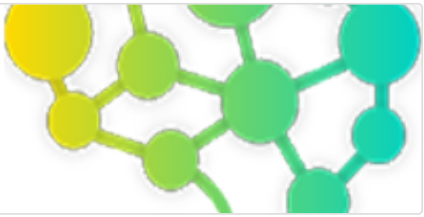
DSI2598+課堂2

範例二：Ideaschain 網站的MQTT上傳與下載

IDEAS Chain

https://iforum.ideaschain.com.tw/iforum/techmatch/solution.do?solution=32

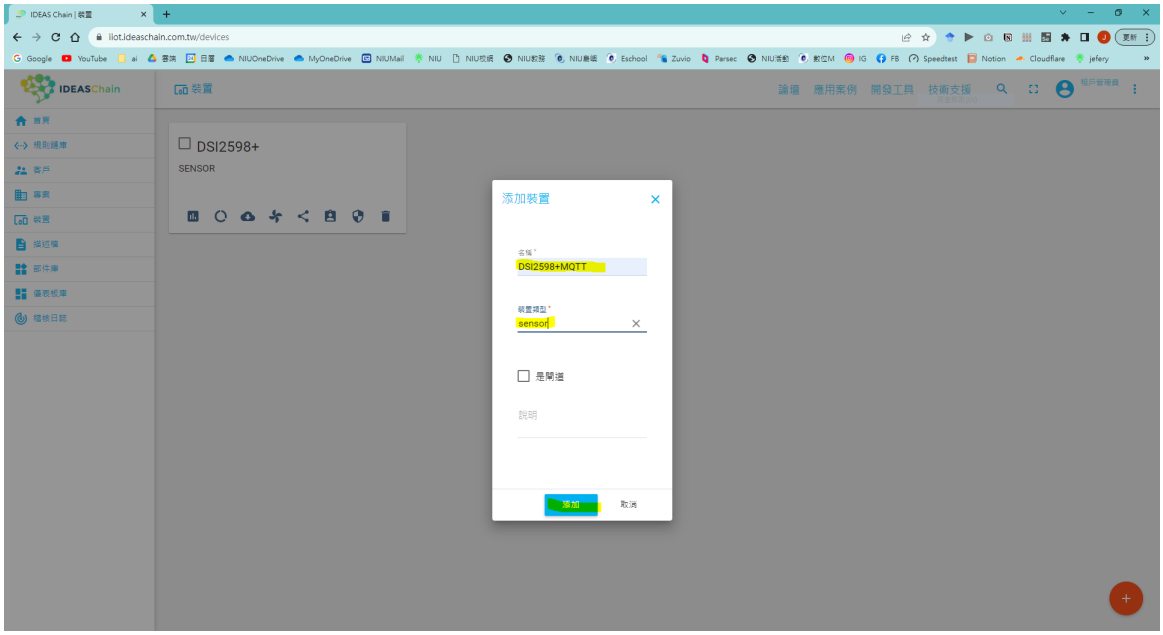


入**Ideaschain**數據平台

