

ThingSpeak使用教學(wifibit ver.)

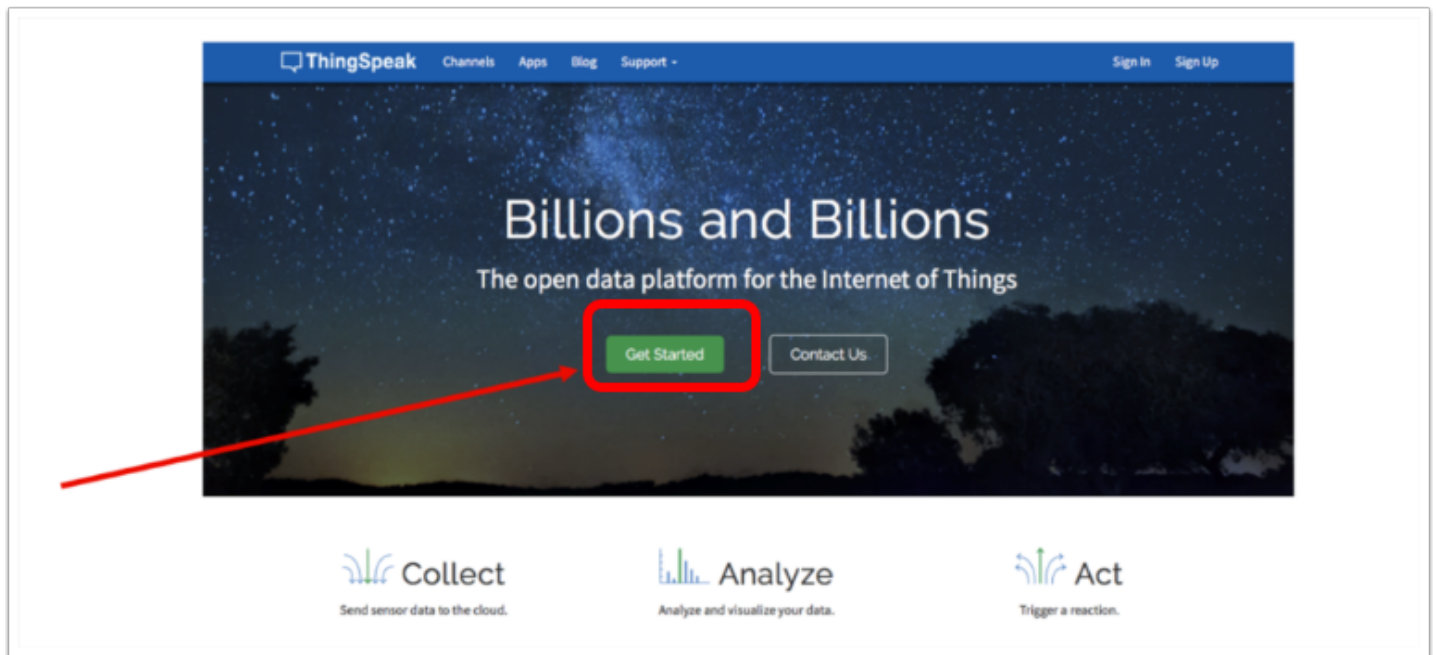
什麼是ThingSpeak?

它是一個網上收集數據的平台,協助我們收集從傳感器(sensor)中得出的data,

例如 : analog read pin了多少次(收集人流數據),溫度等等...

Step 1.確保你的micro:bit已經連上了wifi

Step 2. **Go to ThingSpeak at <https://thingspeak.com> and signup.**



Step 3. 註冊帳號

ThingSpeak™ Channels Apps Community Support ▾ Commercial Use How to Buy Sign In Sign Up

Sign up for ThingSpeak

It is free to sign up for ThingSpeak. Free accounts offer a fully functional experience on ThingSpeak with limits on certain functionality. Commercial users may sign up for a time-limited free evaluation. To send data faster to ThingSpeak or to send more data, consider our [paid license options](#) for commercial, academic, home and student usage. To start using ThingSpeak you must create a new MathWorks account, or, click cancel and log in using an existing MathWorks account.

