AUTODESK TINKERCAD

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3D Designs

Circuits

Codeblocks

Lessons

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Educators: If you've ever heard "This is cool! What's next?" while teaching with Tinkercad, here's how to guide your students to the next step when they're ready for professional - grade tools. Learn more

Circuits

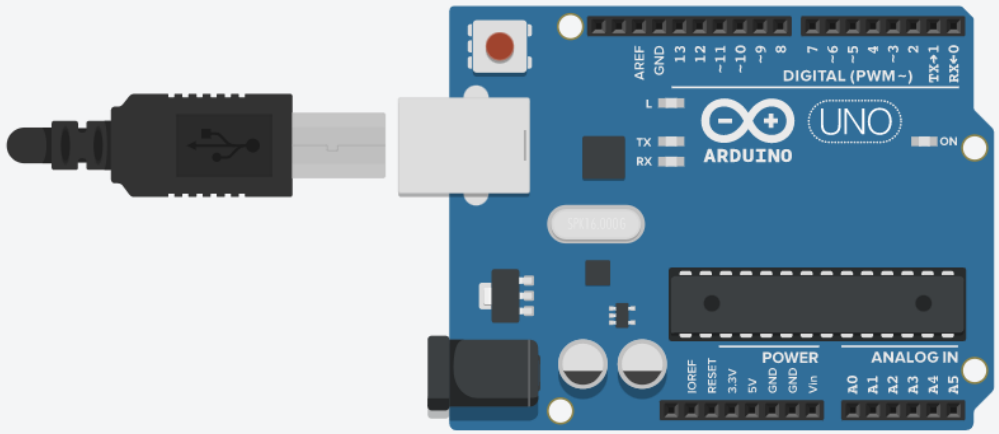
Create new Circuit

Select

Traffic Light System

All changes saved

Code | Start Simulation | Send To



Components
Basic

arduino

Arduino Uno R3

Other Components

ATTINY

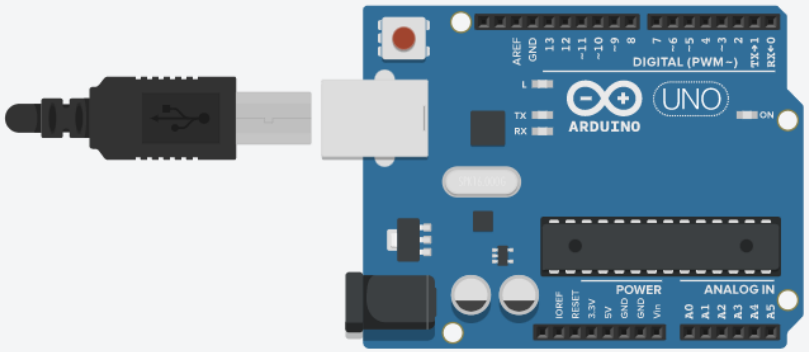
ATtiny

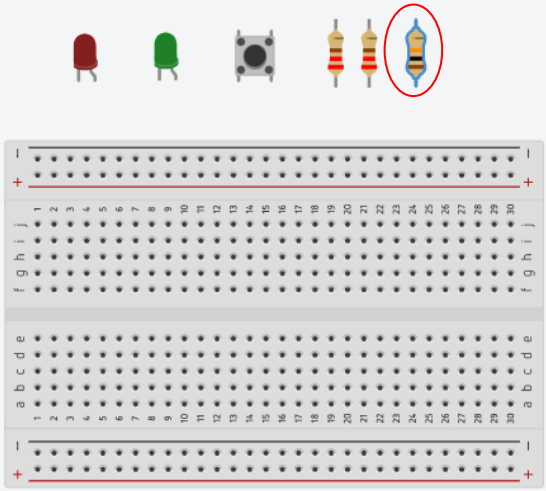
Starters

Traffic Light System

