

Introduction

mBlock is a graphical programming environment that is specially designed for beginners to easily program Arduino projects.

Getting started

mBlock

Download mBlock from <http://www.mblock.cc>

Arduino kit

Blinking LED

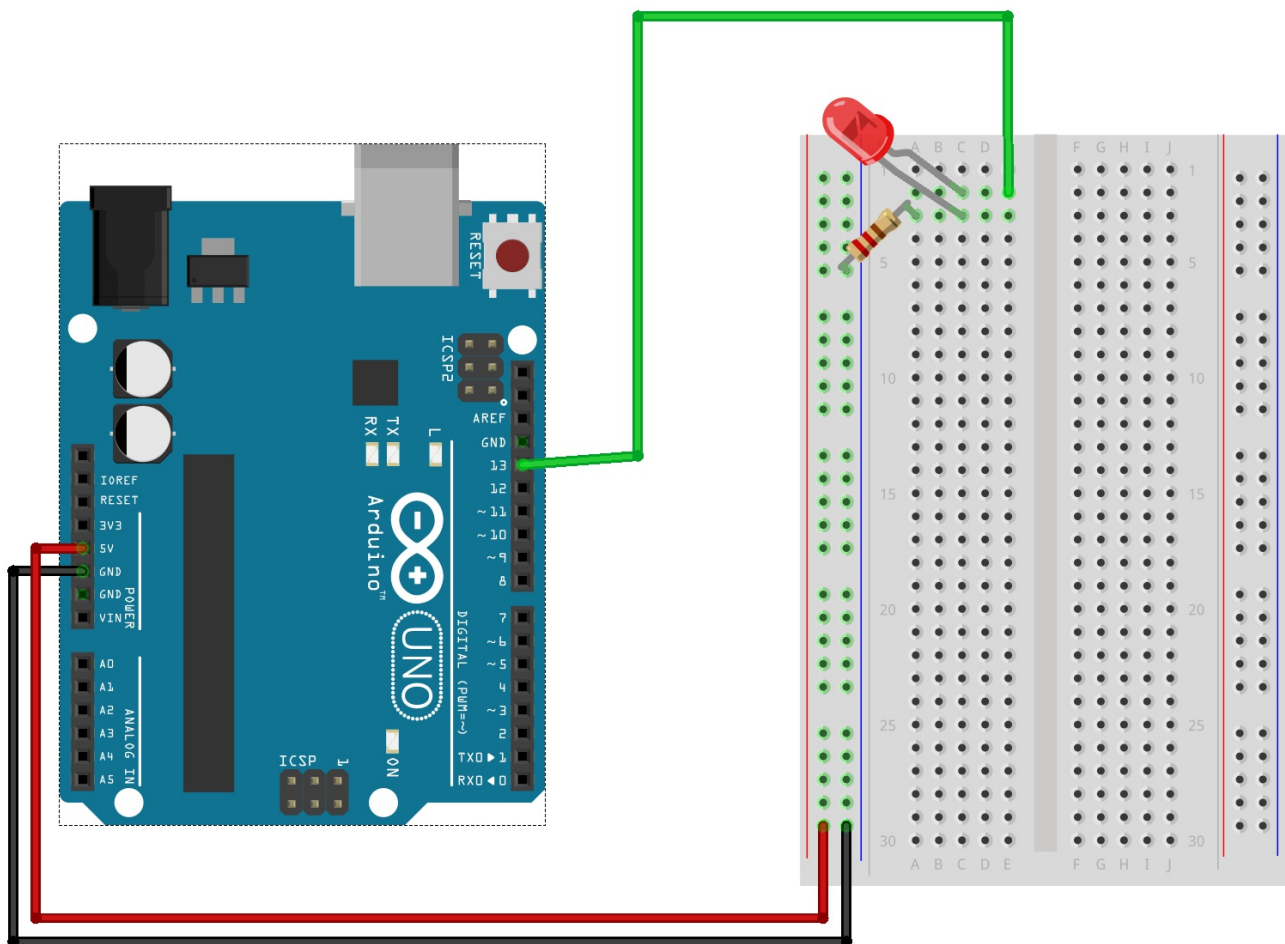
What is an LED?

