ASSIGNMENT-1(NALAIYA THIRAN)

SMART HOME DESIGN USING TINKERCAD

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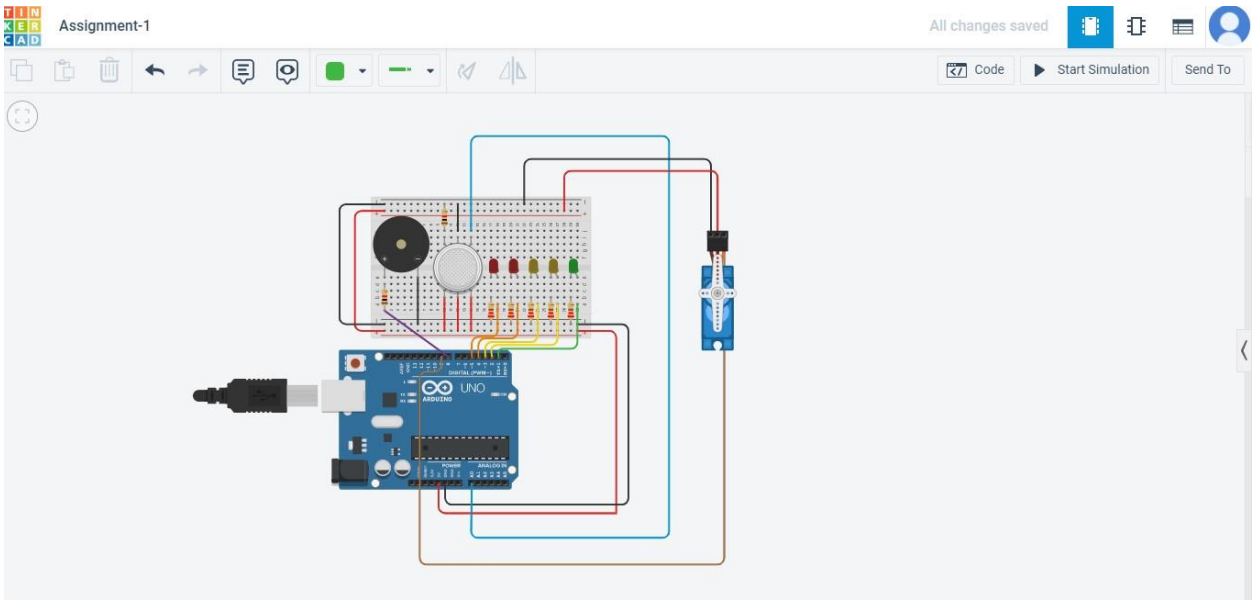
SCHEMATIC:-



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);
 }
}
```