



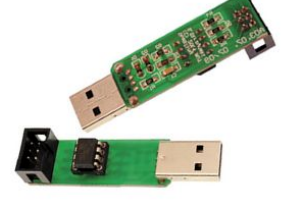
AVR atmega8 microcontroller based projects list


Share this:



1.  ATMEGA8 USB EMAIL NOTIFIER CIRCUIT Market “USB Mail Notifier” ready devices are sold, but in practice, ileginç project also ATmega8 microcontroller and the email account that connects the program’s source code (C + + RAD...

2.  THERMOMETER HYGROMETER CIRCUIT USB DHT22 ATMEGA8 The presented layout is a snap on a computer for measuring DHT22 temperature and humidity. It measures the temperature from -40 to 80 ° C with a resolution of 0.1...

3.  TINY USB PROGRAMMER AVR MICROCONTROLLERS AVRDUDE USB programmer There are few components – the ATtiny45 microcontroller, two Zener diodes, a capacitor and several resistors. Of course, there are still connectors – USB plug and IDC-6 plug....

4.  ATMEGA8 FT232R USB ESR METER CIRCUIT USB ESR Meter Circuit The main part of the meter is a ATmega8 microcontroller that controls the entire device. Its main the task is to process measured data and perform...

5. Avr Atmega8 Microcontroller – An Introduction In my previous article, I've discussed about ATmega32. Now, let me introduce another member of AVR microcontroller family, the ATmega8. This member has many features similar to that of ATmega32....

6. Handling the Digital Input Output in AVR Micro Controllers I have already discussed about a few chapters necessary to get into AVR programming. Now this is the first article that deals with programming. Let us start with the basics....

7. 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 “Standard Library” we mean the “Standard header” files like “stdio.h”, we...

8. Frequency counter circuit Simple Frequency Counter You may have already seen various projects over many websites named Frequency counter, Digital Frequency Counter etc. I’m posting just another of them. Showing the use of...

9. How to Work With 32K crystal and AVR Microcontroller This article teaches you how to add 32K external crystal source to AVR micro controller (Atmega8) with circuit diagram & C program. Introduction Timing-is one of the basic function,...

10. 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 different test circuit. ATmega8, ATmega16, atmega162, ATtiny2313 and ATTINY13 made...

11. 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, capacitors, breadboard, wires, ATmega8, and ESP8266. Story Like “Arduino,” you can make your own...

12. 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...

13. Interfacing RF module with Atmega8: Communication between two AVR Microcontrollers Making our projects Wireless always makes it to look cool and also extends the range in which it can be controlled. Starting from using a normal IR LED for short...

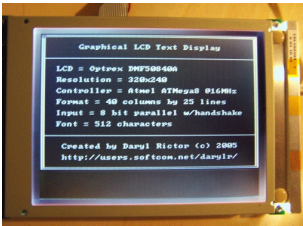
14. ATmega8 Line Follower Robot (LFR) Project – Part 2/2 Now that the mechanical assembly part is over, and we have completed the construction of left and right (L&R) infrared sensor cards. Since the MCU (ATmega8) cannot drive the dc motors...
15. A digital DC powersupply Introduction In 2002 I wrote a linuxfocus.org article about a Microcontroller based DC powersupply (LF November 2002 article 251) The article received a lot of interest as I noticed from emails which...
16. 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 Atmega8 microcontroller, then write some code to drive...
17. 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 power it 2) to see how to create a simple...
18. 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 first playing with Arduino. Those chips can still...
19. Atmega8 based Voltmeter Ammeter v2 Low power consumption Better Amperes display resolution while using low value drop resistor. Much smaller PCB size, only 5cm x 5cm. Still no SMD components. Easy calibration, only one voltage...
20. AVR Project – 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 accurate timers with ease. Here I present a simple timer...
21. The simplest digital voltmeter with AVR This is probably the simplest possible digital voltmeter with Atmel AVR microcontroller. The circuit is controlled by a microprocessor IO1 - Atmel AVR ATmega8 (ATmega8, ATmega8L), a program to download...

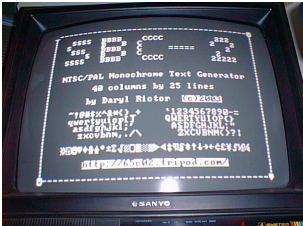
22. Analogue to Digital Conversion on an ATmega168 Many AVR microcontrollers are capable of doing Analogue to Digital Conversion. The ATmega168 has 6 ports (8 ports on the SMD packages) that can be used for analogue input. This...
-
23. An AVR microcontroller based Ethernet device Ethernet has traditionally been a quite complex interface. All Ethernet chips until today had 100 pins or more, where difficult to find in small quantities and difficult to use from...
-
24. 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. Be it corporate office, shops, restaurants or any kind of social functions like...
-
25. LED Dot Matrix Room Temperature Display using P10 and ATmega8 Room temperature display on big screen is a common requirement from industrial sector. Used in server rooms, PLC rooms, storage rooms and many other places in an industrial units. Traditionally...
-
26. 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 banks, railway stations, factories, airport and more. In earlier days display units were...
-
27. 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 appliance of your office. You may be any where...
-
28. 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 is a LED which...
-
29. 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),...
-
30. Arduboy Solar Charge Controller, Inverter, PowerBank, Lamp About this Project I have a few solar panels, 12 Volt batteries, transformers and few more stuff laying around for a while crying out aloud to make some good use...


