...... Listed under: AVR ATmega Projects, LED Projects, Metering Instrument Projects

1274. Photocell Amplifier using microcontroller This is a low frequency amplifier with an adjustable transimpedance that is intended to be used to take relative measurements of a w of photo currents. Not having many parts, this amplifier can be put together in a short amount of time. Find updates...... Listed under: AVR ATmega Projects, Solar energy proje

1275. A SIMPLE MANUAL CURVE TRACER using microcontroller Measure current vs voltage or voltage vs current over limited range with good accuracy   This on a phenolic board which was mounted on a plastic box. The box serves two purposes: It holds the circuit off the workbench, and it makes a...... Liste AVR ATmega Projects, Metering - Instrument Projects

1276. A Pretty Good LC Meter Based on the AVR using ATTINY2313 Microcontroller Calculates and displays L and C from oscillation frequency using referenc components. No relays, no range switching, a minimum of controls. And it is pretty accurate too! Note: After reading this article, check out the improv modified An Even Better LC Meter... The 2 line...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1277. An Even Better LC Meter Based on the AVR ATTINY861 An improvement over "A Pretty Good LC Meter." Enhanced capacitance self calibration, accurat operation without precision components, and only one micro controller. Downloads Download or view the WINAVR main source file: lcm.c Download complete package including the LCD library: Even-Better_LCM.zip (LCD Library provided with...... Listed under: AVR ATmega Projects

1278. GSM GPS module shield for Arduino Shield for Arduino designed and based on the module GSM/GPRS SIM900 or the GSM/GPRS & GPS module SIM9(make calls, voice and data connections via GPRS allow maximum customization and provide many configurations. With a microphone and a headset mm jack (just the standard...... Listed under: AVR ATmega Projects, GPS Based Projects

1279. Interfacing DRAM Memory using AVR microcontroller Is it possible to use DRAM with microcontroller AVR? Yes, it is possible. Jesperh has proved it. He up a DRAM to a small processor (in this case an Microcontroller Atmel 8515), and handle the RAS/CAS sequencing and refresh in software. The type of under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1280. Ponyprog Circuit for AVR & PIC16F84 using microcontroller Comments: All resistors are 1/4W.The circuit is powered by 9...15V DC or AC. When In Circu Programming (ISP) connectors are used, is possible the programmer to be powered from target's power source. Diodes D2 and D6 protect the regulat LM7805, when target's power is used....... Listed under: AVR ATmega Projects

1281. Ponyprog Circuit for ATMEL'S AVR using microcontroller The ATMEL AVR programmer works with the Windows program "Ponyprog" which works unde XP, ... and can be found at http://www.lancos.com/prog.html On board the AVRs that can be programmed are those in the schematic. For other memb family or the rest...... Listed under: AVR ATmega Projects

1282. EPROM adapter for ATMEL 89 Series Flash Microcontroller Programmer Devices The EEprom programmer software supports the following devices. 28 28C256 28C17 29C256 28C64 Hardware Diode D1 and resistor R1 provide the VDD isolation when programming the 24 pin devices. The jumper J3 mu shorted for 24 pin devices, and open circuit for 28...... Listed under: AVR ATmega Projects

1283. PCB Exposure Box with Countdown timer using ATMEGA8 microcontroller Tired of spending hours and hours in wire soldering? Do your circuits look u you are looking for a way to produce professional-like PCBs? Then you had better try photoetching. And the first step to do that is to have the right eq that...... Listed under: AVR ATmega Projects, Other Projects

1284. 89Sxx Development Board using microcontroller Introduction of 89Sxx There are some 89Sxx development board, here is another one. I have designe single side development board to be used as a tool for learning MCS-51 Microcontrollers, and for easy microcontroller project development. The 89Sx development board features : 89Sxx 40-DIL based...... Listed under: AVR ATmega Projects, Development Board - Kits Projects

1285. Wireless Coupler Terminal Interface using AVR microcontroller This is a Minimum Mass Wireless Coupler that connects a terminal, or PC running term software, to other Minimum Masss Wireless devices by means of a 1200 baud data channel at 181.818 kHz. The basic Minimum Mass Wireless Couple technology is described and links to...... Listed under: AVR ATmega Projects

1286. RF Field Strength meter using AVR microcontroller The hot melt glue that covers the circuit serves multiple purposes: It helps to keep the temperature among the three transistors (to minimize thermal drift), it protects the components from physical damage, and it holds the battery holder on the boar used...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1287. Digital Telemetry using ATMega8 microcontroller The ATmega8 microcontroller-based Low-Cost Telemetry Device (LTD) is an efficient telemetry keyer. measures the voltage levels of up to four analog channels via its on-chip 10-bit ADC, converts the measurements to numbers, and then sends the data code to an external...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1288. LC Resonant Frequency Meter using AVR microcontroller A well known L/C measurement circuit is pressed into service to make a bare bones measure circuit. Download the AVRStudio assembly source: lgm031227I.asm Download the AVRStudio hex file: lgm031227.hex Left-to-right: The 5 volt regulato LM393 oscillator (a 0.047 uf capacitor is mounted on the...... Listed under: AVR ATmega Projects

1289. AVR LED RF Field Strength using microcontroller Useful as a transmitter tune-up meter or an RF sniffer, this is an RF field strength indicator that is loos on the Broad Band RF Field Strength Probe, described elsewhere. It detects RF via a square law detector, basically its a crystal set with...... Listed unde ATmega Projects

1290. Control Relay Card with USB port Atmel using Atmega8 microcontroller Once upon a time, though a circuit of this type of calling Searches Banim made Microchip PIC Series devreydi 6 pcs rörele control pcb computer program code can be done via usb port usb drive and 9-12 volts AC regulated power s section of...... Listed under: AVR ATmega Projects

1291. Temperature Sensor Thermometer using AT89C51 and DS1621 microcontroller DS1621 temperature sensor circuit digital thermometer to tell if using. Operation of the circuit is simple, as are as follows: temperature sensor from the numeric value being sent to the microcontroller and the micr using the I2C serial communication protocol, this value will more basıyor.Biraz If the LCD tomicrocontroller interprets...... Listed under: AVR ATmega Pr Sensor - Transducer - Detector Projects, Temperature Measurement Projects

1292. About Atmel and Combination Lock Application using AT90S2313 microcontroller Microcontroller Microcontroller 's (MCU) is a kind of CPU (CPU) can be seen as. MIB MCUs fro and less capable of addressing memory, but they are designed for the implementation of real-time control problems both cheaper and easier to use. The major difference bet

1293. Led Animation Circuit with PC Connectivity using AT90S2313 microcontroller Animator is a device, rather 5 × 16 matrix LED , which are used to display animation. Initially, the device serves to something completely different and it was controlled directly from the parallel port for the program is written Pascal. The idea has proved to be a...... Listed under: AVR ATmega Projects

1294. Color Sensor Circuit with AT89S52 ADC0808 This color of the surface color to red when you bring to the surface, a sensor to read the LDR, yellow, blue yellow and blue lights in different surface finishes as a different yansıtmalarını works by taking a foothold. Will be reflected from the surface to...... List AVR ATmega Projects, Sensor - Transducer - Detector Projects

1295. Serial interface with 2X16 LCD display using ATMega8515 microcontroller The 10k potentiometer, just above the ISP connector near the lower middle board,is used to adjust the display contrast according to your vertical viewing angle. DOWNLOADS ATTINY2313/AT90S2313 AVRStudio assembler sour LDCbutons040904Ca.htm ATTINY2313/AT90S2313 AVRStudio assembler source, UPDATED FOR COMPATIBILITY WITH NEWER VERSIONS OF THE...... Lis AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1296. G1216B1N000 dot graphics display using AT90S2313 microcontroller Download Assembler source code I was looking for an LCD display that I could us display waveforms on the workbench. The selection criteria for the display module itself was straight forward: 1. Dot graphic with sufficient resolution a simple waveform, 2. Available...... Listed under: AVR ATmega Projects

1297. LCD Date Time Application using AT89S52 microcontroller This application can be installed at the same time an alarm indicating the date and time pro Atmel with 8051 -based microcontroller AT89S52 tasarlanmıştır.Uygulamamızın using the Keil compiler using the C programming language using code in different types of intervention. Proteus simulation of the application program, Isis has...... Listed under: AVR ATmega Projects

1298. Dot Matrix Display Applications using AT89C2051 microcontroller 4 Piece AT89C2051 micro-controller matrix display has a project carried out with proteus isis simulation and has asm hex code files Atmel AT89C2051 • Compatible with MCS ®-51Products • 2K Bytes of reprogrammable Flash Memo Endurance: 10,000 Write / Erase Cycles • 2.7V to 6V Operating...... Listed under: AVR ATmega Projects, Other Projects

1299. 100 MHz RF oscillator using ATtiny12 microcontroller I needed a frequency reference for tuning up the RS-232 to 100 MHz RF desktop channel adapte elsewhere on this site, when I found this Saronix crystal oscillator in my junk box. A few minutes with AVRStudio produced an ATtiny12 to make a tone Listed under: AVR ATmega Projects

1300. Atmel Test Card using ATmega32 microcontroller PCB and the schema (sch) P-CAD 2004 Schematic drawings prepared by V18.00.2690 also c language through the test has been prepared with an alternative link ATMEGA-32 Development Board Power 7V to 12V (4mm sockets) protected against reverse Visualization by 8 LEDs Statements of eight logic outputs...... Listed under: AVR ATmega Projects

1301. Computer connected Flower Water Circuit using ATmega8 microcontroller Interestingly, I understand a project is determined by the required hours of irrigation data via a computer data exchange rs232 com port are made out of a project source code and is not easily implemented scheme, For more detail: Computer connected Flower Water Circuit using...... Listed under: AVR ATmega Projects

1302.　Multimeter with Atmel using Atmega8-16pu microcontroller Atmega8 Multimeter "Multimeter" was the only title to einfiel to me first. Voltmeter (only DC) 0.00 - 9.99 volts and 10.0 - 30.0 volts with automatic range switching. Frequency counter 0 .. 7999 MHz (Theoretische) with automatic Switching tim Logic tester L - prohibited area...... Listed under: AVR ATmega Projects

1303.　Decoding 4 buttons with two I/O's on AVR using ATtiny12 microcontroller Just the solution for AVR applications in which I/O is tight, such as the ATtiny should work well on other kids of controllers that have independently controlled I/O direction registers, such as PIC and 6805 controllers. This is a solu devised for those...... Listed under: AVR ATmega Projects

1304.　EEPROM Driver for AVR with RAM using ATtiny15 microcontroller Download the test program with driver: i2cm030710F.asmI had been putting off writing a driver for some 2 24LC256 EEPROMS I was thinking about using, when I came across a temperature logger application written by Sean Ellis. The Temperature logger was posted on on www.avrfreaks.net...... Listed under: AVR ATmega Projects, Other Projects

1305.　ATtiny12 fuse restorer using microcontroller Plug an ATtiny12 into the 8 pin socket and hold down "GO!" button. The LED will come on at the end of th programming process, which only takes a couple hundred millisecond. The fuses are now restored to their factory default states. This picture was...... under: AVR ATmega Projects, Other Projects

1306.　Analog Multiplexer using AVR microcontroller This technique uses digital I/O pins to multiplex analog voltages into an analog input on the microcontr method is most suitable for signals that do not need to be sampled frequently and it may be extended to accommodate a large number of inputs, tho Listed under: AVR ATmega Projects

1307.　PWM Waveform Capture using AVR microcontroller Described are the waveform capture method, example firmware and hardware designs. This mate formed the basis of an article that was first published in the October, 2003 issue of Circuit Cellar magazine. The only components added to the operat AT90S2313 circuit (one capacitor and two...... Listed under: AVR ATmega Projects, PWM Projects

1308.　1 KHz Synchronous Detector using AVR microcontroller Downloads: Assembler source deco030511C.asm AVR Studio hex file is deco030511C.hex Overview This circuit employs a synchronous demodulator to separate a 1 KHz signal from noise and measures the amplitude of the 1 kHz signals on second at about 60 microvolts per count then...... Listed under: AVR ATmega Projects

1309.　Morse Code Alarm Clock using ATtiny2313 microcontroller Morse Code Alarm Clock Modification (Almost) Trivial application of an AT90S2313 or ATtin an alarm clock to change the alarm from "BEEP BEEP BEEP BEEP BEEP BEEP BEEP BEEP..." to "WAKE UP" in Morse code. This was designed in response request and...... Listed under: AVR ATmega Projects, Clock Projects

1310.　89C517 Segment Display using the Digital Time Data from Port0 7447 entegresinde and 7-segment displayreaches ' s.7447 -integration mikrodenetley from binary code to show in the 7 segment displayis used. So when it comes to 0000 a, b, c, d, e, f LEDs lights up g edi fireproof.7 segment displayis c in parallel to each other ' s.Using the same...... Listed under: AVR ATmega Projects

1311.   8 Channel PWM using AVR microcontroller The assembly code given here was written to see what it would take to make an AT90S1200 generate 8 cha by proper, I mean with the maximum high frequency content consistent with the needed duty cycle and give clock....... Listed under: AVR ATmega Proje Projects

1312.   AVR Programmer with ATMega8-16 About AVR Programmer   This simple AVR Programmer will allow you to painlessly transfer hex programs to most A microcontrollers without sacrificing your budget and time. It is more reliable than most other simple AVR programmers available out there and can be in...... Listed under: AVR ATmega Projects

1313.   AT89C52 DS1302 DS18B20 LCD On Time-Temperature Original Atmel micro controllers to use the at series with a good example of ds1302 ds18b20 circuit 2 × 16 lcd indica set with 4 buttons on The first button press and a bout at 2 minutes (time) setting with the buttons 2 and...... Listed under: AVR ATmega Projects

1314.   Capacitance Meter using AVR microcontroller Digital Capacitance Meter This is a simple capacitance meter which can measure capacitance value easy some measurement methods for capacitance, at one time the capacitance was measured with a impedance bridge or a dip meter. Recently typical ca meters can measure capacitance and...... Listed under: AVR ATmega Projects

1315.   Atmel Avr Project Circuit Archive 360 MB using ATmega8 microcontroller I collected a lot of site in the internet for various atmel avr projects will not w the idea of a day's archive is a grown up pretty. Atmel will be a solid resource for people interested in the firm. Atmel AVR Project Circuit Archive; ...... L under: AVR ATmega Projects, Memory - Storage Projects

1316.   PC Temperature Meter using ATtiny15 microcontroller Port-Powered Temperature Meter This is a four-channel temperature measurmet adapter that without external power supply. It will suitable for measureing temperature and logging its data with a PC. The circuit diagram is very simple and no ad is required, everybody will able to build...... Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects, Temperature Measurement Pr

1317. Computer controlled marquee at90s2313 74hc595 With all the details on a circuit different from that to which the shared a marquee computer control program atmel at90s23 software image format you have the source schema and pcb, orcad drawings. Marquee on a circuit different from that to which Marquee in...... Listed under: AVR ATmega Proje Home Automation Projects

1318.   Frequency counter using AVR microcontroller Universal Counter The frequency counter is the most popular instrument in the home maid instruments that the reason why it is built widely is: it can be built easily because it is digital circuit, it is generic measurement and many construction kits are...... Li under: AVR ATmega Projects

1319.   8 channel LCD Teperature meter using microcontroller Description This is the fully featured, jammed packed temperature readout unit. I can measure temperature from up at 8 DS1820 digital temperature sensors all on the same 1-wire bus. That's right only 3 wires are needed to go to all the tempera sensors, GND, VCC...... Listed under: AVR ATmega Projects, LED Projects, Temperature Measurement Projects

1320.   Packet Radio using AVR microcontroller Here is some experimental hardware and software to transmit and receive AX.25 packets. It is essentially a PIC designed around a Atmel AT90S2313 with a few extra bells and whistles. I had picked up a couple of MXCOM MX-614s at the TAPR display (I...... Listed under: AVR ATmega Projects, Radio Projects

1321.   Nixie Clock with AVR using ATmega48 microcontroller Introduction: This is the hardware and source code for an Atmel ATmega48 based four digit Nixie Clock. Description: This was my second Nixie clock project. I wanted something a little smaller / cheaper / simpler then my rather large B-7971 clock. I post...... Listed under: AVR ATmega Projects, Clock Projects

1322.   Atmel AT89C2051 hardware keylogers circuit with using AT89C2051 microcontroller Atmel On the PC keyboard PS 2 AT89C2051 keylogers circuit conne cable connects to the circuit between what is written in the wake of the program running on the pc upon AT24C512 writes eeprom eeprom reading wi has decided to release an early version of...... Listed under: AVR ATmega Projects

1323. AVR terminal for serial port using TSOP1738 microcontroller description (hardware) Above and below you can see the terminal. The LCD display is represented by the connecto has a HD44780 compatible LCD controller and I'm using the 4-bit interface to send data to the LCD controller. The LED's are multiplexed. I've seen...... Listed under: AVR ATmeg

1324.   Atmel atmega projects l35 heat time display keypad using ATMega microcontroller Atmel ATMEGA series of three projects are made with micro-contro delivering projects bahramelectronic.ir Thank you brother Bahram's administrator. 1 - ATMEGA16 LCD display temperature measurement (LM35) 2 - ATmega8 application of the keypad display with 7 segmet 3 - ATMEGA32 with a thermometer (LM35) hours. For more detail: Atmel atmega projects l3 time display keypad using ATMega...... Listed under: AVR ATmega Projects

1325.   Atmel Bascom avr 8051 project, the circuit archive using AT89S8252 microcontroller Atmel series (AT89C2052, AT90S2313, AT89S8252, etc.). wide rang microcontrollers with an archive of high-quality circuit atmel version you can find a lot of. Usb, alarm, lcd, nokia 3310, nokia 6100, display, LED, sms, te and so on. schema files to Protel PCB circuit has a lot of...... Listed under: AVR ATmega Projects, Other Projects

1326.   Heart of LEDs using microcontroller One of the requests we received after publication of the Christmas Star was "can you do different shapes?" Well, with Mother's Day comi soon, we thought a heart would be appropriate. Now you can have something different to give to that special Mum or...... Listed under: AVR ATmega Projects, LED Projects

1327.   Atmel atmega128 clock ds1307 tda5410 hard disk using atmega128 microcontroller Previously called " Corrupted HDD Evaluate under the heading "co hard disks to evaluate the application, I mentioned a couple of hours on the web projects I had used it with emery hardisk hours now, but quite profes and all of the shared resources, shared project Circuit atmel ATMEGA...... Listed under: AVR ATmega Projects, Clock Projects

1328.   Lux meters attiny26-16 light measurement circuit using attiny26 microcontroller Lux meter circuit atmel attiny26-16 microcontroller based on the valu LED displays on the display lux with LEDs placed on 2sk1061 MOSFETs. Interestingly, all of the source files in an application (pcb, diagrams, code) calib circuit is shared also provided information to Lux meter circuit diagram: The Lux...... Listed under: AVR ATmega Projects

1329.   Atmel avr usb programmer using ATMEGA8 microcontroller A lot of programmers are growing for a USB programmer for Microchip PIC controllers are avr usb programmer circuit atmelcilerde not idle in addition to the USB communication does not require a material ATmega8 ATMEGA48 can be done either the source code of software...... Listed under: AVR ATmega Projects

1330. LCD Car Accelerometer using microcontroller Introduction The circuit is drawn for measurement of acceleration from –1000 mg until + 1000 mg. It ca placed in kantra'n the car and be supplied from the sheath of electric lighter. The circuit includes one indicative LED and a screen LCD. Description The under: AVR ATmega Projects, LCD Projects, Sensor - Transducer - Detector Projects

