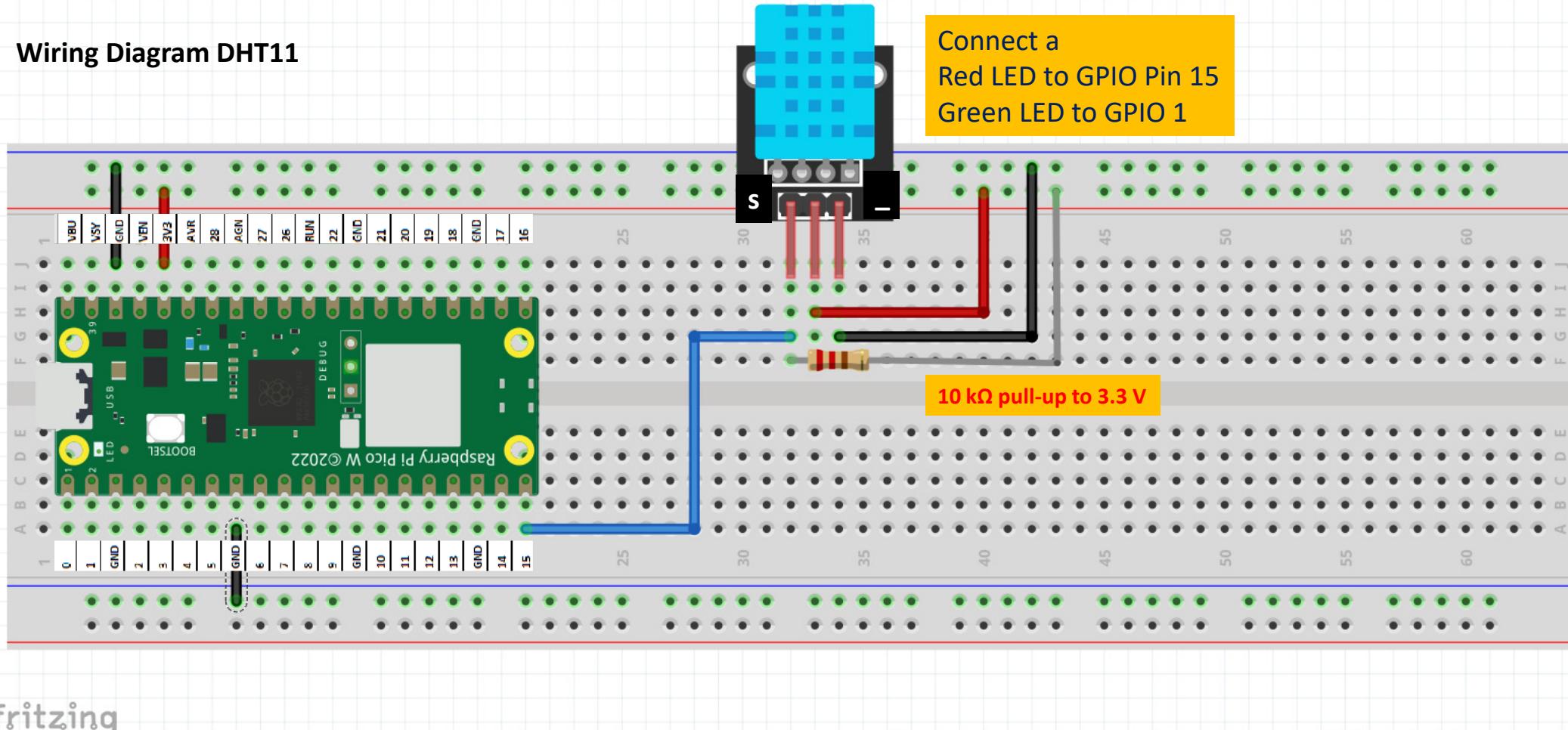


Wiring Diagram DHT11



```
wificonfig.py x
1 ssid='ASUS'
2 password='Study090317'
3
4 whatsapp_phone_no="6591080064"
5 whatsapp_api_key="5854910"
6
```

wificonfig.py should contain your access point ssid/password
And Whatsapp API key and the Phone number you used to register

```
Traceback (most recent call last):
  File "<stdin>", line 41, in <module>
    File "dht.py", line 1, in measure
      OSError: [Errno 110] ETIMEDOUT
```

If you see this error message in the shell. Plug out the usb cable and
Reconnect the pico again.