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31. GSM Based Home Automation GSM based home automation, project allows you to control electrical appliances using your mobile phone SMS. It consists of ATmega8 microcontroller, SIM300 GSM modem, Relays. There are many Home Automation...
-
32. Password based door locking system Password based door locking system, uses Matrix keypad to enter the password, This project is extended to operate on IR Remote RC-604, In this project all required data is given...
-
33. Bluetooth based home automation Bluetooth based home automation, project allows you to control electrical appliances using your android mobile phone. It consists of ATmega8 microcontroller, HC-06 Bluetooth module, Relays. There are many Home Automation...
-
34. Token number display system using microcontroller Bank token number display project is build using ATmega8 Microcontroller and ULN2003 for driving large LED display, PCB layout, Circuit diagram are self explanatory. It is capable to display three...
-
35. DS1307 RTC Interfacing with AVR microcontroller In this tutorial we will learn How to interface RTC DS1307 with AVR microcontroller. We are using Atmega8 for the demo. GENERAL DESCRIPTION The DS1307 serial real-time clock (RTC) is...
-
36. AVRJazz Mega168/328 Learning and Development Board The AVRJazz Mega168 board from ermicro is designed to be used both as the AVR microcontroller learning and development board. The AVR Jazz Mega168 board is stand alone microcontroller module...
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37. 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 essential communications protocol and hardware use in many computer system installation start...
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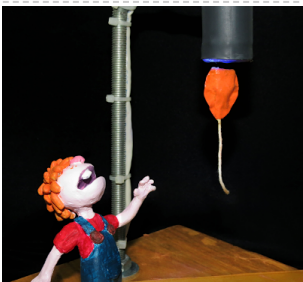
38. Microwave Controller using ATmega8 – AVR Project The user interface has the following parts. Output Device: A 16×2 alphanumeric LCD Module is used as the main output device. It can display numbers, alphabets and few symbols. It...

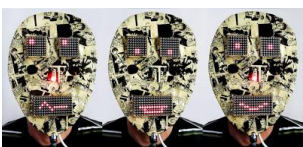
39. Stepper motor control with an ATmega8 microcontroller This note provides basic implementation details and procedural information to design and assemble a stepper motor system. The controller discussed here is the ATmel mega8, an 8-bit microcontroller (MCU). The...

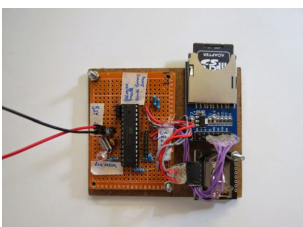
40.  Graphical LCD Text Display The Graphical LCD Text Display is complete! I've used the same Atmel ATmega8 controller that I used in the Composite Video Display. The interface is the same as...

41.  Composite Video Text/Graphics Display The Text Video Display is complete! I've discovered a simple microcontroller and have taken a new approach to create a 40x25 monochrome text display. I am using an...

42.  Open Programmer – USB programmer for PIC, EPROM, ATMEL, SPI Open Programmer – An open source USB programmer for PIC micros, I2C-SPI-MicroWire-OneWire-UNIO EEPROMs, some ATMEL micros, generic I2C/SPI devices and (soon) other devices. Completely free and Open Source (including firmware)...

43.  An AVR Atmega based PID magnetic levitator This is a magnetic levitator implemented using Atmega8 microcontroller. Magnetic levitation is a method by which an object is suspended with no support other than magnetic fields. To make a...

44.  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 decoupage, in conjunction with his stands, make it good looking. It has...

45.  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 footprint, so it can be loaded on an ATmega8, leaving space for user code....

46. A Pickup Winding machine built on an ATmega8 The core of this project is an ATmega8. It features: wind counter slow startup automatic stop configurable motor speed configurable winds 2 directions If you are looking for a CNC...

47. 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 a LPT port. So I decided to make...
-
48. 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). It's pretty simple and uses an AVR...
-
49. Drive a stepper motor with acceleration and deceleration using an Allegro driver on ATmega8 The stepper motor is an electromagnetic device that converts digital pulses into mechanical shaft rotation. Most common types of stepper motor can be bipolar or unipolar, depending on the winding. To...
-
50. 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 oriented line follower, this is just a prototype I built to experiment with this type of machines, though...
-
51. 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 cassette player) with ATmega8. The ATmega8 is having three PWM channels, out of which...
-
52. 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 the Note on character LCD Display here....
-

53. 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 computers. But still, a few mother boards come with the module necessary for an...
-
54. Remote Temperature Monitoring using GSM – AVR Project Temperature monitoring have wide application in daily life. In modern day keeping an eye on temperature of places such as server rooms, hospital rooms, warehouses and green houses can help...
-
55. ATmega16 AVR Microcontroller Seven Segment Digital Clock The ATmega16 Seven Segment Digital Clock In this ATmega16 AVR project we will be designing and implementing a digital clock with the aid of a Atmel AVR ATmega16 microcontroller and...
-
56. Running TX433 and RX433 RF modules with AVR microcontrollers Sometimes in embedded design you may want to go wireless. Might be you will want to log various readings of remotely placed sensors, or simply build a remote control for...
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57. Rotary Encoder Interfacing with ATmega8 Microcontroller In this tutorial we are going to interface a rotary encoder with ATmega8 microcontroller. ATmega8 is atmel's microcontroller series designed for embedded applications. Rotary encoder is used to know the position of...
-
58. Flex Sensor Interfacing with AVR Microcontroller In this tutorial we are going to interface FLEX sensor with ATMEGA8 microcontroller. In ATMEGA8, we are going use 10bit ADC (Analog to Digital Conversion) feature to do this job....
-
59. Joystick Interfacing with AVR Microcontroller In this tutorial we are going to interface a joystick module with atmega8 microcontroller. A JOY STICK is an input module used for communication. It basically makes easy the user machine communication. A...
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60. Anti-Theft Alert System using ATmega8 Microcontroller In this project we are going to make a vibration alert system with ATMEGA8 microcontroller. This can also be used as a theft alert system, for that we are going to...
-
61. UART Communication Between Two ATmega8 Microcontrollers In this tutorial we are going to establish a serial communication between two ATMEGA8 microcontrollers. The communication established here is UART (Universal Asynchronous Receiver

Transmitter) type. By this serial communication data...

