Assignment 3

-by

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(19R11A0456)

#include<DHT.h>

#define DHTPIN 4

#define DHTTYPE DHT11

DHT dht(DHTPIN,DHTTYPE);

#include <Wire.h>

#include <Adafruit\_GFX.h>

#include <Adafruit\_SSD1306.h>

#define SCREEN\_WIDTH 128

#define SCREEN\_HEIGHT 64

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

int temperature=30;

void setup()

{

pinMode(4,OUTPUT);

pinMode(3,OUTPUT);

pinMode(26,INPUT);

Serial.begin(115200);

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

{

Serial.println("SSD1306 allocation failed");

for(;;);

}

dht.begin();

}

void loop()

{

int a=analogRead(26);

float h=dht.readHumidity();

float t=dht.readTemperature();

float f=dht.readTemperature(true);

if(isnan(h) || isnan(t) || isnan(f))

{

Serial.println("dht failed");

}

else

{

Serial.print(F("Humidity: "));

Serial.print(h);

Serial.print(F("% Temperature: "));

Serial.print(t);

Serial.print(F("°C "));

Serial.print(f);

Serial.print(F("°F Heat index: "));

Serial.print(hic);

Serial.print(F("°C "));

Serial.print(hif);

Serial.println(F("°F"));

display.display();

if(a<100)

{

digitalWrite(3,HIGH);

delay(1000);

Serial.println("Ldr value is.");

Serial.print(a);

Serial.println(“light is on”);

}

else

{

digitalWrite(3,LOW);

Serial.println(“light is off”);

delay(1000);

}

if(t>=temp)

{

digitalWrite(4,HIGH);

Serial.print("fan is on");

}

else

{

digitalWrite(5,LOW);

Serial.println("fan is off");

}

}

}