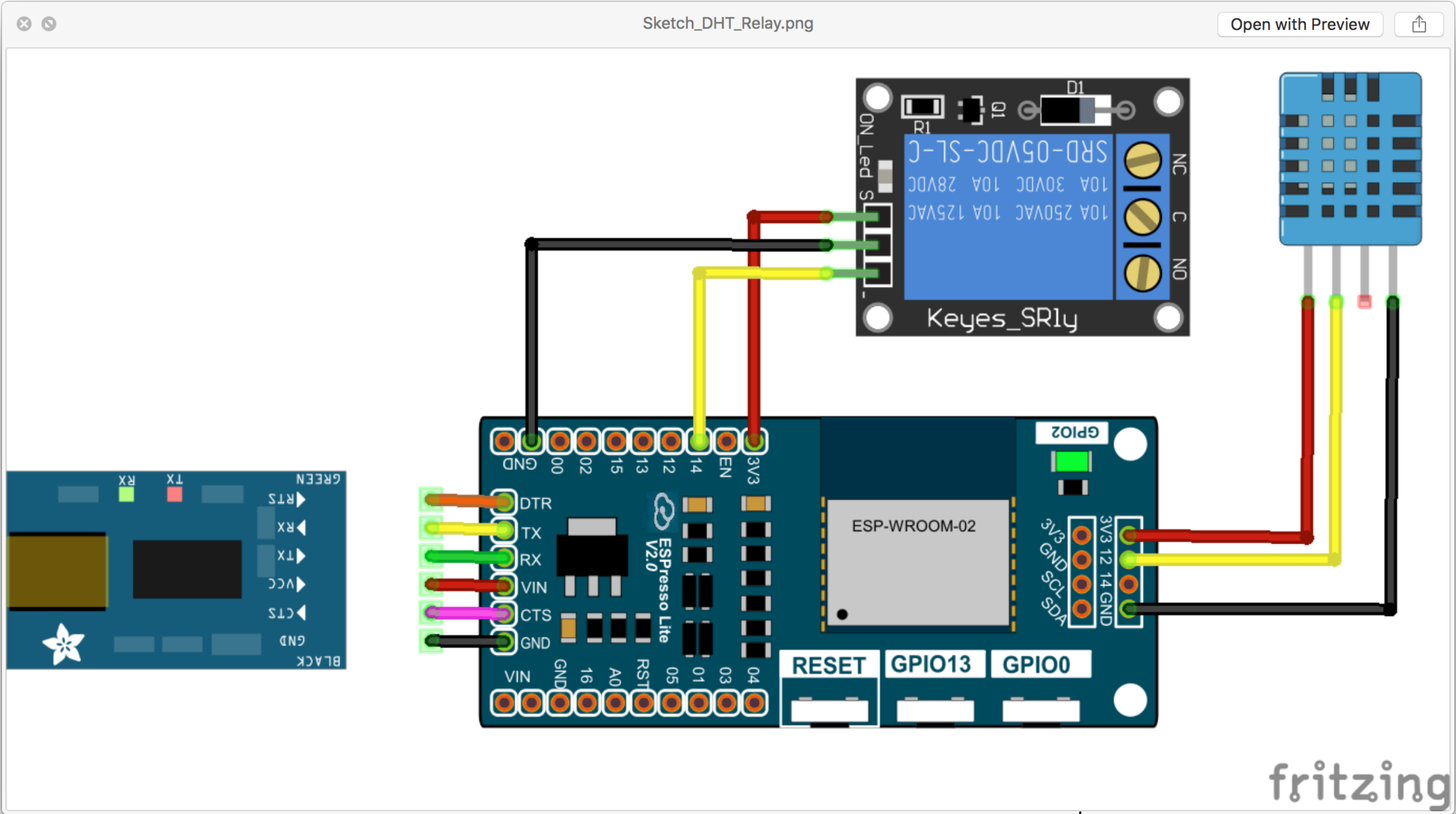
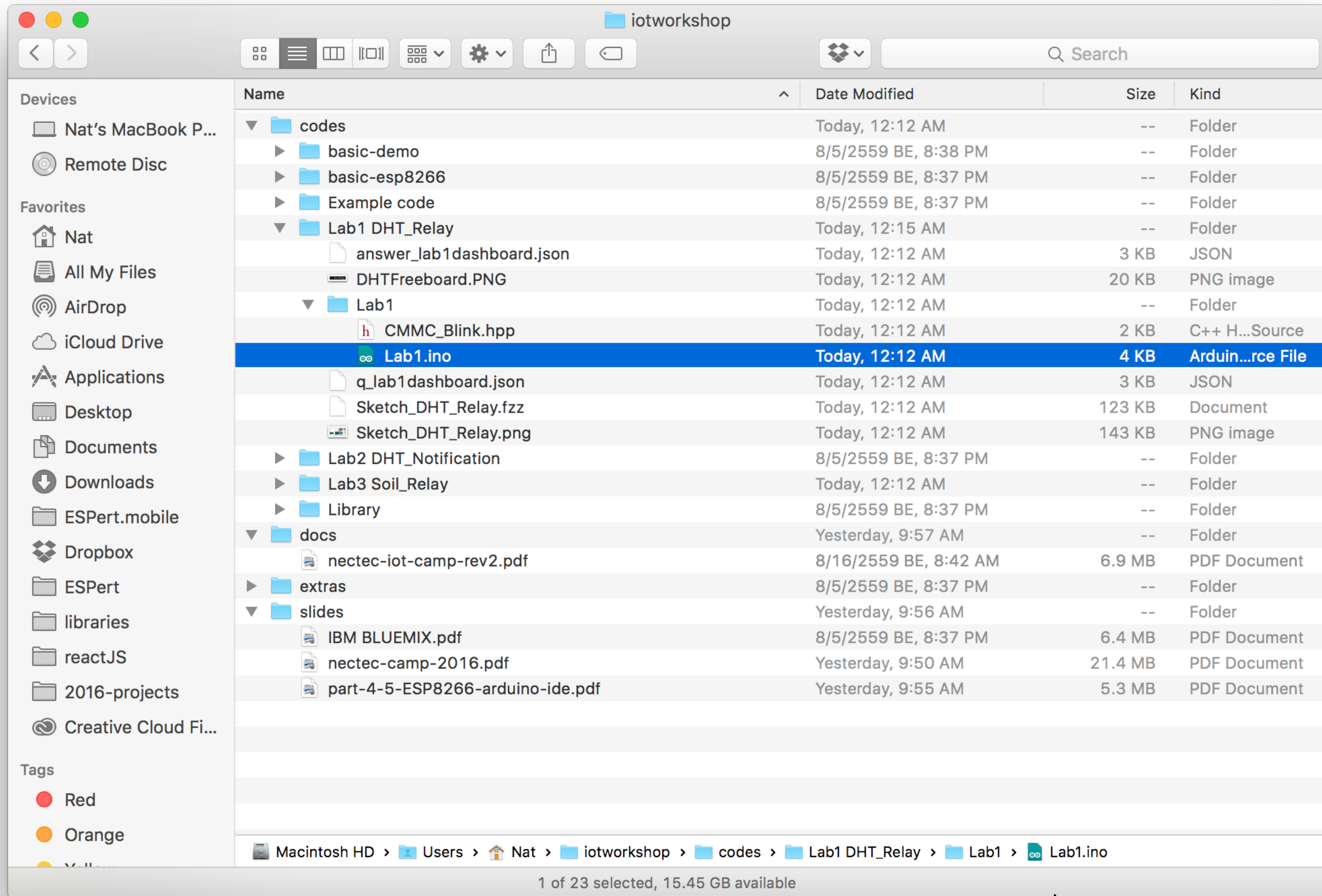


