


ESP32 DHT22 IFTTT

Send DHT22 temperature and humidity values to a google sheet through ESP32 and Webhooks

 Difficulté **Moyen**

 Durée **1 heure(s)**

 Catégories **Électronique**

 Coût **0 USD (\$)**

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Introduction

ESP32 connected to DHT22, to read temperature and humidity. Use IFTTT to create a webhook applet and write the DHT22 measured values to a google sheets document

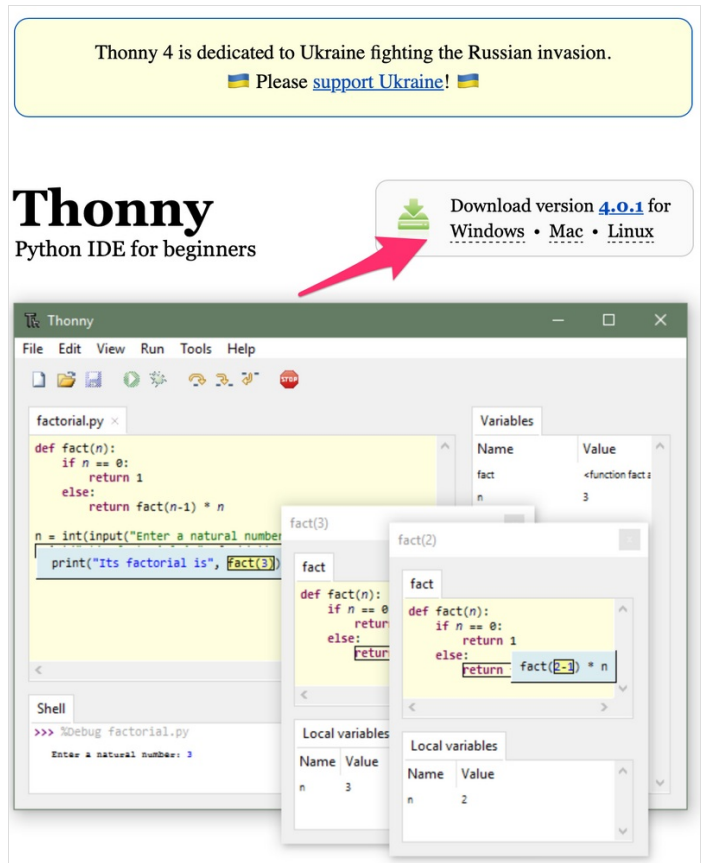
Matériaux

Outils

Étape 1 - Install Thonny or Other Python IDE

You will need a Python IDE such as Thonny for this project. You can use any IDE, but for this project, we are using Thonny. To install and use Thonny:

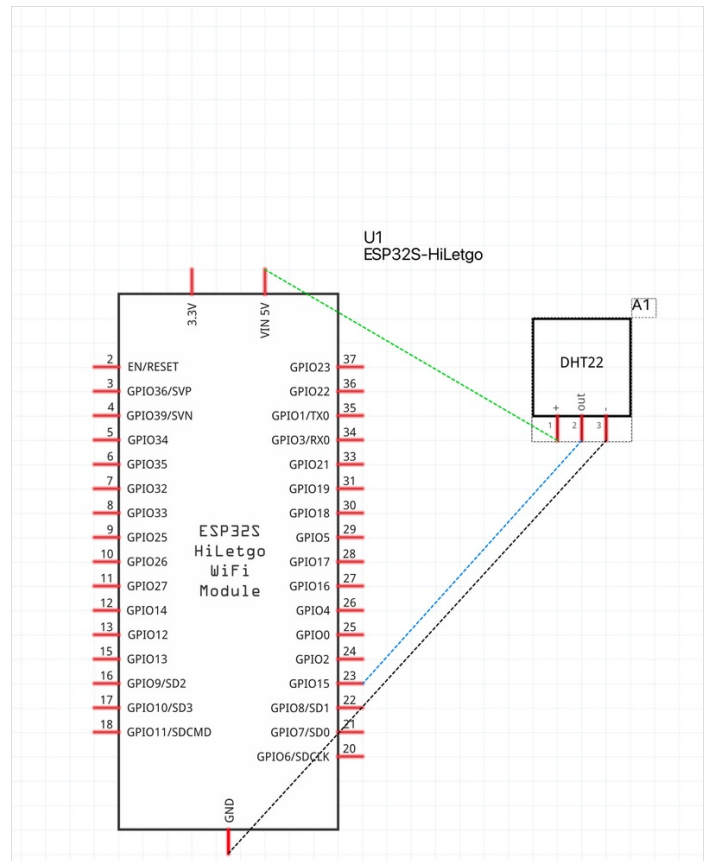
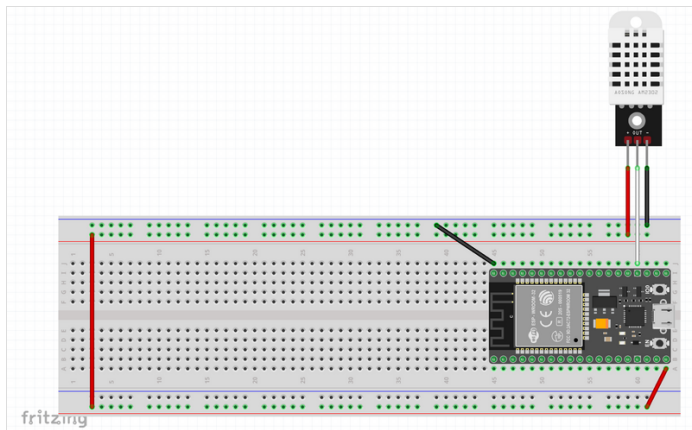
- Go to <https://thonny.org/>
- Download
- Install and then open



