

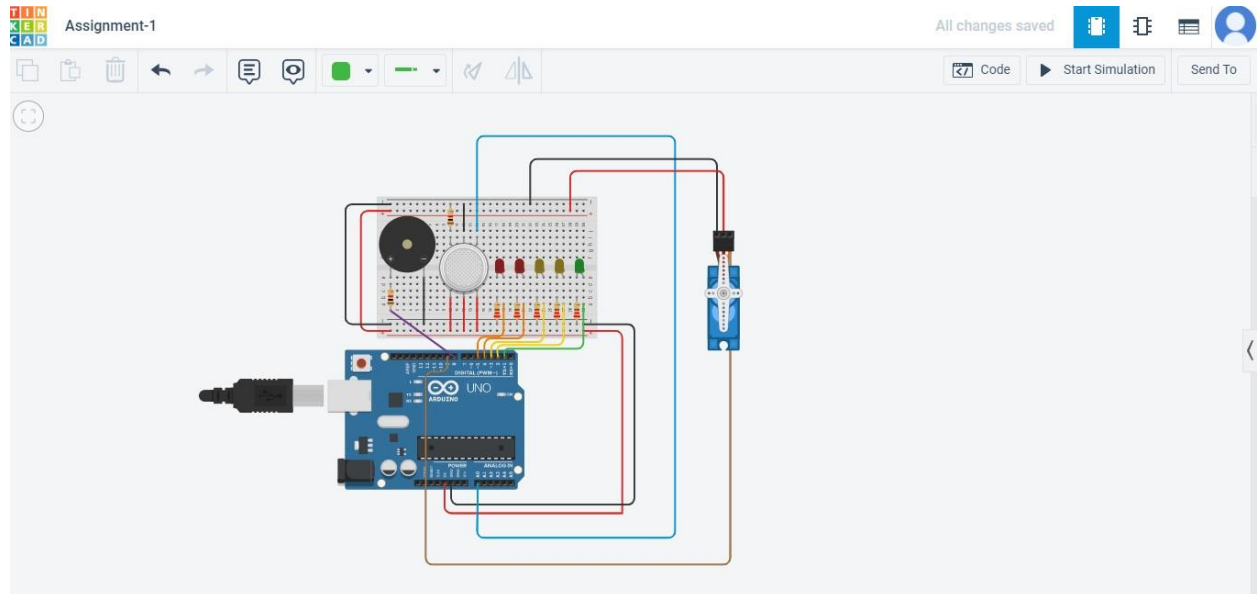
# **ASSIGNMENT-1(NALAIYA THIRAN)**

## **SMART HOME DESIGN USING TINKERCAD**

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**Question-1:**

### **SCHEMATIC:-**



### **CODING:**

```
#include <Servo.h>
```

```
Servo myservo;
```

```
#define ledR2 5
```

```
#define ledR1 4
```

```
#define ledY2 3

#define ledY1 2

#define ledG1 1

#define gas A0

#define buzzer 8

#define serv 9 void

setup()
{
    pinMode(ledR1, OUTPUT);
    pinMode(ledR2, OUTPUT);
    pinMode(ledY1, OUTPUT);
    pinMode(ledY2, OUTPUT);
    pinMode(ledG1, OUTPUT);
    pinMode(buzzer,OUTPUT);
    myservo.attach(serv);
    pinMode(gas, INPUT);
    Serial.begin(9600);
}

void loop()
{
```

```
int read= analogRead(gas); int
val= map(read,80,380,0,100);
Serial.println(val); int servo=
map(read,80,380,0,180);
myservo.write(servo)
digitalWrite(ledG1, HIGH);
if(val>=20 && val<40){
digitalWrite(ledY1,HIGH);
}
if(val>=40 && val<60){
digitalWrite(ledY2,HIGH);
}
if(val>=60 && val<80){
digitalWrite(ledR1,HIGH);
}
if(val>=80){
digitalWrite(ledG1,    HIGH);
digitalWrite(ledY1,    HIGH);
digitalWrite(ledY2,    HIGH);
digitalWrite(ledR1,    HIGH);
digitalWrite(ledR2,    HIGH);
```

```
delay(500);  
digitalWrite(ledG1,    LOW);  
digitalWrite(ledY1,    LOW);  
digitalWrite(ledY2,    LOW);  
digitalWrite(ledR1,    LOW);  
digitalWrite(ledR2,    LOW);  
delay(1000)  
tone(buzzer,1000,500);  
  
}  
  
if (val<80){  
noTone(buzzer);  
  
}  
}
```