Create MathWorks Account

Email Address

Missing required information

i To access your organization's MATLAB license, use your school or work email.

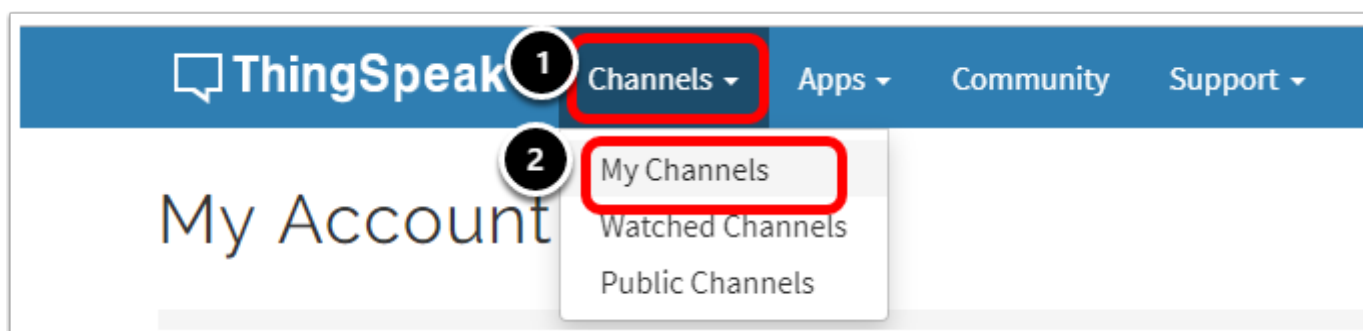
Location

First Name

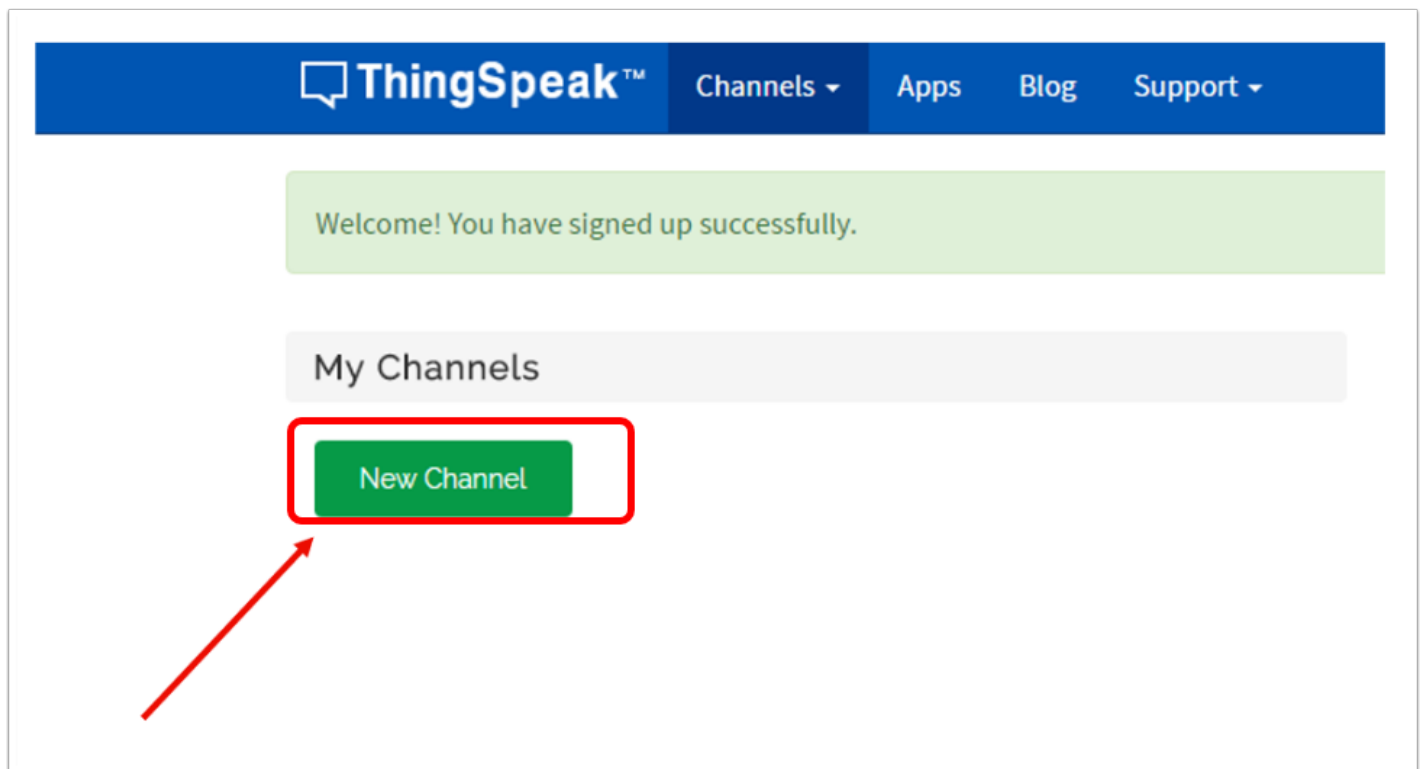
Last Name

The diagram illustrates the data flow from smart connected devices to ThingSpeak and then to MATLAB. On the left, a vertical stack of wireless sensors is connected to a central