## **Arduino**



## I'm Learning abou

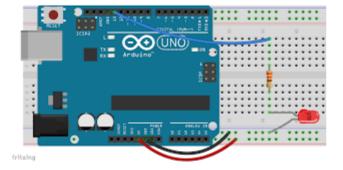
Making an LED Blink

Card 1 of 2

1 Read the Getting Started and C Programming introductions before starting this exercise.

**2** First we need to make a simple circuit using the Arduino and a breadboard. The sample Arduino program expects an LED on to be wired on Pin 13.

Top Tip: Make sure the long leg (Anode) of the LED is on positive side of the circuit, in this case in line with the resistor.



Now we can take a look at a simple program to make the LED Blink. For the Arduino programs are called Sketches. Open up the Arduino software and use the Open Icon to look at the sketch Blink in the examples folder

```
Blink | Arduino 1.0

File Edit Sketch Tools Help

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Turns on an LED on for one second, then off for one second, repeatedly. This example code is in the public domain.

//

void setup() {

// initialize the digital pin as an output.

// Pin 13 has an LED connected on most Arduino boards:

pinMode(13, OUTPUT);

}

void loop() {

digitalWrite(13, HIGH); // set the LED on delay(1000); // wait for a second digitalWrite(13, LOW); // set the LED off delay(1000); // wait for a second
}

digitalWrite(13, LOW); // set the LED off delay(1000); // wait for a second

Arduino Uno on COM16
```





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Card 2 of 2

Examine the code and read the comments. This will help you understand how a simple program can be written for the Arduino. Check that you have the right pin connected according to your program.

A Now click the Upload icon to load the program to the Arduino. You will see the RX and TX lights on the Arduino flicker and a confirmation message. A few seconds later you should see your program in action!

What's next?

Try changing

- 1. The timing interval
- 2. The Port number (don't forget to rewire)
- 3. Add another LED to you board and add code to make that blink
- 4. Move on to the next Challenge!

For more information and additional lessons try the following useful links:

http://www.robotshop.com/blog/en/arduino-5-minute-tutorials-lesson-2-basic-code-blink-led-2-3639



