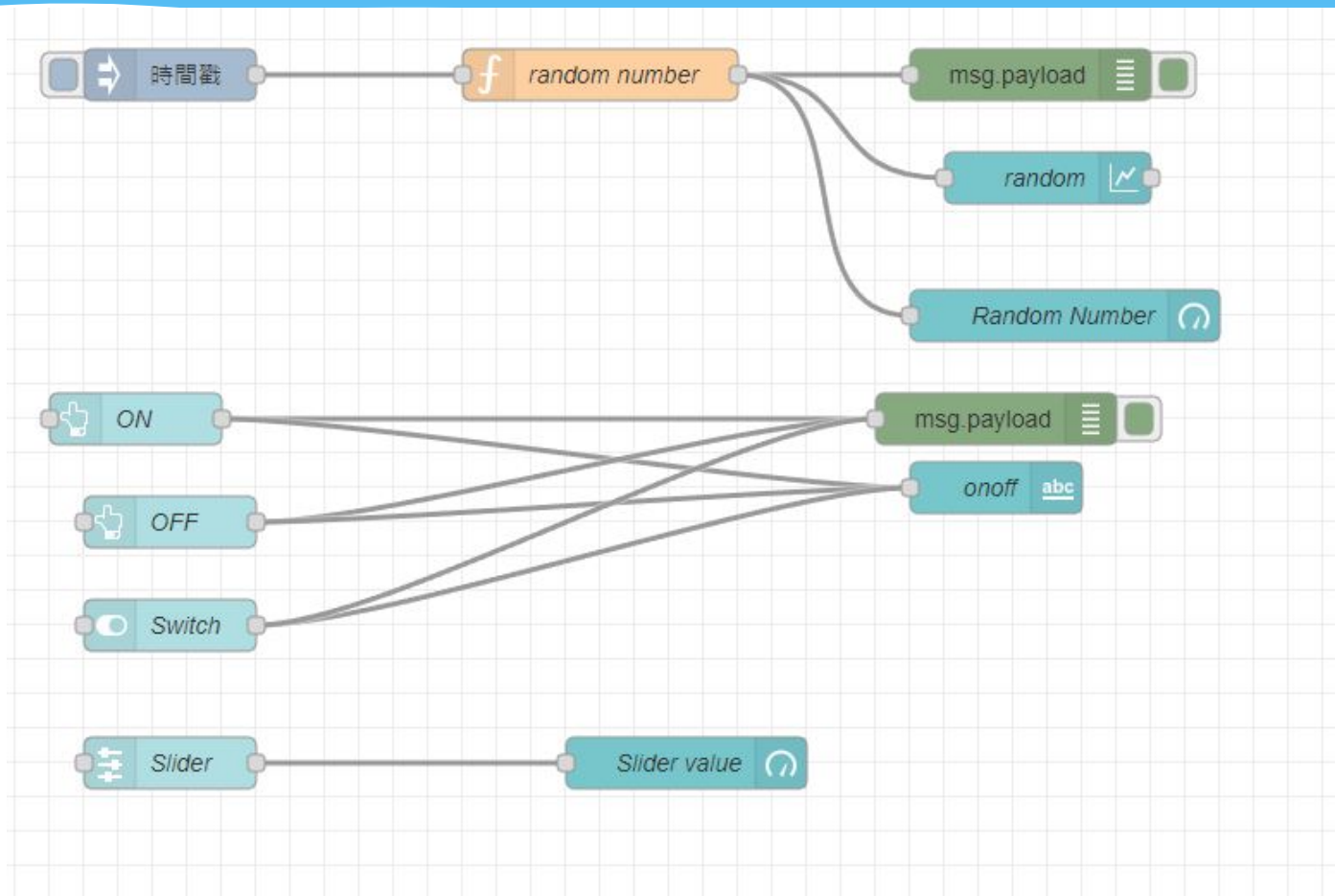


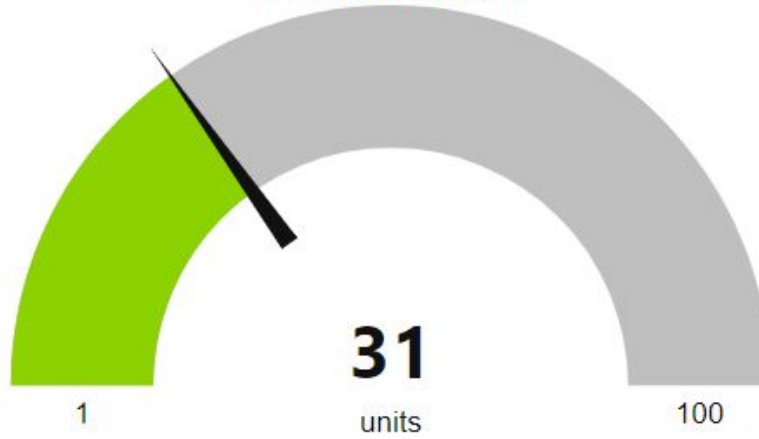
# Node-red Class



Default

chart

Random Number



ON