1331. AVR LCD Microcontrolled Oscilloscope using ATmega32 microcontroller Features Frequency measurementVoltage input Power supply Liquid Display C Measurement display area Information displaying area: Auto triggering 10Hz - 7.7 kHz (firmware 2.0 and above)24V AC / 30V DC 12V DC 128x64 pixels pixels 28x64 pixels (Used from firmware 2.0 and above) Auto Introduction A...... Listed under: AVR ATmega Projects

1332. VGA Monitor adaptor using AVR microcontroller Background of the project. Several months ago I tried to connect a microcontroller system to a VGA output data in the form of text. I was surprised to find little on this subject on the internet, to assist me in achieving this...... Listed under: AVR ATmega Video - Camera - Imaging Projects

1333. Midi Generator using ATtiny26-8PI microcontroller This circuit based on ATtiny26 but it could be anyone microcontroller of AVR family. Produce stable tone and you can change it by press some keys like to change midi channel 0-15 , velocity 0-127, pitch 0-127. It is start from center tone...... Listed und ATmega Projects

1334. USB Pinout All Types of USB Pinout Diagrames Universal Serial Bus connectors. These USB connectors let you attach mice, printers and other accesso your computer quickly and easily. The operating system supports USB as well, so the installation of the device drivers is quick and easy, too. Compare ways of...... Listed under: Blog, Circuits

1335. USB AVR programmer using ATtiny2313 microcontroller Introduction. Nowadays, USB is the most popular connection between PC and peripherals suc programmers, printers, scanners etc. For that reason I had to modify my old serial AVR In-System-Programmer (ISP) to work with USB connection. You "use a USB to Serial adaptor to...... Listed under: AVR ATmega Projects

1336. 10 Bit analog to digital converter using ATtiny26 microcontroller Study the Analog to Digital capabilities of Atmel ATtiny26. This tiny but mighty IC is really a miracle. One specia the internal 10-inputs multiplexed ADC circuit which can covert analog voltages to bytes. This check circuit uses only 3 inputs. Of course you...... Listed under: AVR ATmega Proj

1337. SMS control 4 way remote control relays using ATtiny2313 microcontroller Introduction With this circuit we can control up to 8 devices (4 devices in o example project), by sending a specific SMS message with any mobile phone. It's very useful in the case that, at the place we have the devices, we hav Listed under: AVR ATmega Projects, Phone Projects

1338.   RF 2 channel remote control 418MHz using AVR microcontroller Introduction How many times you needed some remote control to handle some elect
? Many times. There are lot of remote controls like infrared, RF, SMS (like my other circuit) and more. The basic small-range remote controls are 2, Infra
RF (Radio Frequency)……. Listed under: AVR ATmega Projects

1339.   RCEN fuse programmer using AT90S1200A microcontroller   Introduction: As you know the AT90S1200 microcontroller includes an internal RC oscillato
disabled by default. If you want to change it (enable or disable) you must to program it with parallel mode. The most programmers work on serial moc
not possible to…… Listed under: AVR ATmega Projects

1340.   80×32 LED matrix display using ATmega32 microcontroller The LEDMATRIX interface News: Now with lcd4linux driver I recently purchased 10 SLM1608
(SLM1606) LED matrix display units from Ebay (you might also contact the seller directly at op16@gmx.de). These are 16x16 LED matrix units with a gr
red LED per pixel allowing…… Listed under: AVR ATmega Projects, LED Projects

1341.   i2c interface to USB interface using attiny45 microcontroller Attach any I2C client chip (thermo sensors, AD converter, displays, relais driver, …) to your
USB … quick, easy and cheap! Drivers for Linux, Windows and MacOS available. The i2c-tiny-usb project is an open source/open hardware project. The
i2c-tiny-usb is to…… Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1342.   Acceleration sensing USB interface using Atmega8 microcontroller Contents The hardware The USB interface Calibration PC assisted calibration Self ca
Software Drivers Joystick drivers Maemo drivers The input event subsystem Setting permissions Enigma FAQ Downloads The TiltStick is a small accele
sensing device in form of a USB stick. It's using a two…… Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1343.   Wireless Lan for AVR microcontrollers The complete WLAN solution for AVR and other CPUsThe page is about equipping an Atmel AVR microcontroller
system with a Prism WLAN interface. This document is intended for people that already have experiences with the AVR microcontrollers and teaches t
to add a…… Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1344.   AVR Compiler toolchain for MAC using ATmega8 microcontroller The following instructions are from early 2007 and are pretty outdated by now. They are still here for referen
they are not maintained anymore and very likely won't work with recent versions of MacOS anymore. After having developed software for the AVR under Windows…… Listed u
ATmega Projects

1345.   Java virtual machine for the Atmel AVR ATmega8 The NanoVM is a java virtual machine for the Atmel AVR ATmega8 CPU, the member of the AVR CPU f
used e.g. in the DLR Asuro robot, manufactured by AREXX engineering. With the NanoVM, the Asuro can be programmed in the popular Java language
Listed under: AVR ATmega Projects, CNC - Printing Machines Projects

1346.   EPROM adapter for ATMEL 89 Series Flash Microcontroller Programmer Ver 2.0 Devices The EEprom programmer software supports the following dev
28C16 28C256 28C17 29C256 28C64 Hardware Diode D1 and resistor R1 provide the VDD isolation when programming the 24 pin devices. The jumper
be shorted for 24 pin devices, and open circuit for 28…… Listed under: AVR ATmega Projects, Other Projects

1347.   Digital Stop Watch with ATmega8 using microcontroller Hello Friends, In this tutorial we will make a "Digital Stop Watch" using an AVR ATmega8 Micro
This will help you learn many concepts like Multiplexed Seven Segment Display Interfacing Using AVR Timers Using Interrupts And many others too. Th
written in C…… Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1348. Relay Timer with ATmega8 AVR MCU Timers are widely used in industrial and domestic application for automating tasks. Microcontrollers can be used to design versatile and a timers with ease. Here I present a simple timer that can be used to turn on/off a load after user specified time. The Timer...... Listed under: AVR ATmega Projects, Home Autom Projects

1349. Remote Controlled Fan Regulator using ATmega8 microcontroller This device can be used to remotely control the speed of an AC fan and to switch it c The remote control is a cheap NEC Format remote, usually supplied with small DVD players. Three buttons are used to command the circuit. The...... L under: AVR ATmega Projects, Home Automation Projects

1350. ATmega8 based RPM Meter Hello All, Today I will show you how you can make a simple RPM Meter using AVR ATmega8. The RPM meter we will be ma contact less type, i.e. it measures the RPM of a rotating object without actually making any contact with...... Listed under: AVR ATmega Projects, Meteri Instrument Projects

1351. ATmega8 Based Smart Code Lock Here is a project for beginners using Atmel AVR ATmega8. The project uses some techniques that are very useful for to learn and utilize. Alphanumeric LCD Module Interfacing. 4x4 Keypad interfacing. PWM Control of LED (Used to dim the back-light of LCD, like in...... L under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1352. ATmega8 Based Multi channel IR Remote Hi Friends, Today I will present an easy to build Multi channel IR Remote control system. It can control heavy to AC 220V 6 Amps or smaller) with a touch of remote control. A total of 5 devices can be controlled from a...... Listed under: AVR ATmega Projects, Oth Projects

1353. AVR RGB LED and Sound Show using ATmega168 microcontroller Here is a nice and entertaining project created by http://www.ermicro.com . The auth very good programming, teaching, drawing and artistic skills. The tutorial is well planned and executed. I really liked the RGB LED and Sound show giv end. I will...... Listed under: AVR ATmega Projects, Sound - Audio Projects

1354. Visualize ADC data on PC Screen using USART AVR Project using microcontroller ADC (Analog to digital converter) is a commonly used peripheral. We u everyday to interface with several analog sensors. Many times a nice visualization of ADC data is required during learning about new sensors. For exa just bought a analog sound sensor, and...... Listed under: AVR ATmega Projects, Sound - Audio Projects

1355. PC Controlled Robot using ATmega32 In this tutorial we will discuss a simple PC controlled robot. The Robot PC link will be a RS232 serial line. The rob have only five commands. Move forward (RS232 char 'F' or 'f') Move backward (RS232 char 'B' or 'b') Turn Left (RS232...... Listed under: AVR ATmega Pro Robotics - Automation Projects

1356.

AVR ATmega8 Project LED Moving Message Display using ATmega8 microcontroller An interesting project that can be done using Microcontroller is a L message scroll er. It teaches you a quite lot of things. So I decided to make one. I made the hardware design modular and cascadeble That means the display is made up...... Listed under: AVR ATmega Projects, Development Board - Kits Projects

1357.

PS2 Keyboard Interface with AVR MCU using ATmega8 microcontroller A PC keyboard is an old and trusted human machine interface. Most peoples ar with it. When a text entry is required it is the best method. If we can interface the PC keyboard with an AVR MCU we can create a whole lot...... Listed u ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1358.

Line Following Robot using AVR ATmega8 One of the most basic autonomous robot you can build is a line following robot(LFR). This type of robot is ru white surface which has an arbitrary path drawn over it by using back paint. The task of the robot is to run...... Listed under: AVR ATmega Projects, Rob Automation Projects

1359.

SMS Based Voting System – AVR GSM Project using ATmega32 microcontroller Hi friends ! Here I am showing a microcontroller based project called the Based Voting System". Using this system you can ask your users to vote for any of the four options. Four available options are identified by a letters 'A and...... Listed under: AVR ATmega Projects, Phone Projects

1360.

Interfacing TCS3200 Colour Sensor with AVR ATmega32 Detecting colour of an object can be an interesting and useful electronic application. It can be using a colour sensor like TCS3200 and a general purpose microcontroller like AVR ATmega32. TCS3200 Colour Light to Frequency Converter Chip TCS3 is designed to detect the...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1361.

AVR Music Player with Alarm Clock using AT90USB1286 microcontroller This music player project built based on AT90USB1286 microcontroller. It uses music decoder which integrates music file decoding and digital-to-analog output. Other main part including 16×2 character LCD display, ST7066/HD44 compatible, using 3.3V instead of 5V and DS1307 real time clock. By finishing this...... Listed under: AVR ATmega Projects, Clock Projects

1362.

AVR Power Usage Logger using ATmega168 microcontroller This ATmega168-based project monitors household power usage and logs it to an SD card from voltage and current detectors amplified LMC6484AIN quad op-amp and then AVR microcontroller computes the power consumption using the fo P=VxI. The voltage and current are each sampled at 9615...... Listed under: AVR ATmega Projects

1363.

Energy Monitoring Transmitter using Atmega328 microcontroller This energy monitoring transmitter, known as emonTx, is an Atmega328-based smal energy monitoring node. It also fully compatible with Arduino IDE. EmonTx is designed to take inputs from multiple CT sensors, optically from a pulse utility meter and from multiple one-wire temperature sensors. The...... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1364.

Wireless Human Health Monitor using ATmega644 microcontroller The aim of this ATmega644-based project is to build a portable device implementin technology and taking full advantage of the wide-spreading Internet to provide a convenient solution to monitor human health. The health informatio acquired on the portable side transmits to the server wirelessly...... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects, Medical - He Projects

1365. AVR Digital Hum Nuller using ATmega168 microcontroller This ATmega168-based digital comb filter built to clean a realtime audio signal. It can remove ubiquitous 60Hz (50Hz in some countries) hum noise caused by power lines and household electrical wiring. Since the noise is not strictly sinusoidal it necessary to remove all...... Listed under: AVR ATmega Projects, Other Projects

1366. DC Servomotor Controller System Meter using ATtiny2313 microcontroller The ATtiny2313-based project is an experiment on the closed loop DC servo control system (SMC) by Elm Chan. It can be used for practical use with/without some modifications. The closed loop servo mechanism requires real-t operations, such as position control, velocity control and torque...... Listed under: AVR ATmega Projects, Motor Projects

1367. Low Picofarad Capacitance Meter ATtiny2313 microcontroller This little instrument, named as Pico C, can be used to measure capacitances down to fr a picofarad. It built based on ATtiny2313 microcontroller. It has range: <1 pF to 2000 pF (guaranteed); 2500 pF possible and resolution: 0.1 pF. To read ...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1368. Ear Trainer using ATMega644 microcontroller The goal of project is to helps people develop the musical skills of perfect pitch and relative pitch. Push b allow the user to navigate a graphical user interface (GUI) on a liquid crystal display (LCD). In perfect pitch training mode, a note is played...... Listed un ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1369. AVR Data Logger with MicroSD using ATmega32 microcontroller This project shows you how to store data into microSD card in files with FAT32 format microcontroller AVR ATmega32. The MCU receives sensor's data through internal ADC. You can connect up to 8 different sensors to the system. In this Dharmani uses one...... Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1370. AVR Code Debugger using AVR microcontroller AVR Code Debugger is useful tool to help you debug code without require resource in the MCU you are debugging. It only use 1 I/O pin, and is connected to a serial port from the host PC. Using a VT100 terminal to capture the output...... Listed under: AVR Projects, RTOS - OS Projects

1371. Electric Spinning Wheel using ATmega8 microcontroller The Electric Eel Wheel is a smart electric spinning wheel which helps you spinning the fiber of y choice into yarn easily instead of traditional wheel. This Electric spinner is lighter and smaller, making it easier to take your spinning with you. You can control...... Listed under: AVR ATmega Projects, Motor Projects

1372. Rechargeable Battery Capacity Tester using ATMega168 microcontroller This ATMega168-based battery tester allows you to find out the overall capaci rechargeable battery. It can shows how long will a battery last from the time it's fully charged to the time that the "low battery" indicator comes on you It can...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1373. Simple Automatic Battery Discharge Analyzer using ATmega48 microcontroller The project allows you to analyze characteristics of unknown/junk batte especially the capacity and variation of the voltage on discharge. It is controlled with a PC via a serial port. No external power supply is required becau powered by RS-232C signals. It uses...... Listed under: AVR ATmega Projects, Battery Projects

1374. AVR Security Keypad Lock using ATtiny2313 microcontroller The Security Keypad Lock Project is a basic access control system based on ATtiny2313. It can be modified to protect just about anything. The "Code Lock" ability will allow the rightful user to deploy the platform to any property that requires simple password-protection. The "AVR"...... Listed under: AVR ATmega Projects, Security - Safety Projects

1375. Speaking Calculator using AVR ATmega88 microcontroller This Speaking Calculator project is an interesting device built just by three chips that can be useful to blind people. The system has four basic operations (addition, subtraction, multiplication and division), and the functions: clear all, change of inverse (1/x), square root...... Listed under: AVR ATmega Projects, Sound - Audio Projects

1376. Handy Password Managing System, Lord of the Keys using AVR ATmega168 The Lord of the Keys is password managing system that able to store many usernames and passwords inside a Java Card™ smart card (one of the most secure methods to store confidential information). Whenever a dialog box in an application or web browser requesting...... Listed under: AVR ATmega Projects, Security - Safety Projects

1377. AVR LED Candle using ATtiny85 microcontroller This LED candle is built to mimic the look of a traditional candle without the dangers associated with a flame. It uses high brightness LED and is controlled by ATtiny85. It could be useful as movie props where you cannot afford to have a...... Listed under: ATmega Projects, Home Automation Projects

1378. Mini Logic Analyzer using ATmega8 microcontroller Mini Logic analyzer is ATmega8-based electronics tool that can be used to watch and analyze logic transitions 0 or 1 of a digital signal. It comes with Nokia 3310/5110 LCD to display signal and it has 4 channel inputs. A digital data signal can...... Listed under: AVR ATmega Projects, Other Projects

1379. Clever Clapper using ATtiny2313 microcontroller A "Clapper" is a device that will turn on or off an AC appliance that is plugged into it, such as a lamp or when it "hears" you clap twice in approximate succession. Pete has built a Clever Clapper with various task. If user...... Listed under: AVR ATmega Projects, Projects

1380. AVR Ultrasonic Spheroid Levitation Device using ATMega16 microcontroller The goal of this project was to design and build a 'gaming' device capable of levitating a ping pong ball at varying heights based on the proximity of the user to the device. The project based on ATMega16 microcontroller. The project incorporates a fairly complex...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1381. AVR Based Mobile Phone using AVR ATmega128A microcontroller AvrPhone is ATmega128A-based simple mobile phone with touch screen and SIM100 module. The display uses 2,4" LCD with a resistive touch screen and ILI9325B driver (16 bit parallel bus). The LCD breakout board contains SD card slot and XPT2046 touchscreen controller. They both are...... Listed under: AVR ATmega Projects, Phone Projects

1382.   AVR Wide Range LC,F, ESR Meter using AVR ATMega88PA-PU microcontroller LCFesR meter is a precise, wide range meter that can measure inductivity capacity (C), frequency (F) and equivalent series resistance of a capacitor in-circuit (ESR) based on AVR ATMega88PA-PU microcontroller. It can be easily with homemade one or double-faced PCB and available electronic...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1383.   AVR Touchpad Handwriting Recognition using ATmega644 microcontroller This ATmega644-based project implements a touchpad input system which handwriting input and converts it to a printed character. Currently, the device only recognizes the 26 letters of the alphabet, but it could be easily gene include any figure of completely arbitrary shape,...... Listed under: AVR ATmega Programmers, AVR ATmega Projects, LCD Projects

1384.   AvrX, Real Time Kernel using AVR microcontroller AvrX is a Real Time Multitasking Kernel for AVR microcontrollers written in assembly. Total kernel siz from ~500 to 700 words depending upon which version is being used. Since the kernel is provided as a library of routines, practical applications take u space...... Listed under: AVR ATmega Programmers, AVR ATmega Projects

1385.   AVR High Voltage Programmer Using Arduino AVR microcontroller AVR microcontroller uses fuse bits to set its operational parameters like watchdog t settings and change speed of the internal oscillator. Most fuse bits can be set or reset without worry. You can flash it into one state and then flashed k using an...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1386.   STK500 Compatible ISP using AVR microcontroller AVR-Doper is an STK500 compatible In System Programmer (ISP) and High Voltage Serial Programm It comes with a built-in USB to Serial adaptor to connect to modern host computers which often don't have a serial interface. The project implements speed USB device...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1387.   TinyRealTime, Small Real Time Kernel for AVR using atmega644 microcontroller Real-time kernel (RTK) is useful to run several task or protocol on one only one task at a time can be executed by MCU, RTK used to make each task think it owns the whole machine. RTK will handle which task has to...... L under: AVR ATmega Programmers, AVR ATmega Projects

1388.   Ultrasonic Security System using Atmega644 microcontroller This portable security system is built based on Atmega644 microcontroller. It can detect based on their physical presence. The system uses URM37v3.2 ultrasonic sensor which is connected to MCU through rs232 serial communication. To sensor for wide coverage range, the system is equipped...... Listed under: AVR ATmega Projects, Security - Safety Projects

1389.   Auto Sensing Sous-Vide Cooker using AVR microcontroller This low cost AVR-based Sous-Vide Cooker is able to auto-calculate the appropriate time for certain thickness of meat using heat transfer equations. It can maintain a set temperature for extended periods of time. The project implements adva features such as a water level...... Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1390.   AVR Thermocouple Temperature Meter using ATmega164 microcontroller The benefit using thermocouple sensor for measure temperature is it has w measurement (-200 °C to +1350 °C / -328 °F to +2462 °F range for Type K), inexpensive, interchangeable, and is supplied with standard connectors. To temperature value from output of a...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1391. AVR Based Car Diagnostic Tools using ATmega169 This project focuses on tapping into GM pre-1996 car and light truck diagnostic information. These systems are commonly r as OBDI, or ALDL (Assembly Line Diagnostic Link). They are based, in part, on the GM-specific 8192-baud ALDL standard that was used starting in the...... Listed under: AVR ATr