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62. 100mA Ammeter using AVR Microcontroller In this project we are going to make a low range ammeter using ATMEGA8 microcontroller. In ATMEGA8, we are going use 10bit ADC (Analog to Digital Conversion) feature to do...
-
63. Light Intensity Measurement using LDR and AVR Microcontroller In this project we are going to interface LDR with ATMEGA8 microcontroller, and with this we can measure LIGHT INTENSITY in the area. In ATMEGA8, we are going to use 10bit ADC...
-
64. Fire Alarm System using AVR Microcontroller In this project, we are going to make a Fire Alert System using ATMEGA8 microcontroller and fire sensor. Fire sensor can be of any type, however we are using IR (Infrared)...
-
65. 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...
-
66. 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 communication. By this...
-
67. 8x8 LED Matrix Interfacing with AVR Microcontroller In this session we are going to design an 8x8 LED display with 8x8 LED matrix and ATmega8 microcontroller, which can show alphabets or names.
[caption id="attachment_34818" align="alignnone" width="650"] LED Matrix...
-
68. 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 methods and it's 100% compatible with Arduino....
-
69. DigiPot – Rotary Encoder Digital Potentiometer Description The “potentiometer” is actually a rotary encoder (TW-700198) connected to a microcontroller that reads the signal from it and convert it to a value that is displayed on 7-segment...
-
70. 3A Variable Bench PSU with Color Display I am playing with electronics since i was a child and made numerous circuits.But still now,i didn't made any power supply unit for general purpose use.So tired of making PSU...
-

71. Tic-Tac TV Remote Jammer Pretty simple. Have a look at this picture above. The usual TV remote sends a pulsed IR signal which has some instruction encoded in it, like increase or lower the...
-
72. How to fix dead atmega and attiny avr chips Atmega fusebit doctor, as name says it, device for repairing dead Atmega and Attiny family AVR's by writing fabric fusebits. Most common mistakes or problems are a wrong clock source...
-
73. Working with TWI (I2C) sensors / Devices Introduction The I2C is a multimaster, multislave serial single-ended computer bus and was invented by Philips in 1982. The atmel microcontrollers use a compatible to I2C serial bus that is named...
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74. DTMF Controlled Home Automation System Circuit Generally, appliances used in our home are controlled with the help of switches. These days, you can see automation of these appliances using many technologies. This article presents the controlling of...
-
75. 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 board is 2 digits up/down counter...
-
76. Digital Temperature Sensor Circuit Temperature sensors are widely used in electronic equipments to display the temperature. You can see the digital clock displaying the room temperature value. It is due to the temperature sensor...
-
77. Auto Intensity Control of Street Lights treet lights are controlled manually in olden days. These days automation of street lights has emerged. But one can observe that there is no need of high intensity in peak...
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78. 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 of Sunlight on light dependent resistor is low, its resistance value is...
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79. Sun Tracking Solar Panel As the non renewable energy resources are decreasing, use of renewable resources for producing electricity is increasing. Solar panels are becoming more popular day by day. We have already read...
-
80. 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 sensors outputs. When the two...
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81. 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)...
-
82. Temperature Controlled DC Fan using Microcontroller Generally, electronic devices produce more heat. So this heat should be reduced in order to protect the device. There are many ways to reduce this heat. One way is to...
-
83. Ultrasonic Rangefinder HC-SR04 Interfacing with ATmega8 In this article I will describe how to interface a Ultrasonic Range Finder Module with a AVR ATmega8 microcontroller. I will provide a HEX file which you can burn into...
-
84. 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 associated relay of selected function (microwave or grill). This will enable...
-
85. 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 device. It can display numbers, alphabets and few symbols. It...
-
86. Clock/temperature LED display This project is based on the timer/counter 0 example. It shows time, date and temparature on 7 segment displays. Instead of the LCD display the time is shown on a...
-
87. 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 the ATMega328 microcontroller...

-
88. Clock/temperature LED display This project is based on the timer/counter 0 example. It shows time, date and temperature on 7 segment displays. Instead of the LCD display the time is shown on a...
-
89. AVR I/O Ports AVR microcontrollers are the advanced microcontrollers. From 1996 onwards these are come into existence. In AVR family there are so many controllers are available. Mainly the AVR family is sub...
-
90. Digital Clock using Seven Segment Display and ATmega16 In this ATmega16 AVR project we will be designing and implementing a digital clock with the aid of a atmel AVR ATmega16 microcontroller and seven segment display. Before going through this digital clock...
-
91. 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 programmed patterns at our command. The core application of the project...
-
92. How to disable JTAG of AVR microcontroller JTAG stands for "Joint Test Action Group" which was standardized as the IEEE 1149.1 Standard Test Access Port and Boundary-Scan Architecture in 1990. JTAG is generally used in IC debugging and device programming....
-
93. FlashProg – USB serial flash memory programmer FlashProg is USB base flash memory programmer to work with 3.3V serial flash memory devices. This programmer is specifically design to read, program and configure 25x series, serial flash memory...
-
94. DIY SMD LED heart In this article I will try to tell you about the gift I made for my girlfriend! I got here is a LED heart. I apologize for my bad English! ...
-