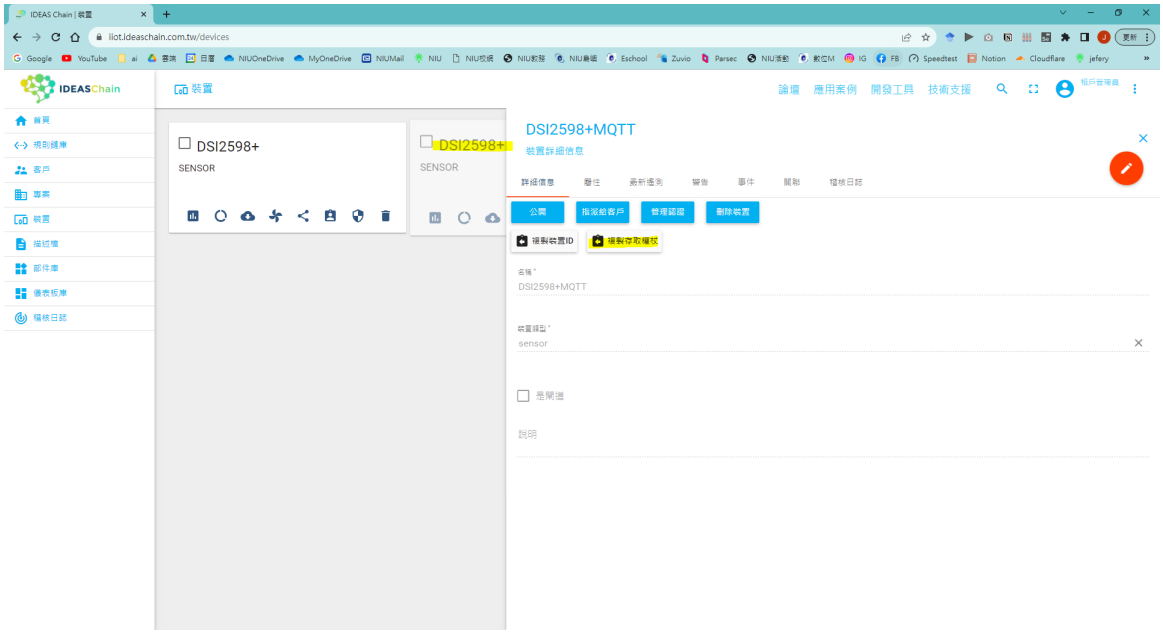
https://iiot.ideaschain.com.tw/devices

1. 添加設備

   資料應該可以亂填

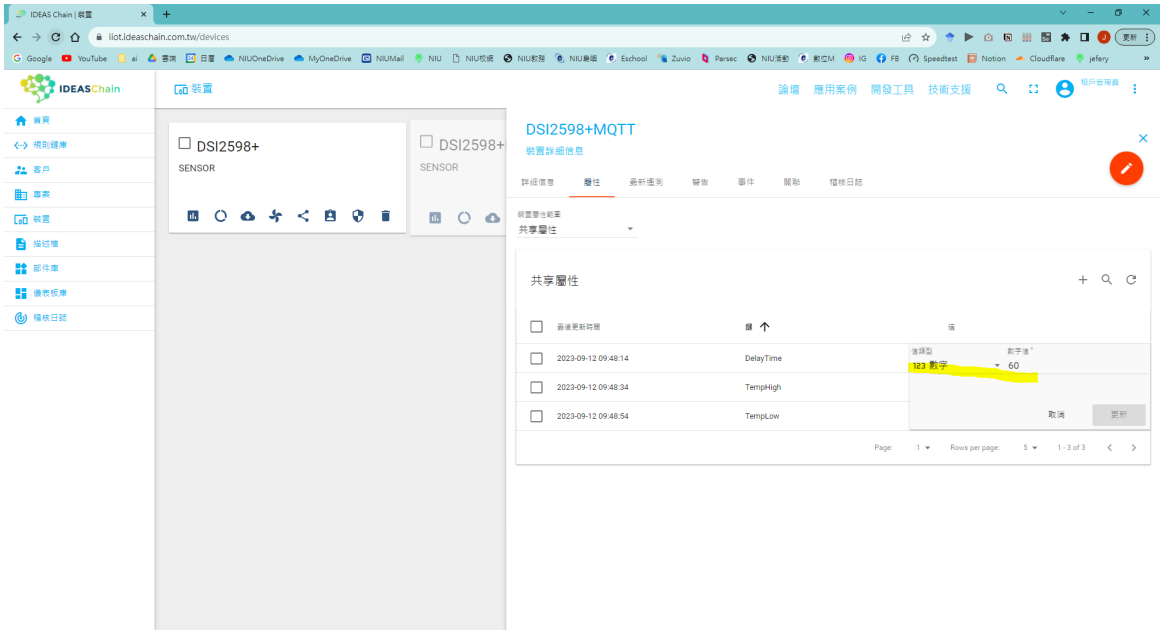


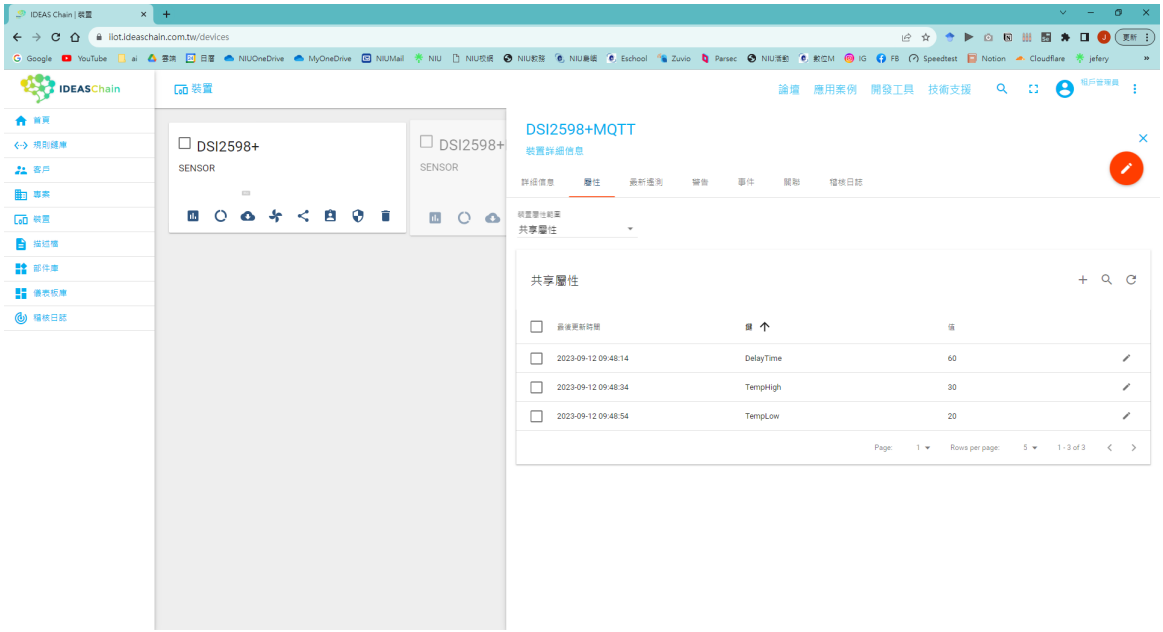
2. 複製存取權杖，以便將權杖資料貼上程式(**請不要用我的，自己註冊**)




```
eviD0n3tB1qMOEyBo9yI