All changes saved

Code | Start Simulation | Send To





Resistor

Name 3

Resistance 10 kΩ

pΩ
nΩ
μΩ
mΩ
Ω
kΩ
MΩ
GΩ

Components
Basic

resistor

Resistor

Potentiometer

Photoresistor

Other Components

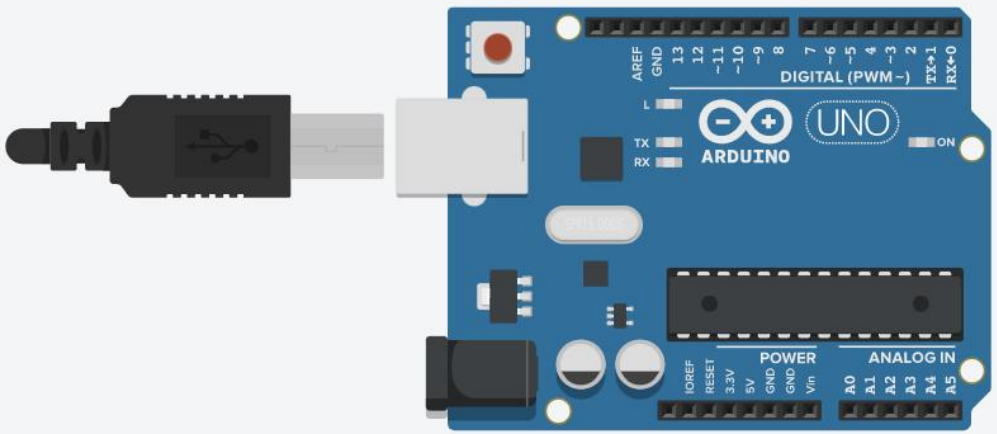
Flex Sensor

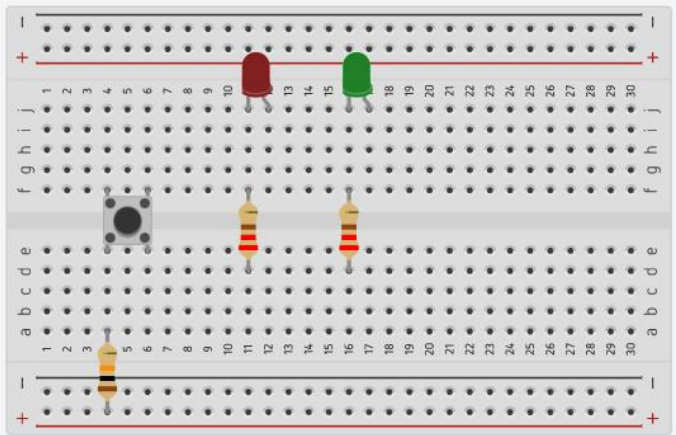
Force Sensor

Traffic Light System

All changes saved

Code | Start Simulation | Send To





Components
Basic

resistor

Resistor

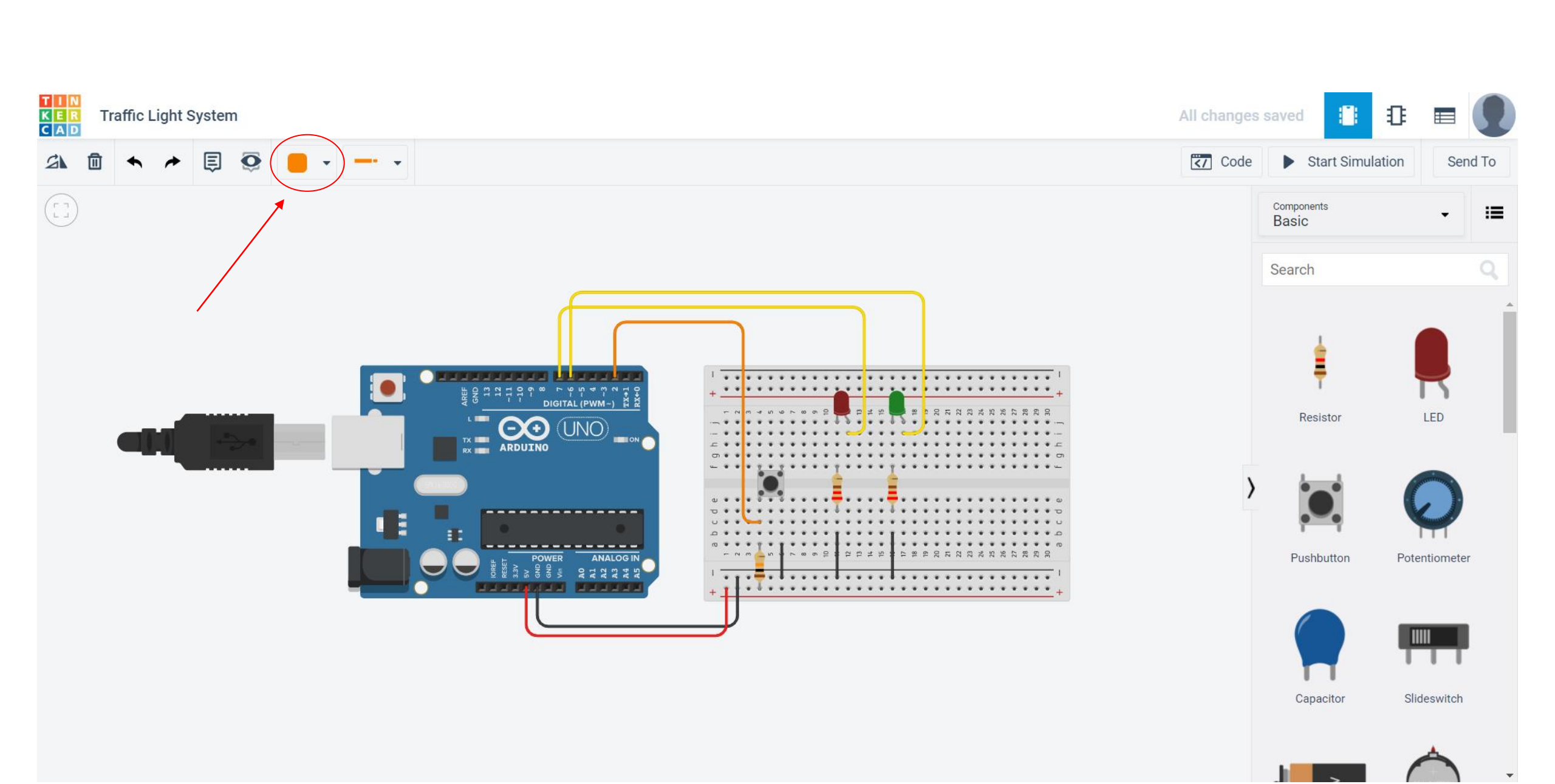
Potentiometer

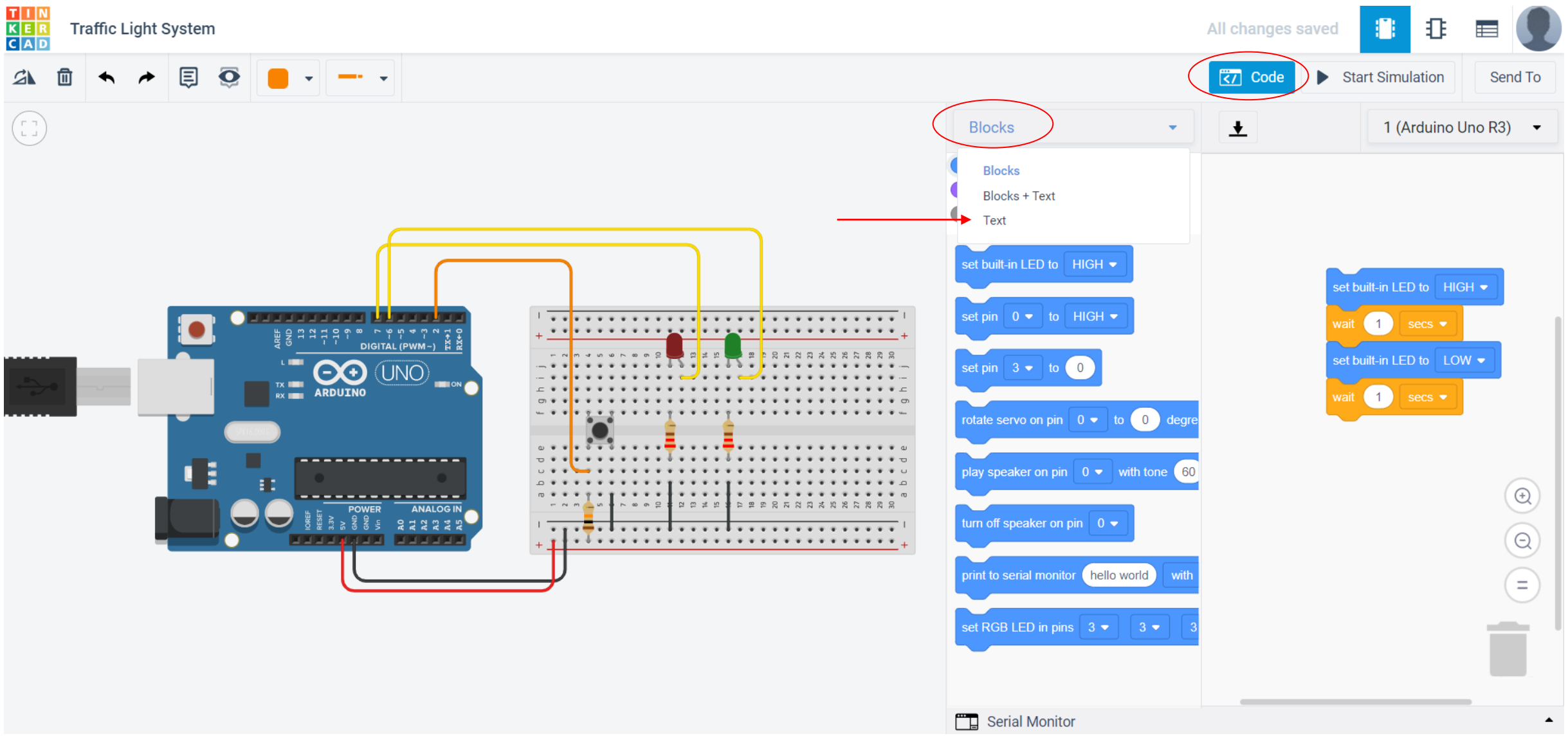
Photoresistor

Other Components

Flex Sensor

Force Sensor

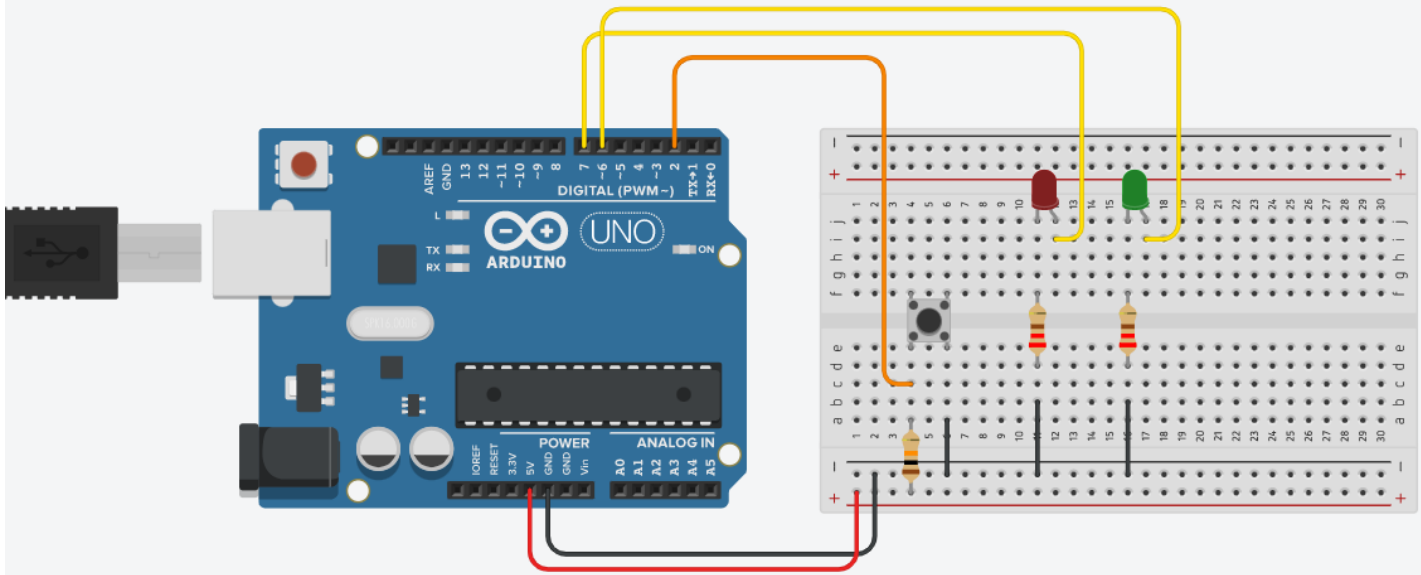

Traffic Light System
All changes saved
Code
Start Simulation
Send To
Components