95. DIY AVR Development Board with Atmega128 For many of my previous projects I used AVR Microcontrollers extensively. I started with the Atmega8 and moved to superior AVR variants depending on the application complexity and requirements. Before designing any particular application,...
-
96. Driving a DC motor using PWM with AVR ATmega This library is an update of the software PWM driver you can find here: http://davidegironi.blogspot.it/2013/03/controlling-dc-motor-speed-and_6.html For DC motor information please look at the above link. This update implements also progressive start...
-
97. LED Cube 3x3x3 with ATMEGA8 An interesting project and already much discussed in the forums and also in videos. Although it appears complex,it is a simple idea and fun very purpose. Mounting material: - 27...
-
98. Create yourself ATMEGA128 a simple tone generator Hello guys, In this project I want to share my experiment on ATMEGA128 generating a simple tone, I have created 8 tones (1 octave) Let's get started!! Step...
-
99. Homemade singing ATMEGA128 Hello guys, After experimenting with 8 octave tone generator, Now, I'm continuing on creating a singing ATMEGA128 Let's get started, no more delay.... Step 1: Prepare all the parts needed.....
-
100. A pool cleaning robot custom electronic based on AVR ATmega8 microcontroller Chlorine damage a gasket on the robot and cause the shorts of the electronics embedded. It is obviously out of warranty, and the manufactuer does not send me any information...
-
101. ATMEGA Core Temperature Sensor Abstract: I recently stumbled across an interesting fact in the datasheet for the ATMEGA32u4, the microcontroller I am using for my Einstepper Project. I was surprised to find that Atmel...
-

102. Precision Temperature Measurement In an effort to resume previous work [A, B, C, D] on developing a crystal oven for radio frequency transmitter / receiver stabilization purposes, the first step for me was to create a...

103. Make an Oscilloscope Using the SainSmart Mega2560 with the TFT LCD shield and the 3.5 "color touch screen This instructable will show you how to build a portable Touch Screen Oscilloscope for less than 40 U\$! The oscilloscope is one of the most powerful electronic instruments that is...

104. ArrDrownHo! – Easily convert AVR to Arduino Cap'n ArrDrownHo! is the lovechild of Ardweeny and Boarduino and he's here to commandeer your AVR ships. ArrDrownHo! inherits pros of both and cons of neither. Pick up an AVR chip...

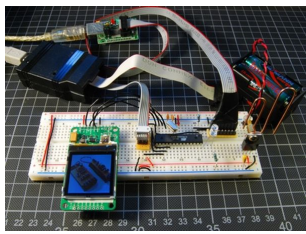
105. RSS Reader using ATmega8 microcontroller I spent part of an afternoon developing a hardware RSS reader (most of my time was spent on the python side of things). It's pretty simple and uses an AVR...

106. 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 square meters for 5 people. It will take...

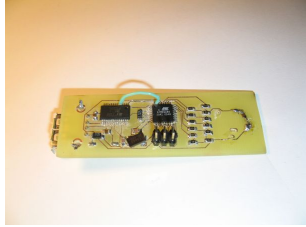
107. Algorithmic 8-bit workshop using ATMega328 I was asked to give a workshop regarding sound art in Super Public Art School that is held at Titanik-gallery in Turku. As I have been working lately with microcontroller...

108. 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...

109. Flickr images on a Nokia LCD using ATmega48 LCDs are often used in microcontroller projects. Most used are these green character displays with two or more rows to display menus, status or debug messages. With mass production of...

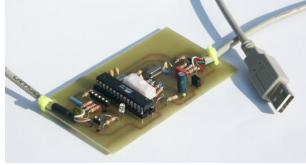


110.



USB controlled DDS signal generator with ATmega88 A simple signal generator which produces sine waves (or any waveform really) at audio frequencies using DDS and is controlled a USB serial connection. Only 2 chips are used in...

111.



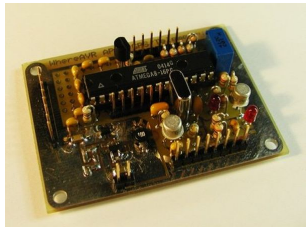
AvrUsb500 — an open source Atmel AVR Programmer using ATmega8 Why Stk500 and USB? Until the beginning of this year a simple parallel port programmer was the only good programmer as it could be used for any device. All device...

112.



HVProg using ATmega8535 microcontroller Compatible with AvrStudio Supports all AVR Controllers Parallel and serial High-Voltage-Programming Small and easy layout with only a few parts STK500 protocol Schematics and board layout available Introduction The...

113.



The WhereAVR using ATmega8 microcontroller Introduction The WhereAVR is a small, lightweight, low-power, and low-cost APRS tracker with a full compliment of analog and digital I/O, as well as the ability to decode ax.25 packets....

114.

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 live video being transmitted over amateur television. Specifically, the...

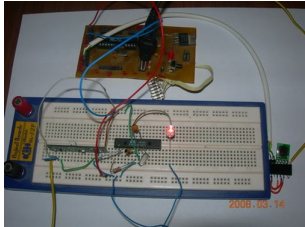
115.

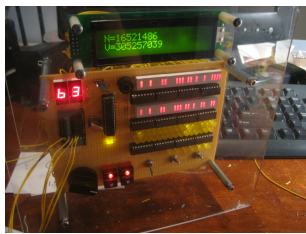
Evertool using ATmega16 microcontroller Evertool is an AVRISP/STK500-protocol and JTAGICE compatible Programmer/JTAG debugger. ISP Programmer compatible with Atmel AVRISP, directly accessible with AVRStudio and avrdude JTAG debugger compatible with Atmel JTAGICE, directly accessible with...

116.

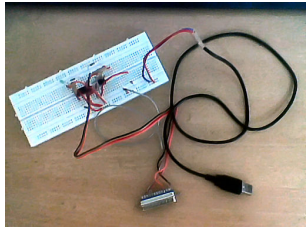
The Tuxgraphics AVR NTP clock using ATmega168 The Network Time Protocol (NTP) has revolutionized the world. Suddenly one could have anywhere in the world accurate time and date. NTP is a simple UDP based protocol and can...

