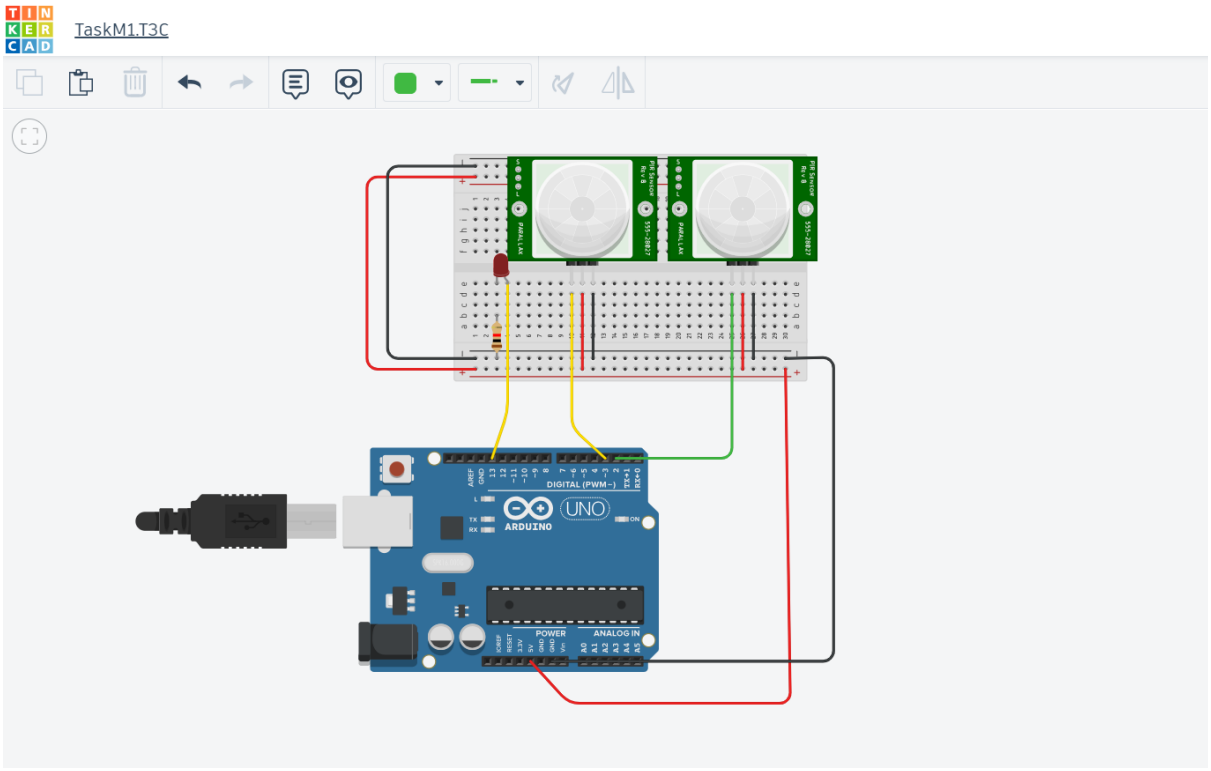
SIT315-Concurrent and Distributed Programming

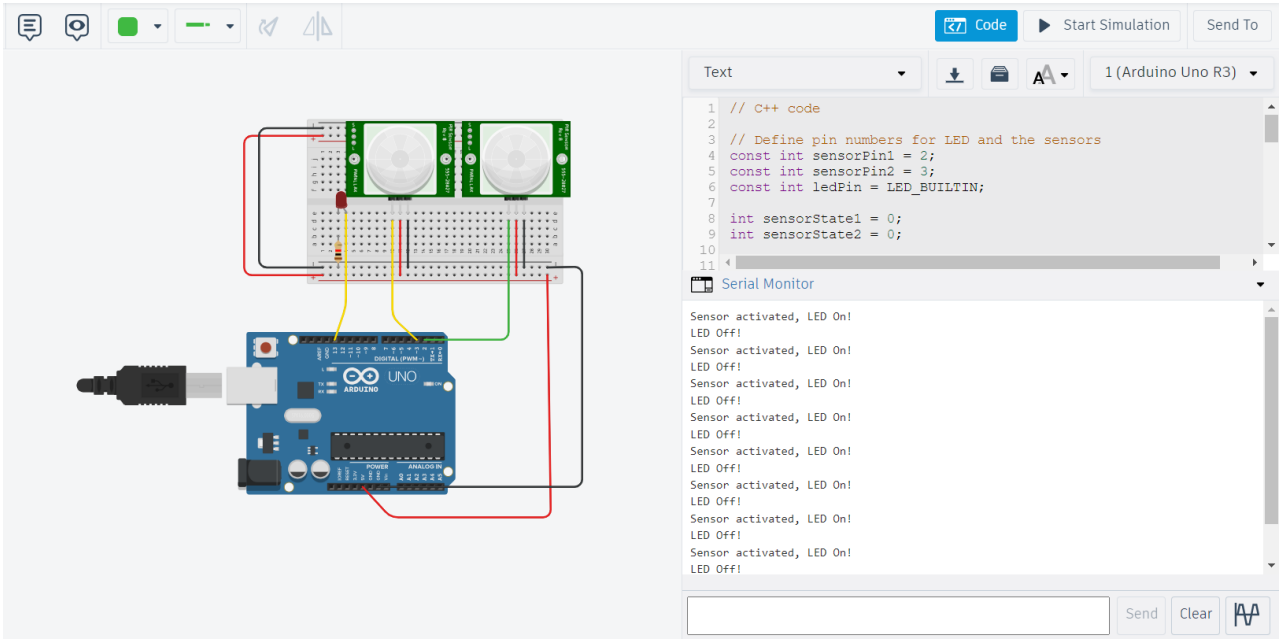
TaskM1.T3C: Multiple-Inputs Board

Name: Randi Tamasha Gunasekara Henadeerage Dona
Student Number: 222470203
Email: s222470203@deakin.edu.au

Diagram -Board on tinkercad.



A screenshot of your system monitoring log



Source code of the program

```
// C++ code

//Defining pin numbers for LED and the sensors
const int sensorPin1 = 2;
const int sensorPin2 = 3;
const int ledPin = LED_BUILTIN;

int sensorState1 = 0;
int sensorState2 = 0;

void setup()
{
  //Setting sensor pin 2 as an input
  pinMode(sensorPin1, INPUT);

  //Setting sensor pin 3 as an input
  pinMode(sensorPin2, INPUT);

  //Setting LED pin as an output
  pinMode(ledPin, OUTPUT);
  Serial.begin(9600);

  // Attaching interrupt to pin 2 and 3, triggered on CHANGE
```

```
 attachInterrupt(digitalPinToInterrupt(2), sensorISR, CHANGE);
 attachInterrupt(digitalPinToInterrupt(3), sensorISR, CHANGE);
}


void loop()
{
 delay(10); // Delay to improve performance
}

void sensorISR()
{
 //reading the states of the sensors
 sensorState1 = digitalRead(sensorPin1);
 sensorState2 = digitalRead(sensorPin2);

 //checking if the sensor pi9ns are HIGH. if it is, set the LED on.
 if (sensorState1 || sensorState2 == HIGH) {
  digitalWrite(ledPin, HIGH);
  Serial.println("Sensor activated, LED On!");
 } else {
  digitalWrite(ledPin, LOW);
  Serial.println("LED Off!");
 }
 delay(10); // Delay to increase the performance
}
```

GitHub Link

https://github.com/RandiGunasekara/SIT315.git

Demonstration video Link

https://youtu.be/8ChWf70WNDE