1392.
5 Channel USB Analog Sensor with AVR using ATmega48 Microcontroller This project demonstrates how to build a simple module to read analog senso send the data to PC using USB connection. The project uses ATmega48 as main processor and USB FTDI serial-to-usb cable. Simply put header pins on device which you can plug…… Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1393.
AVR Switch Timer using ATmega8 Microcontroller To get better UV expose, Andrianakis has built new Switch Timer that will turn of his UV exposure bo some time. The timer uses ATmega8 as main processor and two 7-segments LED as display. There are two buttons for set and start the timer……. Liste AVR ATmega Projects, Calculator Projects

1394.
Wireless Internet Radio Receiver using AT90CAN128 Microcontroller This stand-alone internet wireless music player, named as Wireless MP3 (WMP3), Atmel AVR AT90CAN128 microcontroller as main 'brain'. The device can play music from internet radio stations like Shoutcast (www.shoutcast.com), co shared network drives and play mp3 files. Ubiquitous 802.11b wireless link is…… Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1395.
Low-cost AVR programmer Before using this programmer…. Be carefull with using this programmer, because it has no insulation circuitry! Especially w high voltages e.g. 110/230 Vac on your project. One mistake and your day can be ruined, your expensive PC distroyed! Part list: 7x 220 ohm 1x…… List AVR ATmega Programmers, AVR ATmega Projects

1396.
SP12 serial programmer software SP12 supports the following devices: AT90S1200, AT90S2313, AT90S8515, AT90S4414, AT90S2323, AT90S4434, AT90S AT90S2343, ATtiny22, AT90S2333, AT90S4433, ATtiny12, ATtiny13, ATtiny15L, ATtiny26, ATtiny25, ATtiny45, ATtiny85, ATtiny2313, ATtiny861, ATmega103 ATmega603, ATmega161, ATmega162, ATmega163, ATmega168, ATmega8515, ATmega8535, ATmega8, ATmega16, Atmega32, ATmega48, ATmega88, AT ATmega2561, AT90PWM3. Source: Pitronics Download the…… Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1397.
AVR assembly language What is an AVR ? First of all AVR stands for: Advanced Virtual RISC, the founders are Alf Egil Bogen Vegard Wollan RISC (also for An AVR is a small microcontroller (chip, IC) which is switching digitally (controller) by means of so called i/o's…… Listed under: AVR ATmega Projects, Clo Projects

1398.
White 7-segments clock ATtiny26 Part list 1x ATtiny26 1x xtal 4.096MHz 2x 27pf ceramic 4x 7-segment white CC 2x pushbutton 1x 78L05 1x 47uF/16V e 1x 0.1uF/16V tantalium 1x 10k 1x 100n multilayer 8x 150 Ohm 4x 6k8 Ohm 4x BC327-25 PNP Features (BETA) 1. Select Hrs/Min or Min/Sec…… Listed u ATmega Projects, Clock Projects

1399.
Controlling internal DAC AT90PWM3 using microcontroller Part list 1x AT90PWM3-16SQ 2x SLO2016 LED display 1x 22uF/25V elco SMD 2x 0.1uF/16V ta 2x 10 kOhm 1206 3x 100n multilayer 1206 1x coil 10uH SMD 1x rotary encoder (Sharp)   Digital voltage control unit his is how a value is stored into…… under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1400.
Controlling SpeakJet with an AVR microcontroller using ATmega88 microcontroller Core Features: · Programmable, 5 channel synthesizer. · Natural ph speech synthesis. · DTMF and other sound effects. · Programmable control of pitch, rate, bend and volume. · Programmable power-up or reset annou · Multiple modes of operation. · Simple interface to microcontrollers. · Simple…… Listed under: AVR ATmega Projects, Sound - Audio Projects

1401. Modular User Interface System using ATMega88 microcontroller The IOSTRING is a modular physical user interface system which consists of a series of basic board modules designed around the Atmel AVR AtMega88 MCU. Each module type can handle switches, pushbuttons, rotary selector switches, shaft encoders, potentiometers, LED's, LCD displays, and an...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1402. Switching between Red, Green and Blue (or Blue1 or/and Blue2 for an RGBB type) using AVR microcontroller Switching between Red, Green and Blue (or/and Blue2 for an RGBB type): An RGB LED is a LED which has three (or four for an RGBB type) semi-conductor LED's in one normal housing i.e. stand mm. The Red LED is made of...... Listed under: AVR ATmega Projects, Other Projects

1403. AVR Based Operating System using ATMega32 microcontroller kaOS project is real-time, multithreaded, preemptive operating system for the Atmel M microcontroller. It can loads and executes programs from a Secure Digital or MMC card. The system waits for a card to be inserted and a reset button pressed, at which point...... Listed under: AVR ATmega Programmers, AVR ATmega Projects

1404. 3D Color LED Graphics Display using ATmega32 microcontroller This 3-dimensional graphics display system which named as MaJaTron consists of 125 arranged in a cube of 5x5x5 dimension. Each LED is a multicolor Red, Green and Blue LED and the control circuit of the system can individually control intensity of each...... Listed under: AVR ATmega Projects, LED Projects

1405. A GLCD connected to an AVR microcontroller using ATmega8 microcontroller A GLCD connected to an AVR microcontroller The PVG120602EGE is a 128 graphic (grey) LCD with lightblue EL backlight and two KS0108 controller chips and one KS0107 line (colums) driver (64 display lines COM1 - COM64) The KS0108 drives segments 1 to 64...... Listed under: AVR ATmega Projects, Video - Camera - Imaging Projects

1406. Open Source AVR Temperature Controller using ATmega48 microcontroller The open source project allows you to control DC appliances based on the temperature of two thermistor inputs. It uses AVR ATmega48 as main processor. The controller has both green and white LEDs to indicate status. The output is connected to N-Channel MOSFET, AOD444,...... Listed under: AVR ATmega Projects, LCD Projects, Temperature Measurement Projects

1407. Pinning LCD display 1601 using microcontroller Pinning LCD display 1601A: Pin no. Symbol Function 1 Vss GND 2 Vdd + 5V 3 Vo Contrast Adjustment 4 Register select signal 5 RW H/L Read/write signal 6 E H->L Enable signal 7 DB0 H/L Data bus line 8 DB1 H/L Data...... Listed under: AVR ATmega Projects Projects

1408. Simple USB AVR programmer, USBasp using ATMega8 microcontroller USBasp is low cost USB in-circuit programmer for Atmel AVR micontrollers. The consists of an ATMega88 or an ATMega8 and a couple of passive components. The programmer uses a firmware-only USB driver, no special USB contr needed. Its programming speed is up to...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1409. Controlling 7-segments LED displays using AVR microcontroller The many posibilities....Non Multiplexed: 1. One or two displays directly to the i/o's 2. C display with a 74LS247 3. Two displays with a 74HC595 and two 74LS247 Multiplexed: 1. Two displays with a 74LS247 and 2 i/o's 2. Two displays with a and...... Listed under: AVR ATmega Projects, LED Projects

1410. Programming AVR ATxMega using USBasp and ATxmega microcontroller ATxmega programmer has different interface than 8-bit AVRs. It uses PDI inte instead of ISP. If you don't want to buy new programmer for ATxmega you can try this little hack done by Szu. He uses USBASP (USB in-circuit program Atmel 8-bit AVR controllers)...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1411. TIL311 / INL0397-1 Hexadecimal Display usning AVR microcontroller Pin numbers: PIN 1 LED SUPPLY VOLTAGE PIN 2 LATCH DATA INPUT B PIN 3 LATCH INPUT A PIN 4 LEFT DECIMAL POINT CATHODE PIN 5 LATCH STROBE INPUT PIN 6 OMITTED PIN 7 COMMON GROUND PIN 8 BLANKING INPUT PIN 9 ON PIN...... Listed under: AVR ATmega Projects, LED Projects

1412. Head-Controlled Keyboard And Mouse For Disabled, using AVR and ATMega32 microcontroller Easy Input is a head-controlled keyboard and mouse in for paralyzed users. The system is built based on AVR ATMega32. It uses user's head movement to control mouse movement on the monitor and user blinking to activate mouse click. Two main sensor used...... Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1413. Advance Fire Alarm through Mobile Phone using microcontroller An automatic fire alarm system is designed to detect the unwanted presence of fir monitoring environmental changes associated with combustion. In general, a fire alarm system is classified as either automatically actuated, actuated, or both. Automatic fire alarm systems are intended to notify ...... Listed under: AVR ATmega Projects, Phone Projects

1414. 93C66 EEPROM chip with an AVR microcontroller How to program a 93C66 EEPROM chip with an AVR microcontroller? The 93C66 is a serially (MICROW Electrically Erasable Programmable ROM (EEPROM) chip with 4 kbit (4096 bit, can be ORGanized as 256 x 16bit or 512 x 8bit) memory space. Here a DI version...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1415. DS1669 Digital Potmeter UP/DOWN using microcontroller Part list:1x AT90S1200-12PI 1x DS1669 (Dallas) 1x 78L05 2x 1N4007 1x 4MHz X-tal 2x 27pf 1x 47uF/16V 1x 100n polycarbonate 3x 100n multilayer 1x 100 ohm 1x 10k ohm 1x 820 ohm 1x 100k trimpot 1x 10k lin. potmete DS1669 Digital Control: Listed under: AVR ATmega Projects, Metering - Instrument Projects

1416. DS1802 Digital Volume Control using microcontroller Part list: 1x AT90S1200 1x DS1802 (Dallas) 1x 78L05 1x 8MHz ceramic resonator 1x 22pF 1x 47uF 47n polycarbonate 4x 100n multilayer 1x 100 ohm 1x 10k ohm 1x 820 ohm 1x 100k trimpot 1x 10k lin. potmeter Digital Controlled Potmeter: (also kno Listed under: AVR ATmega Projects, Metering - Instrument Projects

1417. Helianthus: The Solar Tracking System using ATmega16 microcontroller Renewable energy solutions are becoming increasingly popular. Photovoltaic (systems are but one example. Maximizing power output from a solar system is desirable to increase efficiency. In order to maximize power output fro solar panels, one needs to keep the panels aligned with the...... Listed under: AVR ATmega Projects, Other Projects

1418. 16 LED Knight Rider using 74HCT138 microcontroller Part list: 8x LED (red) 1x 180 ohm 1x 10k ohm 1x 33k ohm 1x 2u2/16V 1x 74HCT191 1x 74HCT132 74HCT138 1x 78L05 1x 47uF/16V 1x 100n 2x 1N4007 Yet another version: Here an example with 4 TTL ICs. This is I think the...... Listed under: AVR ATm Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, LED Projects

1419. 8 LED Knight Rider using AVR microcontroller Part list: 8x low-current LEDs 1x 1k ohm 1x 10k ohm 1x AT90S1200 2x 1N4007 1x 100n 1x 47uF/16V 1x 7... Another version: In this version I took PORTB of the AT90S1200 AVR microcontroller as you can see in the diagram, because this makes it...... Listed un... ATmega Projects, Other Projects

1420. 6 LED Knight Rider using ATtiny22 microcontroller Part list: 6x high eff. LED 2x 330 ohm 1x ATtiny22* 2x 1N4007 1x 100n 1x 47uF/16V 1x 78L05 * The ATtiny22 is obsolete, repl... one of the folowing AVRs: AT90S2343 / ATtiny13 / ATtiny45. History of the back and forth flashers.... In the...... Listed under: AVR ATmega Projects, Other Projects

1421. Temperature Sensor Using ATmega8 and display using LCD(16×2) STEP 1: Circuit Diagram LCD other Pin's 1,2,3,15,16 as usual not shown. Temperature... (LM35) Circuit STEP 2: Programming Code Compile Using Codevision AVR View C Code STEP 3: Burn The Hex In ATmega8 View Hex Code (Make Sure gr... common otherwise it will...... Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1422. PCM Audio Based Door Bell using Atmega32 microcontroller This is a simple procedure to play PCM audio on any AVR microcontroller. AVR's high spe... used to play the audio. It almost sound fine and can be used for simple projects that require sound effects. The code is compiled in winavr GCC...... Lis... under: AVR ATmega Projects, Sound - Audio Projects

1423. AVR Based CRO using Atmega16 microcontroller STEP 1: Circuit Diagram Components ATmega16 MAX232 0.1uf Capacitor ----- 4pcs DB9 Connector 78... power supply STEP 2: Programme Code (Compile using Codevision AVR & Burn in Atmega16) View C Code STEP 3: Here We have used ADC5 of ATmeg... connect...... Listed under: AVR ATmega Programmers, AVR ATmega Projects

1424. Dotmatrix using ATtiny2313 microcontroller On this page you will find a scrolling LED sign based on the ATtiny2313 AVR microcontroller, which you ca... yourself (when finished) Other names for this device can be: Moving message sign, Message crawler, Scrolling message, message display, etc. The ide... let...... Listed under: AVR ATmega Projects, Other Projects

1425. Easy Breadboarding using ATMega microcontroller When I'm fiddling about with electronics I want to be comfortable about it. Therefore I built some t... make by breadboarding life a little simpler. One example is the Network Breadboard Interface. Another one is this little project. These little pcb's can ... Listed under: AVR ATmega Projects, Development Board - Kits Projects

1426. Monochrome Composite Video using Atmega8 This article describes the design of a Text on TV project. It takes serial data and displays text on a TV screen. The hardware part... project is pretty simple. It uses an Atmega8 microcontroller that runs with a 16 MHz crystal. The article...... Listed under: AVR ATmega Projects, Video - Camera - Imaging Project...

1427. Tea Timer using ATTiny2313 microcontroller I usually drink a lot of tea, and sometimes the tea tastes a lot better than average, which means that mos make tea I fail at least partially. The taste of the tea depends on a lot of variables: The make of the...... Listed under: AVR ATmega Projects, Home Autor Projects

1428. Kitchen Timer using ATTiny2313 microcontroller At the moment I do not have a kitchen timer. Not because I do not want one, (they're cheap enough t because it seems impossible to buy a kitchen timer with a decent user interface. That means I have to build my own,...... Listed under: AVR ATmega Pro Home Automation Projects

1429. Power usage monitor using Atmel AVR using Atmega168 microcontroller This project uses Atmega168 microcontroller to compute the power usage at and logs it to an SD card. It has a graphical LCD display too that shows the power usage as a strip chart. Besides, the voltage and current waveforms c displayed...... Listed under: AVR ATmega Projects, Temperature Measurement Projects

1430. Programmer UsbAsp using AVR microcontroller This morning (2009-12-31) I built my 4th AVR programmer. USBasp. I built this one because I wasn't cc happy with my 3rd programmer and because I want to play with a software USB stack. I do know that it works (I just reprogrammed 2 old...... Listed ur ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1431. Programmer using ATMEGA8 microcontroller The programmer I use is built from a kit I bought at Tuxgraphics. There are several reasons I bought this open source, works with avrdude. It connects to USB. It is a lot faster then my old programmer (Programs an ATMEGA8 in...... Listed under: AVR ATmeg Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1432. Beamer Control using attiny2313 microcontroller Beamer Control: Schematic Source code I made this project for Henk. He has a beamer for watching movies and a motor con screen. The purpose of this project is very simple. If he turns his beamer on, the screen must to down. And if the...... Listed under: AVR ATmega Projects, Home Automation Pro

1433. Door Opener using ATTiny2313 microcontroller Door Opener: Schematic Source code I made this little project for Hans, yet another brother of mine. (brothers.) He had a garage door to control and bought a little RF transmitter and receiver to control his door. Leo made a nice cabinet...... Listed unde ATmega Projects, Home Automation Projects

1434. Dimmer using ATTiny2313 microcontroller Dimmer: Schematic Source code I made this project for Leo, a brother of mine. We had an old remote cont video recorder laying around and he wanted some dimmers for all the lights in his house. I didn't have much experience with programming...... Listed AVR ATmega Projects, Home Automation Projects

1435. 2 Bit u Stepper using microcontroller This is the second stepper motor driver circuit I build. The first one had 4 linear current sources and got so hot it barely usable. It had some cool leds though. When I was searching for a better schematic on the internet I couldn't...... Listed under: AVR ATmega Proje Motor Projects

1436. Oscilloscope using AVR microcontroller Designing a professional digital oscilloscope is a pretty complex task wich makes them also pretty expensive. T concluded it's nothing more than a daydream to design one of those. It's far more realistic to limit the design of this instrument to something a bit...... under: AVR ATmega Projects, Metering - Instrument Projects

1437. LC Meter using AVR microcontroller LC Meter: Schematic Source code This is the project I am currently working on (2010-01-23). The LC meter is base Elmcie or Elsie and other similar LC meters. This project is in a very early prototype stage and is at the moment only capable...... Listed under: AVR ATm Projects, Metering - Instrument Projects

1438. Power Supply using AVR microcontroller Katja & Guido at Tuxgraphics sell a very affordable little AVR controlled power supply. That power supply can be controlled by sending commands by I2C. Because I already have a pretty universal network connected to my PC it seems very logical to me to...... Listed under: AVR ATmega Projects, Other Projects

1439. Looking for expanding RAM for your Atmega128 An Atmega128 microcontroller has got 4K of built in static RAM, which is pretty enough for small and range projects that do not involve huge amount of data processing. But if you think you need more than that for your application, you can expand...... under: AVR ATmega Projects, Other Projects

1440. Cellphone controlled robot vehicle using ATmega16 microcontroller When we talk about wireless robot vehicles, we usually think about the RF circuits project is different. It uses a mobile phone to control the motion of a robotic vehicle, and therefore, the range of operation is as large as the coverage Listed under: AVR ATmega Projects, Phone Projects

1441. Multi-channel temperature logger using Atmega48 microcontroller This project describes how to use all the 8 ADC channels of an Atmega48 microcon read temperature sensors and the measured data to a PC for logging by using the built-in USART capabilities of the chip. For demonstration, the temp sensor used is LM335...... Listed under: AVR ATmega Projects, Temperature Measurement Projects

1442. Turn your TV into a Digital Voltmeter using Atmel's AVR 90S1200 microcontroller This is an interesting voltmeter project that display the measured volt TV screen, in giant digits as well as with analog bar. It also records the maximum and minimum values of measurements. The project was built by Albe Bitti and was published...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1443. A physical display device for website visitors based on Atmega168 If you have a blog or website and want to make a physical device to display the nun visitors, this project might be interesting to you. It describes about a similar device that can be directly connected to the internet via router and counts under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1444.   A multifunction digital meter using Atmega128 microcontroller This is a multifunction bench test instrument built using an Atmega128 microcontrolle incorporate a lot of functions like voltmeter, ammeter, logic analyzer, frequency generator, frequency counter and also provides regulated DC power s This device is interfaced with a Windows PC to display the measurements……. Listed under: AVR ATmega Projects, Metering - Instrument Projects

1445.   AVR digital clock with white seven segment LED display using ATtiny26 microcontroller This is a digital clock project based on an ATtiny26 microcontrol displaying time on four seven segment LEDs. The seven segment LEDs glow bright white and are multiplexed through PORTB pins, whereas the segme driven by PORTA pins. The time is normally shown in…… Listed under: AVR ATmega Projects, Clock Projects