117. Printed circuit board 'Multiuse tiny1' using ATmega8 Project overview This small PCB, which I named Multiuse tiny1 was originally designed to convert NES/SNES controllers to USB. Since there is not a lot of space available inside an...
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118. 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 - connecting these two can be a problem! There are...
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119. SD/SDHC Card Interfacing with ATmega8 /32 (FAT32 implementation) Hi friends, Here is my project on interfacing of SD Card (microSD). microSD cards are available very cheap nowadays, a great option for having a huge memory in any embedded...
-
120. AVR DDS signal generator V1.0 using ATmega8 Sometimes when tuning various electronic hardware we need simple signal generator with various waveform and frequency. One of the options is to buy a professional with variable gain professional coating...
-
121. Data Acquisition System using ATmega8 Introduction We can use a PC for connecting the homemade data acquisition hardware and produce the GUI for user friendly graphical presentation easily. One of the projects that uses Visual...
-
122. Servo motor control using Atmega8 microcontroller Servo motors are so called "closed feedback" systems. This means that motor comes with control circuit, which senses if motor mechanism is in desired location and if not it continuously...
-
123. AVR LCD menu routine using ATmega8 microcontroller Let's have some practice and write simple AVR LCD menu routine. For this we need to write LCD control library. I decided not to use one from AVRLIB. LCD controlling...
-
124. Simplified AVR LCD routines using ATmega8 microcontroller Controlling numeric LCD isn't so tricky as it may look like. Of course you can find numbers of LCD libraries. One of more universal you can find in AVRLIB library...
-

125. Measuring motor speed and display result on LCD using ATmega8 microcontroller For measuring motor speed there can Optical interrupter used like H21A1. This is a device where IR LED and photo-transistor is coupled in to plastic housing. The gap between then...
-
126. AVR-GCC 4 bit and 8 bit LCD library using ATmega8 microcontroller Standard alphanumeric LCD display controlled by 74HC164 LCD controller can accept 8 bit data bytes or 4 bit nibbles. Earlier my 4 bit and 8 bit LCD libraries were split...
-
127. Simple signal drawing on graphical LCD routines using Atmega8 microcontroller During spare time I have been playing with graphical LCD. This time I decided to display simple signals that are stored in microcontroller memory. The idea was to read signal...
-
128. Programming AVR ADC module with WinAVR using Atmega8 microcontroller Most of AVR microcontrollers have Analog to Digital Converter (ADC) integrated in to chip. Such solution makes embedded designers life much easier when creating projects and programming them. With no...
-
129.  Running TX433 and RX433 RF modules with AVR microcontrollers using Atmega8 Sometimes in embedded design you may want to go wireless. Might be you will want to log various readings of remotely placed sensors, or simply build a remote control for...
-
130. Prime Calculator is Complete using ATmega8 Microcontroller My microcontroller-powered prime number generator/calculator is virtually complete! Although I'm planning on improving the software (better menus, the addition of sound, and implementation of a more efficient algorithm) and hardware...
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131.



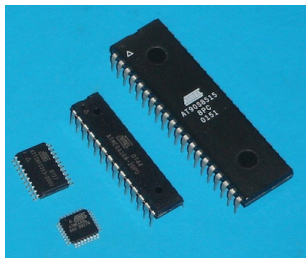
Making a USB based AVR Programmer using ATMEGA8 Microcontroller Around time when I was beginning to learn about microcontrollers I had exchanged my laptop with a senior at college for his desktop - that's because the only way I...

132.



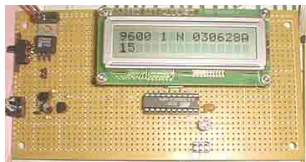
PS/2 to C64 Mouse Adapter using ATmega8 microcontroller A pixel artist friend of mine wanted a mouse to try his skills on a real C64. I thought I could help him by making an adapter that would allow...

133.



AttoBasic HOME using Atmega168 microcontroller This is the central location for resource for all versions of AttoBasic for Atmel AVR controllers and Adurino computers Devices directly supported include ATMEGA328, ATMEGA168, ATMEGA88M, ATMEGA32U4, ATMEGA32, ATMEGA163, ATMEGA8515,...

134.



A serial interface for the Truly MTC-C162DPLY-2N using ATmega8515 The 10k potentiometer, just above the ISP connector near the lower middle of the board,is used to adjust the display contrast according to your vertical viewing angle. DOWNLOADS ATTINY2313/AT90S2313 AVRStudio...

135.

Atmega8 Pinout Diagram ATmega8 is an atmel's low-power 8-bit AVR RISC-based microcontroller combines 8KB of programmable flash memory, 1KB of SRAM, 512K EEPROM, and a 6 or 8 channel 10-bit A/D converter. The device...

136.

MMC/SD/SDHC AVR Interface using ATmega8 microcontroller MMC/SD/SDHC card library This project provides a general purpose library which implements read and write support for MMC, SD and SDHC memory cards. It includes low-level MMC, SD and SDHC...

137. 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 KHz Square Wave Output • 900 mv Inverted Sine Wave Output (Uncalibrated) Downloads...

138. 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 panel meter for positive...

139. PCB Exposure Box with Countdown timer using ATMEGA8 microcontroller Tired of spending hours and hours in wire soldering? Do your circuits look ugly and you are looking for a way to produce professional-like PCBs? Then you had better try...

140. Digital Telemetry using ATmega8 microcontroller The ATmega8 microcontroller-based Low-Cost Telemetry Device (LTD) is an efficient telemetry keyer. The LTD measures the voltage levels of up to four analog channels via its on-chip 10-bit ADC, converts...

141. 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 with Microchip PIC Series devreydi 6 pcs rörele control pcb computer program code can be...

142. Serial interface with 2X16 LCD display using ATmega8515 microcontroller The 10k potentiometer, just above the ISP connector near the lower middle of the board,is used to adjust the display contrast according to your vertical viewing angle. DOWNLOADS ATTINY2313/AT90S2313 AVRStudio...

143. Computer connected Flower Water Circuit using ATmega8 microcontroller Interestingly, I understand a project is determined by the required hours of irrigation irrigation data via a computer data exchange rs232 com port are made out of a project source...

144. Multimeter with Atmel using Atmega8-16pu microcontroller Atmega8 Multimeter "Multimeter" was the only title to einfel to me first. Voltmeter (only positive DC) 0.00 - 9.99 volts and 10.0 - 30.0 volts with automatic range switching. Frequency counter...

