//www.elegoo.com

//2016.12.9

#include <SimpleDHT.h>

#include <ESP8266WiFi.h>

//SSID of your network

char ssid[] = "AndroidAP"; //SSID of your Wi-Fi router

char pass[] = "ahmed2014"; //Password of your Wi-Fi router

IPAddress ip;

int LED = 1;

void setup()

{

Serial.begin(115200);

delay(10);

pinMode(LED, OUTPUT); // initialize digital pin LED\_BUILTIN as an output.

// Connect to Wi-Fi network

Serial.println();

Serial.println();

Serial.print("Connecting to... ");

Serial.println(ssid);

WiFi.begin(ssid, pass);

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

delay(500);

Serial.print(".");

}

Serial.println("");

Serial.println("Wi-Fi connected successfully");

ip = WiFi.localIP();

Serial.print("IP Address: "); Serial.println(ip);

}

// for DHT11,

// VCC: 5V or 3V

// GND: GND

// DAT A: 2

int pinTemp1 = 5;

SimpleDHT11 Temp1;

int pinTemp2 = 4;

SimpleDHT11 Temp2;

void loop() {

// start working...

Serial.println("=================================");

Serial.println("Sample Temp1...");

// read with raw sample data.

byte temperature\_1 = 0;

byte humidity\_1 = 0;

byte data\_1[40] = {0};

if (Temp1.read(pinTemp1, &temperature\_1, &humidity\_1, data\_1)) {

Serial.print("Read Temp1 failed");

Serial.println();

}

Serial.print("Sample Temp1 RAW Bits: ");

for (int i = 0; i < 40; i++) {

Serial.print((int)data\_1[i]);

if (i > 0 && ((i + 1) % 4) == 0) {

Serial.print(' ');

}

}

Serial.println("");

Serial.print("Sample Temp1 Reading: ");

Serial.print((int)temperature\_1); Serial.print(" \*C, ");

Serial.print((int)humidity\_1); Serial.println(" %");

// Temp1 sampling rate is 1HZ.

delay(1500);

// Temp2

Serial.println("Sample Temp2...");

byte temperature\_2 = 0;

byte humidity\_2 = 0;

byte data\_2[40] = {0};

if (Temp2.read(pinTemp2, &temperature\_2, &humidity\_2, data\_2)) {

Serial.print("Read Temp2 failed");

return;

}

Serial.print("Sample Temp2 RAW Bits: ");

for (int i = 0; i < 40; i++) {

Serial.print((int)data\_2[i]);

if (i > 0 && ((i + 1) % 4) == 0) {

Serial.print(' ');

}

}

Serial.println("");

Serial.print("Sample Temp2 Reading: ");

Serial.print((int)temperature\_2); Serial.print(" \*C, ");

Serial.print((int)humidity\_2); Serial.println(" %");

// Temp2 sampling rate is 1HZ.

delay(1500);

if ((int)temperature\_1 >= (int)temperature\_2 || (int)temperature\_2 <= (int)temperature\_1 )

{

int results;

results = (int)temperature\_1 - (int)temperature\_2;

if (results >= 2 || results <= -2)

{

Serial.println("Air conditioning is Activated!");

digitalWrite(LED, HIGH);

//turn on light

}

else

{

Serial.println("Air conditioning is De-activated");

digitalWrite(LED, LOW);

//turn off light

}

}

}