1446.   Portable 2.4 GHz Spectrum Analyzer using Atmega8 microcontroller There are plenty of wireless devices available on the market that broadcast in the ISM band. Such devices include Bluetooth, WiFi, Zigbee, wireless USB, cordless phones, wireless mice and keyboards, etc. This project describes a wire spectrum analyzer to examine the surrounding radio…… Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1447.   VGA monitor tester using ATTiny2313 microcontroller If you are a computer technician and want to avoid the need of a PC on your desk to generate te this is something you need to build. This is an embedded monitor tester that you can use to test if a VGA monitor…… Listed under: AVR ATmega Proje Projects

1448.   Digital oscilloscope GLCD using Atmega32 microcontroller This project describes how to make a digital oscilloscope using an Atmega32 microcontrolle graphics LCD. The GLCD used has 64*128 pixel dots (GDM12864A with KS0108 processor) and the AVR runs at 16 MHz using an external crystal oscilla enhance the speed further,…… Listed under: AVR ATmega Projects, Metering - Instrument Projects

1449.   AM radio transmission using AVR using Atmega324 microcontroller When you think about building a radio transmitter circuit, the first thing that come is it requires too many analog components. But wait a minute, this guy demonstrates an AM transmission using a microcontroller. The interesting par a plant as…… Listed under: AVR ATmega Projects, Radio Projects

1450.   Open source color video game development system based on AVR This project describes an open source color game development platform based on microcontroller. You can code a color, high resolution, smooth video game, like Super Mario Bros or Commander Keen on this system. All video proce done by software in background using…… Listed under: AVR ATmega Projects, Video - Camera - Imaging Projects

1451.   USB business card with a computer chip board using ATtiny85 microcontroller Have you ever seen a business card with a computer chip embedded o one does. It has an ATtiny85 microcontroller chip that stores all your personal details. You plug it into an USB port of your computer, and find the deta the…… Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1452.   Experimental board using ATTiny2313 microcontroller This is an experimental board for ATTiny2313 microcontroller that provides a 10-pin connector circuit serial programming, and other header pins to access I/O pins. The AT2313 microcontroller runs on an external 10Mhz crystal. The board has a button reset switch for resetting the…… Listed under: AVR ATmega Projects, Development Board - Kits Projects

1453.   Automate lights in your kitchen area using ATTiny84 microcontroller This project describes an automatic light system for kitchen sink where you need light to properly clean your dishes and vegetables. It uses an ATTiny84 microcontroller with a PIR motion sensor. When motion is detected, the microc turns on the light. The light source…… Listed under: AVR ATmega Projects, Home Automation Projects

1454. AVR displays body temperature on a Nokia 3310 LCD using Atmega8 microcontroller This project describes how to measure temperature with Atmega8 thermistor and display it on a Nokia 3310 LCD. A thermistor is a device that changes its resistance with temperature. With a proper resistor divider net temperature can be measured by measuring the…… Listed under: AVR ATmega Projects, Phone Projects

1455. Open Source USB AVR Programmer for Students and Hobbyists using Atmega8 microcontroller If you cannot afford to buy a USB programmer for AVR worry, you can make one by yourself. This programmer uses a Atmega8 microcontroller with a few external passive components. The good thing is yo need any USB controller because it is implemented…… Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1456. AVR based remote controlled fan regulator This project is from Extreme Electronics that describes an AVR-based (Atmega8) remotely controlled fan re The control commands are received through a DVD player remote control. With three buttons on the remote control, you can turn the fan On and Off conotrol the…… Listed under: AVR ATmega Projects, Video - Camera - Imaging Projects

1457. 50 MHz range frequency counter using ATtiny45 microcontroller A wide range frequency meter is an useful tool for an electronics lab. This projects de frequency meter based on AT90S231 microcontroller that can measure input frequencies up to 50 MHz. The measured frequency is displayed on 6 dig multiplexed seven segment displays. It…… Listed under: AVR ATmega Projects

1458. Easy Data Logger with Virtual USB using ATtiny45 microcontroller "V-USB is a software-only implementation of a low-speed USB device for Atmel's AVR microcontrollers, making it possible to build USB hardware with almost any AVR® microcontroller, not requiring any additional chip." For further detai USB and licensing, visit http://www.obdev.at/products/vusb/index.html This is a data logger…… Listed under: AVR ATmega Projects, Interfacing(USB - R -ISP) Projects

1459. Tetris and Snake with one AVR using Atmega168 microcontroller This project describes two games – Tetris and Snake, both programmed inside an Atm microcontroller. You can plug this device to a PAL TV and have fun playing the games. The circuit diagram is very simple and uses resistors to generate composite video output. For…… Listed under: AVR ATmega Projects, Game - Entertainment Projects

1460. Build an AVR Xmega Prototyping Board using AVR microcontrollers The AVR ATXmega chip is a newer offering in Atmel's AVR line. The Xmega is billed hybrid 8/16-bit MCU, which means you can use your normal development environment to program Xmegas (as compared to AVR32 and Atmel's ARM Because the Xmega uses…… Listed under: AVR ATmega Projects, How To - DIY - Projects

1461. Development Board With LCD using Atmega16 microcontrollers This instructable shows, how to do your own development board for Atmega16 or Atr processors.The Internet is full of home made development boards, but I think that, there is room left for another one. This board have been very usef projects and I…… Listed under: AVR ATmega Projects, Development Board - Kits Projects

1462. Blinking, Singing, Marioman using Attiny microcontrollers Use an attiny13a, two LEDs and a greeting card speaker to create a blinking Marioman that plays the Super Mario Br theme song. This can be an easy low-cost project for anyone who is looking for a fun way to break into AVR programming! The…… Listed under: AVR ATmega Projects, Sound - Projects

1463.   Reading Switches with using Attiny microcontrollers There have been several Instructables dealing with outputs from the ATtiny2313 and similar AVR For example, http://www.instructables.com/id/Ghetto-Programming%3a-Getting-started-with-AVR-micro/, http://www.instructables.com/id/Drive-a-Ste Motor-with-an-AVR-Microprocessor/. Working on the latest one from The Real Elliot, which showed how to control stepper motors, I found that it wou really helpful to be...... Listed under: AVR ATmega Projects, Other Projects

1464.   Halloween Robot using Attiny microcontrollers Halloween Robot controlled by an old wingman joystick. I don't reccommend this for beginners with el only because some things like joysticks and power adapters are not all the same and must be modified. Additionally I provide programming code whic be useful for...... Listed under: AVR ATmega Projects, Robotics - Automation Projects

1465.   The simple joule thief using AVR microcontrollers The Joule Thief is such an easy and simple device, but what it does is amazing. It can use a battery th usable in any other electronic device and give it life again. It can even take a battery that won't even power...... Listed under: AVR ATmega Projects, Bat Projects

1466.   ISP Breadboard Header using AVR microcontrollers When I was first working with AVR microcontrollers, I relied a lot on tutorials I found on the web, b all of them raised the question of how to attach a programmer to the microcontroller when you aren't using a development board. Most of the time,... under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1467.   Portal "Still Alive" on using ATMega16 microcontrollers Yet another Portal-related instructable , but Different ! This one shows you how to :   1)Build a device that plays an 8-bit version of Still Alive from Portal 2)On the same hardware , but with a different chip , play the "radio tune"...... Listed under: A\ ATmega Projects, Radio Projects

1468.   Atmega8 measures ambient temperature and relative humidity using HSM-20G sensor In one of my previous posts, I discussed about Sensirion's SHT SHT75 sensors, which are capable of measuring both temperature and relative humidity. They are digital sensors and provide fully calibrated digital o temperature and relative humidity. I also illustrated how to interface those...... Listed under: AVR ATmega Projects, Temperature Measurement Project

1469.   A complete starter guide to AVRs using attiny2313 microcontroller Have you played with Arduino's and now have a taste for microcontrollers? Have yo go beyond Arduino but got stopped by the dense datasheets? This is the instructable for you! I was working on an instructable for the epilog contest v would wirelessly...... Listed under: AVR ATmega Projects, Other Projects

1470.   An universal programming adapter for the Atmel STK500 using AVR microcontroller You have an STK500 development board for the AVR controllers fr Atmel? And you want to use it with a newer AVR controller which is not supported by any of the 8 sockets on board? And you do not own an STK505 e board? Welcome...... Listed under: AVR ATmega Projects, Development Board - Kits Projects, LED Projects

1471.   Building a digital light meter with a calibrated LDR using Atmega8 microcontroller Measurement of light intensity is a prime necessity in several occasi diversity of such needs make their way to various branches of physics and engineering as well as in media. For instance, in engineering, such kinds of measurements are needed to design optimum lighting...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1472.   Intelligent temperature monitoring and control system using AVR microcontroller Controlling temperature has been a prime objective in various appli
          including refrigerators, air conditioners, air coolers, heaters, industrial temperature conditioning and so on. Temperature controllers vary in their com
          and algorithms. Some of these use simple control techniques like simple on-off control while others use...... Listed under: AVR ATmega Projects, Temper
          Measurement Projects

1473.   AVR acoustic spectrum analyzer using Atmega8 microcontroller AVR acoustic spectrum analyzer, based on Atmega8 AVR microcontroller, operational a
          and few other components. Use any HD44780 compatible LCD or VFD, connect audio signal, and enjoy the effect 🙂 You can build in this into your am
          car-audio, or other device. On this...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1474.   Wireless Accelerometer Controlled rgb-LED's using atmega168 microcontroller MEMS (Micro-Electro-Mechanical Systems) Accelerometers are in widespread use as tilt-senso
          mobile phones and cameras. Simple accelerometers are available both as ic-chip's and cheap development pcb-boards. Wireless chips are also affordable and available in asse
          circuits, with matched antenna-network and decoupling-caps onboard. Hook both wireless...... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1475.   Mini RGB Light Cube using AVR microcontroller This is basically a knockoff of the Hypnocube, instead of being 64 LEDs, thus costing at least $150 to m
          made a smaller version of 8 LEDs for under $30. The result is a 2x2x2 cube where each light is independently controllable. I'm not...... Listed under: AV
          Programmers, AVR ATmega Projects, LED Projects

1476.   Control Anything with one AVR pin using Attiny2313 microcontroller This instructable shows how to control a group of led's with one microprocessor o
          The micro I will be using is an Atmel Attiny2313. Step: 1 Parts and Tools Parts: Attiny2313 (got 5 free samples from Atmel) 20 pin socket Resistors (any
          work,...... Listed under: AVR ATmega Projects, Other Projects

1477.   Color Sensor using Atmega16 microcontroller This is a simple color sensor using Atmega16 MCU and can sense Red ,Green and Blue color. How it works: the sensor consist
          sensor and RGB LED ,so when the object putted on the sensor the light that emitting from RGB LED will reflected from the object to...... Listed under: AVR ATmega Projects, Se
          Transducer - Detector Projects

1478.   Ambient Light Gift Badge using ATTiny13 microcontroller After Christmas I was in the situation that my nephew's birthday celebration came near. I ask
          he had a special on his wish list and he told me that he doesn't have a wish at all, for the moment. He still had not...... Listed under: AVR ATmega Proje
          Projects

1479.   3 Easy Holiday Gifts using ATTiny microcontroller Every year the holiday season rolls around and I get stuck on what to give for my friends and family.
          always say that it's better to make the gift yourself than buy it at a store so this year I did just that. The...... Listed under: AVR ATmega Projects, LED Pro

1480.   YAFLC (Yet Another Flickering LED Candle) using Tiny45 microcontroller There are numerous posts on Instructables about how to make a flickering LEI
          This is my version. The project requires the following components: 1. Tiny45 AVR Microcontroller (Tiny13 would also do) 2. 1W Warm white (or yellow)
          Perspex tube 4. AA or...... Listed under: AVR ATmega Projects, Home Automation Projects

1481. Rechargeable Battery Capacity Tester using ATMega168 microcontroller Do you have a pile of AA rechargeable batteries in your drawer? Some are old, some are new, but whic
       would you bring with your camera on your next trip, and which ones are past their useful life? I like using rechargeable batteries, but...... Listed under: AVR ATmega Projects, Ba
       Projects

1482.   Power your Arduino/AVR with a Hand-Cranked Battery using ATmega8 microcontroller If you've ever wanted to power your Arduino or AVR from a batt development testing (batteries have different power delivery qualities than, say, transformed AC or even a regulated wall wart in DC) testing but were going through batteries (Hey, I admit...... Listed under: AVR ATmega Projects, Battery Projects

1483.   Arduino FTDI Header using ATmega8 microcontroller So, you want to program a bootloaded AVR. Or possibly, you have an Arduino Lilypad and no way program it. There are a few solutions available to you: You could buy a USB to FTDI adapter (available at Adafruit, Sparkfun, etc), you could buy...... List AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1484.   Autonomus Wall Following Obstacle Avoiding Arduino Rescue Bot I'm an Electrical Engineering major and each year my college's branch of IEEE compe student hardware competition. Last year's competition was inspired by the natural disasters in Haiti and Chile (the competition was held one week aft earthquake in Japan). This was...... Listed under: AVR ATmega Projects, Robotics - Automation Projects

1485.   How to use a 74HC595 Shift Register with a using AVR ATtiny13 microcontroller If you have been playing with microcontrollers and electronics then yo likely seen LED dot matrix displays and other projects that use shift registers like 7-segment displays and more. This instructable goes over a quick int 74HC595 8-Bit Serail to Parallel Shift...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1486. $10 ATtiny85/45 POV display!! (works really well) Hey guys! This is an Instructable for making your own ATtiny85/45 5 LED POV (Persistence Of Vision) This is my second Instructable, also for the Elemental LED contest, so drop a comment and vote it up! The total parts cost for this POV display...... Liste AVR ATmega Projects, LED Projects, Video - Camera - Imaging Projects

1487.   The $9 Quasi-duino (Almost-duino) using ATmega328 microcontroll Do you currently have an Arduino and want to make it smaller for cheap? The Qua is for you (Italian for almost-duino). This makes a functional "almost" Arduino, in a very small form factor using the narcoleptic library for pico-power on a pico-space breadboard....... Listed under: AVR ATmega Projects, Other Projects

1488.   Soldering an SMT MOSFET Driver with a hotplate using microcontroller Soldering SMD components isn't as hard as you might think. In fact it's easy. If this instructables you'll soon see just what great results you can obtain at home using just a hotplate. It's not just being able to make small circuit boa Listed under: AVR ATmega Projects, PWM Projects

1489. $1.50 Arduino TV Annoyer!! (Turns TVs on when you want them off) using microcontroller Hey Arduino fans! Here is an 'ible for making a device that tu on when you want them off, and off then you want them on! If you hide it in something inconspicuous, it would make a great April Fools joke or gag g Listed under: AVR ATmega Projects, Video - Camera - Imaging Projects

1490.   Programming Arduino Bootloader without Programmer using ATmega168 microcontroller OH NO!!! You've screwed up and now the Arduino bootload 'duino is gone! What are you going to do? Go spend money for a programmer??? Well don't! I've got a solution that only requires your 'duino and som
So its not the...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1491.   Jar of Fireflies using AVR ATTiny45 microcontroller This project uses green surface-mount LED's along with an AVR ATTiny45 microcontroller to simulat
behavior of fireflies in a jar. (note: the firefly behavior in this video has been greatly sped up in order to be easier to represent in a short film. The...... L
under: AVR ATmega Projects, Game - Entertainment Projects

1492.   Music Playing Alarm Clock using ATmega644 microcontroller This Instructable will be about designing a music player from using various building block
understand the communication between the microcontroller, memory, computer, LCD display, RTC, IR remote, and the music file decoder. I will try my
teach you in a...... Listed under: AVR ATmega Projects, Sound - Audio Projects

1493.   Door Activated LED Lighting using Hall Effect Sensors using Attiny85 microcontroller I've been meaning to make something cool for my dorm room th
semester and decided that some custom closet lights would look great. In this Instructable, I'll show you how to make some nice-looking LED lights th
on automatically using a hall...... Listed under: AVR ATmega Projects, Home Automation Projects

1494.   Getting Started with Atmel AVR and BASCOM using attiny26 microcontroller I have seen plenty of Instructables showing how to work with microproces
they all assume that you have worked with them before and know what you are doing. I have not seen an Instructable that takes you from nothing an
on each step....... Listed under: AVR ATmega Projects, Other Projects

1495.   How to use the Dragon Rider 500 with your AVR Dragon using ATtiny2313 microcontroller This instructable is a crash course in how to use some of the
of the Dragon Rider 500 from Ecros Technologies. Please be aware that there is a very detailed User's Guide available on the Ecros website. The Drago
a interface board...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1496.   Make a breadboard adapter for your AVR microcontroller using attiny2313 If you like to play around with micro controllers you know this hustle: You v
test a part of a program and first you need to completely wire up the uC on the bread board. Not with these handy parts any more! These are...... Liste
AVR ATmega Projects, Metering - Instrument Projects

1497.   How to program a AVR (arduino) with another arduino using attiny2313 microcontroller * you've got your arduino with atmega168 and you bought an
atmega328 at you local electronics store. It doesn't have an arduino bootloader * you want to make a project that doesn't use arduino - just a regular
(like the USBTinyISP) - you...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1498.   Creating a charlieplexed LED grid to run on ATTiny85 This instructable was inspired by my first AVR microcontroller project that I've been working on fi
time now. I wanted to start learning more about the AVR microcontroller and see how much I could do with the minimum amount of hardware... no e:
...... Listed under: AVR ATmega Projects, LED Projects

1499. How to control a 16×2 LCD using an AVR ATtiny2313 If you are just getting into microcontrollers there's alot to know as you have likely found out. There's alot of good online tu
the Atmel AVR's and chances are you have see a few of those by now. I recently got into microcontrollers and...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I
Projects, LCD Projects

1500. How to program a AVR (arduino) with another arduino using atmega168 microcontroller This instructables is usefull if: * you've got your arduino with atmega168 and you bought an atmega328 at you local electronics store. It doesn't have an arduino bootloader * you want to make a project that does arduino - just a regular AVR chip...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1501. Singing Pumpkins/ Arduino using microcontroller Lets start off by saying that I am a noob to micro controllers like Arduino. After looking through instr for a while I saw the things that arduino could do. That is when I realized that I had to get one and learn the whole...... Listed under: AVR ATmega Proje - Audio Projects

1502. Turn a TV-B-Gone into a super camera remote! Intro: My Nikon DSLR has an infrared remote function (remote sold separately) that is really handy, but limited in range. A while ago, I bought a TV-B-Gone Kit from it's inventor Mitch Altman, and it can turn TV's off from a great distance. I...... Listed under ATmega Projects, Video - Camera - Imaging Projects

1503. Vintage Toothbrush Timer using ATMega328p My last visit to the dentist convinced me that I should really brush my teeth at least two minutes. I decid build a special toothbrush timer: it would detect when a brush is taken out, measure two minutes and notify when the time is...... Listed under: AVR AT Projects, Medical - Health based Projects

1504. Custom Tron Disc Mod using ATMega328 In this Instructable, I cover modding the store-bought Deluxe Identity Disc to an upgraded version with 64 le controlled by an AVR MCU. The upgraded version is costume-ready and would be an excellent addition to your Tron costume - it'll also look great on y Listed under: AVR ATmega Projects, Other Projects

1505. Build Your Own BARBOT using AVR microcontroller Ever wanted a robotic liquor server?I purchased a Lynxmotion robotic arm last year and an Arduino (deci) to play around w serial controlled with a joystick and it was a great way to start in robotics. More recently I wanted to take...... Listed under: AVR ATmega Projects, Robotics - Automation Projects