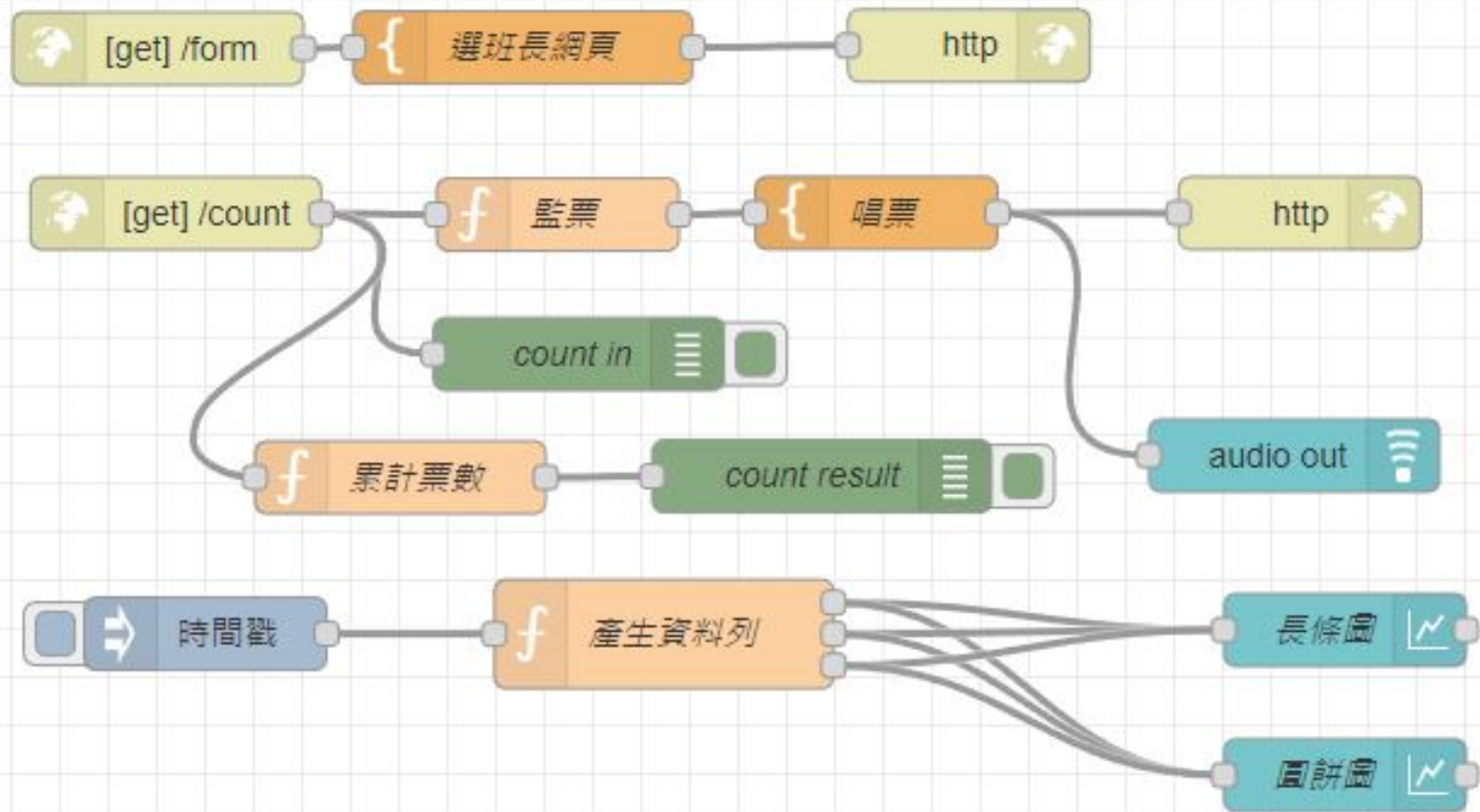
OFF

ON OFF

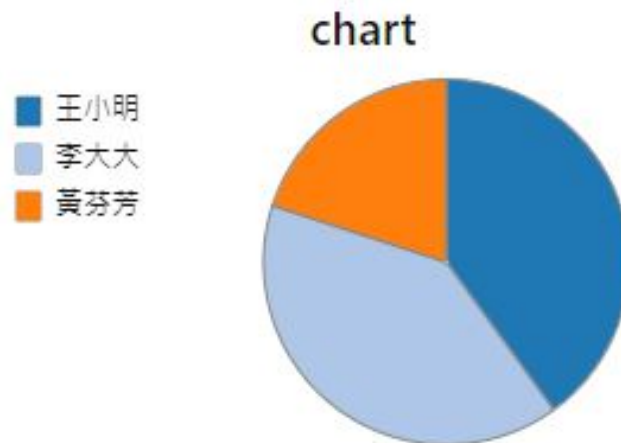
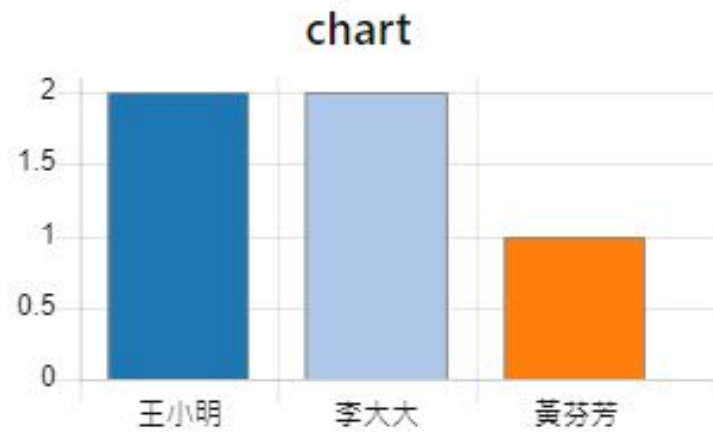
switch