145. AVR Programmer with ATmega8-16 About AVR Programmer This simple AVR Programmer will allow you to painlessly transfer hex programs to most ATMEL AVR microcontrollers without sacrificing your budget and time. It is more...
-
146. 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 work with the idea of a day's archive is a grown up pretty. Atmel will...
-
147. Atmel atmega projects l35 heat time display keypad using ATmega microcontroller
Atmel ATMEGA series of three projects are made with micro-controllers 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...
-
148. Atmel avr usb programmer using ATMEGA8 microcontroller A lot of programmers are growing for a USB programmer for Microchip PIC controllers are Atmel avr usb programmer circuit atmecilerde not idle in addition to the USB communication...
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149. Arduino Internals – AVR E-Book Apress, 16-Nov-2011 - 392 pages Arduino Internals guides you to the heart of the Arduino board. Author Dale Wheat shares his intimate knowledge of the Arduino board—its secrets, its strengths...
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150. Acceleration sensing USB interface using Atmega8 microcontroller Contents The hardware The USB interface Calibration PC assisted calibration Self calibration Software Drivers Joystick drivers Maemo drivers The input event subsystem Setting permissions Enigma FAQ Downloads The TiltStick is...
-

151.	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 reference, but they are not maintained anymore and very likely won't work...
152.	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 family used e.g. in the DLR Asuro robot, manufactured by AREXX...
153.	Digital Stop Watch with ATmega8 using microcontroller Hello Friends, In this tutorial we will make a "Digital Stop Watch" using an AVR ATmega8 Microcontroller. This will help you learn many concepts like Multiplexed Seven Segment Display Interfacing...
154.	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 accurate timers with ease. Here I present a simple timer...
155.	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 on or off. The remote control is a cheap NEC Format remote,...
156.	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 making is a contact less type,...
157.	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 designers to learn and utilize. Alphanumeric LCD Module Interfacing. 4x4...
158.	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 loads (Up to AC 220V 6 Amps or smaller) with...

159. AVR ATmega8 Project LED Moving Message Display using ATmega8 microcontroller An interesting project that can be done using Microcontroller is a LED message scroll er. It teaches you a quite lot of things. So I decided to make one. I...
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160. PS2 Keyboard Interface with AVR MCU using ATmega8 microcontroller A PC keyboard is an old and trusted human machine interface. Most peoples are familiar with it. When a text entry is required it is the best method. If we...
-
161. 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 run over a white surface which has an arbitrary path...
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162. Electric Spinning Wheel using ATmega8 microcontroller The Electric Eel Wheel is a smart electric spinning wheel which helps you spinning the fiber of your choice into yarn easily instead of traditional wheel. This Electric spinner is...
-
163. Speaking Calculator using AVR ATmega88 microcontroller This Speaking Calculator project is an interesting device built just by three chips that can be very useful to blind people. The system has four basic operations (addition, subtraction, multiplication...
-
164. 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 data signal. It comes with Nokia 3310/5110...
-
165. AVR Wide Range LC,F, ESR Meter using AVR ATMega88PA-PU microcontroller LCFesR meter is a precise, wide range meter that can measure inductivity (L), capacity (C), frequency (F) and equivalent series resistance of a capacitor in-circuit (ESR) based on AVR ATMega88PA-PU...
-
166. AVR Switch Timer using ATmega8 Microcontroller To get better UV expose, Andrianakis has built new Switch Timer that will turn of his UV exposure box after some time. The timer uses ATmega8 as main processor and...
-

167.	SP12 serial programmer software SP12 supports the following devices: AT90S1200, AT90S2313, AT90S8515, AT90S4414, AT90S2323, AT90S4434, AT90S8535, AT90S2343, ATtiny22, AT90S2333, AT90S4433, ATtiny12, ATtiny13, ATtiny15L, ATtiny26, ATtiny25, ATtiny45, ATtiny85, ATtiny2313, ATtiny861, ATmega103, ATmega603, ATmega161, ATmega162, ATmega163,...
168.	Controlling SpeakJet with an AVR microcontroller using ATmega88 microcontroller Core Features: · Programmable, 5 channel synthesizer. · Natural phonetic speech synthesis. · DTMF and other sound effects. · Programmable control of pitch, rate, bend and volume. · Programmable power-up...
169.	Modular User Interface System using ATmega88 microcontroller The IOSTRING is a modular physical user interface system which consists of a series of three basic board modules designed around the Atmel AVR AtMega88 MCU. Each module type can...
170.	A GLCD connected to an AVR microcontroller using ATmega8 microcontroller A GLCD connected to an AVR microcontroller The PVG120602EGE is a 128x64 pixel graphic (grey) LCD with lightblue EL backlight and two KS0108 controller chips and one KS0107 line (columns)...
171.	Simple USB AVR programmer, USBasp using ATmega8 microcontroller USBasp is low cost USB in-circuit programmer for Atmel AVR microcontrollers. The hardware consists of an ATmega88 or an ATmega8 and a couple of passive components. The programmer uses a...
172.	Temperature Sensor Using ATmega8 and display using LCD(16x2) STEP 1: Circuit Diagram LCD other Pin's 1,2,3,15,16 as usual not shown. Temperature Sensor (LM35) Circuit STEP 2: Programming Code Compile Using Codevision AVR View C Code STEP 3: Burn...
173.	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 of this project is pretty...