1506. Ard-e: The robot with an Arduino as a brain using microcontroller Hopefully after reading this instructable you will be able to take your first step into r Ard-e cost about $90 to $130 depending on how much spare electronics you have lying around. The main costs are: Arduino Diecimella- $35 https://www.makershed.com/ProductDetails.asp?ProductCode=MKSP1 Bulldozer kit- $31 http://www.tamiyausa.com/product/item.php?product-id=7(Servo-...... Listed under: AVR ATmega Projects, Robotics - Automation Projects

1507. Turn signal biking jacket using microcontroller This tutorial will show you how to build a jacket with turn signals that will let people know where you're when you're on your bike. We'll use conductive thread and sewable electronics so your jacket will be soft and wearable and washable when you're...... under: AVR ATmega Projects, Game - Entertainment Projects

1508. The 74HC164 Shift Register and your Arduino using GD74HC164 microcontroller Shift registers are a very important part of digital logic, they act as glue between the parallel and serial worlds. They reduce wire counts, pin use and even help take load off of your cpu by being able to store their data. They... Listed under: AVR ATmega Projects, How To - DIY - Projects

1509. Using a Dot Matrix LED with an Arduino and Shift Register The Siemens DLO7135 Dot matrix LED is one amazing piece of optoelectronics. It's billed as a Matrix Intelligent Display (r) with Memory/Decoder/Driver. Along with that memory, it's got a 96-character ASCII display set with upper and lower case characters, a built-in character generator...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1510. Arduino EMF (Electromagnetic Field) Detector A while back I saw an EMF (Electromagnetic Field) Detector at makezine.com that used a led bargraph. I modify it to use a 7-Segment LED Display! Here's my project. Sorry I don't have any pictures of it in use. Hopefully I can post...... Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1511. Arduino magnetic stripe decoder using microcontroller This instructable shows how to use some freely available code, an arduino, and a standard magnetic stripe reader to scan and display the data stored on magnetic stripe cards such as credit cards, student IDs, etc. I was inspired to post this after reading...... Listed under: AVR ATmega Projects, Memory - Storage Projects

1512. Arduino XMAS hitcounter using AVR microcontroller Christmas is coming closer, so here is my contribution to put you in the right mood. It is a blog hitcounter that rings a bell. Literally. It puts a smile on your face, every time someone hits your blog. It consists of an Arduino board,...... Listed under: AVR ATmega, Game - Entertainment Projects

1513. The Lightning Simulator/Breathalyzer/Graphic Equalizer – Using Arduino Powered The LED strips are mounted on an outdoor trellace which functions as a lightning simulator, outdoor breathalyzer, graphic equalizer synced to music, and a few other effects with sound. Materials: 8 12v RGB Waterproof Flexible LED Strips 10ft long (usledsupply.com) - $800 8 RGB 4A/Ch Amps...... Listed under: AVR ATmega Projects, Home Automation Projects, LED Projects

1514. Make a Web Connected Robot (for about $500) (using an Arduino and Netbook) This Instructable will show you how to build your own Web Connected Robot (using an Arduino micro-controller and Asus eee pc). Why would you want a Web Connected Robot? To play with of course. Drive your robot from across the room or across the country,...... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects, Robotics - Automation Projects

1515. Interfacing ATmega32 with an LCD and a DAC Hi techies!! This is one more of my circuits, interfacing ATmega32 with an LCD and a DAC. it also includes general purpose push-buttons and In System Programming connector. The controller is operating with 14.7456 MHz frequency crystal, convenient for generating standard baud rates (for...... Listed under: AVR ATmega Projects, How To - DIY - Projects, LCD Projects

1516. Arduino and Touchpad Tic Tac Toe using microcontroller Or, an exercise in input and output multiplexing, and working with bits. And a submission for Arduino contest. This is an implementation of a tic tac toe game using a 3x3 array of bicoloured LEDs for a display, a simple resistive touchpad, and an... under: AVR ATmega Projects, Game - Entertainment Projects

1517. The 4x4x4 LED cube (Arduino) In this instructable I will show you how to make a 4x4x4 LED cube that will be controlled by an Arduino Demulionove. now yes you might say" th has only 14 I/O pins well also the 6 analog pins can be used as pins...... Listed under: AVR ATmega Projects, LED Projects

1518. Arduino Laser Tag – Duino Tag Duino tagger- General introduction Duino tag is a laser tag system based around the arduino. Finally a laser tag system be tweaked modded and hacked until you have the perfect laser tag system for office ordnance, woodland wars and suburban skirmishes. Laser tag… under: AVR ATmega Projects, Other Projects

1519. Ardu-pong! the Arduino based pong console A while back the instructables robot made a post on Facebook about some guys who played pong on an (http://wayneandlayne.com/projects/video-game-shield/games/#pong) but after looking around, i saw that everyone who did this was only worried ab making it work. and often resulted as a very hard…… Listed under: AVR ATmega Projects, Game - Entertainment Projects

1520. How to make a multi-layered acrylic and LED sculpture with variable lighting levels Here you can find out how to make you very own n as made for the exhibition www.laplandscape.co.uk curated by art/design group Lapland. More images can be seen at flickr This exhibition runs from Wednesday 26 N - Friday 12 December 2008 inclusive, and had…… Listed under: AVR ATmega Projects, How To - DIY - Projects, LED Projects

1521. Garduino Upgrade, Now with more Twitter! A couple months ago I came across two great instructables. The first was the Garduino, an arduino contro garden to help you grow plants at home. The second was the Tweet-a-Watt, a project that teaches you how to monitor your home power usage using Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1522. Garduino: Gardening + Arduino Garduino is a gardening Arduino. So far, Garduino: -Waters my plants whenever their soil moisture level drops below predefined value. -Turns on grow lights, but only when it's dark out and only long enough to make the plants get 15 hours of total light…… Listed unde ATmega Projects, Development Board - Kits Projects

1523. Control a Schlage electronic deadbolt with an arduino! This instructable will walk you through the process of dismantling and hacking a Schlage electronic deadbolt in order to with an arduino. Step 1 Purchase the lock and unpack it I got mine on sale for $99 at Lowe's. Remove it from the…… Listed under: AVR ATmega Projects, Other Projects

1524. The Arduino Weather Station / Thermostat using ATmega328 microcontroller I've always been interested in monitoring my local weather, and noticed difference between what weather.com and accuweather.com think my local weather is, and what I see out the window. I also wanted better control ov heating and A/C system. As a computer and…… Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects, Temperature Measuremer

1525. Arduino All-in-One Getting Started Guide An all-in-one tutorial to getting started with the Arduino open-source electronics prototyping platform. This g meant for the beginner but should be also be useful to you if you already tinker with electronics but want to get started with the Arduino. I'll cover: -… under: AVR ATmega Projects, How To - DIY - Projects

1526.

Arduino Powered Binary Clock using ATmega168 microcontroller This instructable will help you to build an Arduino Binary Clock. The orignial idea for instructable was designed by Daniel Andrade. My instructable uses surface mount components, but can easily be adapted to through-hole componen wish. You can follow my other Instructable...... Listed under: AVR ATmega Projects, Clock Projects

1527.

Interface a rotary phone dial to an Arduino An old rotary phone can be used for a number of purposes in your Arduino projects - use it as a novel inpu or use the Arduino to interface a rotary phone to your computer. This is a very basic guide describing how to...... Listed under: AVR ATmega Projects, P Projects

1528.

Digital Window Sticker (Arduino Controlled) using ATMega328 microcontroller A bumper-sticker sized L.E.D. matrix that displays images in sequence fr card, to produce an animated sign or "window sticker." Arduino controlled! Also includes Windows, Mac, and Linux code for converting .xbm image file Digital Window Sticker files. Perfect for a shop...... Listed under: AVR ATmega Projects, Other Projects

1529.

Arduino Watch Build Instructions The Arduino Watch provides augmented sensing of temperature and range, 16-bit color drawing program, Breakout and also tells the time in your choice of digital, binary, or analog. Additional sensors, devices, and programs are easy to add as any standard Arduino. source code...... Listed under: AVR ATmega Projects, Clock Projects

1530.

Mushroom Environment Control – Arduino Powered This is my first Arduino project aimed at helping me with my other hobby which is growing oyster shiitake mushrooms indoors. In a nutshell, the controller takes in two temperature readings, 1 Humidity reading and 1 Co2 reading and triggers a set Listed under: AVR ATmega Projects, Medical - Health based Projects

1531.

How to connect Arduino and RFID On this instructable I will try to show how to interface a RFID sensor with the Arduino. I am using the RFID sensor fr seeedstudio the serial version of it. There are a few parts you will gonna need. I also bought some RFID keys....... Listed under: AVR ATmega Projects, H DIY - Projects, RFID - NFC Projects

1532.

How To Smell Pollutants This Instructable explains how to use a gas sensor with your Arduino. This lets your Arduino smell (and hence you program re to) overall gas levels for a variety of nasties, including ethanol, methane, formaldehyde, and a bunch of other volatile organic compounds. My cost...... under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1533.

Temperature Control For Kitchen Appliances In this Instructable, I will step through controlling the temperature of most kitchen appliances. As an exar use an old Westbend Poppery popcorn maker (aka. coffee roaster), but these same techniques will be applicable to most hot plates, coffee makers, ar irons....... Listed under: AVR ATmega Projects, Temperature Measurement Projects

1534.

Wireless Altoids Display This Instructable will show you how to modify an Altoids tin for a wireless 2x16 character display. Using an Altoids tin was insp the need to have a small yet protective enclosure for a pair of Xbee modules recently bought from Sparkfun. I purchased the...... Listed under: AVR ATr Projects, Internet - Ethernet - LAN Projects

1535. Secret Knock Detecting Door Lock Protect your secret hideout from intruders with a lock that will only open when it hears the secret knock. This started out as a bit of a joke p turned out to be surprisingly accurate at judging knocks. If the precision is turned all...... Listed under: AVR ATmega Projects, Security - Safety Projects

1536. Gmail and RSS Notifiers using the Arduino I've been really interested in doing J4mie's Physical Gmail Notifier ever since it came out in February. I only
       dropped into the project and got to learn a lot about python, plists, and arduino auto-reset functionality. I'm going to share what I've learned because...
       under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1537. Magnetic Levitation using the Arduino It's been only a couple weeks since I discovered Arduino, an open source microcontroller platform. I was looking
       cheap interface between my laptop and electronic circuits. Arduino with its price $35 and easy to use development environment was the best choice.
       after...... Listed under: AVR ATmega Projects, Sensor - Transducer - Detector Projects

1538. Wi-Fi Enabled Coil Gun with iPhone App We've covered loads of airsoft, nerf, and gun projects, and here's another superb pr0ject to add to our collecti
       coil gun placed on a turret which is triggered via Wi-Fi.   Additionally, it uses remote targeting and shooting through an iPhone, iPod Touch or...... Listed
       AVR ATmega Projects, Internet - Ethernet - LAN Projects, Phone Projects

1539. Superb DIY Retro Lighting Design What is it? It is a decorative lamp; a very, very impractical decorative lamp employing a few vintage display devices a
       couple of LEDs too. A friend of mine was one of a group of artists who produced Ascension (the giant origami-crane tent) at...... Listed under: AVR ATm
       Projects, How To - DIY - Projects

1540. A credit card sized Ethernet Arduino compatable controller board using ATmega168 microcontroller I love the Arduino as a simple and accessible cont
       platform for many varied projects. A few months ago, a purchased an Ethernet shield for my Arduino controller to work on some projects with a mate
       it was a massive hit -...... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1541. Light for life: Glowing button cycling jacket Not everyone wants to look like an athlete while cycling to work or school. This cycling-jacket, made of hemp and wool, is equipped
       of shining bright LEDs. It looks just as good during the day as it does during the night. Embedding the...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1542. The Word Clock – Arduino version using ATMega168 microcontroller Major updates - A much better enclosure for this clock has been designed - check
       http://www.instructables.com/id/The-Wordclock-Grew-Up/ Last month I wanted to build a special gift for my beautiful wife, Megan. She has a teaching
       background in English, so what better present to make for...... Listed under: AVR ATmega Projects, Clock Projects, LED Projects

1543. Arduino R/C Lawnmower (painted) using Atmega168 microcontroller What this is: This instructable will show you how to make your Arduino into an R/
       interface that you can use for just about anything requiring remote control. I will also show you how I built an R/C lawnmower using my Arduino, a ch
       transmitter and...... Listed under: AVR ATmega Projects, Robotics - Automation Projects

1544.

How to have fun with Arduino (and become a Geek in the process) Do you wish to earn your geek card - pronto? Lets get started! This guide will start y path to the dark side using the open source Arduino development and prototyping platform. It will introduce you to microcontrollers, get you started Listed under: AVR ATmega Projects, How To - DIY - Projects

1545.

Control Electronics using an Arduino and Infrared LEDs Learn how to use infrared LEDs to send signals to your TV and other electronic devices via an A First, the Arduino will interpret IR pulses sent out by the TV remote, save them to memory, then "replay" them upon the user's command. You can...... under: AVR ATmega Projects, LED Projects, Other Projects

1546.

Arduino animatronics- make your awesome costumes more awesome! using ATmega328 microcontroller Here's how to add lights, sound and action t favorite Halloween project using the open source Arduino microcontroller. Arduino is easy to learn to use and it opens up a whole new world for costu builders and creature creators. If you want to learn...... Listed under: AVR ATmega Projects, Sound - Audio Projects

1547.

Using the iRobot Create's Command Module with Linux using avr microcontroller Since iRobot hasn't provided linux users with a way to use the comm module, I had to figure it out myself. Don't be intimidated, its not hard at all, really. All you need to do is run a couple of scripts. Lets get started, shall.. under: AVR ATmega Projects, Microcontroller Programmer Projects, Robotics - Automation Projects

1548.

Use Visual Studio 2010 to Compile AVR Hex Files using AVR microcontroller I'm not a huge fan of Microsoft, but man, they do make one slick programm In searching around for a solution to use the IDE to program AVR's I came across some scattered instructions. As I love the intellisense feature of Visu (VS)...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1549.

Laser Tripwire takes a Photo, Uploads it to Twitter This instructable will show you how to construct a laser tripwire that can twitter and grab an image webcam, as well as execute any command you can put in a bash script. This instructable is actually quite simple and is even suitable as a beginner...... under: AVR ATmega Projects, Video - Camera - Imaging Projects

1550.

The Household Informer using atmega168 microcontroller Who wants to go outside to see if the mail has arrived? In the cold winter or rain I'd rather to put on a jacket and shoes, only to find that there was no mail. This project will notify you of the mail...... Listed under: AVR ATmega Projects, Home Automation Projects

1551.

The $9 Quasi-duino (Almost-duino) Do you currently have an Arduino and want to make it smaller for cheap? The Quasi-duino is for you (Italian for al duino). This makes a functional "almost" Arduino, in a very small form factor using the narcoleptic library for pico-power operations on a pico-space breadboard....... Listed under: Circuits

1552.

Turn Your Arduino Into an ISP Learn how to turn your Arduino into an AVR In System Programmer. This will allow you to burn bootloaders onto new cl program AVRs without a bootloader. Step 1: Materials To begin you will need: * Arduino (I will be using the Uno) *...... Listed under: AVR ATmega Proje Camera - Imaging Projects

1553. GuGaplexed Valentine LED Heart using ATTiny13V Microcontroller GuGaplexing is a new LED display multiplexing technique. Compared to Charlieplexing, GuGaplexing allows y control twice as many LEDs, with just a few additional components. GuGaplexed Valentine LED Heart project has 40 LEDs arranged in an 'Arrow Piercing a Heart" arrangement

5...... Listed under: AVR ATmega Projects, Game - Entertainment Projects, LED Projects

1554.

Smoke & Fume Absorber Demo video Smoke & Fume Absorber A Long History The ancient Egyptians produced lead and other important metals like silver as early as 5000 BC. In the Roman era, lead was used for coinage, jewelry and other everyday items including the production of...... Listed under ATmega Projects, Other Projects

1555.

Use Google Voice Search through Arduino & Bluetooth With Google announcing the launch of Voice Search for desktop, we couldn't help thinking that even more fun to be had with talking to a computer. So, we went ahead and built an open source dev board to inspire people to build their...... Listed AVR ATmega Projects, Internet - Ethernet - LAN Projects

1556.

Arduino powered hangman giftbox/lockbox using ATmega328 microcontroller A medium sized box that requires the user to succeed in a game of han order to gain access to the contents of the box. Great gift Idea!!! my Arduino sketch will be included in this instructible sorry for the poor quality pictu Listed under: AVR ATmega Projects, Game - Entertainment Projects

1557.

Beginner's Guide – AVR Programming You will get this done in 30 min. Step 1: Parts 1. 1 X any type of circuit board 2. 1 X Atmel AVR Atmega16 microco 3. 8 X 330 ohms Resistors 4. 8 X LEDs 5. 1 X AVR Programmer (just use for download...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1558.

Assembling the ZIFduino USB 1.2 using ATMEGA168 microcontroller The ZIFduino, for all intents and purposes, is an Arduino with a ZIF socket. It's gea toward those that want to do prototyping on the platform, but then move the ATMega chip to a stand-alone environment. The pin layouts are exactly so it...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1559.

Assembling the Dragon Rider 500 for use with the AVR Dragon using ATmega88 microcontroller Not long ago the Atmel company came out with a grea use with the AVR line of microcontrollers called the AVR Dragon. This small USB device provides professionals and hobbyists alike the ability to use: In Programming (ISP), JTAG, Debug Wire, and...... Listed under: AVR ATmega Projects, RTOS - OS Projects

1560.

Fun Hackable Speaker Timer using ATMega328 microcontroller This is a fun speaker timer I made for some upcoming conferences. It uses a 4-digit charlieplexed LED (pseudo 7-segment) display and is driven by a AVR ATMega328 or an Arduino. It allows a default time to be set, can be paused, and put...... Listed under: AVR ATmega Projects, Sound - Audio Projects

1561.

Slaveflash with Attiny24 ver. 2.0 You might have noticed the Slaveflash I built with an Attiny 24, the instructable can be found here: Slaveflash-trigger-f with-Attiny24   After building the first prototype I collected all my old flashes I got over the years and had four more slaveflash-triggers to built. I alread figured...... Listed under: AVR ATmega Projects, Memory - Storage Projects

1562.