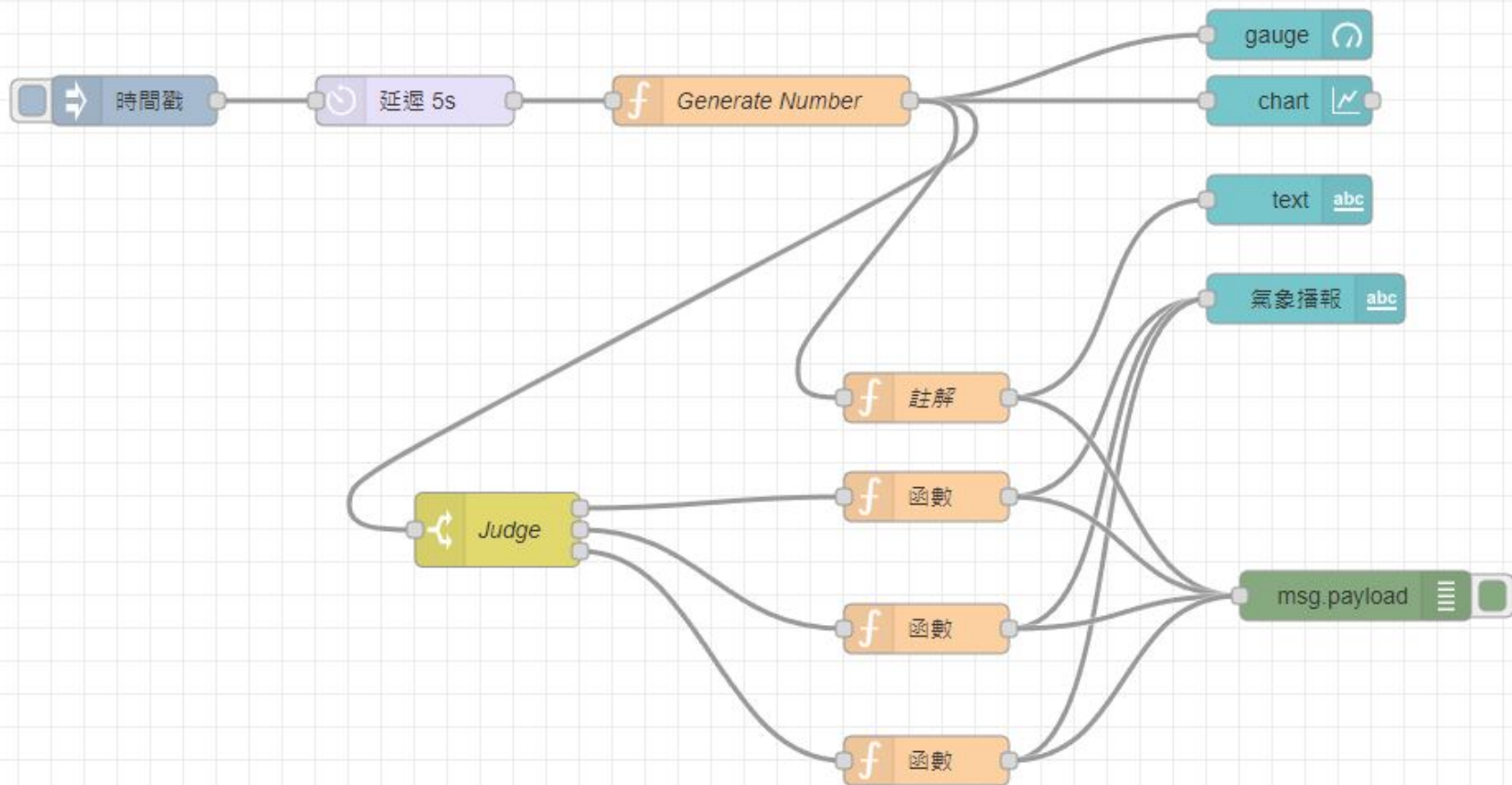
ON





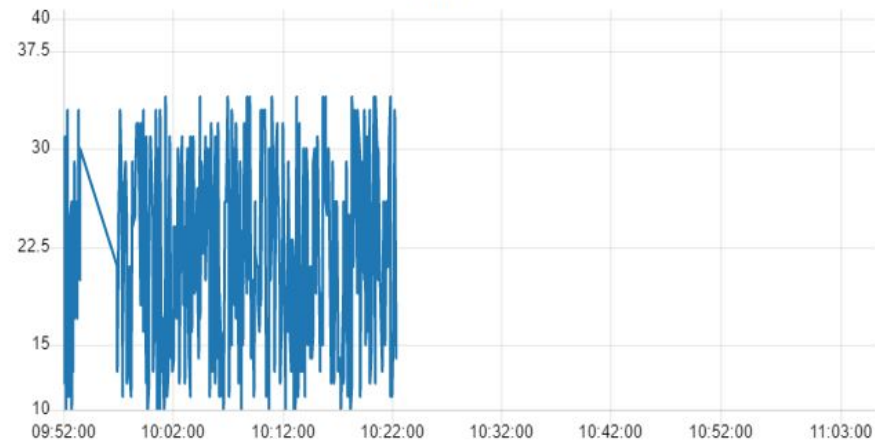
Default



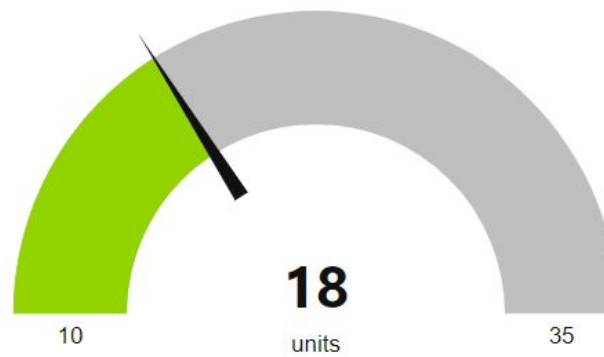


Random

chart



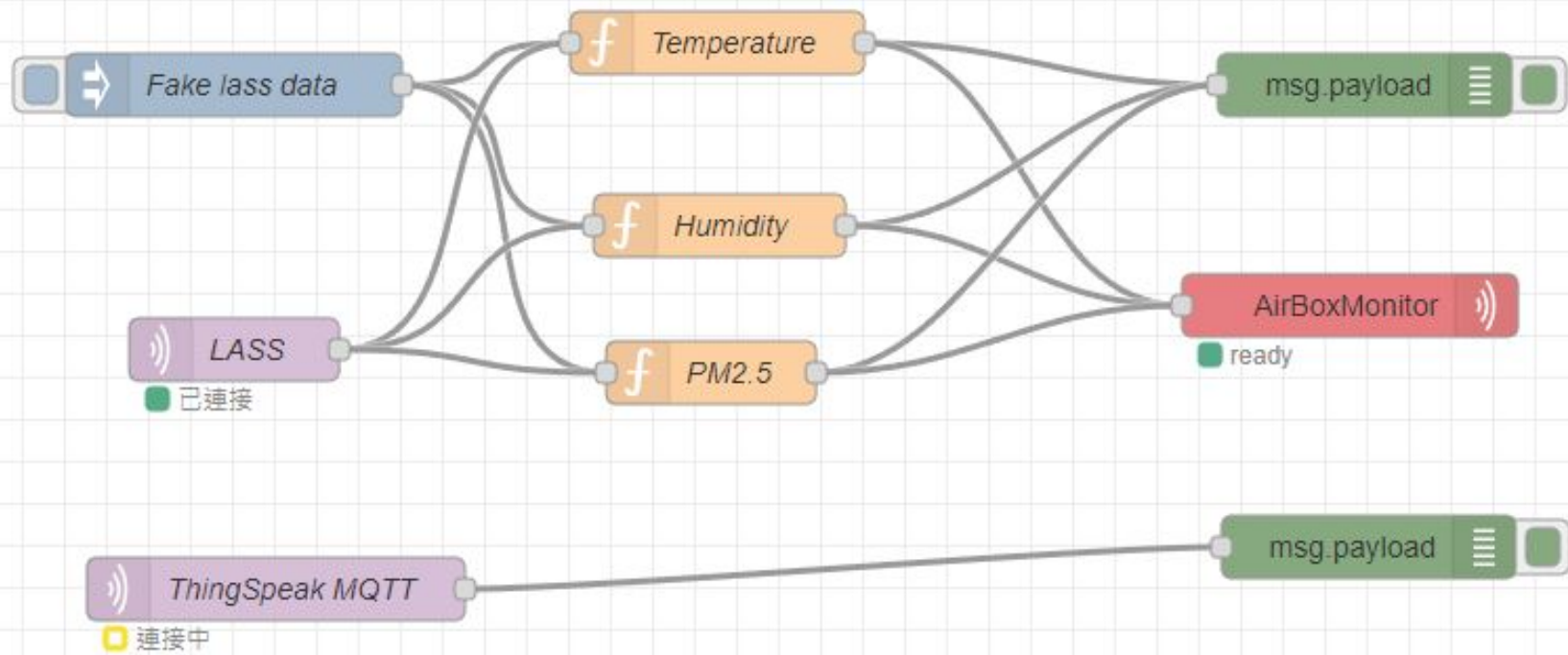
gauge



氣象播報

冷死了, 衣服多穿點

溫度: 18 度





## My Channels

[New Channel](#)

## Help

Collect data in a ThingSpeak channel from a device, from another channel, or from the web.

Click **New Channel** to create a new ThingSpeak channel.

Click on the column headers of the table to sort by the entries in that column or click on a tag to show channels with that tag.

Learn to [create channels](#), explore and transform data.

Learn more about [ThingSpeak Channels](#).

## Examples

- [Arduino](#)
- [Arduino MKR1000](#)
- [ESP8266](#)
- [Raspberry Pi](#)
- [Netduino Plus](#)

## Upgrade

Need to send more data faster?

Need to use ThingSpeak for a commercial project?

[Upgrade](#)

## New Channel

|                       |  |
|-----------------------|--|
| Name                  | <input type="text" value="airboxmonitor"/>                                   |
| Description           | <input type="text" value="Temperature, Humidity and PM2.5"/>                 |
| Field 1               | <input type="text" value="temperature"/> <input checked="" type="checkbox"/> |
| Field 2               | <input type="text" value="humidity"/> <input checked="" type="checkbox"/>    |