What is the end result of this experiment?

Required parts

Component	Quantity
LED	1
Resistor	1
Jumper wires	3

Circuit Diagram



fritzing

mBlock Code

Arduino Program

forever

set digital pin 13 output as HIGH

wait 1 secs

set digital pin 13 output as LOW

wait 1 secs



Potentiometer

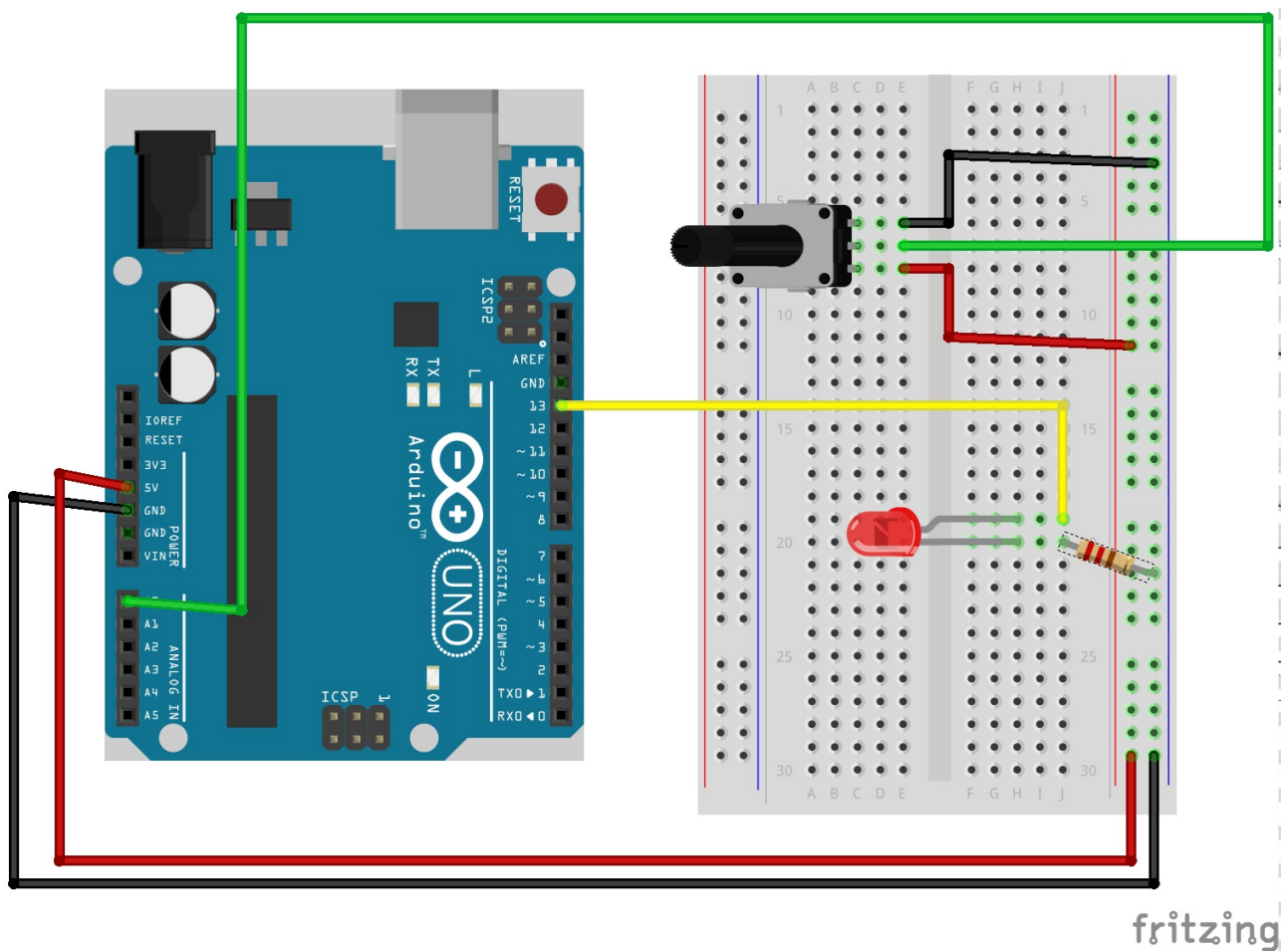
What is a Potentiometer?

