List of Projects using arduino with advance view:

1. My Arduino WordClock The initial project, and certainly the one to which many were inspired is that of Doug Jackson. http://www.instructables.com/id/The-Word-Clock-Arduino-version/ also inspired by http://www.highonsolder.com/blog/2011/1/8/arduino-word-clock.html http://www.instructables.com/id/Sleek-word-clock/ Step 1: The Materials The list of materials for the board depends on how you plan to make the electronics, if you...... Listed under: Clock – Timer Projects, Projects

2. Chicken Light Timer using an Arduino The wife is into raising chickens and now that the daylight savings is getting near she wanted a way to keep the egg laying production in high gear. According to the material that she reads, chickens will maintain their egg laying production if they get...... Listed under: Clock – Timer Projects, CNC Machines Projects, Projects

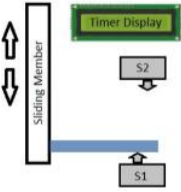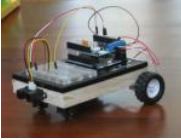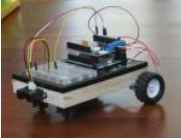3. Ultrasonic Range Finder with an ATtiny85 using an Arduino I'm here to show you how to use a HC-SR04 Ultrasonic Range Finder with an ATtiny85 as well as programming the ATtiny85 using the wonderful shield that randofo created. List of materials: ATtiny85 Programming Library Arduino Uno HC-SR04 Ultrasonic Range Finder and Library Jumper Wires Breadboard ATtiny85 Step 1: Program...... Listed under: Metering – Instrument Projects, Projects

4. Auto Leveling Laser Cross using Arduino So this Lazy Old Geek purchased a Laser Cross. I created a manual leveling Laser Cross to use for aligning stuff on my drill press: http://www.instructables.com/id/ManualLevelingLaserCross/ Well, being a Geek I decided to make an automated platform that adjusts automatically with an Arduino. Well, the...... Listed under: Projects, Sensor – Transducer – Detector Projects

5. Arduino 2-axis servo solar tracker What is a solar tracker? A solar tracker can increase the efficiency of a solar panel by up to 100%! It does this by always keeping the panel perpendicular to the incoming rays of sunlight. here's an equation to prove this: P = AW sin...... Listed under: Sensor – Transducer – Detector Projects

6. Arduino True Random Number Generator This is just a fun project I have been working on in the last little while. If you like this instructable, consider voting for it in the Arduino Challenge! Anyone who has experience with programming will have probably used random numbers in their code. These random...... Listed under: Calculator Projects, Projects

7. Bubble Alarm Clock Makes Waking Up Fun using Arduino Waking up to a buzzing alarm clock sucks. I'm one of those people who doesn't like to wake up before the sun is out (or has been out for many hours). So what better way to make waking up fun than having a bubble party...... Listed under: Clock – Timer Projects, Game – Entertainment Projects, Home Automation Projects, Projects

8. Uno The Arduino Robot Age: 13 Meet Uno the Arduino powered robot. Some functions include a blinking nose, moving antennas, rotating head, IR distance sensor, twin motor gear box and rotation counters. Uno is made with relatively easy to obtain parts. This project provides a good introduction to Arduino. robot.skp475 KB Step 1: Materials Material and tools • Foam board...... Listed under: Projects, Robotics – Automation Projects

9. Arduino Based Auto Timer The Need: Last week around at work I had another usual un-usual problem to face with. Having to make lots of mechanisms n components to work with-in seconds or fracs at times I kind-of knew this was always coming. And invariably so my poor mind...... Listed under: Clock – Timer Projects, Projects

10. Carduino- A simple Arduino robotics platform with its own library This is, as the title says, an Arduino-based robotics platform, with its own library. The "standard" model comes with two back motors, two omni-wheels in the front, and a distance sensor mounted on the front. It also has breadboard space on top for adding whatever...... Listed under: Projects, Robotics – Automation Projects

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11. Building a semi Smart, DIY boat with Arduino and some other sensors I based this off of this really nice instructables.com post for building a water bottle boat, with some additions for obstacle avoidance and light-guided control. I used Arduino as a microcontroller, an ultrasonic sensor in the front, a few simple switches on the side of the boat,......

