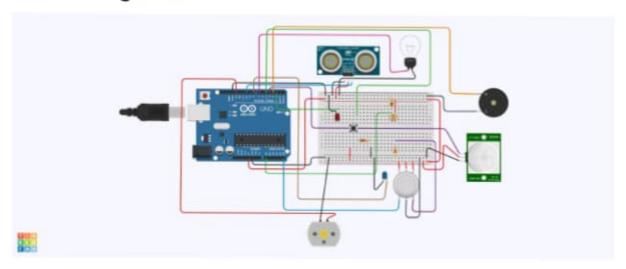
Circuit diagram:



Arduino Uno Code:

```
const int pingPin = 10;
                        WPS Office
const int ledUS = 2;
const int light = 7;
const int pir = 4;
#define photoSensor A0
#define buzzer 3
int const PINO_SGAS = A5;
int const ledGas = 8;
int const button = 5;
int const motor = 13;
void setup()
 pinMode(ledUS, OUTPUT);
 pinMode(light, OUTPUT);
 pinMode(buzzer, OUTPUT);
 pinMode(ledGas, OUTPUT);
 pinMode(motor, OUTPUT);
```

```
pinMode(pir, INPUT);
 pinMode(button, INPUT);
 pinMode(photoSensor, INPUT);
 Serial.begin(9600);
void loop()
 long duration, cm;
 int valLight = analogRead(photoSensor);
 int valPIR= digitalRead(pir);
 int valGAS = analogRead(PINO_SGAS);
 valGAS = map(valGAS, 300, 750, 0, 100);
 int valBt = digitalRead(button);
                          NPS Office
 pinMode(pingPin, OUTPUT);
 digitalWrite(pingPin, LOW);
 delayMicroseconds(2);
 digitalWrite(pingPin, HIGH);
 delayMicroseconds(5);
 digitalWrite(pingPin, LOW);
 pinMode(pingPin, INPUT);
 duration = pulseIn(pingPin, HIGH);
 cm = microsecondsToCentimeters(duration);
 if(cm < 336){
  digitalWrite(ledUS, HIGH);
 }else{
  digitalWrite(ledUS, LOW);
 if(valLight < 890){
  digitalWrite(light, HIGH);
```

```
}else{
  digitalWrite(light, LOW);
 if(valPIR == 1){
  digitalWrite(buzzer, HIGH);
 }else{
  digitalWrite(buzzer, LOW);
 if(valBt == 1){
  digitalWrite(motor, HIGH);
 }else{
  digitalWrite(motor, LOW);
                         NPS Office
 if(valGAS > 20){
  digitalWrite(ledGas, HIGH);
 }else{
  digitalWrite(ledGas, LOW);
 Serial.print(valPIR);
 Serial.println();
long microsecondsToCentimeters(long microseconds) {
 return microseconds / 29 / 2;
}
```