What is the end result of this experiment?

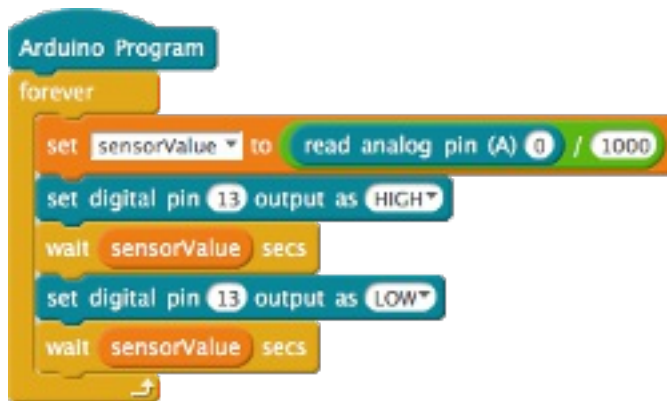
Required parts

Components	Quantity
Potentiometer	1
LED	1
Resistor	1
Jumper wires	7

Circuit Diagram



mBlock Code



RGB LED

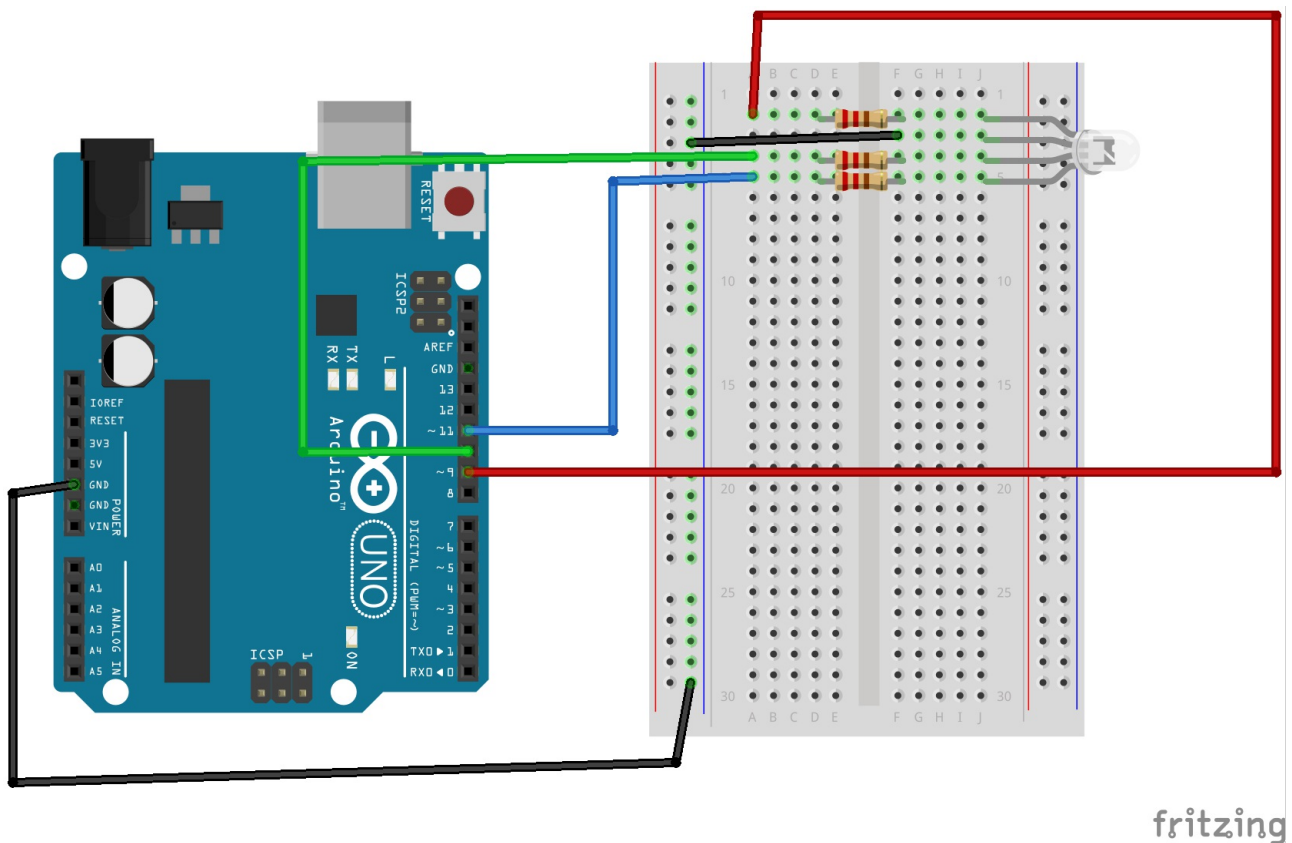
What is an RGB LED?

