วัดอุณหภูมิขึ้นจอ

// Example testing sketch for various DHT humidity/temperature sensors

// Written by ladyada, public domain

// REQUIRES the following Arduino libraries:

// - DHT Sensor Library: https://github.com/adafruit/DHT-sensor-library

// - Adafruit Unified Sensor Lib: https://github.com/adafruit/Adafruit\_Sensor

#include "DHT.h"

#define DHTPIN 2     // Digital pin connected to the DHT sensor

// Feather HUZZAH ESP8266 note: use pins 3, 4, 5, 12, 13 or 14 --

// Pin 15 can work but DHT must be disconnected during program upload.

// Uncomment whatever type you're using!

//#define DHTTYPE DHT11   // DHT 11

#define DHTTYPE DHT22   // DHT 22  (AM2302), AM2321

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

// Connect pin 1 (on the left) of the sensor to +5V

// NOTE: If using a board with 3.3V logic like an Arduino Due connect pin 1

// to 3.3V instead of 5V!

// Connect pin 2 of the sensor to whatever your DHTPIN is

// Connect pin 3 (on the right) of the sensor to GROUND (if your sensor has 3 pins)

// Connect pin 4 (on the right) of the sensor to GROUND and leave the pin 3 EMPTY (if your sensor has 4 pins)

// Connect a 10K resistor from pin 2 (data) to pin 1 (power) of the sensor

// Initialize DHT sensor.

// Note that older versions of this library took an optional third parameter to

// tweak the timings for faster processors.  This parameter is no longer needed

// as the current DHT reading algorithm adjusts itself to work on faster procs.

DHT dht(DHTPIN, DHTTYPE);

void setup() {

  Serial.begin(9600);

  Serial.println(F("DHTxx test!"));

  dht.begin();

}

void loop() {

  // Wait a few seconds between measurements.

  delay(2000);

  // Reading temperature or humidity takes about 250 milliseconds!

  // Sensor readings may also be up to 2 seconds 'old' (its a very slow sensor)

  float h = dht.readHumidity();

  // Read temperature as Celsius (the default)

  float t = dht.readTemperature();

  // Read temperature as Fahrenheit (isFahrenheit = true)

  float f = dht.readTemperature(true);

  // Check if any reads failed and exit early (to try again).

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

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

    return;

  }

  // Compute heat index in Fahrenheit (the default)

  float hif = dht.computeHeatIndex(f, h);

  // Compute heat index in Celsius (isFahreheit = false)

  float hic = dht.computeHeatIndex(t, h, false);

  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"));

}