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#include <DHT.h>
#include <ESP8266WiFi.h>
#include <MicroGear.h>
#include <Wire.h>
#include <LiquidCrystal_I2C.h>

LiquidCrystal_I2C lcd(0x27, 16, 2);

const char* ssid     = "Apple TV";
const char* password = "APPLE_TV";

#define APPID   "IOTBoyy"
#define KEY     "NW4lJSGgTJUPt8m"
#define SECRET  "50KOZpQlwlqLsx1hkFM3YqEsU"
#define FEEDID  "IOTBoyy"
#define ALIAS   "piedht"

WiFiClient client;
int timer = 0;
char str[32];
#define DHTTYPE DHT22 //Define sensor type
#define DHTPIN D3 // Define sensor pin
DHT dht(DHTPIN, DHTTYPE, 15); //Initialize DHT sensor

float humid;
float temp;
MicroGear microgear(client);

void onMsghandler(char *topic, uint8_t* msg, unsigned int
msglen) {
      Serial.print("Incoming message --> ");
      msg[msglen] = '\0';
      Serial.println((char *)msg);
}

void onConnected(char *attribute, uint8_t* msg, unsigned int
msglen) {
      Serial.println("Connected to NETPIE...");
      microgear.setAlias(ALIAS);
}

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43  void setup() {
44    lcd.init(); // Start
45    lcd.backlight(); // Enable LED backlight
46    dht.begin();
47
48    microgear.on(MESSAGE,onMsghandler);
49    microgear.on(CONNECTED,onConnected);      //optional
50    microgear.on(ERROR,onConnected);
51    microgear.on(INFO,onConnected);
52    Serial.begin(115200);
53    Serial.println("Starting...");
54
55    if (WiFi.begin(ssid, password)) {
56        while (WiFi.status() != WL_CONNECTED) {
57            delay(500);
58            Serial.print(".");
59        }
60    }
61    Serial.println("WiFi connected");
62    Serial.println("IP address: ");
63    Serial.println(WiFi.localIP());
64
65    microgear.init(KEY,SECRET,ALIAS);
66    microgear.connect(APPID);
67  }
68
69  void loop() {
70    if (microgear.connected()) {
71    Serial.print("*");
72    microgear.loop();
73    if (timer >= 15000) {
74    humid = dht.readHumidity();
75    temp = dht.readTemperature();
76    sprintf(str,"%d,%d",humid,temp);
77    Serial.println(str);
78
79
80
```

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83      String data = "{\"humidity\":";
84      data += humid ;
85      data += ",\"temperature\":";
86      data += temp ;
87      data += "}";
88      Serial.println((char*) data.c_str());
89        if (isnan(humid) || isnan(temp) || humid >= 200 || temp>=
        •   200) {
90          Serial.println("Failed to read from DHT sensor!");
91        }else{
92          Serial.print("Sending --> ");
93          microgear.writeFeed(FEEDID,data);     //YOUR  FEED ID,
        •   API KEY
94        }
95      timer = 0;
96      }
97      else timer += 200;
98     } else {
99       Serial.println("connection lost, reconnect...");
100     if (timer >= 5000) {
101       microgear.connect(APPID);
102       timer = 0;
103     }
104     else timer += 200;
105     }
106     lcd.setCursor(0,0); // Set home cursor
107     lcd.print("Temp: "); // Display message on line 1 (upper)
108     lcd.setCursor(6,0); // Set home cursor
109     lcd.print(temp);
110     lcd.setCursor(0,1); // Set new position
111     lcd.print("Humidity: ");
112     lcd.setCursor(10,1); // Set new position
113     lcd.print(humid);
114     delay(1000);
115     lcd.clear();
116   }
117
```