Build a Complete AVR System and Play Mastermind using ATmega328p microcontroller The game Mastermind has been around a long time, and I rem getting a board version with colored pegs when I was a kid. I love this game, as it is solvable simply by pure logic. One player (or a computer/microcon chooses a sequence of...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1572.   Build the Penguin game system using ATMega32/644 microcontroller Gotta love microcontrollers.They do lots of stuff ... you can find them in compute traffic lights , toys , and almost all electronic devices nowadays. Well , this is a project that pushes an 8-bit ATMega32 microcontroller to the limits. As y guessed...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1573.   Electronic Tic-Tac-Toe with RGB LEDs video Electronic Tic-Tac-Toe with RGB LEDs RGB LED game to play Tic-Tac-Toe for two players. Uses 2 AVR Microco Mega16 and Mega8. RGB LEDs allow each user to choose his/her color to represent Cross/Nut.   For more details, click: Electronic Tic-Tac-Toe with RGE Listed under: AVR ATmega Projects, Game - Entertainment Projects

1574.   Drive a Stepper Motor with an AVR Microprocessor using ATTiny2313 microcontroller Got some scavenged stepper motors from printers/disk drives/e around? Some probing with an ohmeter, followed by some simple driver code on your microprocessor and you'll be stepping in style. Step 1 Get to Kr Steppers Basically, you're going to need to figure out where...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Motor F

1575.   Getting started with LCD's and Microprocessors In this Instructable, find out how to control LCD's with a ATmega8 and Bascom. You will need: - Breadt Wires - ATmega8 - Programmer - Bascom AVR (There is also a demo version for Free) - 10k resistor - 100k resistor - 10k variable...... Listed under: AVR A Projects, How To - DIY - Projects, LCD Projects

1576.   Slaveflash-trigger for digital cameras with Attiny24 When flashing with digital compact cameras, the camera usually uses several small flashes before the actual picture. This is o.k. if the built-in flash is the only flash you have, but if you want to use an external second flash you have a problem:...... List AVR ATmega Projects, Other Projects

1577.   Apple-style LED pulsing using a $1.30 MCU using ATTiny85 microcontroller The Atmel ATTiny85 chip is an 8-pin MCU that is totally awesome. If you've programming with the bigger boys (the ATMega series), these are a nice adventure - you're rather limited in the number of output pins, but a creative gives us a...... Listed under: AVR ATmega Projects, LED Projects

1578.   Debugging AVR code in Linux with simavr I recently started programming AVR chips, namely the ATTiny85. They can be programmed using C, compile readily available in Ubuntu, and you can do a LOT with them - just search for avr on this site! Anyway, I was having some trouble with my...... Listed ur ATmega Projects, RTOS - OS Projects

1579.   Watch futurama on an 8×8 pixel screen using atmega168 microcontroller here's how to convert otherwise reasonable quality video into pixelated garb play it on a 2 color 8x8 led matrix, with no sound and only moderate sync. ingredients: - (1) 8x8 2 color led matrix - (1) atmel avr atmega168 - (2) 74hc5 shift...... Listed under: AVR ATmega Projects, LCD Projects

1580.   AVR/Arduino RFID Reader with UART Code in C RFID is the craze, found everywhere - from inventory systems to badge ID systems. If you've ever been department store and walked through those metal-detector-looking things at the entrace/exit points, then you've seen RFID. There are several places good information on...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, RFID - NFC Projects

1581. How To Make A Grounding Wrist Band In my life i deal with lots of sensitive electronics every day and frying these electronics is a big concern when to them. Most people think its hard to fry electronics with static electricity. Its not, one touch could send your $100 graphics card down...... Listed under: ATmega Projects, How To - DIY - Projects

1582. Telnet to your Arduino/AVR! The other day I was wanting to check on one of my AVR's but I was upstairs and god knows it was too much of a hassle to downstairs to where the microcontroller was. But, there were two idle computers sitting upstairs next to...... Listed under: AVR ATmega Projects, Interr Ethernet - LAN Projects

1583. A protective case for the Atmel AVR Dragon using AVR This instructable will show you how to easily modify a readily available plastic case to hold and your AVR Dragon PCB. Atmel promotes their AVR Dragon as a low cost development product tool for use with their AVR microcrontollers. While the pr does come...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1584. Ghetto Development Environment Using Microcontrollers A while back, I posted up a quick and dirty "el cheapo" method of getting started programm Atmel AVR series chips: Ghetto Programmer (version 1.0) Since then, I've vamped, re-vamped, and otherwise improved my setup. Thought it'd be nice document it. The goal...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1585. USB RFID Reading Keyboard using USnooBie video USB RFID Reading Keyboard Demo   This is a step by step tutorial on how to build a RFID tag readir keyboard using the USnooBie. This tutorial is provided with the project files. The code files are heavily commented with references to relevant...... Liste AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, RFID - NFC Projects

1586. New Jar of Fireflies When I ran across the Jar of Fireflies Instructable sometime this past summer, I knew I had to build it. Full credit to Keso for an exc of instructions! I wouldn't have gotten to the point of developing the firefly behavior without such a solid base for...... Listed under: AVR ATmega Proje - Entertainment Projects

1587. FanBus Digital Fan and LED Interface for PC using ATMega168 microcontroller Last year I modified a blue LED fan with RGB LED's to enhance the look server case. Last summer I built a gaming computer and ever since I wanted to light it up with multiple controlled lights and fans. I finally figured out under: AVR ATmega Projects, LED Projects

1588. Augmenting a Microcontroller using AVR Microcontrollers (MCUs) are fantastic little ICs that give an extra element of versatility to your electronics, rob other project. But they're really not much use on their own. To function, all MCUs need some sort of support components, and a board to live on...... L under: AVR ATmega Projects, Other Projects

1589. Development system for PIC and AVR microcontrollers After testing many systems development for PIC and AVR microcontrollers, none satisfy me. So I created this system wit breadboard that has satisfied me. Step 1: More space free In this development system, I put two protoboards turned 180 degrees from each other. The space...... Listed under ATmega Projects, Development Board - Kits Projects

1590.   VUSBTiny AVR SPI Programmer Using ATtiny85 after making a usbtiny isp programmer and using it for 6 months, i was looking at making another one
                 carrying around. i like the simplicy of the usbtiny isp design but would like to make it even smaller and take less parts. one thing...... Listed under: AVR
                 Projects, Other Projects

1591.   Direction Aware Messaging LED Spin Top video Direction Aware Messaging LED Spin Top We recently built a LED spinning top with message display. Its
                 improved version of a similar top published by Elektor in their December 2008 issue. The Elektor top can be spun only in one direction. The synchroni
                 Listed under: AVR ATmega Projects, LED Projects, Other Projects

1592.   Tiny AVR Microcontroller Runs on a Fruit Battery Some of the fruit and vegetables we eat can be used to make electricity. The electrolytes in many frui
                 vegetables, together with electrodes made of various metals can be used to make primary cells. One of the most easily available vegetable, the ubiqu
                 lemon...... Listed under: AVR ATmega Projects, Battery Projects

1593.   Fire-free LED Matchstick Using a Tiny13 microcontroller video Fire-free LED Matchstick I just completed a new project: a fire-free and fire-safe LED mat
                 light this matchstick you strike it against a normal matchbox filled with neodymium magnets. The LED matchstick has an inductive sensor that detects
                 magnetic field as you...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1594.   How to use an LED Array Module using AVR With a single LED you can indicate the state of something: on or off. That might be a little boring. With an
                 LEDs you can display characters or even some simple blocky graphics. That might add a little pizzaz to a small microcontroller...... Listed under: AVR AT
                 Projects, LED Projects

1595.   Programmable LED using Atmel ATtiny13v Microcontroller Inspired by various LED Throwies, blinking LEDs and similar instructables I wanted to do my
                 of an LED controlled by a microcontroller. The idea is to make the LED blinking sequence reprogrammable. This reprogramming can be done with ligh
                 shadow, e.g. you could...... Listed under: AVR ATmega Projects, LED Projects

1596.   Hacking your Digg Button with a Removable Interface Cable using AVR The Digg Button from adafruit industries www.adafruit.com is a very simple DIY
                 electronics kit suitable for beginners. It consists of a microprocessor, a 3-digit display, a button and some available i/o pins. As it comes from adafruit,
                 counter that displays the number of...... Listed under: AVR ATmega Projects, Internet - Ethernet - LAN Projects

1597.   Getting started with VMUSIC2 The VMUSIC2 is a complete MP3 player module from FTDI, Inc. which makes it easy to integrate MP3 functionality in to y
                 microcontroller project. It has two interfaces: SPI or UART (serial) Some example applications: 1. Make your robot talk and play sound effects...... Listec
                 AVR ATmega Projects, How To - DIY - Projects

1598.   Jar of Fireflies using AVR ATTiny45 Microcontroller This project uses green surface-mount LED's along with an AVR ATTiny45 microcontroller to simulate
                 behavior of fireflies in a jar. (note: the firefly behavior in this video has been greatly sped up in order to be easier to represent in a short film. The...... L
      under: AVR ATmega Projects, Game - Entertainment Projects

1599.		I2C Bus for ATtiny and ATmega168 I love the Atmel AVR microcontrollers! Since building the Ghetto Development System described in this Instructable
		no end of fun experimenting with the AVR ATtiny2313 and the ATmega168 in particular. I even went so far as to write an Instructable on using switche
		Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1600.		16-key Keypad Decoding with an AVR MCU This instructable will show you how to interface a 16-key keypad to your AVR microcontroller and read the l
		a key is pressed. I'll introduce the keypad first, then the 74HC922 16-key decoder IC as a pin-saving mechanism, then finally how to take the...... Listed
		AVR ATmega Projects, How To - DIY - Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1601. Connecting Nokia 3310 LCD to USB using AVR What do you do with an old phone, a microcontroller and lots of time? You hook the old phone's LCD screen to the computer US
		course! In this project we're going to communicate with a Nokia 3310 LCD display over USB! How are we...... Listed under: AVR ATmega Projects, LCD Projects, Phone Projects

1602.		Repair dead AVR's – Attiny fusebit doctor (HVSP) Did you make a mistake while programming fusebits, or purposely disabled reset pin (RSTDISBL) or IS
		programming (SPIEN)? No need to buy or make inconvenient HV programmer only for unlock couple of Tiny AVR's. This Attiny fusebit HV doctor will cu
		dead tiny microcontrollers,...... Listed under: AVR ATmega Projects, Other Projects

1603.		ATtiny programming with Arduino After this Instructable you should be able to program an A Ttiny85/45 with an arduino. It may sound complex but it
		isn't. After doing some research I could not find to much info on how this could be done. I however did find http://www.instructables.com/id/Program
		with-Arduino/. This Instructable...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1604.		ISP 6 pin to 8 Pin Socket Using ATTiny45 The reason i mainly built this project was to program the ATTiny45, which has a 8 pin connection, while my US
		(from Ladyada) only has a 10 pin and 6 pin connection. After snooping around the internet for about 3-4 weeks i found nothing what...... Listed under:
		ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1605.		Micro controller programming: Making a set of traffic lights using Microcontroller ATTiny2313 So you wana learn how to programme a micro controlle
		tutorial has been designed as a next step, following the fantastic tutorial 'Ghetto Programming: Getting started with AVR microprocessor on the cheap
		Real Elliot link you should read this before progressing onto...... Listed under: AVR ATmega Projects, LED Projects

1606.		Instalacion del controlador USBasp (USBasp drivers setup) – Dark Side Electronics using AVR microcontroller English version available at the bottom Se
		enseñara paso a paso como instalar los controladores (drivers) necesarios para el correcto funcionamiento del programador USBasp para microcontr
		AVR. Primero, mencionaremos algunas consideraciones para evitar fallos por usos indebidos del programador. También se mencionará el protocolo y
		under: AVR ATmega Projects, How To - DIY - Projects, Microcontroller Programmer Projects

1607. How to Read Binary/Hex Thumbwheel Switch with an AVR Microcontroller using ATmega328p microcontroller This instructable will show you how to read the number on a binary pushwheel or thumbwheel switch using LED's or an AVR microcontroller (I'm using an ATmega328p but this can be adapted for any AVR or probably an microcontroller of your choice). Multiple thumbwheel switches...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1608. AVR LCD Namebadge Using ATtiny2313 So, you're going to a conference/meetup/nerdfest and you want to do something that sets you apart from nor people. An LCD namebadge powered by an ATtiny2313 is a great way to do that. This is a general purpose LCD display unit powered by a 9V...... Listed AVR ATmega Projects, LCD Projects

1609. Power Your Arduino From Your Car using AVR microcontroller The Arduino -- and AVRs in general -- have a wide range of power supply options ranging around 1.8V to 5.5V. The choice of voltage is usually determined by the desired clock speed or power consumption requirements. The Arduino and its variants have...... Listed under: AVR ATmega Projects, Battery Projects, Car Projects

1610. Making a set of traffic lights Using Arduino This tutorial will step you through the process of creating a set of controllable and configurable traffic lights also teaching you the basics of Arduino. Some knowledge is needed and I highly recommend reading and following through on most if not all of the.... under: AVR ATmega Projects, LED Projects

1611. LoveBox – The box of love using ATtiny2313 Microcontroller As most guys I don't tell my wife that "I love you" as often as I should, but this little gadget least improve that situation as bit. So by combining a nice box and some hardcore electronics nerdiness I've made a nice christmas...... Listed under: A ATmega Projects, Game - Entertainment Projects

1612. Stripboard Arduino using ATMega168 microcontroller In this, my first Instructable I'm going to show you how to make a stripped down Arduino for a f the price, using Stripboard/Veroboard. Material List: 1x Atmel ATMega168 = �2.65 1x Stipboard = 72p 1x 7805 Voltage regulator = 26p 2x LEDs =...... L under: AVR ATmega Projects, How To - DIY - Projects

1613. Build a Complete AVR System and Play Mastermind Using Microcontrollers The game Mastermind has been around a long time, and I remember getti board version with colored pegs when I was a kid. I love this game, as it is solvable simply by pure logic. One player (or a computer/microcontroller) ch sequence of...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1614. Using Arduino to communicate with embedded project using AVR ATMEGA microcontroller Building a stand-alone AVR ATMEGA project sometimes lea with no easy to read output from your project. But you can use an Arduino to act as a communications bridge between your embedded project and yo Serial Monitor program! I'm building an embedded multi-channel...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1615. Low speed AVR oscilloscope V2.00 (Is updated on 19 Mar 2011) >> The firmware was updated on 19 Mar 2011 << A few months ago a friend of mine - mechanical at profession- told me that he had problem with some car sensors. He couldn't check, with a simple multimeter, if a sensor was working p ...... Listed under: AVR ATmega Projects, LCD Projects, Metering - Instrument Projects

1616. AVR mini board with additional boards using attiny2313 microcontroller Somewhat similar to PIC 12f675 mini protoboard, but extended and with additional boards. Using attir Step 1 Scheme Let us first start with a scheme. The scheme is pretty obvious since it only connects attiny2313 with the pins and the only additional elements are resistors...... L

under: AVR ATmega Projects, Development Board - Kits Projects

1617. How to add more Outputs to your Microcontroller using 74HC595 microcontroller This Instructable will show you step-by-step how to add 8 extra digital outputs, using only 3 of your microcontroller's digital outputs. Step 1 Which Microcontroller Should You Use? In order to do this Instructable with your microcontroller, you will need to make sure that it has the...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1618. Guia para programar uC AVR – Dark Side Electronics using AVR microcontroller La forma más sencilla y rápida de programar un micro-controlador (uC) familia AVR, usando el programador USBasp, es utilizado el programa eXtreme Burner - AVR de Extreme Electronics. En esta guía te detallaremos com programar tu propio uC. Para esto necesitarás lo siguiente:...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1619. Getting started with ubuntu and the AVR dragon using atmega8 microcontroller Here's what i did to get started using the AVR Dragon to program ATM microcontrollers using ubuntu (This is aimed at beginners, I myself am also being a beginner, so any improvements from more experienced users are appreciated). After finally switching my laptop and...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects, RTOS - OS Projects

1620. Led dimmer 2 channels using Attiny13 microcontroller This is Attiny13   2 channels dimmer with 5 program modes and speed control: 1. Dim between channels 2. Dim 2 channels together 3. Blink mode 1 4. Blink mode 2 5.Blink mode 3 Step 1 Hardware Dimmer is based ot Attiny13V: - 1k flash...... List AVR ATmega Projects, LED Projects

1621. Adding ICSP header to your Arduino/AVR board using ISP10PIN microcontroller So you may have been playing with Arduino's, or rather, Hackduino's. made your own Hackduino or similar project, you may be wondering how to add the ICSP header. Basically, using the ICSP header will allow you to us external programmer to 'upload'...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1622. Synchronizing Fireflies using Microcontroller ATtiny13 Have you ever asked yourself how do hundreds and thousands of fireflies are able to synchroni themselves? How does it work, that they are able to blink all together without having a kind of boss firefly? This instructable gives a solution and show this...... Listed under: AVR ATmega Projects, Development Board - Kits Projects

1623. The Arduino LED Cube using LED microcontroller Are you bored? Do you want to make something amazing to impress your friends with? Let's try mak LED cube..... A work of art, that lights up..... Step 1 What in the world is and LED? LED is an acronym for Light Emitting Diode,...... Listed under: AVR ATn Projects, LED Projects

1624. LED matrix using shift registers This instructable is meant to be a more complete explanation than others available online. Notably, this will provide m hardware explanation than is available in the LED Marquee instructable by led555. Goals This instructable presents the concepts involved with shift re and high side drivers....... Listed under: AVR ATmega Projects, LED Projects

1625. Charlieplexing 7 segment displays using Atmel Tiny26 microcontroller Charlieplexing of discrete leds has been the topic of a few other instructables. The Charlieplexing LEDs- and the How to drive a lot of LEDs from a few microcontroller pins comes to mind. They are both excellent and should be read by anyone...... Listed under: AVR ATmega Project Projects

1626.   AVR32 Development Board at Home This is my first instructable.So plz comment and help me out with any mistakes i might commit . I have created a avr 32 ,its a development board .I saw that there none online with pcb that could be done at home so...... Listed under: AVR ATmega Projects, Develop Board - Kits Projects

1627.   Faraday For Fun: An Electronic Batteryless Dice using Microcontroller ATTiny13 There has been a lot of interest in muscle powered electronic devices, large part to the success of Perpetual Torch Perpetual Torch, also known as battery-less LED torch. The battery-less torch consists of a voltage generat power the LEDs, an electronic circuit...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1628.   DIY Electronic Birthday Blowout Candles Step 1 The Circuit Step 2 Building the Circuit board Step 3 Soldering the Circuit board Step 4 Programming the Micro Step 5 Using the To power the circuit, you need 4 batteries of 1.2V, AA or AAA size or 3 batteries of 1.5V...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1629.   Buggy – A Crafty Programmable LED Creature using Microcontroller Atmel Attiny44v Buggy is a programmable LED craft project using a homemade, si sided, PCB board, and a programmable AVR Attiny44v microcontroller. Buggy has two bi-colored LED eyes and can sense visible and IR light and emit using a piezo speaker. Not counting the board, there is...... Listed under: AVR ATmega Projects, Microcontroller Programmer Projects

1630.   LED Hanukkah Menorah using Microcontroller ATtiny13 I wanted to make an LED menorah for a friend. In planning this I decided I wanted to keep the count very low and use components I had on hand. I think I have achieved my goals and couldn't be happier at the outcome of...... Listed under: AVR A Projects, Game - Entertainment Projects

1631.   How to choose a MicroController It used to be that the number of different microcontroller chips available to the hobbyist was pretty limited. You got whatever you could manage to buy from the mail-order chip dealer, and that narrowed down the choice to a small number of chips....... Listed under: ATmega Projects, How To - DIY - Projects

1632.   Swiss AVR Knife using Microcontroller ATtiny84 The Swiss AVR Knife bundles a number of AVR programming projects together in a single convenient A Gum Tin. Because of the flexibility afforded by microcontroller programming, it also provides a starting point for any number of projects based on LED sound output. The...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1633.   How To Communicate With An Alien Artifact or . . . Close Encounters of the Curiously Minty Kind. This Instructable will show you how to build an Altoic of the 'Close Encounters' mothership, and how to interact with it. This may be vital training for that day when the Bright White Beam comes to suck..... under: AVR ATmega Projects, LED Projects

1634.   LED Microcontrolled Stained Glass Firefly Pendant using Microcontroller ATTiny45 chip This Instructable will walk you through the steps needed to ma stained glass pendant with anLED that blinks in a pattern using a microcontroller. The blink pattern is an actual firefly song of a type of Japanese firefly scaled down version...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1635. AVRSH: A Command Interpreter Shell for Arduino/AVR. Ever wanted to be "logged in" to your AVR microcontroller? Ever thought it would be cool to "ca register to see its contents? Have you always wanted a way to power up and power down individual peripheral sub-systems of your AVR or Arduino in under: AVR ATmega Projects, RTOS - OS Projects