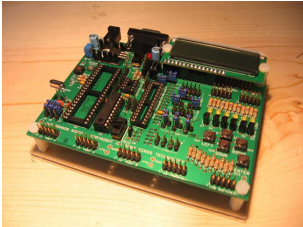
174. Programmer using ATMEGA8 microcontroller The programmer I use is built from a kit I bought at Tuxgraphics. There are several reasons I bought this kit. It is open source, works with avrdude. It connects...
-
175. Portable 2.4 GHz Spectrum Analyzer using Atmega8 microcontroller There are plenty of wireless devices available on the market that broadcast in the 2.4 GHz ISM band. Such devices include Bluetooth, WiFi, Zigbee, wireless USB, cordless phones, wireless mice...
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176. AVR displays body temperature on a Nokia 3310 LCD using Atmega8 microcontroller This project describes how to measure temperature with Atmega8 and a thermistor and display it on a Nokia 3310 LCD. A thermistor is a device that changes its resistance with...
-
177. Open Source USB AVR Programmer for Students and Hobbyists using Atmega8 microcontroller If you cannot afford to buy a USB programmer for AVR, don't worry, you can make one by yourself. This programmer uses a Atmega8 microcontroller with a few external passive...
-
178. AVR based remote controlled fan regulator This project is from Extreme Electronics that describes an AVR-based (Atmega8) remotely controlled fan regulator. The control commands are received through a DVD player remote control. With three buttons on...
-
179. Atmega8 measures ambient temperature and relative humidity using HSM-20G sensor In one of my previous posts, I discussed about Sensirion's SHT11 and SHT75 sensors, which are capable of measuring both temperature and relative humidity. They are digital sensors and provide fully...
-
180. Building a digital light meter with a calibrated LDR using Atmega8 microcontroller Measurement of light intensity is a prime necessity in several occasions. The diversity of such needs make their way to various branches of physics and engineering as well as in...
-
181. AVR acoustic spectrum analyzer using Atmega8 microcontroller AVR acoustic spectrum analyzer, based on Atmega8 AVR microcontroller, operational amplifier, and few other components. Use any HD44780 compatible LCD or VFD, connect audio signal, and enjoy the effect :)...
-
182. 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 battery for development testing (batteries have different power delivery qualities than, say, transformed AC or even a regulated...

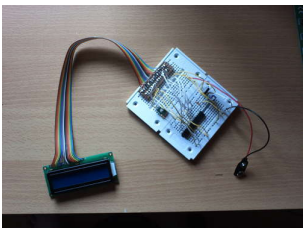
183. Arduino FTDI Header using ATmega8 microcontroller So, you want to program a bootloaded AVR. Or possibly, you have an Arduino Lilypad and no way to program it. There are a few solutions available to you: You...

184. 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 features of the Dragon Rider 500 from Ecros Technologies. Please be aware that there is a very...

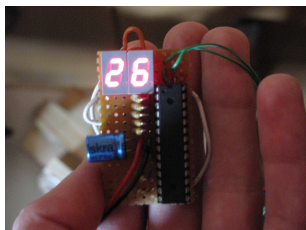
185. How to program a AVR (arduino) with another arduino using attiny2313 microcontroller * you've got your arduino with atmega168 and you bought an atmega328 at you local electronics store. It doesn't have an arduino bootloader * you want to make a project...

186. 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...

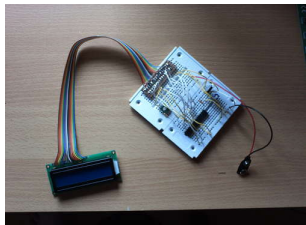
187.  Assembling the Dragon Rider 500 for use with the AVR Dragon using ATmega88 microcontroller Not long ago the Atmel company came out with a great tool for use with the AVR line of microcontrollers called the AVR Dragon. This small USB device provides professionals...

188.  Getting started with LCD's and Microprocessors using ATmega8 In this Instructable, find out how to control LCD's with a ATmega8 and Bascom. Demo You will need: - Breadboard - Wires - ATmega8 - Programmer - Bascom AVR (There...

189. DIY Digital Thermometer Using ATMega8 This instructable will show you how to make a thermometer that displays the temperature of the air. It's not the most accurate thermometer in the world, but for this price...



190.



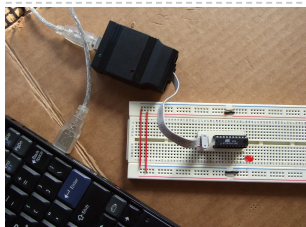
Getting started with LCD's and Microprocessors In this Instructable, find out how to control LCD's with a ATmega8 and Bascom. You will need: - Breadboard - Wires - ATmega8 - Programmer - Bascom AVR (There is...

191.



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 in Ubuntu, and you can do a LOT with them -...

192.



Ghetto Development Environment Using Microcontrollers A while back, I posted up a quick and dirty "el cheapo" method of getting started programming the Atmel AVR series chips: Ghetto Programmer (version 1.0) Since then, I've vamped,...

193.

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 USB of course! In this project...

194.

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 ATMEGA8 microcontrollers using ubuntu (This is aimed at beginners, I myself am also being a beginner, so...

195.

Adding ICSP header to your Arduino/AVR board using ISP10PIN microcontroller So you may have been playing with Arduino's, or rather, Hackduino's. If you made your own Hackduino or similar project, you may be wondering how to add the ICSP header....

196.

LED matrix using shift registers This instructable is meant to be a more complete explanation than others available online. Notably, this will provide more hardware explanation than is available in the LED Marquee instructable by...

197. Build your own (cheap!) multi-function wireless camera controller using Microcontroller AVR ATmega8 Introduction Ever fancied building your own camera controller? IMPORTANT NOTE: Capacitors for the MAX619 are 470n or 0.47u. The schematic

is correct, but the component list was wrong - updated. This is...

