#include <ESP8266WiFi.h>

#include <SPI.h>

#include <Wire.h>

#include "MQ135.h"

#include <Adafruit\_GFX.h>

#include <Adafruit\_SSD1306.h>

#define SCREEN\_WIDTH 128 // OLED display width, in pixels

#define SCREEN\_HEIGHT 64 // OLED display height, in pixels

#define OLED\_RESET -1 // Reset pin # (or -1 if sharing Arduino reset pin)

Adafruit\_SSD1306 display(SCREEN\_WIDTH, SCREEN\_HEIGHT, &Wire, OLED\_RESET);

String apiKey = "IKK7TNFXDD1KI6MC";

const char \*ssid = "akrosh";

const char \*pass = "selection";

const char\* server = "api.thingspeak.com";

WiFiClient client;

void setup()

{

Serial.begin(115200);

display.begin(SSD1306\_SWITCHCAPVCC, 0x3C); //initialize with the I2C addr 0x3C (128x64)

display.clearDisplay();

delay(10);

Serial.println("Connecting to ");

Serial.println(ssid);

display.clearDisplay();

display.setCursor(0,0);

display.setTextSize(1);

display.setTextColor(WHITE);

display.println("Connecting to ");

display.setTextSize(2);

display.print(ssid);

display.display();

WiFi.begin(ssid, pass);

while (WiFi.status() != WL\_CONNECTED)

{

delay(500);

Serial.print(".");

}

Serial.println("");

Serial.println("WiFi connected");

display.clearDisplay();

display.setCursor(0,0);

display.setTextSize(1);

display.setTextColor(WHITE);

display.print("WiFi connected");

display.display();

delay(4000);

}

void loop()

{

MQ135 gasSensor = MQ135(A0);

float air\_quality = gasSensor.getPPM();

Serial.print("Air Quality: ");

Serial.print(air\_quality);

Serial.println(" PPM");

Serial.println();

display.clearDisplay();

display.setCursor(0,0); //oled display

display.setTextSize(1);

display.setTextColor(WHITE);

display.println("Air Quality Index");

display.setCursor(0,20); //oled display

display.setTextSize(2);

display.setTextColor(WHITE);

display.print(air\_quality);

display.setTextSize(1);

display.setTextColor(WHITE);

display.println(" PPM");

display.display();

if (client.connect(server, 80)) // "184.106.153.149" or api.thingspeak.com

{

String postStr = apiKey;

postStr += "&field2=";

postStr += String(air\_quality);

postStr += "r\n";

client.print("POST /update HTTP/1.1\n");

client.print("Host: api.thingspeak.com\n");

client.print("Connection: close\n");

client.print("X-THINGSPEAKAPIKEY: " + apiKey + "\n");

client.print("Content-Type: application/x-www-form-urlencoded\n");

client.print("Content-Length: ");

client.print(postStr.length());

client.print("\n\n");

client.print(postStr);

Serial.println("Data Send to Thingspeak");

}

client.stop();

Serial.println("Waiting...");

delay(16000);

}