Arduino Mega 2560 projects list in PDF offline downloadable

1. Arduino TFT Forecast Weather Station with ESP8266
   This project, builds on Wunderground weather forecast via the Internet. Specs: 1. 3 days weather forecast (Low&High temps, probably of precipitation, condition icons) 2. Current weather conditions (Current temp, feelslike...)

2. Photoplethysmography – IR Heart Rate Monitor
   This Instructable documents how to create a simple heart rate monitor using Photoplethysmography with an IR phototransistor via transmissive absorption using the Arduino to process the pulsatile data and display...

3. DIY Digital Compass (for your car)
   I'm astounded that some cars don't have a digital compass always visible. You either have to launch the navigation app each time which may even disappear when you adjust the...

4. Create a Motion-Sensing Alarm with an Arduino and IR Sensors
   Infrared (IR) sensors are normally used to measure distances, but they can also be used to detect objects. By connecting a couple of IR sensors to an Arduino, you can...

5. deCart
   Description deCart is an attachment to a shopping cart that uses social pressure to make the shopping a more productive, connected experience for society as a whole. List of Materials...

6. 3D Printed Desktop CNC mill
   The CNC UNO is a small desktop CNC Mill that can be used for hobby engraving and routing, PCB milling and education. It is mainly made with 3D Printed ABS...

7. Datura 6 home automation – 2015 improvements
   News: In this latest months I’ve made some important fixes and improvements to the code and to the webserver of the project. See datura_mega_v19.ino for the latest code. The most...

8. Nerd++: Controlling Diode RGB LED Strips with Arduino, Pt. 1 – Getting Started
   A few weeks ago, it came to my attention that IKEA do a set of colour-changeable LED strips. I’ve been looking for a decent way of providing some lighting behind...

9. DIY: G-force measurement system
   So this time around, it’s another fun and functional microcontroller based DIY, a g-force measurement system with data logging to SD card. HARDWARE USED: 1) Arduino UNO w/ATmega328P 2) 3-axis...

10. Arduino Project 11 (2D/3D pictures) – Measuring a water tank level v2 (HC-SR04 Ultrasonic Rangefinder/Arduino Uno/1.0)
1. Introduction: I made a water level sensor a little while ago to measure the water level in my underground rainwater harvesting tank. Thanks to the Jubilee I found…

11. **The DIY Arduino Telescope GOTO control project**

Why make your own Arduino control system? After completing my homemade telescope mount it was powered by a Meade DS motor kit. This system was extremely slow, underpowered and unreliable.

12. **Control a Furby with Arduino (or other microcontroller)**

The Million Dollar Furby: We can rebuild him. We have the technology. Continued from the previous Instructable where we excised Furby's primitive brain, it's now time to replace it...

13. **Modifying an Arduino Mega and chipKIT Max32 for 5V Operation**

Max's Arduino Mega and chipKIT Max32 both require 9V external supplies, but he really wishes to power them from a single 5V supply. Well, nothing is simple, is it?!

14. **Simulating and controlling GE Color Effects Lights with Arduino**

Overview This project builds a Christmas lights controller for the GE Color Effects lights allowing programmed control of up to 8 sets of Christmas lights. Furthermore, it provides a function...

15. **Traffic light and pedestrian crossing implemented with an Arduino**

This video shows the traffic light and pedestrian crossing I've implemented with an Arduino. It's a reproduction of the crossing near my home, timings taken from a video of it. Incidentally...

16. **Arduino automatic watering system**

[caption id="attachment_19540" align="alignright" width="210"] Fig. 1: Author's prototype[/caption] During summers, most people are too lazy to water the potted plants on their rooftop gardens every day. Explained in this section...

17. **Drive with PID Control on an Arduino Mega 2560**

This example shows how to simulate a simple closed-loop control algorithm in Simulink and how to run it on an Arduino Mega 2560 board. Contents Introduction Prerequisites Required Hardware Task...

18. **Haptic Feedback device for the Visually Impaired (Project HALO) using arduino**

I recently watched an episode of Stan Lee's Superhumans which featured a blind man who used a series of clicks, like a bat, to echo locate his surroundings. I got...

