# ASSIGNMENT-1(NALAIYA THIRAN)

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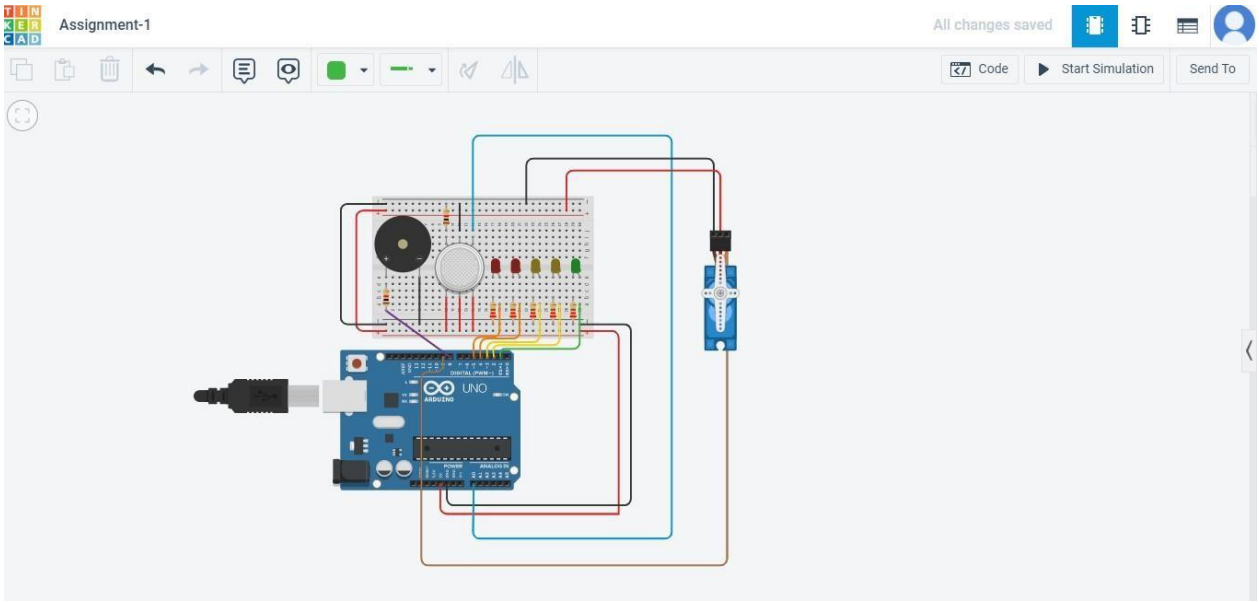
**ROLL NUMBER: 1919106047**

**SCHEMATIC:-**




**CODE:**

```
#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);
  }
}
```