LAB 1 & Data Visualization







SSID: CMMC-IOT-CAMP-001
PASS: espresso

Lab1 § CMMC_Blink.hpp

```
11 #include <Arduino.h>
12 #include <ESP8266WiFi.h>
13 #include <MicroGear.h> // v 1.1.7
14 #include "DHT.h"
15 #include "CMMC_Blink.hpp"
16 CMMC_Blink blinker;
17
18 const char* ssid = "ssid wifi"; // Change your ssid wifi
19 const char* password = "password wifi"; // Change your password wifi
20
21 // NETPIE.io : lab_device
22 #define APPID "" // Change your appID
23 #define KEY "" // Change your Key
24 #define SECRET "" // Change your SECRET
25 #define ALIAS "lab1" // Change your name
26
27 #define DHTPIN 12
28 #define DHTTYPE DHT11
29 #define RELAY 14
30
31 WiFiClient client;
32 MicroGear microgear(client);
33 DHT dht(DHTPIN, DHTTYPE);
34
35 void init_wifi();
36 void init_hardware();
37
```

```
11 #include <Arduino.h>
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15 #include "CMMC_Blink.hpp"
16 CMMC_Blink blinker;
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22 #define APPID  ""           // Change your appID
23 #define KEY    ""           // Change your Key
24 #define SECRET "" // Change your SECRET
25 #define ALIAS  "lab1"       // Change your name
26
27 #define DHTPIN 12
28 #define DHTTYPE DHT11
29 #define RELAY 14
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31 WiFiClient client;
32 MicroGear microgear(client);
33 DHT dht(DHTPIN, DHTTYPE);
34
35 void init_wifi();
36 void init_hardware();
37
```