```

3. 於共享屬性設定上先新增資料如下 DelayTime => 60 , TempHigh => 30 , TempLow =>20





4. 安裝SimpleDHT與ArduinoJson

> https://github.com/winlinvip/SimpleDHT

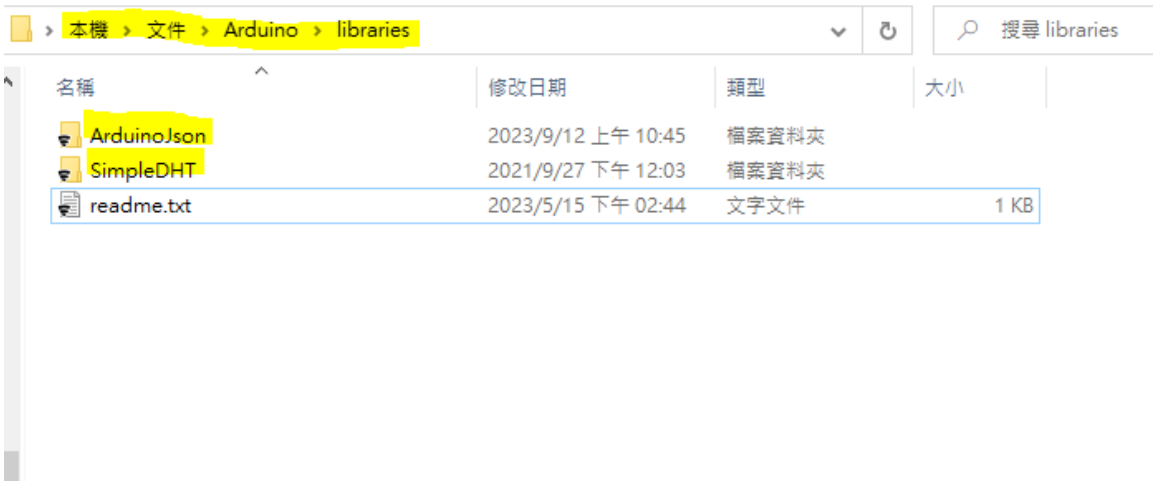
> https://github.com/bblanchon/ArduinoJson