router labeled 'SMART CONNECTED DEVICES'. A blue arrow points from the router to a cloud icon labeled 'DATA AGGREGATION AND ANALYTICS' with the ThingSpeak logo. Another blue arrow points from the cloud to a computer monitor on the right labeled 'MATLAB' and 'ALGORITHM DEVELOPMENT SENSOR ANALYTICS'.

Step 4. login後從網頁上方的Channels選取My Channels



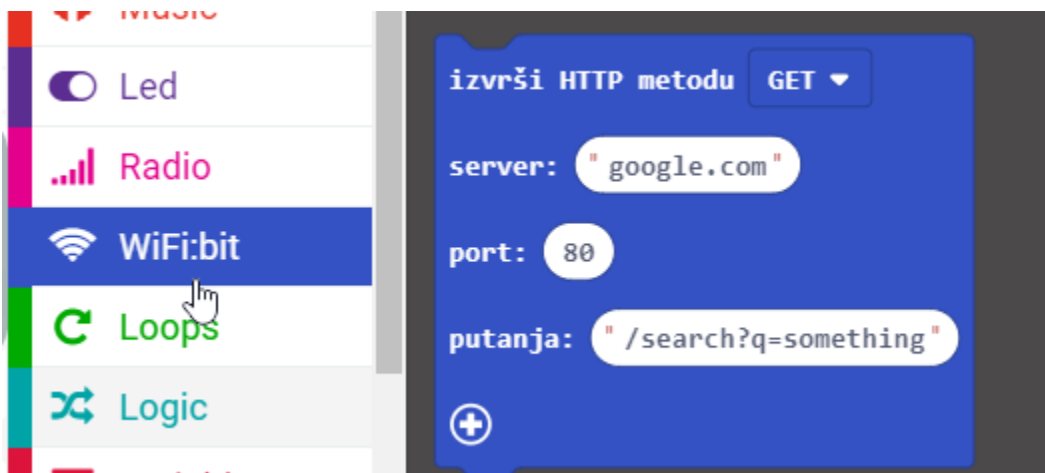
Step 5. 選取New Channel



Step 6. 輸入Channel的名字,並加入Field來記錄數據.