1636. Build your own (cheap!) multi-function wireless camera controller using Microcontroller AVR ATMega8 Introduction Ever fancied building your own can controller? IMPORTANT NOTE: Capacitors for the MAX619 are 470n or 0.47u. The schematic is correct, but the component list was wrong - updated. T entry into the Digital Days competition so if you find it useful, please rate/vote/comment...... Listed under: AVR ATmega Projects, Internet - Ethernet - L Projects, Video - Camera - Imaging Projects

1637. A sunrise and sunset lamp with LEDs You know it, in the winter time it is hard to get up, because it is dark outside and your body just won't wake up ir middle of the night. So you can buy an alarm-clock that wakes you up with light. These devices...... Listed under: AVR ATmega Projects, LED Projects

1638. Ghetto Programming: Getting started with AVR microprocessors on the cheap. Microprocessors are so cheap these days. If only there were a way to p them up just as cheaply... *wavy dream-sequence lines* In this instructable, find out how to build up a complete AVR microprocessor toolchain: comp programmer software, programmer hardware, and some simple demos...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1639. Servo Controlled Labyrinth using Microcontroller ATmega32 Do you know this classic wooden labyrinth game with two knobs for X and Y rotation? So, decided to modify one by connecting two standard servos to the knobs and let a microcontroller (ATmega32) play the game. Credits: - To CarlS www.instructables.com/id/Servo-Controlled-Marble-Maze/ for inspiration....... Listed under: AVR ATmega Projects, Motor Projects

1640. LED Scolling Dot Matrix Font & Graphics Generator 5×8 5×7 8×8 using the AVR ATtiny2313 and AVRStudio If you are into geeking it out with projects of electronical kind, then you have likely wanted to create a dot matrix display or a POV. To do this you will need to have a font file or table to read the ch from....... Listed under: AVR ATmega Projects, LCD Projects, LED Projects

1641. Color Changing Digital PC Fan Controller using Microcontroller ATMega168 We've all seen LED fans that you can put in your computer to make it look usually come in blue, sometimes red or green and consist of a basic PC fan with 4 bright LED's mounted in the 4 corners. They source their...... Listed AVR ATmega Projects, Game - Entertainment Projects, LED Projects

1642. Atmel Xmega USB/Serial Arbitrary Waveform Generator This instructable walks you through programming and using the Boston Android Xmega evalu board to work as a simple arbitrary waveform generator taking advantage of the integrated 12bit DAC and high speed DMA controller. I have provided precompiled firmware as well as source code which...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1643. LED Cube 4x4x4 using Microcontroller Atmega16 Amazing 3 dimensional LED display. 64 LEDs makes up this 4 by 4 by 4 cube, controlled by an Atmel microcontroller. Each LED can be addressed individually in software, enabling it to display amazing 3d animations! 8x8x8 LED cube now available, by demand:...... Listed under: AVR ATmega Projects, LED Projects

1644. Infrared Proximity Sensing Coffee Table Module & Color Changing Glowing Faucet using Microcontroller ATMEGA48 This is merely an instructable to explain how this device op hope everything is not too obfuscated. This prototype consists of three 8x8" modules. Each module operates independently of each other. Each module consists of 4 "pixels". I

is 4 inches square and...... Listed under: AVR ATmega Projects, Home Automation Projects

1645. The Multi-format Clock – Gift contest I tend to have good ideas when I don't need them but when I need them I always face the black wall of no inspira had to come up with an idea for a present for Jeff-O. After a long week without inspiration, I came...... Listed under: AVR ATmega Projects, Clock Project

1646. Make a 8×10 L.E.D Matrix using the Arduino and 4017 decade counter In this instructable I will show you how to build a quite fancy 8 by 10 L.E.D matri scrolling text and animations) using the Arduino and 4017 decade counter. This type of matrix is easy to make and program and it is a good way...... Li under: AVR ATmega Projects, LED Projects

1647. LED Binary Calculator using Microcontroller ATtiny2313 You can't calculate binary values "as is" on most handheld calculators and using the windows a pain, so i decided to make my very own (binary only) calculator. This calculator supports all the basic functions like : NOT,OR,AND,XOR, addition,subtraction,multiplication,division and modulo. So join me as we...... Listed under: AVR ATmega Projects, Calculator Project Projects

1648. Debugging AVR code in Linux with simavr using Microcontroller ATTiny85 I recently started programming AVR chips, namely the ATTiny85. They can be programmed using C, compilers are readily available in Ubuntu, and you can do a LOT with them - just search for avr on this site! Anyway, I was havin trouble with my...... Listed under: AVR ATmega Projects, RTOS - OS Projects

1649. Power your Arduino/AVR with a Hand-Cranked Battery If you've ever wanted to power your Arduino or AVR from a battery for development testing (ba have different power delivery qualities than, say, transformed AC or even a regulated wall wart in DC) testing but were tired of going through batteries admit...... Listed under: AVR ATmega Projects, Battery Projects

1650. USB controlled home automation hack using Microcontroller ATmega8 Hack a wireless home automation system to be USB controlled using two AVR microcontrollers! Check out the video! The system is really more responsive, but the browser on my phone is slow. Skills ans tools There are two ways hacking an RF remote to...... Listed under: AVR ATmega Projects, Home Automation Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1651. Music Playing Alarm Clock using Microcontroller AT90USB1286 This Instructable will be about designing a music player from using various building blo will understand the communication between the microcontroller, memory, computer, LCD display, RTC, IR remote, and the music file decoder. I will try to to teach you in a...... Listed under: AVR ATmega Projects, Clock Projects, Game - Entertainment Projects, Sound - Audio Projects

1652. Rechargeable Battery Capacity Tester using Microcontroller ATMega168 Do you have a pile of AA rechargeable batteries in your drawer? Some are old new, but which sets would you bring with your camera on your next trip, and which ones are past their useful life? I like using rechargeable batteries, l Listed under: AVR ATmega Projects, Metering - Instrument Projects

1653. Mechanized Android Figure using Microcontroller ATtiny44A These Android figures are cute, but they don't actually do anything. Let's change that. Hav at the video: These are the steps to make an Android that reacts to sound, moves it's head, sends out Morse Code messages and displays some cool l Listed under: Android Projects, AVR ATmega Projects, Internet - Ethernet - LAN Projects

1654. Numitron clock & thermometer using Microcontroller atmega48 I really like nixie and numitron clocks, but I never worked with them before. So I deci... it a go. I choose numitrons because of 2 reasons: first of all nixies need a higher voltage than numitrons to work. Nixies need around 170V...... Listed u... ATmega Projects, Temperature Measurement Projects

1655. Yet Another Daft Punk Coffee Table (5×5 LED Matrix) Yes, I know this has been done before, but I wanted to build my own, using as few parts as possib... this as a table top or wall mount model, but it can be scaled up to make a coffee table. I built...... Listed under: AVR ATmega Projects, Home Automatic...

1656. Build your own Wifi radio using Microcontroller ATmega16 The internet hosts lots and lots of online radiostreams, most of them with a certain theme,... from old time classics to Tibetian riverdancing. I must admit that I love to listen to them while I'm building stuff, as I can choose the music I...... Listed u... ATmega Projects, Internet - Ethernet - LAN Projects, Radio Projects

1657. How to get started with Eclipse and AVR Programming AVRs is fun, but sometimes the manufacturers development environments make code mainten... chore. If your looking for a free, cross platform, high quality piece of software for programming AVRs Eclipseis a good choice.Moving to an Integrated Development Environment (IDE), such as Eclipse is...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1658. Lampduino – an 8×8 RGB Floor Lamp Lampduino is a computer-controlled free-standing floor lamp, comprised of an 8x8 RGB LED matrix. The lamp st... high and 18" wide. Light emanates from both sides. It has various display modes, as well as an included editor for creating animations. The lamp is controlled...... Listed under: AVR ATmega Projects, LED Projects

1659. Rainbow glowing ping pong Using ATTing 13 While I was finalizing e-snowflake project, I imagined that single RGB 5050 LED would create nice rainbow... placed inside a ball like ping-pong. You can find plenty of such projects on the net, this one was heading to embed everything within ping-pong, batter... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1660. Charlieplexing 7 segment displays using Microcontroller This instructable describes how to charlieplex a bunch of 7-segment led displays. Charlieplexi... discrete leds has been the topic of a few other instructables. The Charlieplexing LEDs- The theory and the How to drive a lot of LEDs from a few micro... pins comes...... Listed under: AVR ATmega Projects, LED Projects

1661. How To Use a Nokia Color LCD using an AVR Nokia manufactures a wide variety of cell phones and many of their cheaper phones contain simple LCD'... may be used in microcontroller projects. There is one particular LCD model that is used in a wide variety of their phones and is often referred to...... L... under: AVR ATmega Projects, LCD Projects

1662. How to Read Many Switches with One MCU Pin Have you ever been chugging away at a project(s) and the project keeps growing and growing, while you add more things to it (... that a Feaping Creaturism)? On a recent project, I was building a frequency meter and added a five function signal...... Listed under: AVR ATmega Projects, Other Projects

1663.

Cellphone Operated Robot Using Microcontrollers Component Required: IC1 - MT8870 DTMF decoder IC2 - ATmega16 AVR microcontroller IC3 - L293D driver IC4 - 74LS04 NOT gate D1 - 1N4007 rectifier diode R1, R2 - 100-kilo-ohm R3 - 330-kilo-ohm R4-R8 - 10-kilo-ohm C1 - 0.47μF ceramic disk C2, C3, (Listed under: AVR ATmega Projects, Phone Projects, Robotics - Automation Projects

1664.

An Absolute Beginner's Guide to 8-Bit AVR Programming-AVR Dragon If you'd like to test the waters of microcontroller programming, the new AVR Dra Atmel Corporation is a nifty, low-cost entry-level development tool. Unfortunately, right out of the box, the AVR Dragon is not the definitive answer for beginner looking for an all-in-one...... Listed under: AVR ATmega Projects, How To - DIY - Projects

1665.

ATTiny2313 Multi-mode LED Matrix Clock This is a mutli-mode clock project based on attiny2313. it employs a 8x8 led matrix as display. with the limite resolution, this 12 hour clock shows time in 6 different modes. The circuit employs row and column multiplexing to drive the leds, one row at...... Listed AVR ATmega Projects, Clock Projects, LED Projects

1666.

Temperature Indicator Using attiny2313 micrcontroller Description Features: Measures temperatures from -55°C to +125°C Three LED's to indicate in v range the temparature is. User definable thermostat with high and low settings Output via a relay to control a heater element or a blower fan (or som else) Power supply ....4.5...... Listed under: AVR ATmega Projects, Temperature Measurement Projects

1667.

Stepper motor Driver Using AT2313 microcontroller Description With this circuit you can drive a unipolar stepper motor. It operates in full step mode. get a stepper motor from an old 5.25 disk drive. The AVR attiny2313 micro controller controls the pulses for the stepper motor. The pulses are amplifi Listed under: AVR ATmega Projects, Motor Projects

1668.

Relais Board Using AT2313 Description This is a peripheral board with 4 relais, rated at 5A/250V each. The board has a ML10 output connector for con with the AT2313 Project board. It has also 4 LED's for indication which relais is switched on. Hardware The circuit is simple, it...... Listed under: AVR ATm Projects, How To - DIY - Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1669.

DS1820 Temperature Controller using atmega8515 microcontroller This project displays the temperature on an LCD display with an resolution of 0.06 DS1820 is used for sensing the temperature. It can measure temperature range from -55deg to +125deg. But i take care of only the possitive tempera There are 3 switches to change...... Listed under: AVR ATmega Projects, Temperature Measurement Projects

1670.

Real Time Clock PCF8583 Using AVR microcontroller Description The PCF8583 is a clock/calendar circuit based on a 2048-bit static CMOS RAM organize words by 8 bits. Addresses and data are transferred serially via the two-line bidirectional I2C-bus. The built-in word address register is incremented automatically after each written or read...... Listed under: AVR ATmega Projects, Clock Projects

1671.

8×8 Dotmatrix Scrolling LED display using atmega8515 microcontroller Here's an another project, which makes an Scrolling LED display. Here 64 leds v connected to an Matrix display. The Anodes are drived through an Driver IC UDN2981 and the cathodes are drived through ULN2803. The Atmega851 in this project to control...... Listed under: AVR ATmega Projects, LED Projects

1672.   Bluetooth Based Smart Home using atmega8 microcontroller This project is used to automate the home appliances through Bluetooth enabled PC. Yo the USB Bluetooth at the PC side and an Serail Bluetooth converter is used at the microcontroller side. The sparkfun bluetooth module is used here, b can use…… Listed under: AVR ATmega Projects, Home Automation Projects

1673.   Multipattern Running light using ATtiny2313 microcontroller Here's an another project with LED. It can show different patterns. There are 11 channels Circuit Diagram For more Detail: Multipattern Running light using ATtiny2313 microcontroller… Listed under: AVR ATmega Projects, LED Projects

1674. Real Time Clock ATMega16 Description The ATMega16 chip in the M16 has a real-time counter that operates asynchronously when a 32,768hz watch crystal is connected to it, a real-time clock. Bascom has built-in support for the RTC, making it very easy to use time functions. The watch crystal…… Listed under: AVR ATmega Projects, Clock Projects

1675.   PC Thermometer Using ATTiny2313 Description With this project you can show the temperature on you PC. This thermometer plugs in on any free ser gives temperature readings accurate to 0.5°C with no calibration.The project consists of the ATTiny2313 RS232 Project board and the DS1621 Thermor board and…… Listed under: AVR ATmega Projects, Temperature Measurement Projects

1676.   PC Steppermotor Driver Using AT2313 µ-controller Description With this circuit you can control two unipolair stepper motors in full step mode via the serial port of your PC. A terminal program such as Hyperterminal can be used to control the stepper motors. The stepper motors can be driven one a under: AVR ATmega Projects, Motor Projects

1677.   LCD Thermometer TCN77 Using AVR Microcontroller Description The TC77 is a digital temperature sensor with a Serial Peripheral Interface. Temperat converted from the internal thermal sensing element and made available at anytime as a 13-bit two's compliment digital word. Communication with t accomplished via a SPI and…… Listed under: AVR ATmega Projects, Temperature Measurement Projects

1678.   LCD Thermometer TCN75 Using ATTiny2313 Description This small thermometer board uses the Microchip TCN75 device. It is a cheaper clone of the L costs about 2,50 Euro. The TCN75 comes in a SO8 packaging. The TCN75 is a serially programmable temperature sensor. It has an output that is programmable…… Listed under: AVR ATmega Projects, Temperature Measurement Projects

1679.   LCD Thermometer LM35 Using AT Mega8 Description The LM35 of National Semiconductors that is used in this project is a precision centigrade tempe sensor, which has an analog output voltage. It has a range of -55°C to +150°C and a accuracy of ±0.5°C . The output voltage is 10mV/°C . The…… Listed AVR ATmega Projects, Temperature Measurement Projects

1680. AVR GPS Locator using avr microcontroller In this project i have interfaced an GPS with AVR microcontroller, the ATtiny2313 gets the location from the GPS and display it over t display. This project also have the feature of marking a place with its name. For entering the Name of the...... Listed under: AVR ATmega Projects, GPS Based Projects

1681. MMC card based WAV player using atmega32 This projects gives you a simple wav player with help of the MMC card connected to ATmega32. You can AVR microcontroller. The MMC card works on 3.3v so a 3.3v regulator is used and the 5v to 3.3v level conversion is done by...... Listed under: AVR ATme Projects, Sound - Audio Projects

1682. LCD Message Display Using AT Mega8 microcontroller Description This LCD message display can show text with large characters on an 20*4 LCD mod display can show five characters at a time. Each characters is build from twelve characters of the display module. The text on the display can be read f Listed under: AVR ATmega Projects, LCD Projects

1683. LCD Interface Board Using ATTiny2313 Description This board can directly connected to the STK 500 board or the ATTiny2313 ISP program board with flatcable on the 10 pin header of the STK500 and the 10 pin header of the LCD/Switch board. The display has 16*2 character positions...... Listed unde ATmega Projects, LCD Projects

1684. 8 MHz frequency meter using AVR microcontroller This project can measure the clock pulses fed to the Timer input of the AVR microcontroller. The Ba code counts the clock pulses for 1 second and display it over the LCD display. The frequency is displayed in Hertz and this project can measure a...... Li under: AVR ATmega Projects, Metering - Instrument Projects

1685. LCD Display On Glass Interface Using AT2313 Description Liquid Crystal Display on Glass is the newest in LCD technology. The display's are very comp measures 55x27 mm and the height is only 2mm without LED backlight and 5.8mm with LED backlight. The display's can have different LED backgrou instead of...... Listed under: AVR ATmega Projects, LCD Projects

1686. Temperature controlled fan using PWM microcontroller This project gives you a simple temperature controlled fan. If the difference between real tem and the user temperature is high then the fan will run at full speed and if the difference is low then the fan will rotate at slow speed. The speed...... Lis AVR ATmega Projects, PWM Projects, Temperature Measurement Projects

1687. SMT160 based Temperature indicator There are lot of temperature sensors both with analog & digital outputs. This project gives you an another temp indicator which has been done with a digital sensor SMT160. Although it is a digital sensor it does not gives out the temperature directly. The output... under: AVR ATmega Projects, Temperature Measurement Projects

1688. Digital Melody player using atmega16 microcontroller Here' s an melody player with Atmega16. The command "Sound Speaker" is used to generate so is the inbuilt command in Bascom AVR. For more Detail: Digital Melody player using atmega16 microcontroller... Listed under: AVR ATmega Projects, S Audio Projects

1689.

Stepper motor Control with Atmega16 With this project you can control a unipolar stepper motor. You can control both the speed and the direction of motor. The speed and direction and can changed with help of the keypad. The data's are displayed over the LCD display. A 4x4 keypad...... Listed under ATmega Projects, Motor Projects

1690.

Graphical LCD with KS108 controller Description The Graphical LCD 128x64 controlled is with the ATMega16, the graphic LCD GLCD HG1286418C-VA with S6B0107/S6B0108 controller is used. See below for the pinout of the display. The display has 8 data bits and 5 control bits. The databits are hooked to PORTB...... Listed under: AVR ATmega Projects, LCD Projects

1691.

Simple calculator using avr microcontroller Atmega16 Here's a simple calculator with the Atmega16 microcontroller. It have an LCD display and a 4x4 You can also download the proteus simulation file on the downloads Bascom Code $regfile = "m16def.dat" $crystal = 1000000 Config Kbd = Portd , D 30...... Listed under: AVR ATmega Projects, Calculator Projects

1692.

Transform a cheap RC Transmitter with Custom Firmware using ATMEGA64 Microcontroller The Turnigy 9x is a cheap Chinese radio transmitter widely by hobby king and other retailers under a variety of names. This is a computerized radio transmitter and is already a great deal for the price ($53 curr pretty capable if you can figure out how to...... Listed under: AVR ATmega Projects, Radio Projects

1693.

ATTiny2313 Board RS232 Description This board is a small controller board on which you can build your projects. It is suited for educational use, expe prototyping. The board uses the AT2313 microcontroller with a 10Mhz crystal. The board contains the ISP 10-pin connector for in circuit serial...... Liste AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1694.

Make an automatic plant light using ATTiny26 Microcontroller This light helps your plants grow. I got the idea from the Garduino, but nothing is taken The schematic and the program are mine. This plant light gives your plants 4 additional hours of light per day. When it gets dark, it turns...... Listed und ATmega Projects, Game - Entertainment Projects

1695.

