#include <LCD\_I2C.h>

LCD\_I2C lcd(0x27); // CONNECT THE LCD SCL AND SDA TO PIN SCL AND SDA OF THE ARDUINO

#include <DFRobot\_DHT11.h>

DFRobot\_DHT11 DHT;

#define DHT11\_PIN A0 // CONNECT THIS PIN TO DHT SIGNAL(S) PIN

int buzzer=4; // THIS IS THE BUZZER PIN

int gas\_sensor1=A1; // CONNECT THE FIRST GAS SENSOR TO THIS PIN

int gas\_sensor2=A3; // // CONNECT THE SECOND GAS SENSOR TO THIS PIN

int mic\_sensor=A2; // CONNECT THE ANALOG PIN OF THE MICROPHONE MODULE TO THIS PIN

void setup() {

Serial.begin(9600);

lcd.begin();

lcd.backlight();

pinMode(buzzer,OUTPUT);

pinMode(gas\_sensor2,INPUT);

pinMode(gas\_sensor1,INPUT);

pinMode(mic\_sensor,INPUT);

}

void loop() {

int temp=DHT.temperature;

int humi=DHT.humidity;

int gas\_level1=(((analogRead(gas\_sensor1)-1023)\*-100)/1023);

int gas\_level2=(((analogRead(gas\_sensor2)-1023)\*-100)/1023);

int mic\_value=(((analogRead(mic\_sensor)-1023)\*-100)/1023);

lcd.clear();

lcd.print("Temp:"); lcd.print(temp); lcd.print((char)223); lcd.print('C');

lcd.print(" Humi:"); lcd.print(humi); lcd.print('%');

lcd.setCursor(0,1);

lcd.print("pol1:"); lcd.print(gas\_level1);

lcd.print(" pol2:"); lcd.print(gas\_level2);

lcd.setCursor(0,2);

lcd.print("Sound intensity:"); lcd.print(mic\_value);

Serial.print("Temp:"); Serial.print(temp); Serial.print((char)223); Serial.print('C');

Serial.print(" Humi:"); Serial.print(humi); Serial.println('%');

Serial.print("pol1ution:"); Serial.print(gas\_level1);

Serial.print(" pol2:"); Serial.println(gas\_level2);

Serial.print("Sound intensity:"); Serial.println(mic\_value);

if(temp>35||gas\_level1>60||gas\_level2>60||mic\_value>70){ digitalWrite(buzzer,HIGH); Serial.print(" THERE IS ENVIRONMENTAL POLLUTION ");}

else{digitalWrite(buzzer,LOW);}

delay(200);

digitalWrite(buzzer,LOW);

delay(1500);

}