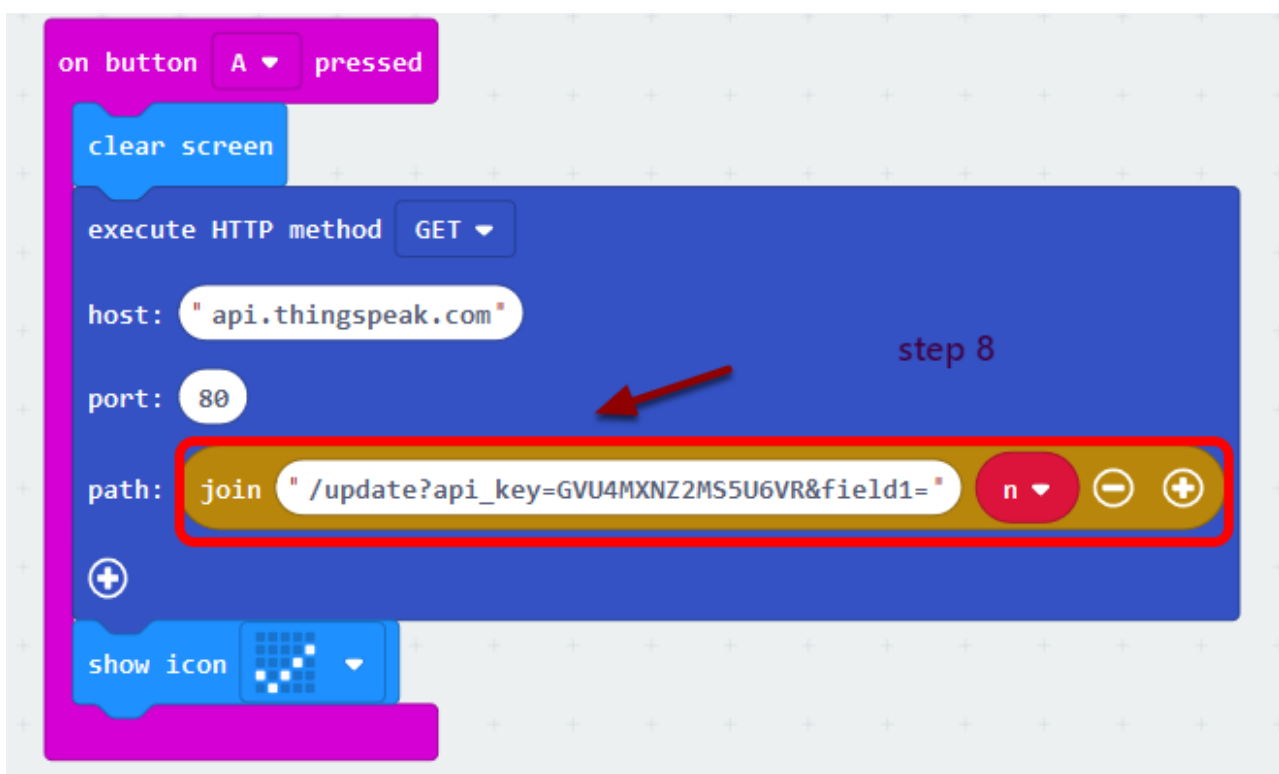
The image shows the "New Channel" form in the ThingSpeak interface. The form has a title "New Channel" at the top. Below the title are several input fields: "Name" (containing "IOT TESTING"), "Description" (empty), and four "Field" entries. "Field 1" has a dropdown menu set to "Number" and a checked checkbox. "Field 2", "Field 3", and "Field 4" have empty dropdown menus and unchecked checkboxes. The "Name" field and the "Field 1" dropdown are both highlighted with red rectangular boxes.

Step 7. 在WiFi:bit欄中選取"izvrsi HTTP metodu GET....", 然後加至"on button A"



❗ Step 7.5 在"server : " 輸入api.thingspeak.com (上傳data至thingspeak server) , port 保持 80不變

「n」是一個普通的varibale



❗ Step 8. 為了上載data到ThingSpeak的雲端上,我們需要把它assign到指定的field,因此我們需要到"**API Keys**" 複製我們的API Key link.

Private View
Public View
Channel Settings
Sharing
API Keys
Data Import / Export

Write API Key

Key
GVU4MXNZ2MS5U6VR

Generate New Write API Key

Read API Keys

Key
BIJ9I0UD1YN2S2KP

Note

Help

API keys enable you to write data to a channel or read data from a private channel. API keys are auto-generated when you create a new channel.