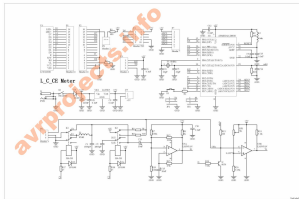
198.	Debugging AVR code in Linux with simavr using Microcontroller ATtiny85 I recently started programming AVR chips, namely the ATtiny85. They can be programmed using C, compilers are readily available in Ubuntu, and you can do a LOT with them -...
199.	USB controlled home automation hack using Microcontroller 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...
200.	DS1820 Temperature Controller using atmega8515 microcontroller This project displays the temperature on an LCD display with an resolution of 0.06degrees. DS1820 is used for sensing the temperature. It can measure temperature range from -55deg to +125deg....
201.	8×8 Dotmatrix Scrolling LED display using atmega8515 microcontroller Here's an another project, which makes an Scrolling LED display. Here 64 leds which are connected to an Matrix display. The Anodes are driven through an Driver IC UDN2981 and...
202.	Bluetooth Based Smart Home using atmega8 microcontroller This project is used to automate the home appliances through Bluetooth enabled PC. You can use the USB Bluetooth at the PC side and an Serail Bluetooth converter is used...
203.	LCD Thermometer LM35 Using AT Mega8 Description The LM35 of National Semiconductors that is used in this project is a precision centigrade temperature sensor, which has an analog output voltage. It has a range of -55°C...
204.	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 fallen, how hard the wind blows and from what...

205. ISD4004 based voice recorder So far we have seen various devices that are talking, such as cars, dolls etc. This project is also like one of them. you can use it in various projects such...

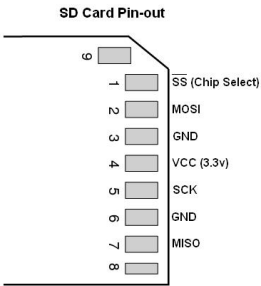
206. Digital dimmer using Microcontroller atmega8 This project is used to control the brightness of the lamp or can be used to control the speed of the fan. The system consists of 3 blocks they are...

207. Digital Voltmeter using Microcontroller Atmega8 This project gives you a digital voltmeter which can measure voltage from 0V to 25V DC. The values are displayed over the 7-segment display. Atmega8 is used and the internal...

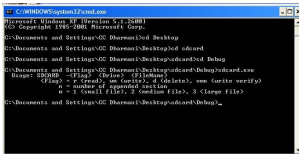
208. Capacitance and Inductance meter using Atmega8 This project can measure capacitance and inductance using the Atmega8 microcontroller and the code is written in Bascom AVR. The limitations of this project is Inductance Range: 0.1µH to 2H...



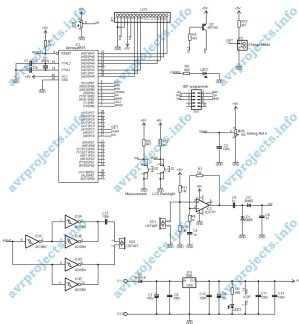
209. SD/SDHC Card Interfacing with ATmega8 /32 (FAT32 implementation) Here is my project on interfacing of SD Card (microSD). microSD cards are available very cheap nowadays, a great option for having a huge memory in any embedded system project....



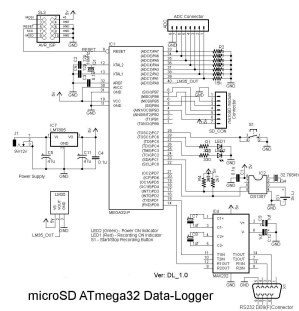
210. microSD FAT32 testing using Visual C++ This post presents a way for testing and learning the FAT32 system on microSD/ SDHC cards without building the hardware with microcontroller, thanks to Henry Yiu. This project uses the...



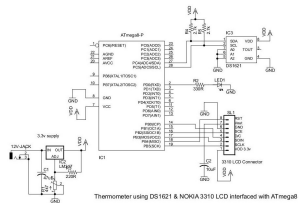
211. Ultrasonic range finder using ATmega8515 This project is used to measure the distance using ultrasonic sensors. The ultrasonic signal passes through the atmosphere to a barrier, which we want to measure the distance. Part of...



212. 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. Here, ATmega32 is used for data...



213.

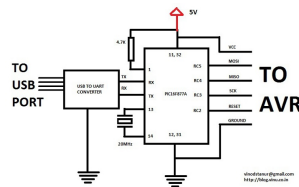


Thermometer using DS1621 and Nokia 3310 LCD interfaced with ATmega8 I am presenting one application with the Nokia 3310 LCD: Designing a thermometer using DS1621 temperature sensor IC. DS1621 is 8-pin sensor from Maxim, with temp range of -55 to...

214.

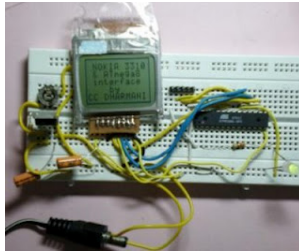
Simple PWM DC motor control using MOSFET H-Bridge with AVR ATmega8 Here is a very simple project of controlling a small DC-motor (taken from an old personal cassette player) with ATmega8. The ATmega8 is having three PWM channels, out of which...

215.



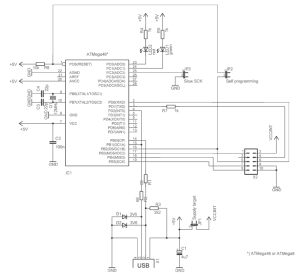
My own AVR ISP programmer using PIC16f877a and python! Introduction: (don't skip to read the note below) I recently purchased few AVR microcontrollers. I don't know much about AVR since I am using it for first time. Any way,...

216.



NOKIA 3310 LCD interfacing with ATmega8 Using graphic LCD in a project gives it really a good look and flexibility of displaying different characters and shapes. But, the graphic LCDs are quite costly. The NOKIA 3310...

217.



ATmega USB Programmer USB programmer for Atmel AVR microcontrollers including ATmega series This is USBasp in circuit Programmer for programming Atmel AVR Series using USB interface. It is a complete DIY guide to...

218. How Do You Make Your AVR Programmer Four Times Faster? (PRWEB) August 24, 2005 Up to now AVR microcontrollers have been programmed in a ZIF socket using parallel programming, or have been programmed in circuit using the In System Programming...