/dev/cu.usbserial-A103UX03

Send

.WiFi connected
IP address:
192.168.43.120
connecting netpr l??r??c??n? ? ? ?? p? ???x?? ?? p ?nn??;?n???? ? b? r r p?n????
IP address:
192.168.43.120
connecting netpie.io...
Connected to NETPIE...
netpie.io connected.
Init done...
Temperature = 25.70 Humidity = 38.40
Temperature = 25.70 Humidity = 38.40

☒ Autoscroll

Newline

115200 baud

cmmc.io/netpie/client/basic




<

>

cmmc.io

MQTT Websocket Client



CHIANG MAI
MAKERCLUB

Powered by HiveMQ WebSocket Client

Connection

microgear.chat

gearname

chat

Message

connected

Subscriptions

Add New Topic Subscription

Qos: 2

/gearname/lab1/#

x

Messages

2016-08-19 00:19:28

Topic:
/HelloNETPIE/gearname/lab1/Humidity

38.90

2016-08-19 00:19:28

Topic:
/HelloNETPIE/gearname/lab1/Temperature

25.20

2016-08-19 00:19:26

Topic:
/HelloNETPIE/gearname/lab1/Humidity

38.90

2016-08-19 00:19:26

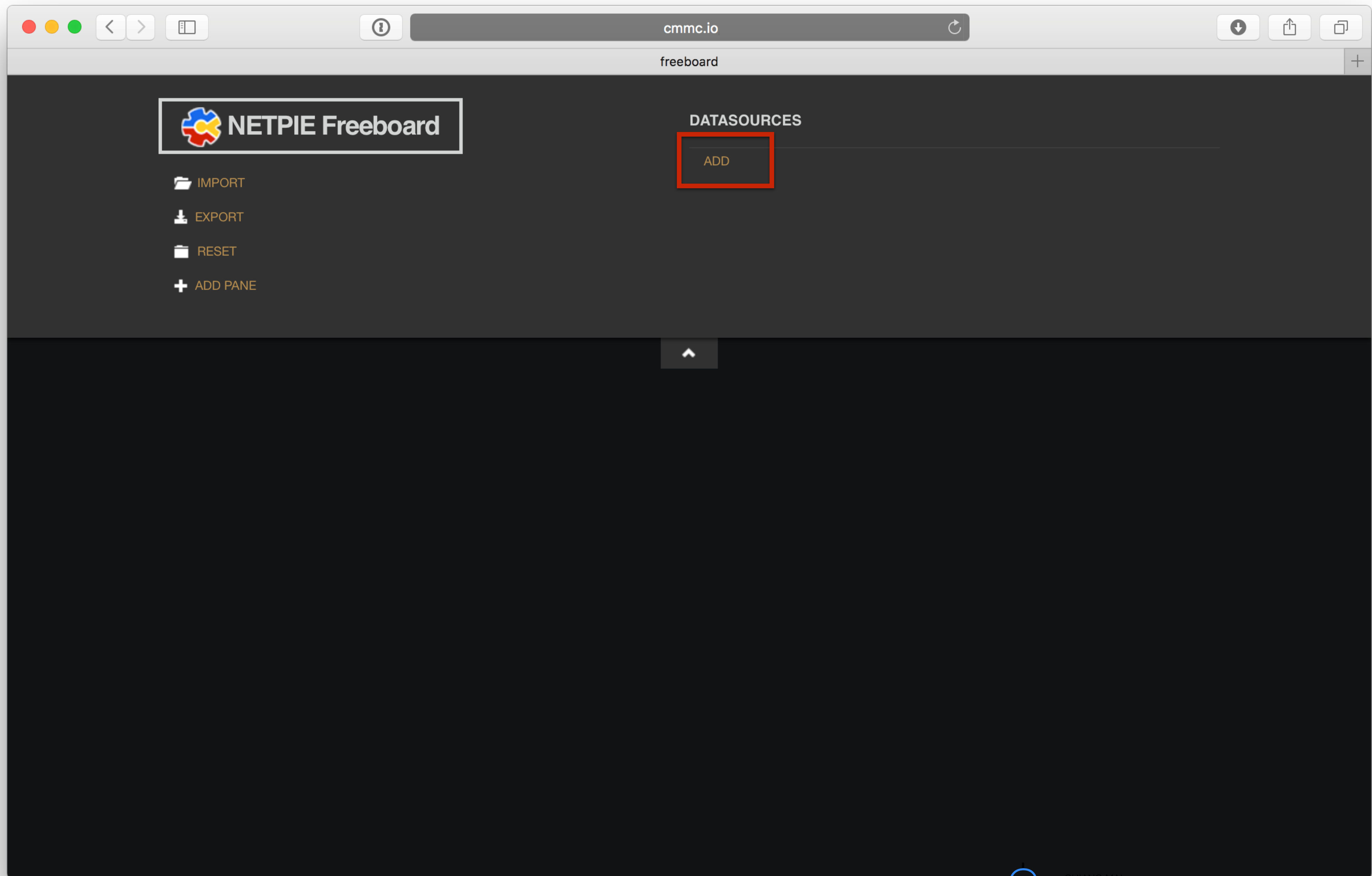
Topic:
/HelloNETPIE/gearname/lab1/Humidity