API Keys Settings

- Write API Key:** Use this key to write data to a channel. If you feel your key has been compromised, click **Generate New Write API Key**.
- Read API Keys:** Use this key to allow other people to view your private channel feeds and charts. Click **Generate New Read API Key** to generate an additional read key for the channel.
- Note:** Use this field to enter information about channel read keys. For example, add notes to keep track of users with access to your channel.

API Requests

Write a Channel Feed

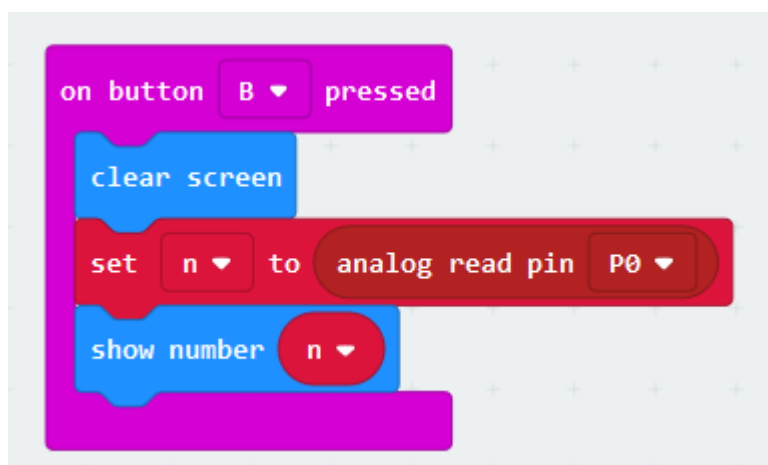
```
https://api.thingspeak.com/update?api_key=GVU4MXNZ2MS5U6VR&field1=0
```

❗ Step8.5 把「/update field1= 」複製並貼上到「join」後，
注意：不需要copy field1 = 後的「0」，update 前的「/」請記緊copy

path: join " /update?api_key=GVU4MXNZ2MS5U6VR&field1= " n ▼ − +

💡 啡色的"join" 可在「text」中找到

Step9. 接駁soil moisture sensor 讀取並上傳數據至thingspeak



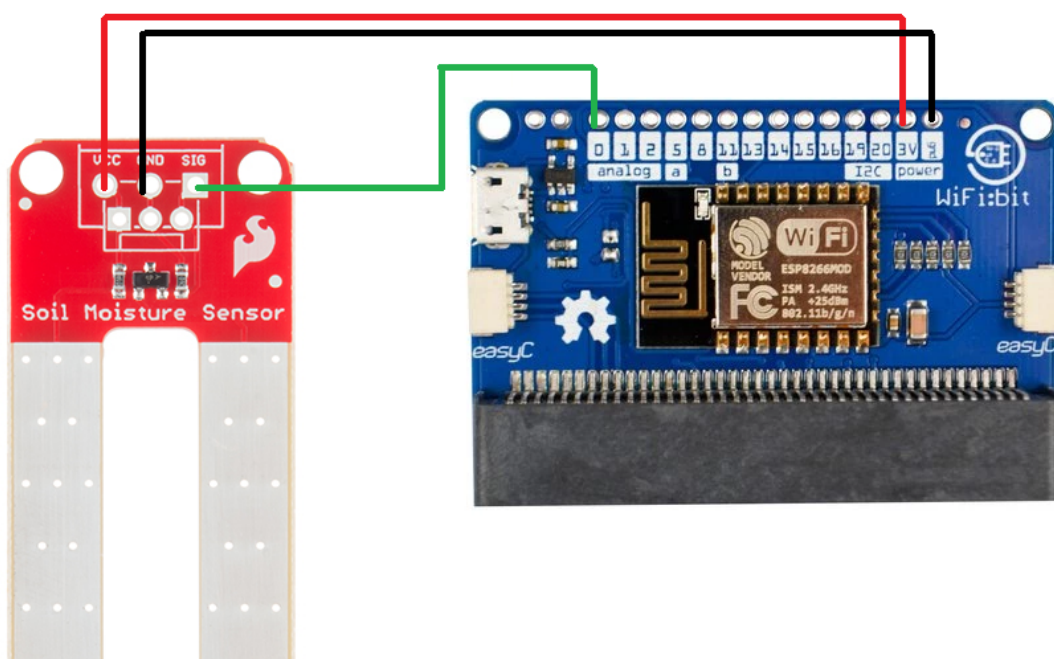
💡 電線接駁方法：

P0 ---> SIG

3V --> VCC (power)