省麻煩做法(主要修改SimpleDHT.cpp部分)

已解決成功的zip包：將下面資料解壓縮到`C:\文件\Arduino\libraries`中(路徑請自己判斷)

> ArduinoJson.zip

> SimpleDHT.zip

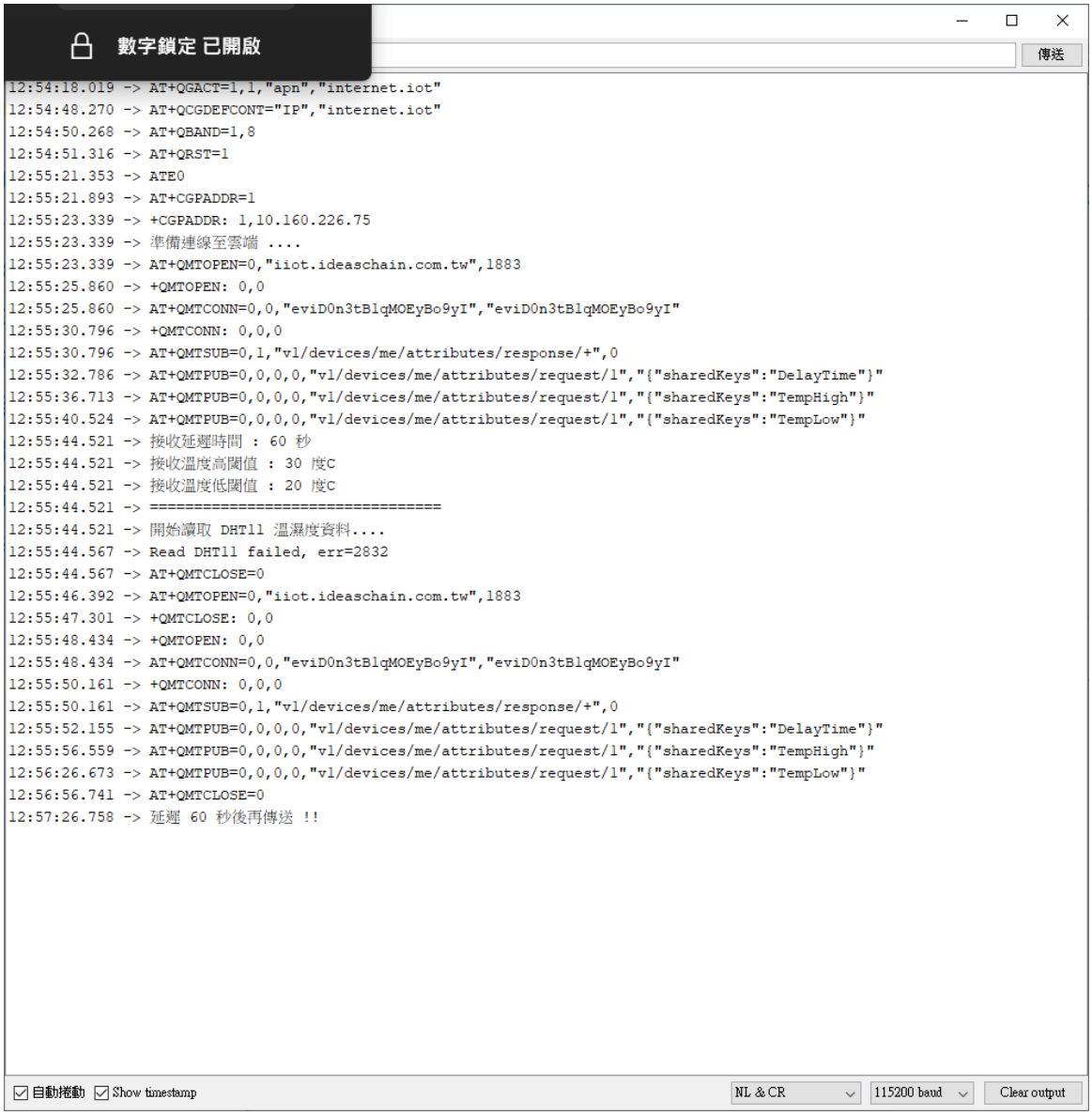


5. 將Access Token**改成自己的數值**

Ideaschain-HTTP §

```
1  #include "BC26-HTTP.h"
2
3  String Server_Name="iiot.ideaschain.com.tw";
4  String Access_Token="L4ke8GEimjpc6gPbmu8E";
5  String Attrib_Key="TestValue";
6  String Attrib_Data_String="telemetry";
7  String Attrib_Client_String="attributes";
8  String DATA_Attrib;
9  String DATA_Message;
10 byte Attrib_Mode=1;
11 int test_value= 80;
12
13 // ** iiot.ideaschain.com.tw/api/v1/SACCESS_T
```

6. 編譯並上傳程式到DSI2598+
7. 未連接DHT11時確認資料上傳與下載成功



▼ 正確回傳資料(未連接DHT11)

```
12:54:18.019 -> AT+QGACT=1,1,"apn","internet.iot"
12:54:48.270 -> AT+QCGDEFCONT="IP","internet.iot"
12:54:50.268 -> AT+QBAND=1,8
12:54:51.316 -> AT+QRST=1
12:55:21.353 -> ATE0
12:55:21.893 -> AT+CGPADDR=1
12:55:23.339 -> +CGPADDR: 1,10.160.226.75
12:55:23.339 -> 準備連線至雲端 ....
12:55:23.339 -> AT+QMTOPEN=0,"iiot.ideaschain.com.tw",1883
12:55:25.860 -> +QMTOPEN: 0,0
12:55:25.860 -> AT+QMTCONN=0,0,"eviD0n3tB1qMOEyBo9yI","eviD0n3tB1qMOEyBo9yI"
12:55:30.796 -> +QMTCONN: 0,0,0
12:55:30.796 -> AT+QMTSUB=0,1,"v1/devices/me/attributes/response/+",0
