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

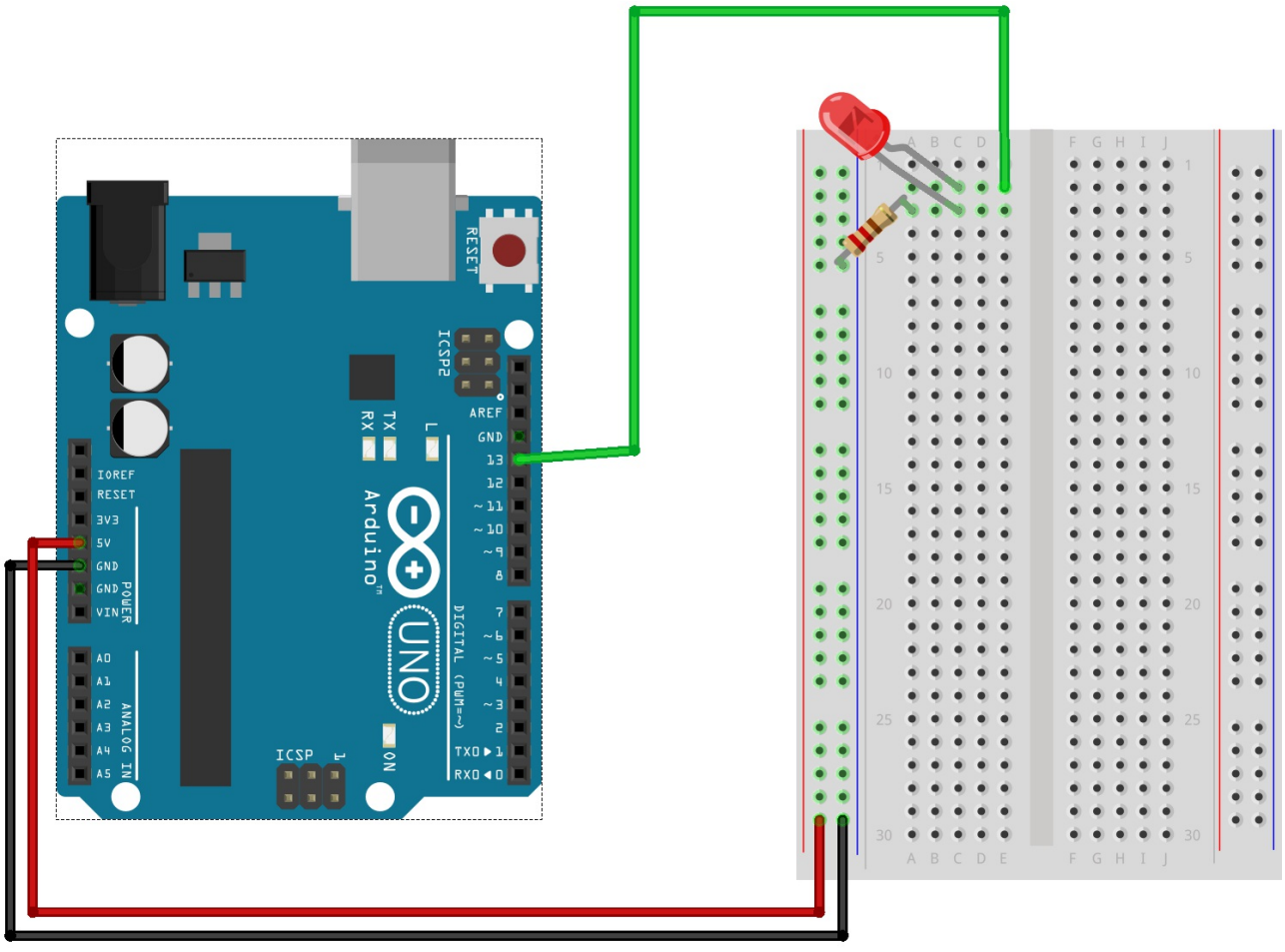
Blinking LED

What is an LED?
What is the end result of this experiment?

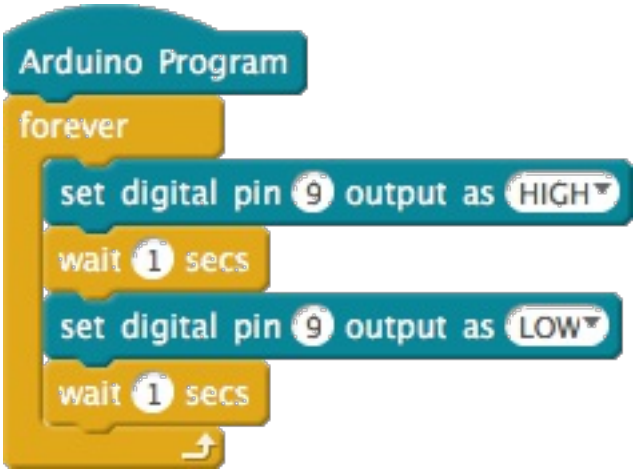
Required parts

Component	Quantity
LED	1
Resistor	1
Jumper wires	3

Circuit Diagram



mBlock Code


Arduino Program
forever
set digital pin 9 output as HIGH
wait 1 secs
set digital pin 9 output as LOW
wait 1 secs