Basic
Search
Resistor
LED
Pushbutton
Potentiometer
Capacitor
Slideswitch
ARDUINO
UNO
DIGITAL (PWM~)
POWER
ANALOG IN


Traffic Light System
All changes saved
Code
Start Simulation
Send To
Blocks
1 (Arduino Uno R3)
Blocks
Blocks + Text
Text
set built-in LED to HIGH
set pin 0 to HIGH
set pin 3 to 0
rotate servo on pin 0 to 0 degre
play speaker on pin 0 with tone 60
turn off speaker on pin 0
print to serial monitor hello world with
set RGB LED in pins 3 3 3
set built-in LED to HIGH
wait 1 secs
set built-in LED to LOW
wait 1 secs
Serial Monitor

Traffic Light System

All changes saved

Code | Start Simulation | Send To



Text | 1 (Arduino Uno R3)

```
// Pedestrian Crossing Simulation
//  RedLED - D7   (1: ON, 0: OFF)
//  GreenLED - D6 (1: ON, 0: OFF)
//  PB - D2 (OPEN: 1, CLOSED: 0)
//
// Steven Chew
// Date: 2022-01-21
//

// Declare LED, PB pins
#define rled 7
#define gled 6
#define pb 2

// Declare variables
const int rDelay = 5000;    // 5s delay after PB pressed
const int gDelay = 6000;    // Green man for 6s

void setup()
{
  pinMode(rled, OUTPUT);    // configure led pins as output
  pinMode(gled, OUTPUT);
  pinMode(pb, INPUT);       // configure switch pin as input
  Serial.begin(9600);       // serial baudrate

  // Start condition: DONT WALK
  digitalWrite(rled, HIGH);
  digitalWrite(gled, LOW);
  Serial.println("DON'T WALK");
}

void loop()
{
  // wait for switch to be pressed
```

Serial Monitor