Listed under: Game – Entertainment Projects, Projects, Sensor – Transducer – Detector Projects

12. Remote controlled webcam using Arduino Web-enable your interactive sensors over desktop, smartphone and tablet devices. This tutorial describes in detail how to use the free SensorMonkey service to remotely control a pan and tilt webcam attached to an Arduino using nothing more than a simple webpage. The webpage can be...... Listed under: Internet – Ethernet – LAN Projects, Projects, Video – Camera – Imaging Projects

13. Bike Speedometer using an Arduino Monitor your road speed using the Arduino. This project uses a magnetic switch (also called a reed switch) to measure the speed of one of the bike's wheels. The Arduino calculates the mph, and send this information out to the LCD screen on the handlebars...... Listed under: Metering – Instrument Projects, Projects
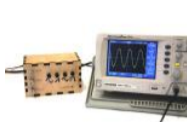
14. Waveform Generator using an Arduino Waveform generators (also called function generators) are useful for testing and debugging circuits. I often use them to test the frequency response of electronics components like op amp and sensors. This waveform generator is powered by an Arduino. It outputs four waveshapes: sine, triangle, pulse,...... Listed under: Metering – Instrument Projects, Projects

15. LED Matrix with Game Controller using an Arduino 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 steps to build a 16 x 16 LED array with a wall (different colored LED...... Listed under: LED Projects, Projects

16. Sous-vide Arduino Shield *NOTE* THIS PROJECT IS DONE BY A GROUP OF STUDENTS FROM SINGAPORE POLYTECHNIC Sous-vide (/suË Ë viË d/; French for "under vacuum")[1] is a method of cooking food sealed in airtight plastic bags in a water bath for a long time—72 hours in some cases—at an accurately determined...... Listed under: LCD Projects, Projects

17. Audio Output using an Arduino Generate sound or output analog voltages with an Arduino. This Instructable will show you how to set up a really basic digital to analog converter so you can start generating analog waves of all shapes and sizes from a few digital pins on an Arduino. ...... Listed under: Projects, Sound – Audio Projects

18. Audio Input using an Arduino Board Send sound into your Arduino. This Instructable will show you how to prepare audio so that it can be sampled and processed by an Arduino to make sound responsive projects and audio effects. (This article is a companion to another Instructable I've written about building...... Listed under: Projects, Sound – Audio Projects

19. DIY Arduino Motor Shield Today, I'm going to show you how to make an Arduino motor shield (driver) at a low cost. It works splendidly, its posses almost all the characteristics of the original Arduino motor shield. It's almost considered as a clone. The original Arduino motor shield has the...... Listed under: How To – DIY – Projects, Motor Projects, Projects

20. Arduino Board Step Sequencer I was wondering about on making a sequencer, a big 16 step sequencer was what I wanted to make. To it's full extension with lots of features including single leds for each step, midi input and output, etc. Then I realised that I should start from a...... Listed under: How To – DIY – Projects, Projects

21. Localizer with SIM908 module using Arduino The device is based on a GSM/GPRS module with included GPS. Its main function is to detect and communicate its own geographical position using, on the choice, the cellular phone reference system or the GPS. Its small dimensions are due to the use, for the...... Listed under: GPS Based Projects, Phone Projects, Projects

22. GSM GPS shield for Arduino Board Shield for Arduino designed and based on the module GSM/GPRS SIM900 or the GSM/GPRS & GPS module SIM908, to make calls, voice and data connections via GPRS. HARDWARE INNOVATIONS This new version (old Arduino GSM shield) has several new hardware features, that allow maximum customization...... Listed under: GPS Based Projects, Phone Projects, Projects

23. Easy Bluetooth Enabled Door Lock With Arduino + Android Thanks to everyone who supported this project and voted for it in the Arduino Challenge! I was awarded second prize and hope to participate in more Arduino contests in the near future. This tutorial will explain a simple way to make a password protected bluetooth...... Listed under: Arduino Android, Internet – Ethernet – LAN Projects, Projects

24. Beginners guide to building Arduino robots with Bluetooth and Android In this tutorial we are going to go over building a Arduino robot that can be controlled via bluetooth with an Android phone/tablet. This is a beginners guide that is going to briefly go over the process of wiring and programming your robot. Build list... The following is the list...... Listed under: Arduino Android

25. LINUSBot – Line Follower Robot using Arduino The operation of this Robot is quite simple. Infra-red sensors placed at the front of the chassis will monitor when our Robot is over a black line or when it is over a white background. In this project we will use the appropriate rounded chassis...... Listed under: Projects, Robotics – Automation Projects