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#include <ThingsBoard.h>

#include <PubSubClient.h>

#include <ESP8266WiFi.h>

#include <ESP8266WiFiMulti.h>

#define STASSID "Ma7mol Nagaty"

#define STAPSK "11111111"

const char \*TOKEN = "EREKb4uLOHb1jtCIsfd2";

const char \*THINGSBOARD\_SERVER = "demo.thingsboard.io";

int var = 1;

int outputpin = A0;

WiFiClient client;

ThingsBoard tb(client);

ESP8266WiFiMulti WiFiMulti;

void setup() {

Serial.begin(115200);

Serial.println("A");

// We start by connecting to a WiFi network

WiFi.mode(WIFI\_STA);

WiFiMulti.addAP(STASSID, STAPSK);

Serial.println("B");

Serial.println();

Serial.print("Wait for WiFi... ");

while (WiFiMulti.run() != WL\_CONNECTED) {

Serial.print("c");

delay(15000);

}

Serial.println("");

Serial.println("WiFi connected");

Serial.println("IP address: ");

Serial.println(WiFi.localIP());

delay(15000);

}

void loop() {

delay(5000);

// Use WiFiClient class to create TCP connections

if (!tb.connected()){

Serial.print("connecting to ");

Serial.print(THINGSBOARD\_SERVER);

Serial.print(':');

Serial.println(TOKEN);

if (!tb.connect(THINGSBOARD\_SERVER, TOKEN)) {

Serial.println("connection failed");

Serial.println("wait 5 sec...");

delay(15000);

return;

}

}

// This will send the request to the server

// Read back one line from server

int analogValue = analogRead(outputpin);

float millivolts = (analogValue / 1024.0) \* 3300; // 3300 is the voltage provided by NodeMCU

float celsius = millivolts / 10;

Serial.print("in DegreeC= ");

Serial.println(celsius);

// ---------- Here is the calculation for Fahrenheit ---------- //

float fahrenheit = ((celsius \* 9) / 5 + 32);

Serial.print(" in Fahrenheit= ");

Serial.println(fahrenheit);

tb.sendTelemetryFloat("Temperature", celsius);

tb.loop();

}