19. **Boozeduino using arduino**

Now with more LED. Arduino mega powered breathalyser using the MQ-3 sensor. A relative gauge for judging how intoxicated you are. NOT TO BE USED AS MEANS OF BREATHALYZING...

20. **TiDiGino Contest using arduino**

The project TiDiGino We developed a new GSM remote control called TiDiGino. The name recalls the initials (TDGxx) of our previous GSM remote control and is also based on the Arduino project. All the details of this circuit can be found...
21. Arduino DMX 512 Tester and Controller
Una herramienta para controlar y probar iluminación de espectáculos controlada por el protocolo DMX-512, ideal para hacer pruebas rápidas en instalaciones fijas o temporales de iluminación. Este proyecto surge por...

22. Temperature Detecting Heating Control System with Arduino Mega2560
Web site: http://www.icstation.com/product_info.php?products_id=3517 Project Summary: To help electronic DIY hobbyists, will show you how to use Temperature Detecting Heating Control System with Arduino Mega2560. Full Project: The temperature detecting heating...

23. ESP8266 WiFi touch screen thermostat
In this project we will show how to build WiFi controlled thermostat with ESP8266, Arduino and touch screen display. Thermostat will also show other info, like weather forecast and temperature...

24. 3D Printed Desktop CNC mill
Welcome to this project. The CNC UNO is a small desktop CNC Mill that can be used for hobby engraving and routing, PCB milling and education. It is mainly made...

25. Nerd++: Controlling Dioder RGB LED Strips with Arduino, Pt. 1 – Getting Started
A few weeks ago, it came to my attention that IKEA do a set of colour-changeable LED strips. I've been looking for a decent way of providing some lighting behind...

26. Intro to Arduino
An Arduino is an open-source microcontroller development board. In plain English, you can use the Arduino to read sensors and control things like motors and lights. This allows you to...

27. Tag Archives: arduino speaking clock
How to: Speaking Clock Hello Setup and Procedure The wave shield is interfaced with the Arduino Mega 2560 as normal. A couple of pins were remapped because the wave shield...

28. Drive with PID Control
This example shows how to simulate a simple closed-loop control algorithm in Simulink® and how to run it on an Arduino® board. Supported Hardware: Arduino Leonardo Arduino Mega 2560 Arduino...

29. TiDiGino, the Arduino-based GSM remote control
Using an ATmega 2560 and therefore the heart of Arduino, we have developed a universal remote control with GSM. This allows to control 2IN/2OUT, DTMF key, gate control and GSM...

30. Arduino Led Alarm Clock
This is a project that I have been working on a few months now and I have completed its build very lately. The main processor used in this project is...
31. **LED – Mega Clock**

If you can't see the original video in your country please try this other link of a "music edited version": Step 1: Bill of Material (All you will need) For...

32. **8x8x8 LED Cube with Arduino Mega (+Sound +PS controller +Game)**

This is a instructable which is based on the Cube by Chr,( http://www.instructables.com/id/Led-Cube-8x8x8/ ) by SuperTechIT, ( http://www.instructables.com/id/CHRs-8X8X8-LED-Cu... ) and by das-labor.org, ( http://www.daslabor.org/wiki/Borg3d_Bauanleitung... ) but i think its...

33. **Phoenard: World's 1st Arduino-compatible Prototyping Gadget**

The ultimate combination of an Arduino-compatible board and your day-to-day Gadget in one handheld Device. Phoenard is an All-in-one Arduino-compatible prototyping Gadget powered by an 8-bit AVR ATMEGA2560, identical to...

34. **Ethernet Shield**

Ethernet Shield description: The Arduino Ethernet Shield allows an Arduino board to connect to the internet. It is based on the Wiznet W5100 ethernet chip. The Wiznet W5100 provides a...

35. **Digital Clock**

Introduction This design project utilizes an Arduino MEGA2560 with an ATMEGA1280-16AU microcontroller to create a digital clock. The clock will be able to save time when disconnected from power, and...

36. **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...

37. **Talking Darth Vader Binary Clock**

In this instructable I am going to show you, how to paint a black and white image of Darth Vader and bring it to life by adding a binary clock...

