

## THANK YOU FOR YOUR SUPPORT!

Here are some video tutorials for beginners to get familiar with Arduino coding and hardware. These videos will give you a general overview of programming an Arduino and using the hardware at our store. We highly recommend you watching them.

### **Tips on setting up the UNO R3 Board:**

Install the driver located at <http://www.arduined.eu/ch340g-converter-windows-7-driver-download/> for windows.

Or <http://kiguino.moos.io/2014/12/31/how-to-use-arduino-nano-mini-pro-with-CH340G-on-mac-osx-yosemite.html> for mac.

If your PC is still having issues detecting the board, try this:

**Download** this driver file from the links above (which you already did):

There will be a compressed file with two folders in it (INSTALL and CH341SER).

Once you connect the board, go to **device manager** under control panel.

Click the arrow on **ports** and **expand** it.

Click **update driver software** and select **manual install**.

Browse for the **CH341SER folder** and select it. **Click OK**.

In the Arduino IDE, please make sure you have the following set up:

Tools->Board->Arduino genuine/UNO

Tools->Programmer->AVR ISP

Tools->Port->COM4 (or what is available)

Tutorial 01: Hardware Overview: Arduino Course for Beginners

<https://www.youtube.com/watch?v=09zfRaLEasY>

Tutorial 02: Download and install the Arduino IDE: Arduino Course for Beginners

<https://www.youtube.com/watch?v=w55Pd4dU5-w>

Tutorial 03: Arduino IDE and Sketch Overview: Arduino Course for Beginners

<https://www.youtube.com/watch?v=YDkdVZ7e3OY>

Tutorial 04: Understanding Arduino Syntax: Arduino Course for Beginners

<https://www.youtube.com/watch?v=AJkEQ9t4WfY>

Tutorial 05: Understanding Variables: Arduino Course for Beginners

<https://www.youtube.com/watch?v=QNTaQ5qjniE>

Tutorial 06: How to Blink an LED: Arduino Course for Beginners

<https://www.youtube.com/watch?v=33sNhlekRV8>

Tutorial 07: digitalRead() and the Serial Port: Arduino Course for Beginners

<https://www.youtube.com/watch?v=ClrN2CaO6bo>

Tutorial 08: analogRead() and the Serial Port: Arduino Course for Beginners

<https://www.youtube.com/watch?v=CPMQSXrsaO8>

Tutorial 09: How to read voltages with analogRead(): Arduino Course for Beginners

<https://www.youtube.com/watch?v=H16GYLo8Ik>

Tutorial 10: Fade an LED: Arduino Course for Beginners

<https://www.youtube.com/watch?v=wpTqiEcHwwQ>

Tutorial 11: If Statement Conditionals: Arduino Course for Beginners

<https://www.youtube.com/watch?v=w-yfj1VXW8I>

Tutorial 12: For Loop Iteration: Arduino Course for Beginners

<https://www.youtube.com/watch?v=bMsT8FeMQ-k>

Arduino Library (1)

<https://www.youtube.com/watch?v=fsMg6F6yYlo>

Arduino Library (2)

<https://www.youtube.com/watch?v=171RShoaz5A>

Here is an overview of the parts in the kit.



Let's start with the LEDs:

Arduino Tutorial #1 - Digital Inputs and Outputs - Button & LED

[https://www.youtube.com/watch?v=YWY\\_IsoL7fE](https://www.youtube.com/watch?v=YWY_IsoL7fE)

Note: We provide 220 ohms resistors for the LEDs and 10K ohm resistors for the buttons.

Without a resistor, an LED would burn due to the access current going through the LED (resistors limit the amount of current that flows through a circuit).

Now let's us discover an RGB (Red Green Blue) LEDs

<https://www.youtube.com/watch?v=Q72DvmcCe4I>

These are some cool things you can do with more LEDs and a shift register 74HC595 shift register with LEDs

<https://www.youtube.com/watch?v=bqfPZXEuyuc>

74HC595 shift register with 7 segment LEDs

<https://www.youtube.com/watch?v=cHA-fwiA4Qo>

Photo sensor/Photoresistor (Photo cell in the video) with LED

[https://www.youtube.com/watch?v=vfno2TZDI\\_Q](https://www.youtube.com/watch?v=vfno2TZDI_Q)

Servo

<https://www.youtube.com/watch?v=TmpGXfVRd2A>

Potentiometer with Servo

<https://www.youtube.com/watch?v=xWjkuYSQcoI>

Note: The video used an Arduino Nano board. The code can be also used with the Uno R3. You could hook up the piezo buzzer to test the sensor with a lighter.

Piezo Buzzer

<https://www.youtube.com/watch?v=oELhkUkVOXo>

1602 LCD

<https://www.arduino.cc/en/Tutorial/HelloWorld>

<https://www.youtube.com/watch?v=gRhYla6mzkM>

[http://www.dreamdealer.nl/tutorials/connecting\\_a\\_1602a\\_lcd\\_display\\_and\\_a\\_light\\_sensor\\_to\\_arduino\\_uno.html](http://www.dreamdealer.nl/tutorials/connecting_a_1602a_lcd_display_and_a_light_sensor_to_arduino_uno.html)

Now you have the power to create and build some super awesome projects. Go crazy!

Also please subscribe, share or like the videos you find here as the creators of these tutorials work hard to make our lives easier.

If you find these videos hard to follow, there are many other tutorials out there that you can use as well. Google is your friend.

Happy creating!