What is the end result of this experiment?

Required parts

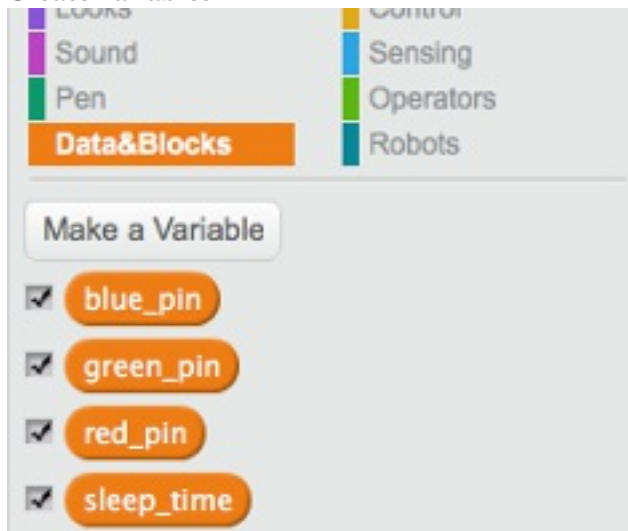
Component	Quantity
RGB LED	1
Resistor	3
Jumper wires	6

Circuit Diagram



mBlock Code

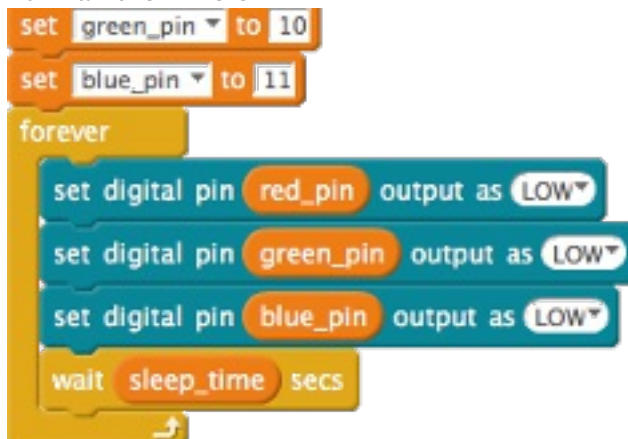
Create variables



Assign variables



Turn all the LEDs off



Turn on red

```
set digital pin red_pin output as HIGH
set digital pin green_pin output as LOW
set digital pin blue_pin output as LOW
wait sleep_time secs
```

Turn on green

```
set digital pin red_pin output as LOW
set digital pin green_pin output as HIGH
set digital pin blue_pin output as LOW
wait sleep_time secs
```

Turn on blue

```
set digital pin red_pin output as LOW
set digital pin green_pin output as LOW
set digital pin blue_pin output as HIGH
wait sleep_time secs
```

Red and Green

Red and Blue

Green and Blue