38. **Sign Language Translator using Arduino**

First of all, this project is not finished. We're still trying to improve and fix some problems. Right now, we're only able to translate letters from 'A' to 'E'. The...

39. **The Touch module – a robotic dog toy**

The idea was to invent an Arduino-based, robotic toy that my dog could interact and play with. One that could record scores, automatically deliver treats, and grow more advanced as...

40. **Arduino Scouting Robot**

Summer Project: Arduino Scouting Robot [video id="P6PVLhjQ5FY" type="youtube"] Arduino Scouting Robot Part 1 * 12,9,5 volt power supply recharge it with a 12 volt charger keep power switch on to charge...

41. **Arduino Basic Wifi Project using ESP8266 wifi module**
Overview ESP8266 is a highly integrated chip designed for the needs of a new connected world. It offers a complete and self-contained Wi-Fi networking solution, allowing it to either host...

42. Arduino ADK LED Lighting

Have you ever wanted to control electronics with your smartphone? The Arduino ADK (Android Development Kit) is the Arduino Mega with a built in USB host device, ready for your...

43. Robot Arm Kit using Arduino

I made use of Smart Tank Chassis in the past 4 projects and I wanna do something very different. After searching in google and consider different stuffs for a couple...

44. Arduino Seismic Activity Monitor – Ethernet Shield

Have you ever wanted to impress your friends by saying something crazy like, "I think there's going to be an earthquake soon" moments before an earthquake hits? Or do you...

45. 4x4x4 LED-cube based Arduino and Flower protoboard

This instructable will teach you how to build your 4x4x4 LED cube with Flower ProtoBoard and control by Arduino. Why is Flower ProtoBoard ? not ProtoBoard ? Because of I often use...

46. Six wheeled All Terrain Vehicle (6WD) using Arduino

Hello, In this post we'll be making a Six wheel drive all terrain vehicle (ATV). These are rare and hence expensive robots (at least in India). I made this ATV...

47. Arduino Timer and Interrupt Tutorial

Arduino Timer and Interrupt Tutorial This tutorial shows the use of timers and interrupts for Arduino boards. As Arduino programmer you have probably used timers and interrupts without even knowing...

48. USA Flag made with diffused LED using Arduino

USA flag constructed using a total of 2,301 diffused red, white and blue LEDs completed with Arduino sketch animations, I hope this instructions helps anyone who wants to try this...

49. Automate Your Garage Opening Times

1. Background My 1st project with Apduino On-line was about to solve a simple problem, close the garage door after sunset, when it has been left open. We have a...

50. Ethernet Switching – with Arduino

Aim: Switch relays from the ethernet or the internet, using your mobile, tablet or computer with a nice graphical user interface. Update V4.06 Please read the below steps to Step...

51. Arduino Water Thermostat

am just finishing up a project at work, which requires two water tanks to be maintained at 180F. Each tank has twin 1500 watt, 240vac heating elements, each controlled by...

52. Introduction to Arduino

An Arduino is an open-source microcontroller development board. In plain English, you can use the Arduino to read sensors and control things like motors and lights. This allows you to...
In this post I will attempt to describe the steps I took to build the Arduino based thermostat shown in the following videos. The first video was taken when around...

This was easily the most time I've spent producing an Arduino Tutorial. I've been sporadically walking around NYC with this GPS for weeks as I've tweaked the code and gotten...

Overview The Arduino Mega 2560 is a microcontroller board based on the ATmega2560 (datasheet). It has 54 digital input/output pins (of which 14 can be used as PWM outputs), 16 analog inputs,...

Hey everyone, I finally finished my touch panel for my bedroom wall and am here to show you how I made it. Unfortunately its not installed in my wall yet...

This project was built for my introductory electronics class at the University of Waterloo in Canada. This was my first introduction to electronics and therefore, my first project. Follow these...

JLCPCB: Prototype 10 PCBs for $2 (2-layer,100*100mm)
China's Largest PCB Prototype Manufacturer, 290,000+ Customers & 8,000+ Online Orders Per Day
PCB Pricing: https://jlcpcb.com/quote

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