12:55:32.786 -> AT+QMTPUB=0,0,0,0,"v1/devices/me/attributes/request/1","{"sharedKeys":"DelayTime"}"
12:55:36.713 -> AT+QMTPUB=0,0,0,0,"v1/devices/me/attributes/request/1","{"sharedKeys":"TempHigh"}"
12:55:40.524 -> AT+QMTPUB=0,0,0,0,"v1/devices/me/attributes/request/1","{"sharedKeys":"TempLow"}"
12:55:44.521 -> 接收延遲時間 : 60 秒
12:55:44.521 -> 接收溫度高閾值 : 30 度C
12:55:44.521 -> 接收溫度低閾值 : 20 度C
12:55:44.521 -> ==========
```

```
12:55:44.521 -> 開始讀取 DHT11 溫濕度資料....
12:55:44.567 -> Read DHT11 failed, err=2832
12:55:44.567 -> AT+QMTCLOSE=0
12:55:46.392 -> AT+QMTOPEN=0,"iiot.ideaschain.com.tw",1883
12:55:47.301 -> +QMTCLOSE: 0,0
12:55:48.434 -> +QMTOPEN: 0,0
12:55:48.434 -> AT+QMTCONN=0,0,"eviD0n3tB1qMOEyBo9yI","eviD0n3tB1qMOEyBo9yI"
12:55:50.161 -> +QMTCONN: 0,0,0
12:55:50.161 -> AT+QMTSUB=0,1,"v1/devices/me/attributes/response/+",0
12:55:52.155 -> AT+QMTPUB=0,0,0,0,"v1/devices/me/attributes/request/1","{"sharedKeys":"DelayTime"}"
12:55:56.559 -> AT+QMTPUB=0,0,0,0,"v1/devices/me/attributes/request/1","{"sharedKeys":"TempHigh"}"
12:56:26.673 -> AT+QMTPUB=0,0,0,0,"v1/devices/me/attributes/request/1","{"sharedKeys":"TempLow"}"
12:56:56.741 -> AT+QMTCLOSE=0
12:57:26.758 -> 延遲 60 秒後再傳送 !!
```