| Field 3               | <input type="text" value="pm25"/> <input checked="" type="checkbox"/>        |
| Field 4               | <input type="text"/> <input type="checkbox"/>                                |
| Field 5               | <input type="text"/> <input type="checkbox"/>                                |
| Field 6               | <input type="text"/> <input type="checkbox"/>                                |
| Field 7               | <input type="text"/> <input type="checkbox"/>                                |
| Field 8               | <input type="text"/> <input type="checkbox"/>                                |
| Metadata              | <input type="text"/>   |
| Tags                  | <input type="text"/>   |
|                       | <small>(Tags are comma separated)</small>                                    |
| Link to External Site | <input type="text" value="http://"/>   |
| Link to GitHub        | <input type="text" value="https://github.com/"/>                             |
| Elevation             | <input type="text"/>   |

## Help

Channels store all the data that a ThingSpeak application collects. Each channel includes eight fields that can hold any type of data, plus three fields for location data and one for status data. Once you collect data in a channel, you can use ThingSpeak apps to analyze and visualize it.

### Channel Settings

- **Percentage complete:** Calculated based on data entered into the various fields of a channel. Enter the name, description, location, URL, video, and tags to complete your channel.
- **Channel Name:** Enter a unique name for the ThingSpeak channel.
- **Description:** Enter a description of the ThingSpeak channel.
- **Field#:** Check the box to enable the field, and enter a field name. Each ThingSpeak channel can have up to 8 fields.
- **Metadata:** Enter information about channel data, including JSON, XML, or CSV data.
- **Tags:** Enter keywords that identify the channel. Separate tags with commas.
- **Link to External Site:** If you have a website that contains information about your ThingSpeak channel, specify the URL.
- **Show Channel Location:**
  - **Latitude:** Specify the latitude position in decimal degrees. For example, the latitude of the city of London is 51.5072.
  - **Longitude:** Specify the longitude position in decimal degrees. For example, the longitude of the city of London is -0.1275.
  - **Elevation:** Specify the elevation position meters. For example, the elevation of the city of London is 35.052.
- **Video URL:** If you have a YouTube™ or Vimeo® video that displays your channel information, specify the full path of the video URL.
- **Link to GitHub:** If you store your ThingSpeak code on GitHub®, specify the GitHub repository URL.

