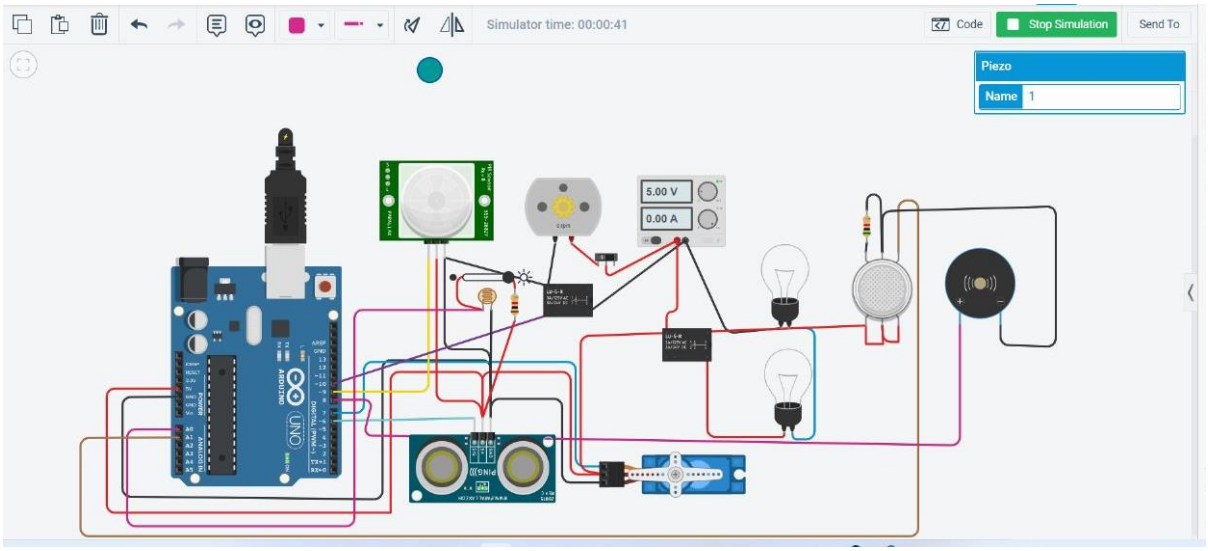


```
#include <Servo.h>

int output1Value = 0;
int sen1Value = 0;
int sen2Value = 0;
int const gas_sensor = A1;
int const LDR = A0;
int limit = 400;

long readUltrasonicDistance(int triggerPin, int echoPin)
{
  pinMode(triggerPin, OUTPUT);
  digitalWrite(triggerPin, LOW);
  delayMicroseconds(2);

  digitalWrite(triggerPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(triggerPin, LOW);
  pinMode(echoPin, INPUT);
  return pulseIn(echoPin, HIGH);
```

```
}

Servo servo_7;

void setup()
{
   Serial.begin(9600);
  pinMode(A0, INPUT);
  pinMode(A1,INPUT);
  pinMode(13, OUTPUT);
  servo_7.attach(7, 500, 2500);

  pinMode(8,OUTPUT);
  pinMode(9, INPUT);
  pinMode(10, OUTPUT);
  pinMode(4, OUTPUT);
  pinMode(3, OUTPUT);

}

void loop()
{
    int val1 = analogRead(LDR);
  if (val1 > 500)
      {
      digitalWrite(13, LOW);
    Serial.print("Bulb ON = ");
    Serial.print(val1);
      }
  else
      {
      digitalWrite(13, HIGH);
```

```
     Serial.print("Bulb OFF = ");
    Serial.print(val1);
      }
  sen2Value = digitalRead(9);
  if (sen2Value == 0)
      {
      digitalWrite(10, LOW);
      digitalWrite(4, HIGH);
      digitalWrite(3, LOW);
    Serial.print("     || NO Motion Detected    " );
      }

  if (sen2Value == 1)
      {
      digitalWrite(10, HIGH);
    delay(3000);
      digitalWrite(4, LOW);
      digitalWrite(3, HIGH);
     Serial.print("        || Motion Detected!      " );
      }
  delay(300);
int val = analogRead(gas_sensor);
  Serial.print("|| Gas Sensor Value = ");
  Serial.print(val);
  if (val > limit)
      {
      tone(8, 650);
      }
      delay(300);
      noTone(8);

  sen1Value = 0.01723 * readUltrasonicDistance(6, 6);
```

```
  if (sen1Value < 100)
      {
      servo_7.write(90);
    Serial.print("        || Door Open!  ; Distance = ");
    Serial.print(sen1Value);
   Serial.print("\n");
      }
  else
      {
      servo_7.write(0);
    Serial.print("        || Door Closed! ; Distance =  ");
    Serial.print(sen1Value);
    Serial.print("\n");
  }
  delay(10);
}
```