8. 連接DHT11與三色LED(+)

   LED(G)→PB7

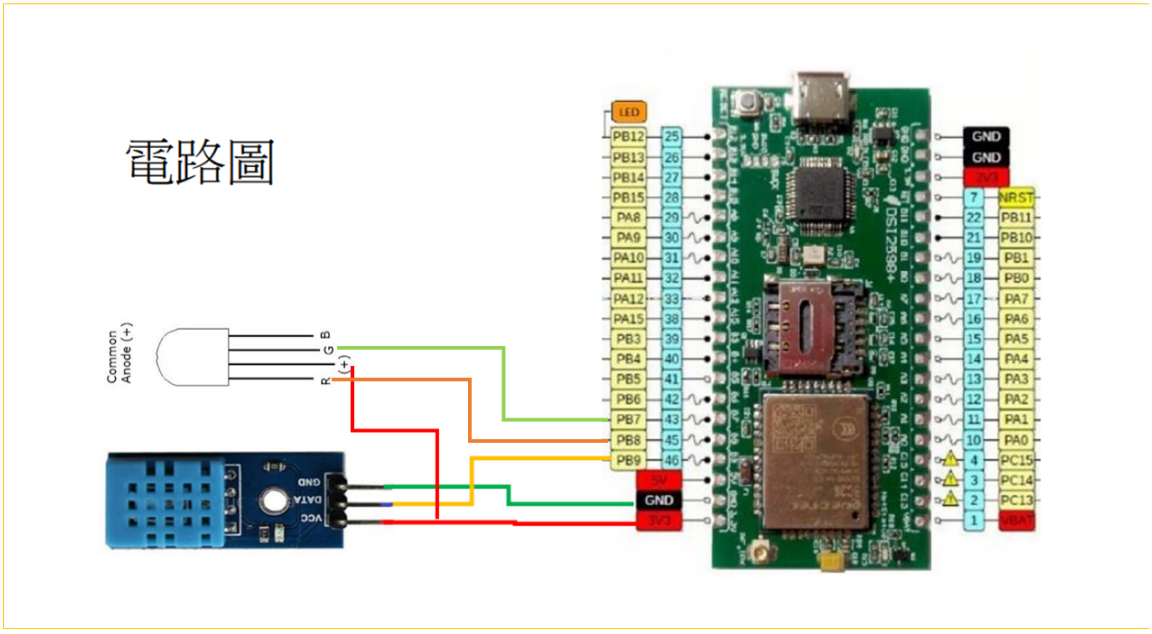
   LED(+)→3.3V

   LED(R)→PB8

   DHT11(GND)→GND

   DHT11(DATA)→PB9

   DHT11(VCC)→5V(3V3也可，但建議不要)



9. 連接DHT11時確認資料上傳與下載成功

作業2：(現場檢查)

將範例2的DHT11改成DHT22並確認資料上傳與下載成功，請更改上傳時間為所有組員的學號最後兩位之和(B0942103、B01234557為3+57=60)

請截圖序列埠回傳數值與拍攝電路接線，分成兩張照片上傳(未符合格式者斟酌扣分)(照片*2、.ino*1、.h*1)

注意：因為我們所使用的LED是(共陽)而不是範例的共陰電路，因此需要修改某部分使其LED燈亮的正確