### Using the Channel

You can get data into a channel from a device, website, or another ThingsSpeak channel. You can then visualize data and transform it using ThingSpeak [Apps](#).

Metadata

Tags

(Tags are comma separated)

Link to External Site

Link to GitHub

Elevation

Show Channel  
Location

☒

Latitude

Longitude

Show Video

☐

☒ YouTube

☐ Vimeo

Video URL

Show Status

☐

Save Channel

- **Longitude:** Specify the longitude position in decimal degrees. For example, the longitude of the city of London is -0.1275.

- **Elevation:** Specify the elevation position meters. For example, the elevation of the city of London is 35.052.

- **Video URL:** If you have a YouTube™ or Vimeo® video that displays your channel information, specify the full path of the video URL.

- **Link to GitHub:** If you store your ThingSpeak code on GitHub®, specify the GitHub repository URL.

## Using the Channel

You can get data into a channel from a device, website, or another ThingsSpeak channel. You can then visualize data and transform it using ThingSpeak [Apps](#).

See [Get Started with ThingSpeak](#) for an example of measuring dew point from a weather station that acquires data from an Arduino® device.

[Learn More](#)

# airboxmonitor

Channel ID: 1752300

Author: jumbokh

Access: Private

Temperature, Humidity and PM2.5

[Private View](#)[Public View](#)[Channel Settings](#)[Sharing](#)[API Keys](#)[Data Import / Export](#)

## Write API Key

Key

YNP [REDACTED]

[Generate New Write API Key](#)

## Read API Keys

Key

[REDACTED]

Note

[Save Note](#)[Delete API Key](#)[Add New Read API Key](#)

## 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

```
GET https://api.thingspeak.com/update?api_key=[REDACTED]&field=
```

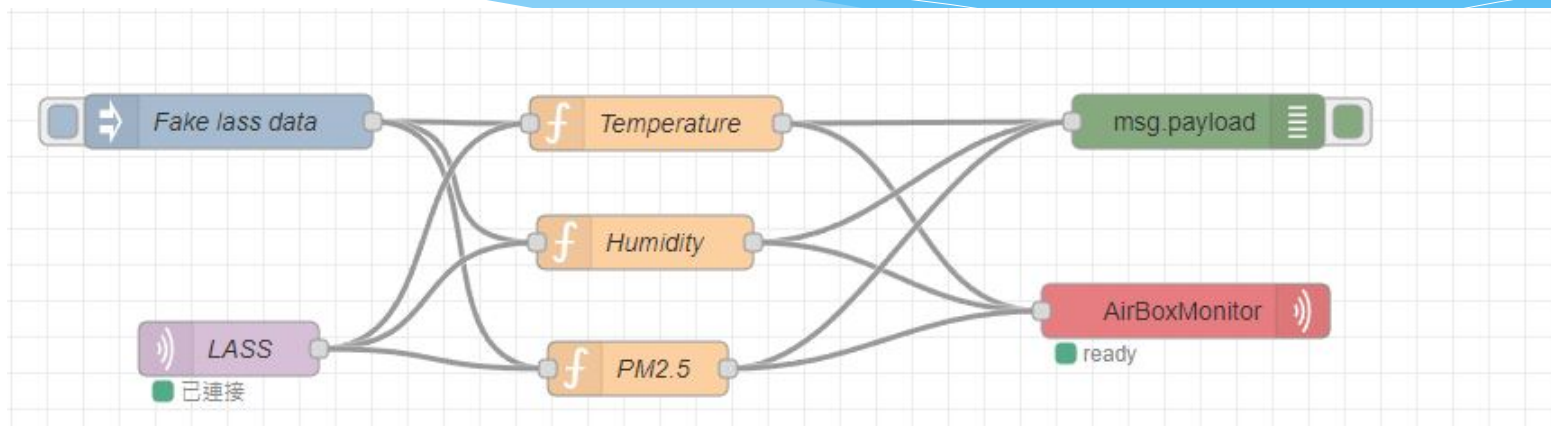
#### Read a Channel Feed

```
GET https://api.thingspeak.com/channels/1752300/feeds.json?api_key=C
```