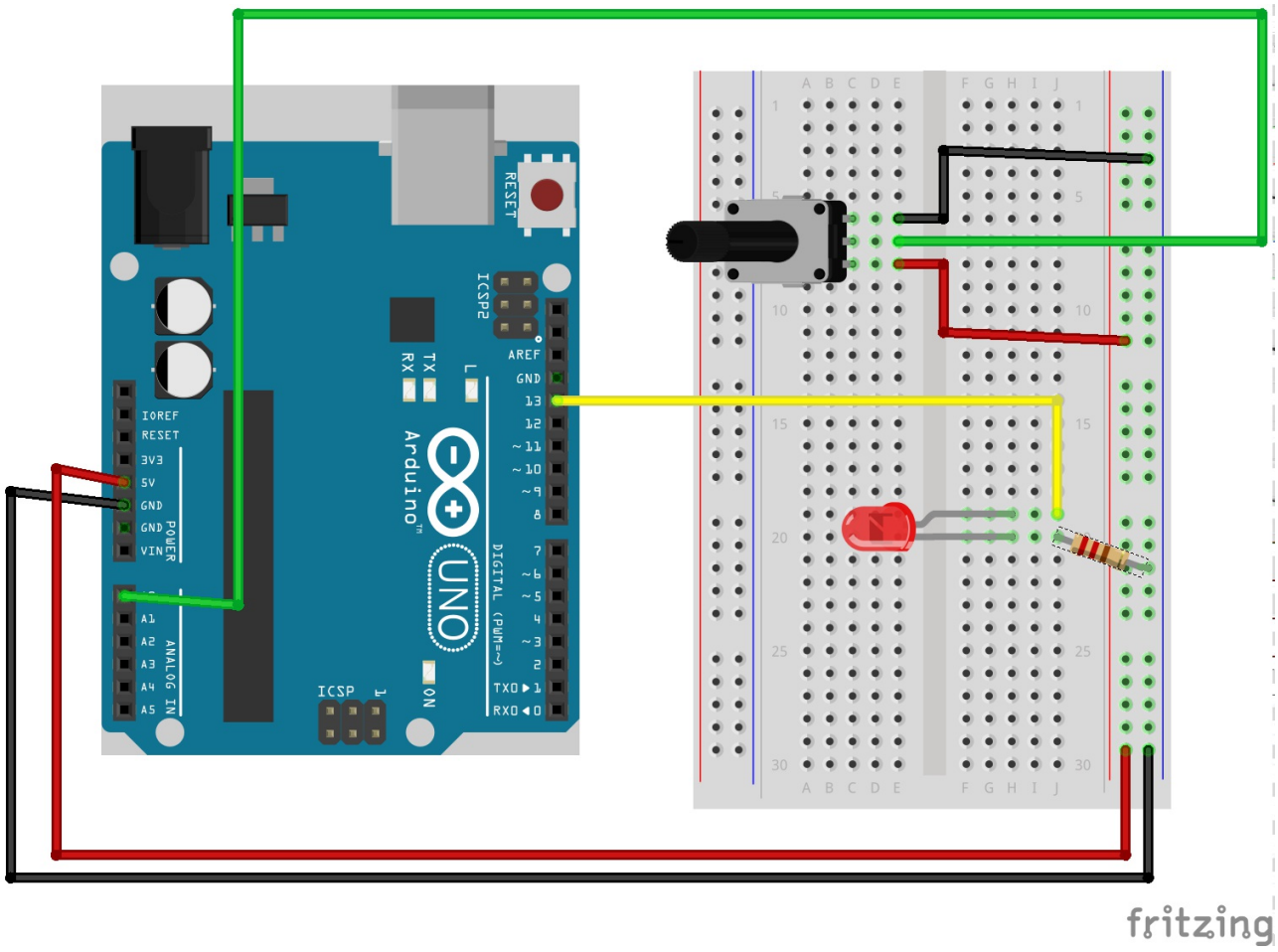
Potentiometer

What is a Potentiometer?
What is the end result of this experiment?

Required parts

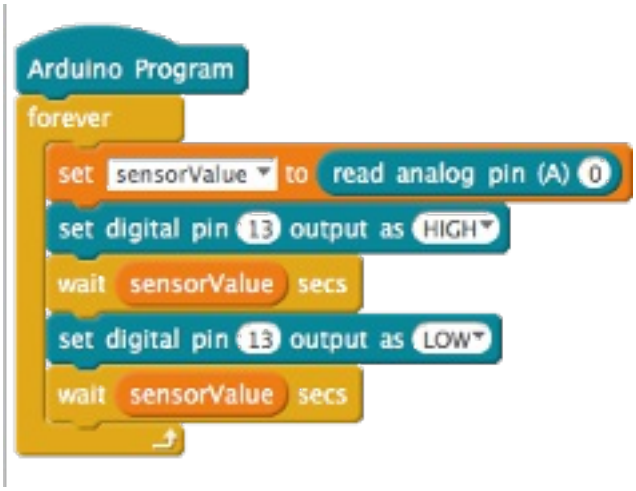
Components	Quantity
Potentiometer	1
LED	1
Resistor	1
Jumper wires	7

