#include <Wire.h>,

#include <Adafruit\_GFX.h>

#include <Adafruit\_SSD1306.h>

#include <Adafruit\_Sensor.h>

#include <DHT.h>

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

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

// Declaration for an SSD1306 display connected to I2C (SDA, SCL pins)

Adafruit\_SSD1306 display(SCREEN\_WIDTH, SCREEN\_HEIGHT, &Wire, -1);

#define DHTPIN 14 // Digital pin connected to the DHT sensor

// Uncomment the type of sensor in use:

#define DHTTYPE DHT11 // DHT 11

//#define DHTTYPE DHT22 // DHT 22 (AM2302)

//#define DHTTYPE DHT21 // DHT 21 (AM2301)

DHT dht(DHTPIN, DHTTYPE);

void setup() {

Serial.begin(115200);

dht.begin();

if(!display.begin(SSD1306\_SWITCHCAPVCC, 0x3C)) {

Serial.println(F("SSD1306 allocation failed"));

for(;;);

}

delay(2000);

display.clearDisplay();

display.setTextColor(WHITE);

}

void loop() {

delay(5000);

//read ldr values

int ldrval=analogRead(15);

Serial.print("the LDR value is:");

Serial.println(ldrval);

delay(1000);

//read temperature and humidity

float t = dht.readTemperature();

float h = dht.readHumidity();

if (isnan(h) || isnan(t)) {

Serial.println("Failed to read from DHT sensor!");

}

// clear display

display.clearDisplay();

// display temperature

display.setTextSize(1);

display.setCursor(0,0);

display.print("Temperature: ");

display.setTextSize(2);

display.setCursor(0,10);

display.print(t);

display.print(" ");

display.setTextSize(1);

display.cp437(true);

display.write(167);

display.setTextSize(2);

display.print("C");

// display humidity

display.setTextSize(1);

display.setCursor(0,25);

display.print("Humidity: ");

display.setTextSize(2);

display.setCursor(0,45);

display.print(h);

display.print(" %");

display.display();

//display ldr values

display.setTextSize(1);

display.setCursor(0,55);

display.print("ldrvalue: ");

display.setTextSize(2);

display.setCursor(0,75);

display.print(ldrval);

If(ldrval<700)

{

digitalWrite(2,HIGH);

display.println(“LIGHT is ON”);

}

Else

{

digitalWrite(2,LOW);

display.println(“ LIGHT is OFF”);

}

If(f>28&&h>40)

{

digitalWrite(13,HIGH);

display.println(“FAN is ON”);

}

else{

digitalWrite(13,LOW);

display.println(“FAN is OFF”);

}

}