#### Read a Channel Field

```
GET https://api.thingspeak.com/channels/1752300/fields/1.json?api_ke
```

#### Read Channel Status Updates



編輯 inject 節點

刪除 取消 完成

屬性

名稱 Fake lass data

msg. payload = a\_z |FAKE=1|device\_id=jumbokh|date=20 x

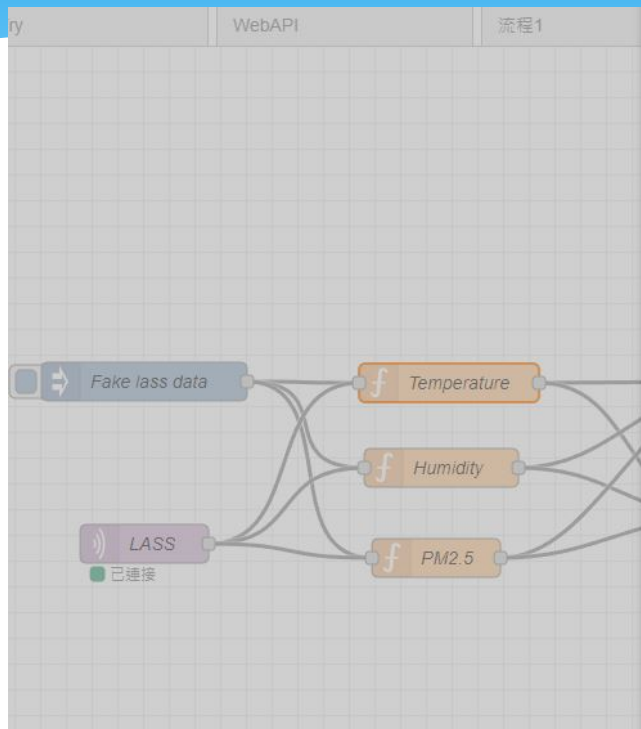
msg. topic = a\_z x

+ 添加

☐ 立刻執行於 0.1 秒後, 此後

重複 無

```
|FAKE=1|device_id=jumbokh|date=2017-12-1|time=03:43:56|  
device=Nodemcu|s_d0=60.00|s_t0=23.40|s_h0=80.20|s_d1=0.00
```



### 編輯 function 節點

刪除 取消 完成

屬性

名稱 Temperature

設置 函數 關閉

```
1 var MsgA =
2 {Temp: msg.payload.substring(1).replace(/=/gi,"|").
3   split("|").slice(13,14).toString()}; //
4 MsgA.payload = MsgA.Temp;
5 MsgA.topic = "csuclass/lass/temp";
6
7 return MsgA;
8
```

WebAPI

流程1

Fake lass data

LASS  
已連接

Temperature

Humidity

PM2.5

編輯 function 節點

刪除

取消

完成

屬性

名稱

Humidity

設置

函數

關閉

```
1 var MsgA =  
2 {Humi: msg.payload.substring(1).replace(/=/gi,"|").  
3   split("|").slice(15,16).toString()}; //  
4 MsgA.payload = MsgA.Humi;  
5 MsgA.topic = "csuclass/lass/humi";  
6  
7 return MsgA;  
8
```