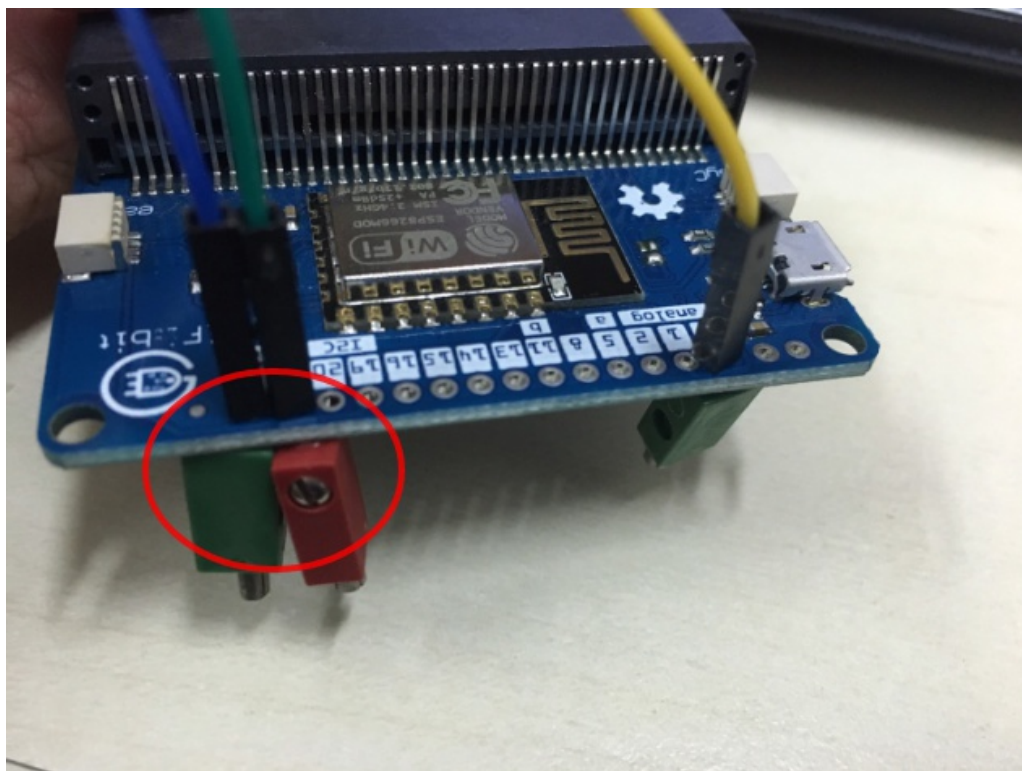
GND --> GND (power)