38.90



CHIANG MAI
MAKERCLUB

cmmc.io/netpie/freeboard



MQTT Websocket Client

freeboard

mmmc.io

↓

↑

📄

DATASOURCE

Connect to NETPIE as a microgear to communicate real-time with other microgears in the same App ID.

TYPE

NETPIE Microgear

▼

NAME

lab1_freeboard

APP ID

HelloNETPIE

NETPIE App ID obtained from <https://netpie.io/app>

KEY

ux7QmHgKEaWx7rt

Key

SECRET

CfvpYcTIHKWAs4I3PWINHIIdN

Secret

DEVICE ALIAS

lab1_freeboard

A nick name of this freeboard that other device can chat to

MICROGEAR REFERENCE

LAB1gear

Define a reference for a microgear of this datasource. For example if you set this to 'mygear' you can access the microgear object by microgear['mygear']

SUBSCRIBED TOPICS

/#

Topics of the messages that this datasource will consume, the default is /# which means all messages in this app ID.

CMMC JSON MESSAGES?


☐ NO

If the messages on your topic are in JSON format they will be parsed so the individual fields can be used in freeboard widgets

 CHIANG MAI
MAKERCLUB

MQTT Websocket Client

freeboard

 **NETPIE Freeboard**



IMPORT

EXPORT

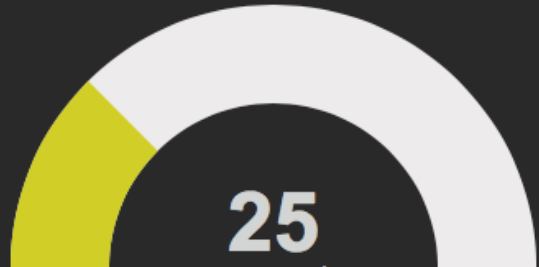
RESET

ADD PANE

DATASOURCES

Name	Last Updated	
lab1_freeboard	12:20:45 AM GMT+7	 
ADD		

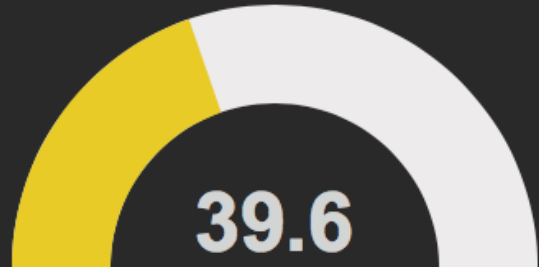
อุณหภูมิ



25

องศาเซลเซียส

ความชื้น



39.6

%RH

On

เปิดรีเลย์

OFF

ปิดรีเลย์

OFF

เปิด - ปิดรีเลย์


รีเลย์

OFF

 CHIANG MAI
MAKERCLUB

MQTT Websocket Client

freeboard

 **NETPIE Freeboard**



IMPORT

EXPORT

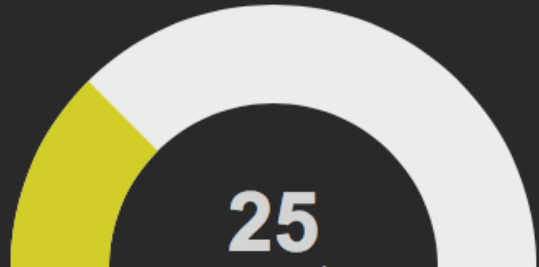
RESET

ADD PANE

DATASOURCES

Name	Last Updated	
lab1_freeboard	12:20:45 AM GMT+7	 
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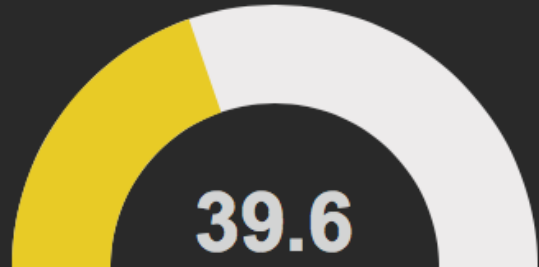
อุณหภูมิ



25

องศาเซลเซียส

ความชื้น



39.6

%RH

On

เปิดรีเลย์

OFF

ปิดรีเลย์

รีเลย์

OFF

 CHIANG MAI
MAKERCLUB