#include <MQ2.h>

#include <Servo.h>

Servo myservo;

#include <ESP8266WiFi.h>

#include <BlynkSimpleEsp8266.h>

#define BLYNK\_PRINT Serial

#define BLYNK\_TEMPLATE\_ID "TMPLTmJk\_oSY"

#define BLYNK\_DEVICE\_NAME "Home Safety"

#define BLYNK\_AUTH\_TOKEN "nA4XMAWXE37CfxkZiaFRnkl00w4oqKgm"

char auth[] = BLYNK\_AUTH\_TOKEN;// Enter your Auth token

char ssid[] = "TESSERACT 101";//Enter your WIFI SSIS

char pass[] = "95175942";//Enter your WIFI password

BlynkTimer timer;

int pinValue = 0;

int pinValue1= 0;

int pinValue2= 0;

int pinValue3= 0;

int i=0;

int sensor=0;

int sensor1=0;

int sensor2=0;

#define Buzzer D5

#define Green D6

#define Red D7

#define Sensor A0

#define servo D3

#define fan D8

MQ2 mq2(Sensor);

void setup() {

Serial.begin(9600);

myservo.attach(servo);

mq2.begin();

pinMode(Green, OUTPUT);

pinMode(Red, OUTPUT);

pinMode(Buzzer, OUTPUT);

pinMode(Sensor, INPUT);

pinMode(fan,OUTPUT);

Blynk.begin(auth, ssid, pass);

timer.setInterval(1000L, notification);

}

BLYNK\_WRITE(V4) {

pinValue = param.asInt();

}

BLYNK\_WRITE(V5) {

pinValue1 = param.asInt();

}

void lpg()

{

Blynk.logEvent("lpg","Warning! Gas leak detected");

digitalWrite(Green, LOW);

digitalWrite(Red, HIGH);

digitalWrite(Buzzer, LOW);

digitalWrite(fan,LOW);

i=160;

myservo.write(160);

}

void smoke()

{

digitalWrite(Green, LOW);

digitalWrite(Red, HIGH);

digitalWrite(Buzzer, LOW);

digitalWrite(fan,LOW);

Blynk.logEvent("smoke","Warning! Excessive Smoke detected");

i=160;

myservo.write(160);

}

void co()

{

digitalWrite(Green, LOW);

digitalWrite(Red, HIGH);

digitalWrite(Buzzer,LOW);

digitalWrite(fan,LOW);

Blynk.logEvent("co","Warning! Excessive CO level detected");

i=160;

myservo.write(160);

}

void idle()

{

digitalWrite(Green, HIGH);

digitalWrite(Red, LOW);

digitalWrite(Buzzer, HIGH);

digitalWrite(fan,HIGH);

for(;i>=0;i--)

{

myservo.write(i);

delay( 50);

}

i=0;

}

void notification() {

float\* values= mq2.read(true);

sensor =analogRead(Sensor);

Blynk.virtualWrite(V3,sensor);

sensor1=mq2.readSmoke();

Blynk.virtualWrite(V1,mq2.readSmoke());

sensor2=mq2.readCO();

Blynk.virtualWrite(V2,mq2.readCO());

if (pinValue == 1) {

if(sensor>=260)

lpg();

else

idle();

}

else if(pinValue1==1)

{

if(sensor1>=3)

smoke();

else if(sensor2>=3)

co();

else if(sensor1>=3 && sensor2>=3)

{

smoke();

co();

}

else

idle();

}

else if(pinValue==1 && pinValue1==1)

{

if(sensor>=260)

lpg();

else if(sensor1>=3)

smoke();

else if(sensor2>=3)

co();

else if(sensor1>=3 && sensor2>=3)

{

smoke();

co();

}

else if(sensor2>=3 && sensor>=260)

{

lpg();

co();

}

else if(sensor>=260 && sensor1>=3)

{

smoke();

lpg();

}

else

idle();

}

else {

idle();

}

}

void loop() {

Blynk.run();

timer.run();

}