** 我們利用fischertechnik的紅綠頭來固定電線,取代燒焊!

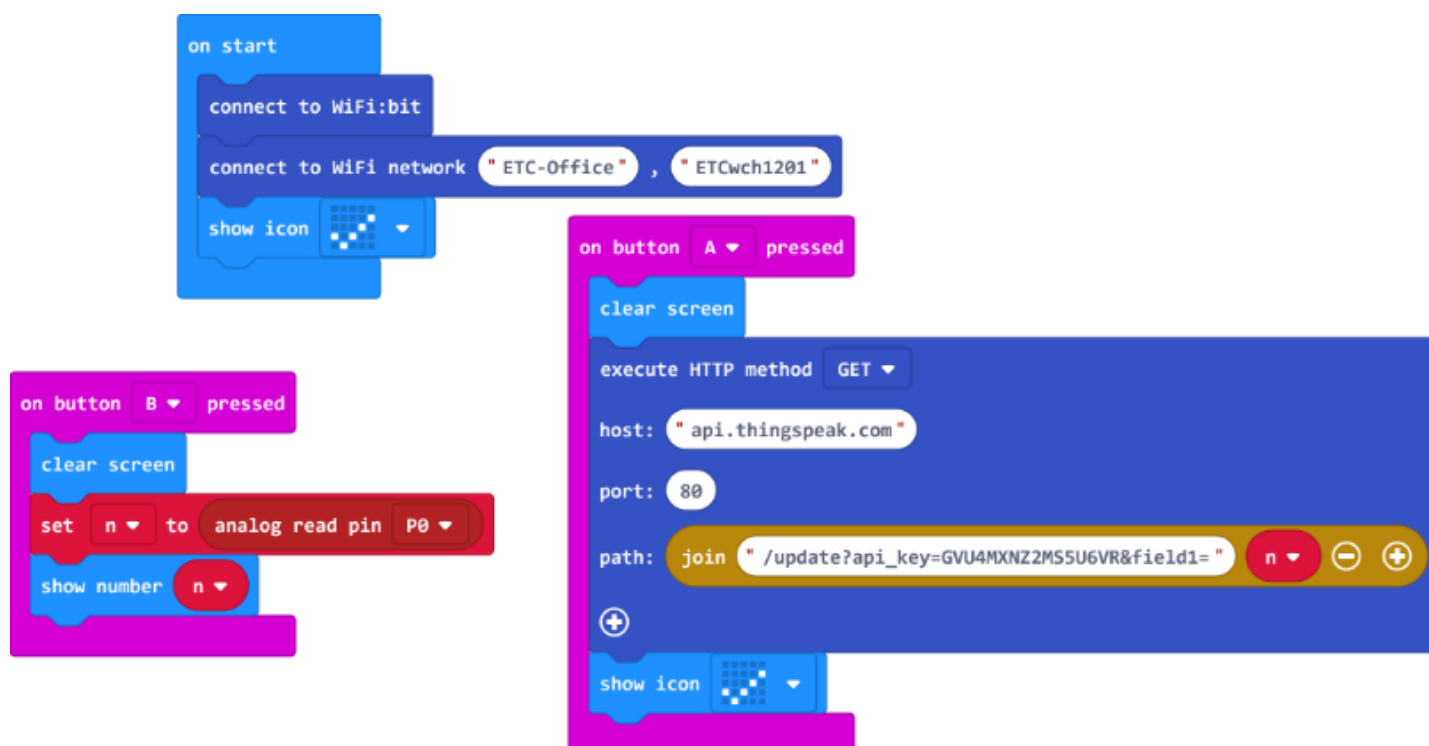


💡 實物圖：

先把jumperwire插入pin的小孔，然後再用紅綠頭把它鎖緊！



整個CODING：



💡 按下Private View便可看到已上傳的數據

Private View

Public View

Channel Settings

Sharing

API Keys

Data Import / Export

+ Add Visualizations

+ Add Widgets

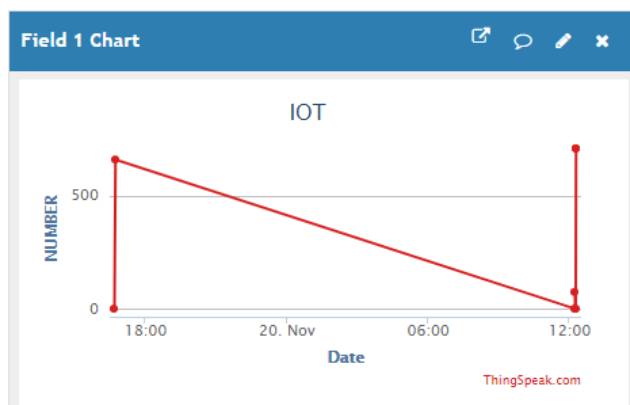
Export recent data

Channel Stats

Created: a day ago

Last entry: 29 minutes ago

Entries: 7



💡 影片示範：