Demo Whatsapp Alert

dht11_whatsapp.py

Practical Application : Monitoring an Event

Creating a Thingspeak Account

Signing up for a ThingSpeak account is straightforward. Here's a step-by-step guide:

Step 1: Go to the ThingSpeak website

Open your browser and go to:
<https://thingspeak.com> ↗

Step 2: Click "Sign Up"

- On the top right corner of the homepage, click **Sign Up**.
-

Step 3: Fill in your information

- **Name:** Your full name or nickname
 - **Email:** Your valid email address
 - **Username:** Choose a unique username
 - **Password:** Set a secure password
 - Accept [Terms of Service](#) and [Privacy Policy](#)
-

Step 4: Verify your email

- After signing up, ThingSpeak will send a [verification email](#).
 - Open your email inbox, find the email from ThingSpeak, and [click the verification link](#).
-

Step 5: Log in

- Return to <https://thingspeak.com> ↗
- Click **Log In** and enter your username/email and password.

Go to:

<https://www.thingspeak.com/login>



To use ThingSpeak, you must sign in with your existing MathWorks ac

Non-commercial users may use ThingSpeak for free. Free accounts of
MATLAB analysis features on ThingSpeak, log in to ThingSpeak using

To send data faster to ThingSpeak or to send more data from more de

Logging into Thingspeak



Email

No account? [Create one!](#)

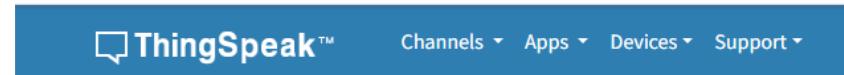
By signing in, you agree to our [privacy policy](#).

[Next](#)

Enter the email address you used to create the account
and click the [Next] button.

Enter your password and click [Sign In] to access Thingspeak

Creating a Thingspeak Channel



My Channels

New Channel

Search by tag

Click [New Channel]

New Channel

Name

Description

Field 1

Field 2

Field 3

Field 4

Field 5

Field 6

Field 7

Field 8

Give it a name and provide some description

Create the data fields you are collecting for visualization.

E.g.

Field 1 = Temperature
Field 2 = Humidity

Creating a Thingspeak Channel

Show Channel Location

Latitude

Longitude

Show Video

YouTube

Vimeo

Video URL

Show Status

Set as default

 ThingSpeak™ [Channels](#) [Apps](#) [Devices](#) [Support](#)

New Channel

Name	<input type="text" value="Tampines Regional Library"/>
Description	<input type="text" value="Monitoring Temp and Humidity"/>
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"/> <input type="checkbox"/>

Getting the Channel API And API key

The screenshot shows the ThingSpeak channel page for 'Tampines Regional Library' (Channel ID: 3195084). The page includes details like Author: iamssgoh and Access: Private, along with monitoring status: 'Monitoring Temp and Humidity'. It features tabs for Private View (selected), Public View, Channel Settings, Sharing, API Keys, and Data Import / Export. Buttons for Add Visualizations, Add Widgets, and Export recent data are also present. Two charts are shown: 'Field 1 Chart' and 'Field 2 Chart', both titled 'Tampines Regional Library'. A green button at the bottom right says 'Select API keys'.

ser Set as default

ThingSpeak™ Channels Apps Devices Support Commercial Use

Tampines Regional Library

Channel ID: 3195084
Author: iamssgoh
Access: Private

Monitoring Temp and Humidity

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

+ Add Visualizations + Add Widgets Export recent data

MATLAB Analysis MATE

Channel Stats

Created: less.than.a.minute.ago
Entries: 0

Field 1 Chart Field 2 Chart

Tampines Regional Library

Select API keys

Getting the Channel API And API key

Write API Key

Key 5Q0JYI8OIP1076ES

Generate New Write API Key

Read API Keys

Key JE05TQA5S6N9PIQ2

Note

Save Note Delete API Key

API Requests

Write a Channel Feed

GET https://api.thingspeak.com/update?api_key=5Q0JYI8OIP1076ES&field1=0

Read a Channel Feed

GET https://api.thingspeak.com/channels/3195084/feeds.json?api_key=JE05TQA5S6N9PIQ

```
request = urequests.post( |http://api.thingspeak.com/update?api\_key=' + THINGSPEAK\_WRITE\_API\_KEY, json = readings, headers = HTTP\_HEADERS )
```