LED wind indicator Using atmega8 Microcontroller I have something with the weather. I always like to know how warm or cold it is, how much rain has how hard the wind blows and from what direction,... and so there are lots of sensors around our house to keep me up...... Listed under: AVR ATmega P LED Projects

1696.

Ghetto Pixels – Building an open source BlinkM Using ATTiny45 Microcontroller Unless you've been living under a digital rock for the last few years, or simply aren't interested in flashing lights, you'll already know about the awesomeness that is the BlinkM from ThingM. It's a very small PCB featuring a power LED that responds very easily...... Listed under: AVR ATmega Projects, Game - Entertainment Projects

1697.

USB PCB Business Card Using ATtiny85 Microcontroller This is a business card that will type out some text when you plug it into a USB port. It uses a A microcontroller with V-USB based code to emulate a keyboard. The typing is triggered by the CAPS LOCK status LEDs being toggled 3...... Listed under: ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Other Projects

1698. Using ATMega328 Microcontroller Custom Tron Disc Mod In this Instructable, I cover modding the store-bought Deluxe Identity Disc to an upgraded version with 64 leds, contr an AVR MCU. The upgraded version is costume-ready and would be an excellent addition to your Tron costume - it'll also look great on your...... Listed under: AVR ATmega Proje

1699.

DIY TiX Clock using ATMEGA16 AVR microcontroller Here's my instructable for a DIY TiX clock. It is powered by an AVR microcontroller. The display is r using a piece of reflector grid you find covering office lights, some smoked perspex, a diffuser and a bunch of LED's. The Idea came from...... Listed ur ATmega Projects, Clock Projects

1700.

Starry Ceiling for Kids Bedroom Using AT90S8538 microcontroller When my little girl was born I wanted to make her a special night light for in her roo her a ceiling light with twinkling stars. It is made up of a piece of custom wood with 100 LEDs mounted in it. An...... Listed under: AVR ATmega Projects, Entertainment Projects, Home Automation Projects

1701.

Using max7219 microcontroller Build an electronic score keeper/storage box The instruction manual for each of the MANY munchkin series of card ga always includes a phrase like "you will need a 10 sided die for each player or some other device to keep score." 10 sided dice are not hard to find in m Listed under: AVR ATmega Projects, Other Projects

1702.

Using AtTiny2313 microcontroller Build an electronic polyhedral die Dice are fun. Polyhedral dice used in D & D are even more fun, particularly in big h of different sizes. But a handful isn't always practical. Ever since I saw the dragon bone electronic die wand advertised in the back pages of Dragon ma Listed under: AVR ATmega Projects, Other Projects

1703.

Turn a TV-B-Gone into a super camera remote Intro: My Nikon DSLR has an infrared remote function (remote sold separately) that is really handy, but limited in range. A while ago, I bought a TV-B-Gone Kit from it's inventor Mitch Altman, and it can turn TV's off from a great distance. I...... Listed under ATmega Projects, Video - Camera - Imaging Projects

1704. How to drive a lot of LEDs from a few microcontroller pins. Using the fact that many microcontroller pins have three states (+V, GND, or "high impedence", you can drive N*(N-from N pins. So the little 8 pin microcontroller like a PIC12Fxxx or an ATtiny11 can drive 20 LEDs on its five available output pins,...... Listed under: AVR ATmega Projects, LED Pr

1705.

Hack a Toaster Oven for Reflow Soldering using ATmega32 microcontroller As I get more serious into my electronics hobby, I need to work with more s components. Some component packages are very difficult or impossible to solder with a traditional soldering iron. To solve this problem, I decided to toaster oven to become...... Listed under: AVR ATmega Projects, CNC - Printing Machines Projects

1706.

Using the 8Pin ATTINY programming shield with an external clock Instructables author extraordinaire Randofo created a great programming shield to Arduino to program 8 pin ATTINY processors. He was even generous enough to give 50 copies of it out to people who authored instructables using AV processors. It works great on brand new ATTINYs and...... Listed under: AVR ATmega Projects, Other Projects

1707. Picopter using Microcontroller ATmega128RFA1 Update May 4 2012: I am still working very hard on version 3 of Picopter. The new version's hardware done. There are new 3D printed motor holders. I've done some measurements with regards to mass and radio spectrum. I've posted stuff to http://ww zhao.com/picopter_forum/index.php including...... Listed under: AVR ATmega Projects, Robotics - Automation Projects

1708. Box with a Music Lock using ATMega328P Microcontroller There are a lot of locks out there. There are locks open with a key, with a combination of dig various bodily parts, or with a correct geolocation. I decided to make a lock that I have not seen yet. Since I am learning...... Listed under: AVR ATmega Game - Entertainment Projects

1709. Measure negative temperature with Lm35 LM35 can measure temperatures from -55deg to 150deg and we need negative supply voltage for measurin negative temperature. This circuit eliminates the negative voltage power supply and this project can measure the negative temperature Download the file to simulate the project on your...... Listed under: AVR ATmega Projects, Metering - Instrument Projects, Temperature Measurement Projects

1710. DC Motor Speed Control using PWM This project gives a speed control of DC motor through PWM method. The Dc motor is derived by the L298 driver IC. You can also control direction of the motor. There are three buttons to control the motor. Also a bar graph Led display...... Listed under: AVR ATmega Projects, Motor Projects

1711. ISD4004 based voice recorder So far we have seen various devices that are talking, such us cars, dolls etc.This project is also like one of them. you can various projects such us IVS, robots etc. There are various voice recording IC's. They have different recording time...... Listed under: AVR ATmega Projec - Audio Projects

1712. Thermometer with Clock using ATmega16 This project will display the temperature and time over the LCD display. LM35 is used to sense the temperat the analog out of the LM35 is converted to digital by using the inbuilt ADC on the ATmega16 chip. An software clock is generated and...... Listed under: ATmega Projects, Temperature Measurement Projects

1713. Scientific Calculator using AVR Microcontroller This project gives you a nice and simple scientific calculator using AVR microcontroller. It has 2 keypads in the circuit diagram and the results are shown on the 16x2 LCD display. You can do sin,cos, tan functions using this project. The code is...... Listed un ATmega Projects, Calculator Projects

1714. Traffic light controller using avr microcontroller Here's a traffic light controller using avr microcontroller. It can be adopted for a four way road. The co written in Codevision C. You can download the C code and the proteus file from the download. For more Detail: Traffic light controller using avr...... Lis AVR ATmega Projects, LED Projects

1715. ATTiny Board For AVR ATTiny microcontrollers Description With this small board you can program most of the AVR ATTiny microcontrollers or you can projects to use it in a stand alone application. It can be powered with a 9V battery because it has 5V voltage regulator on it. The...... Listed under: AVR Projects, How To - DIY - Projects

1716. DS1307 based Clock using lcd This project gives you a real time clock with the RTC chip DS1307. This RTC chip has inbuilt oscillator for clock and it has its own registers for full In this project we dont take care about the days and we just use the...... Listed under: AVR ATmega Projects, Clock Projects

1717. Digital dimmer using Microcontroller atmega8 This project is used to control the brightness of the lamp or can be used to control the speed of the fan system consists of 3 block they are Zero crossing detector Microcontroller (Atmega8) Load Driver (BT136)As the name implies the zero crossing detect Listed under: AVR ATmega Projects, Home Automation Projects

1718. Digital Voltmeter using Microcontroller Atmega8 This project gives you a digital voltmeter which can measure voltage from 0v to 25V DC. The values ar displayed over the 7segment display. Atmega8 is used and the internal ADC is used to measure the DC voltage. The resistor network is used to reduce under: AVR ATmega Projects, Metering - Instrument Projects

1719. Make-Yourself ATmega32 Starter's Kit with LCD, I2C, SPI, RTC, ADC interfaces Here is my home-made kit of ATmega32 microcontroller interfacing. The controller is rich with features like onboard 32kB in-System programmable flash, 1 KB EEPROM, 2KB SRAM, 10bit ADC (8 channel), SPI bus inteface, TW (compatible with I2C bus) interface, an USART, analog comparator, etc....... Listed under: AVR ATmega Projects, Development Board - Kits Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1720. Capacitance and Inductance meter using Atmega8 This project can measure capacitance and inductance using the Atmega8 microcontroller and the c written in Bascom AVR. The limitations of this project is Inductance Range: 0.1?H to 2H Capacitance Range: 1pF to 2.5?F Electrolytic Capacitor Measure Range: 0.1?F to 30000?F Circuit Diagram: For...... Listed under: AVR ATmega Projects, Metering - Instrument Projects

1721. SD/SDHC Card Interfacing with ATmega8 /32 (FAT32 implementation) Here is my project on interfacing of SD Card (microSD). microSD cards are availal cheap nowadays, a great option for having a huge memory in any embedded system project. It is compatible with SPI bus, so the interfacing is easy. S adapters are...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Memory - Storage Projects

1722. LPH7319 controlled via I2C I recently obtained a very old mobile phone from a friend. The battery was dead, so I dismantled it and to my surprise four display with soldered contacts. In other mobile phones the display was connected via a conducting polymerpad, which was extremly difficult...... Listec AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1723. microSD FAT32 testing using Visual C++ This post presents a way for testing and learning the FAT32 system on microSD/ SDHC cards without building t hardware with microcontroller, thanks to Henry Yiu. This project uses the FAT32 library available in my previous post, but does away with the microcor part. So,...... Listed under: AVR ATmega Projects, Memory - Storage Projects

1724. Ultrasonic range finder using ATMega8515 This project is used to measure the distance using ultrasonic sensors. The ultrasonic signal passes through atmosphere to a barrier, which we want to measure the distance. Part of this signal is reflected and travels back to the receiver. The time delay betwe sending...... Listed under: AVR ATmega Projects, Other Projects, Sound - Audio Projects

1725.   4×4 LED Display The 4×4 LED Display was my first project with a two-layer circuitboard layout. The alignment was not 100% optimal, but sufficent. I wa make the board as small as possible, so the parts had to be stacked at some places. The square LED's were...... Listed under: AVR ATmega Projects, Ho - Projects, LED Projects

1726.   microSD ATmega32 Data-Logger Aim of this project is to present a way to store a large quantity of data into microSD card in files with FAT32 format. H ATmega32 is used for data collection and microSD interface. The data is received from in-build 8-channel ADC of ATmega32. One...... Listed under: AVR Projects, Memory - Storage Projects

1727.   UV Exposure Unit & Etching Manufacturing circuitboards containing SMD-parts with toner-transfer is nearly impossible. The thin traces almost never g transferred completely to the copper. One solution to this problem is to use photoresist boards and expose them with UV light. The layout is printed transparency, which is...... Listed under: AVR ATmega Projects, Other Projects

1728. 8×8 Bicolor LED Matrix using MAX6964 For a long time I had a layout for this circuit, but could never build it, because the layout was to small to be made by tonertransfer. So it first layout I made with my new exposure unit. It's quite small, so it...... Listed under: AVR ATmega Projects, LED Projects

1729.   Thermometer using DS1621 and Nokia 3310 LCD interfaced with ATmega8 I am presenting one application with the Nokia 3310 LCD: Designing a ther using DS1621 temperature sensor IC. DS1621 is 8-pin sensor from Maxim, with temp range of -55 to +125 degree C, which can be interfaced with microcontroller over two-wire serial i2c bus. It...... Listed under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, Temperature Measur Projects

1730.   EPROM Display using ULN2308A microcontroller Due to university and work it has been a while since the last post. But I just completed a little project worth posting. Several old 27C256 EPROMS were lying around unused. So I thought about a purpose for them. As I also had some...... Listed under: AV Projects, Interfacing(USB - RS232 - I2c -ISP) Projects

1731.   CNC Update 2 Using atmega32 microcontroller Another update on the CNC. The interfaceboards are etched, soldered and tested. IO / Control Boards directionsignals are generated by an ATmega32 which is controlled over RS232. This is only for testing purpose. In the final version a PC will control th movement....... Listed under: AVR ATmega Projects, CNC - Printing Machines Projects

1732.   Delta Robot using atmega32 micrcontroller And now for something completely different: A little robotics project for the weekend. The described robo build entirely from model making supplies and materials from the hardware store. Also only very few tools are needed. A metal saw, a drill press, a vic Listed under: AVR ATmega Projects, Robotics - Automation Projects

1733.   Simple PWM DC motor control using MOSFET H-Bridge with AVR ATmega8 Here is a very simple project of controlling a small DC-motor (taken from an personal cassette player) with ATmega8. The ATmega8 is having three PWM channels, out of which two are used here. PWM waveforms are fed to MO (RFD3055) H-bridge. Here, direction is...... Listed under: AVR ATmega Projects, PWM Projects

1734.	circuit schematic symbols circuit schematic symbols: Download High Quality circuit schematic symbols images of common electrical and electronics components, for creating any schematic diagram. Basically Electrical components can be divided in two categories Passive components and Active Components. This post will have following schematic symbols. Click on Image...... Listed under: Blog, Circuits
1735.	4 bit interfacing of a 16X2 LCD display to PIC16F877A, Atmega16/32 & MSP430 16x2 LCDs are most commonly used display units in microcontroller ba projects. I got much information about LCD, LCD commands, LCD initialization etc from the below link and I hope, it will be very much helpful for begir more Detail: 4 bit interfacing of...... Listed under: AVR ATmega Projects, LCD Projects
1736.	My own AVR ISP programmer using PIC16f877a and python! Introduction: (don't skip to read the note below) I recently purchased few AVR microcontr don't know much about AVR since I am using it for first time. Any way, I have some experience on working with PIC and MSP430. To program AVR usin Listed under: AVR ATmega Projects, Microcontroller Programmer Projects
1737.	4×4 Matrix Key-board Interfacing with ATmega32 Here is a project for beginners to interface a 16-key (4x4) keypad with ATmega32 using 8-pins i.e. one the microcontroller. This is useful particularly where we need more keys but don't want to spend more uC pins for interfacing. The 4x4 keypad is...... L under: AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects
1738.	NOKIA 3310 LCD interfacing with ATmega8 Using graphic LCD in a project gives it really a good look and flexibility of displaying different characters an But, the graphic LCDs are quite costly. The NOKIA 3310 LCD provides a really low-cost solution to add a small graphic display into your project...... Liste AVR ATmega Projects, Interfacing(USB - RS232 - I2c -ISP) Projects, LCD Projects
1739.	DIY AVR Programmers For those who are trying to make AVR kit at home, an AVR programmer which can be simple to make will be really useful, as it'll buying the programmer!! Here I'm giving a few webpage links on how to make a programmers yourself. -...... Listed under: AVR ATmega Projects, How Projects
1740.	TV remote controller 160KHz High Quality Stereo MMC WAV player using ATMEGA32 Introduction: This is my first AVR based hobby project and the mc successful one compared to my all previous stuff. I am 100% satisfied with this work. Few months ago, I tried to make a wav player using a PIC16F877/ worked anyway, but the...... Listed under: AVR ATmega Projects, Sound - Audio Projects
1741.	Multitasking in AVR (A demo to run 7 tasks on an atmega32) Introduction: Switching multiple tasks on a same CPU is the one of the major function operating system. What I did now is a time sharing multitasking (time multiplexing) on an AVR. Here an atmega32 is configured to use Round-Robin Multitasking. Round-Robin allows...... Listed under: AVR ATmega Projects, RTOS - OS Projects
1742.	An attempt to show grayscale images on an LED dot matrix display with software PWM using PIC16F877A Introduction: This is just a time pass hobby am trying to display some pictures (JPEG/PNG/BMP etc) on my 8x8 led dotmatrix display. You can see photos of my 8x8 led dotmatrix display showing grayscale pictures. The main thing which you may notice...... Listed under: AVR ATmega Projects, PWM Projects, Video - Camera - Imaging Projects
1743.	AVR based monochrome signal generation for a PAL TV using atmega16 micrcontroller Introduction: I have learned some thing about TV in one of my semester but I forgot most of them. Now I refreshed a few basics and tried to implement a monochrome PAL TV signal generator using an AVR micrco was using PIC earlier...... Listed under: AVR ATmega Projects, Video - Camera - Imaging Projects

1744.   Drawing geometric figures on a PAL TV using ATmega32 (128×64 resolution) Introduction: I am interested to draw lines, square, rectangle, circle etc on screen. At first I was confused where to start. While thinking about it, a pencil and an eraser came to my mind. If we have a good pencil, eraser and a… under: AVR ATmega Projects, Video - Camera - Imaging Projects

1745.   Running PYTHON (pymite-09) on an Arduino MEGA 2560 using atmega16 micrcontroller Now it is the first time I am using an arduino board. Arduino r is really a great product. The chip got a flash of 256KB, RAM of 8KB and EEPROM of 4KB. Also, the data sheet of Atmega2560 says that we can extend… under: AVR ATmega Projects, How To - DIY - Projects

1746. Generating AUDIO ECHO using Atmega32 microcontroller Introduction: But now I can do this very easily by a simple digital signal processing using a microcontroller. It's conce simple, ie we need to apply a proper delayed feedback in digital samples with in a circular buffer. I did this using an…… Listed under: AVR ATmega Projects, Sound - Audio Proje

1747.   Implementing Discrete Fourier Transform in Atmega32 to make an audio spectrum analyzer "All waveforms, no matter what you scribble or observe ir universe, are actually just the sum of simple sinusoids of different frequencies." Hi, I am just refreshing the basics of fourier transform. I am not an ex I did a small audio spectrum…… Listed under: AVR ATmega Projects, Sound - Audio Projects

1748.   Arduino Mega 2560 What is Arduino Mega 2560: The arduino mega 2560 is a microcontroller board in line with the ATmega2560 (ATmega2560 datash having 54 digital input/output hooks (of which 14 can be used PWM results), 16 analogue inputs, 4 UARTs (Universal asynchronous receiver/transmitte interface with…… Listed under: AVR ATmega Projects, Blog, Circuits, How To - DIY - Projects

1749.   Homage UPS Schematic Circuit Diagram Homage UPS: Homage UPS is one of the top selling brand. Homage UPS/Inverter is based on chopper techno having modified sine wave. It has overload output protection, with batter and output volts measurements displayed on LCD interface. Further specific mentioned in undergiven table Homage…… Listed under: Blog, Circuits

1750.   PCM UPS Schematic Diagrams PCM Powercom was founded in 1987, a leading provider of power protection products with ISO 9001 certificate. There 2,600 employees around the world. Powercom designs, manufactures, markets and services UPS systems. PCM UPS Schematic Diagram for Model UL 700/1000/1500VA POWER Features : LED/LCD…… Listed under: Blog, Circuits

1751.   PowerMan UPS Schematic PowerMan UPS/Inverters Uninterruptible power supplies and voltage regulators Business founded in 1993. Prior to 2000. c engaged in distribution of products of famous brands. In the year 2000. the idea of creating his own brand POWERMAN, and from that period, the cor exclusively OEM…… Listed under: Blog, Circuits

1752. APC UPS Schematic Diagrams APC by Schneider Electric, formerly referred to as American Energy Conversion Corporation, is really a manufacturer of uninterruptible energy su electronics peripheral devices and data center items. In 2007, Schneider Electric acquired APC and combined it with MGE UPS Systems to create Schne Electric's Critical...... Listed under: Blog, Circuits

1753. UPS Schematic Circuit Diagram UPS is an abbreviation of Uninterpretable Power Supply. It is an electronic product used to provide backup power for s devices in case their normal power failure or blackout. Given UPS Schematic Circuit Diagram with its component list is a complete guide to build stand Listed under: Blog, Circuits, Featured