Circuit Diagram



mBlock Code


Pen
Operators
Data&Blocks
Robots
Make a Variable
sensorValue


Arduino Program
forever
set sensorValue to read analog pin (A) 0
set digital pin 13 output as HIGH
wait sensorValue secs
set digital pin 13 output as LOW
wait sensorValue secs

RGB LED

What is an RGB LED?
What is hte end result of this experiment?

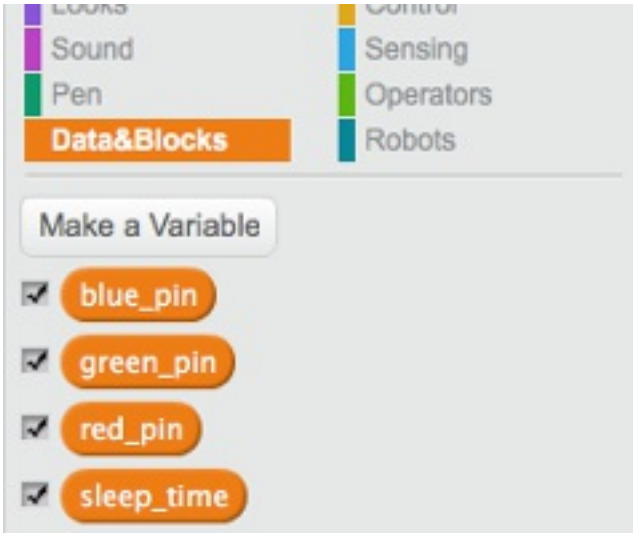
Required parts

Component	Quantity
RGB LED	1
Resistor	3
Jumper wires	6

Circuit Diagram

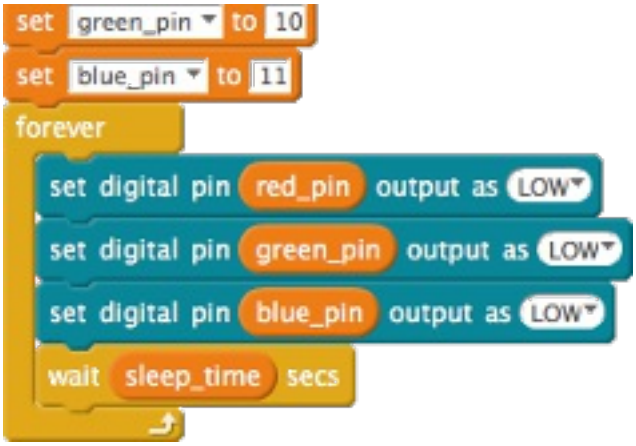
mBlock Code

Create variables

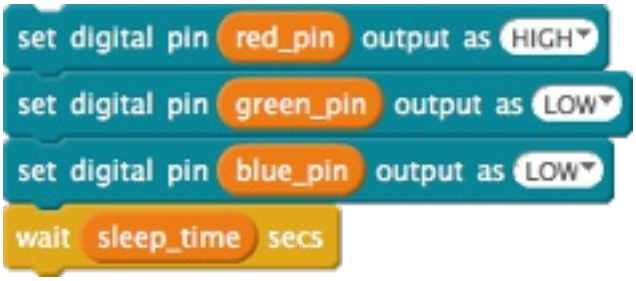


Assign variables

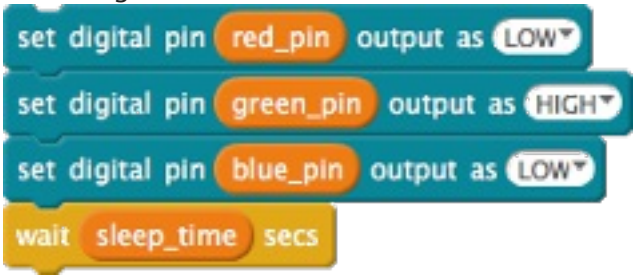
Turn all the LEDs off



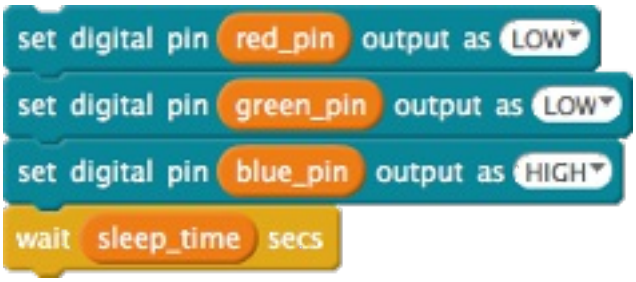
Turn on red



Turn on green



Turn on blue



Red and Green

Red and Blue

Green and Blue