tpTry

WebAPI

流程1

編輯 function 節點

刪除

取消

完成

屬性

名稱

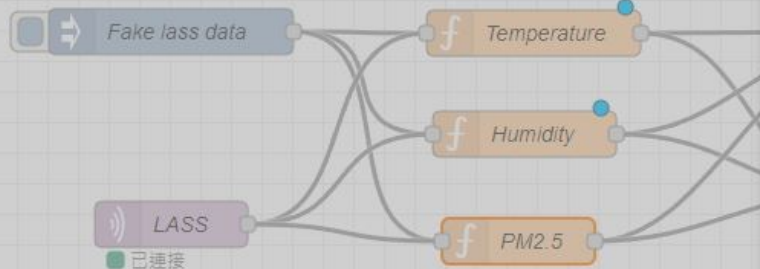
PM2.5

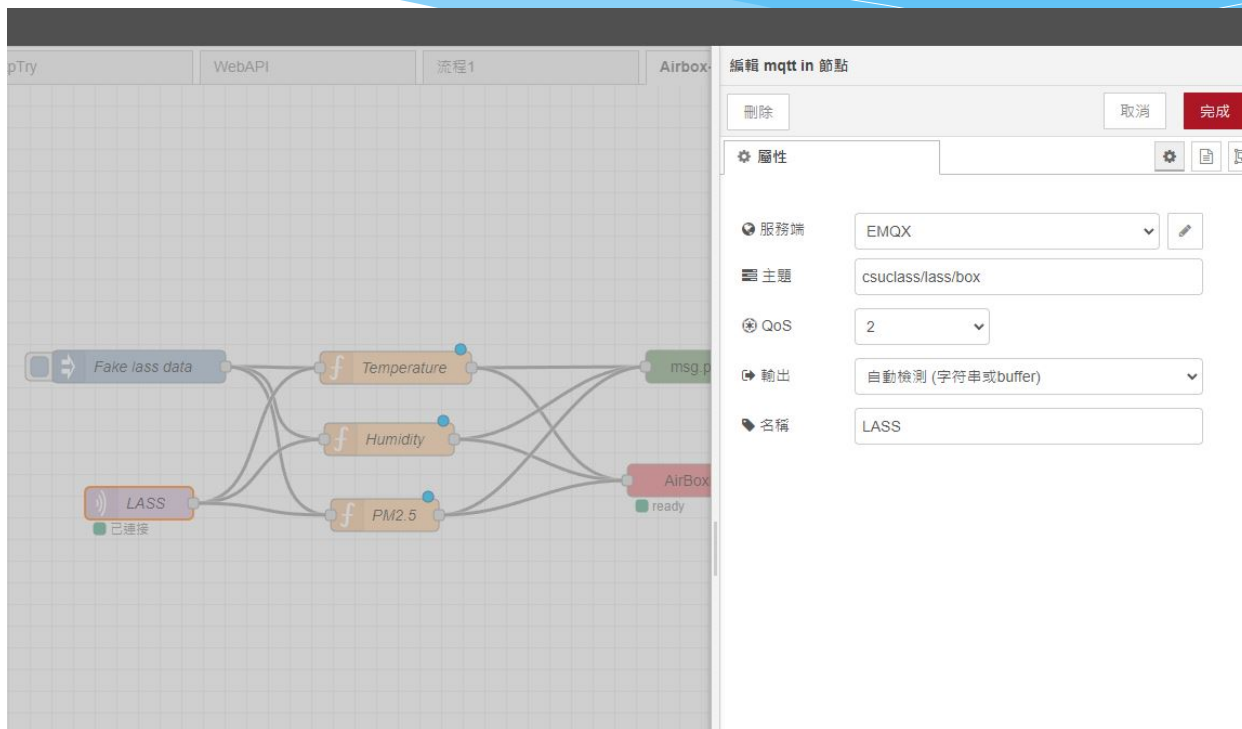
設置

函數

關閉

```
1 var MsgC =  
2 {PM25: msg.payload.substring(1).replace(/=/gi,"|").  
3   split("|").slice(11,12).toString()}; //  
4 MsgC.payload = MsgC.PM25;  
5 MsgC.topic = "csuclass/lass/pm25";  
6  
7 return MsgC;
```





# MQTT Devices

[Add a new device](#)

## Device Details:

airbox  
airbox monitor

## Authorized Channels and Permissions:

airboxmonitor (1752300)

✓ publish ✓ subscribe

## MQTT Client ID:

~~XXXXXXXXXXXXXXXXXXXX~~

[Edit](#)
[Delete](#)

## New Device Added

### Device Information

ThingSpeak has added a new MQTT device and authorized it to access the channels you selected.

Device Name: airbox

### MQTT Credentials

Use these MQTT credentials to publish and subscribe to ThingSpeak channels. [Learn More](#)



Client ID

Username

Password

ThingSpeak does not store a copy of your device's MQTT password. Download or copy it to keep it safe.

Download Credentials ▾

Done

## Add a new Connection



### Connection Details

Connection name

ThingSpeak

Connection color scheme



Hostname

tcp://

mqtt3.thingspeak.com

Port

1883

Client ID

[Redacted]

Generate a random ID

Session

☒ Clean Session

Automatic Connection

☒ Automatic Connection

Keep Alive

120

seconds

### Credentials

Username

[Redacted]

Password

.....

Last-Will



## Connections + ^

ThingSpeak



Connection: ThingSpeak

Subscribe

channels/1[REDACTED]/subscribe

0 - at most once

SUBSCRIBE

Publish

channels/1[REDACTED]/publish

2 - exactly once

☐ Retained

PUBLISH

Message

field1=28&amp;field2=40&amp;field3=53.3

Subscriptions

Topic: "channels/[REDACTED]/subscribe" Showing the last 5 messages — +



Messages: 0/0

## Add a new Connection



### Connection Details

Connection name

thingspeak

Connection color scheme



Hostname

tcp://

mqtt.thingspeak.com

Port

1883

Client ID

HB4yOw

Generate a random ID

Session

☒ Clean Session

Automatic Connection

☒ Automatic Connection

Keep Alive

120

seconds

### Credentials

Username

Password

[Redacted]

.....

Last-Will



CANCEL

SAVE CHANGES

Connections + ^

ThingSpeak



Connection: ThingSpeak

Subscribe

topic

0 - at most once

SUBSCRIBE

Publish

channels/1752300/publish/YNP1VK8RF2VUPO0C

2 - exactly once

☐ Retained

PUBLISH

Message

field1=25&field2=79&field3=14.5

Subscriptions