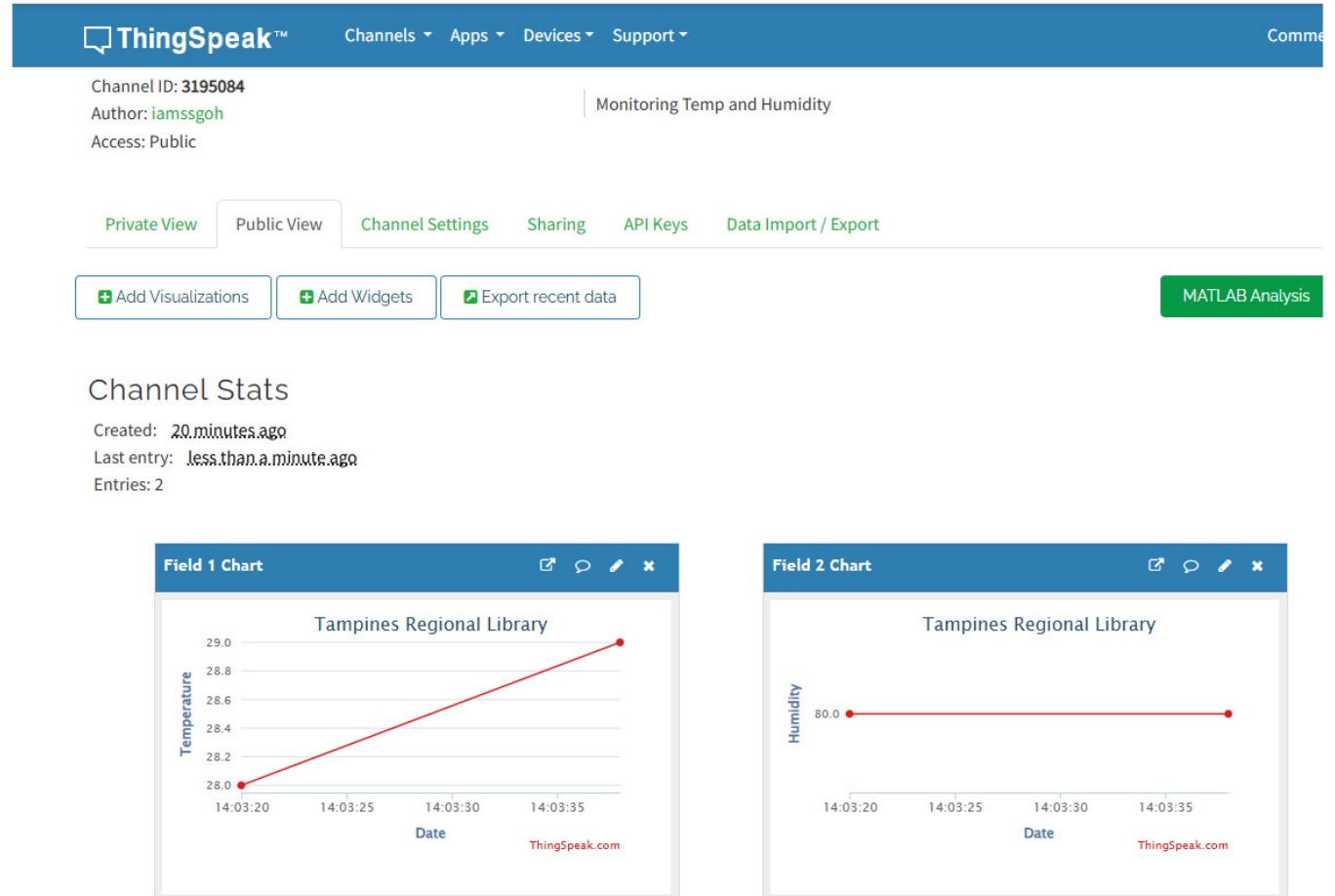
Save API keys to wificonfig.py

wificonfig.py

```
1  ssid='ASUS'
2  password='Study090317'
3
4  whatsapp_phone_no="6591080064"
5  whatsapp_api_key="5854910"
6
7  mailjet_api_key="8e1996475f43d56c0a186b9ab65394fb"
8  mailjet_secret_key="d8586c5c77b4962c226e5c490078a03f"
9  email_address="iamssgoh@gmail.com"
10 email_sender="ssgoh"
11
12 thingspeak_write_api="5Q0JYI80IP1076ES"
13 thingspeak_read_api="JE05TQA5S6N9PIQ2"
14 |
15 |
```

```
24
25 HTTP_HEADERS = {'Content-Type': 'application/json'}
26 THINGSPEAK_WRITE_API_KEY = wificonfig.thingspeak_write_api
27
```

Visualization



Demo Gmail alert using Mailjet

dht11_gmail.py
email_utils.py