Étape 2 - Setup Circuit

This is how your circuit should look like. You will need the ESP32 microcontroller, DHT22 temp/humidity module, breadboard and jumper wires.

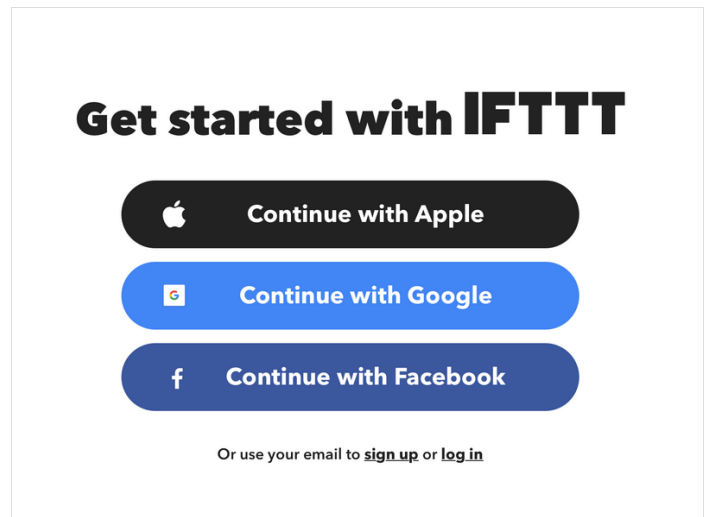
- + pin on DHT22 to VCC on ESP
- out pin on DHT22 to GPIO pin 15 on ESP (can change depending on code)
- - pin on DHT22 to GND on ESP



Étape 3 - Setup IFTTT

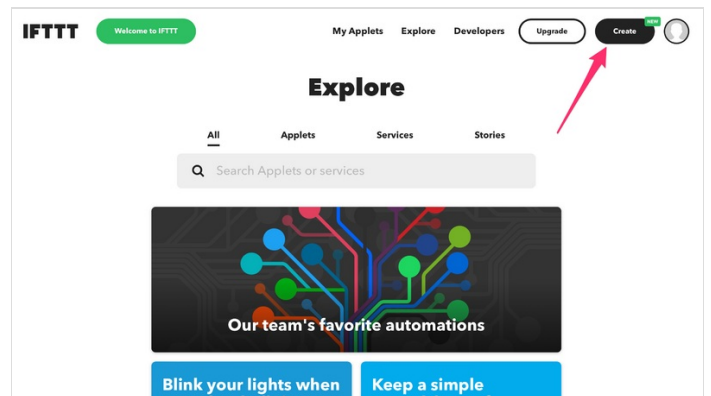
Go to <https://ifttt.com/join>

Sign up and create an account using the appropriate options



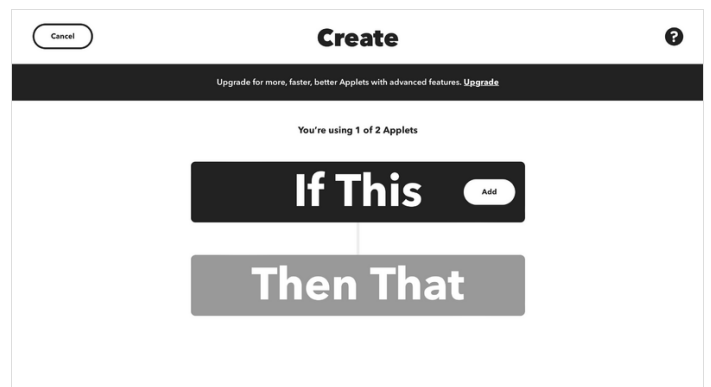
Étape 4 - Create a new applet

First, click **create** in the upper right hand corner



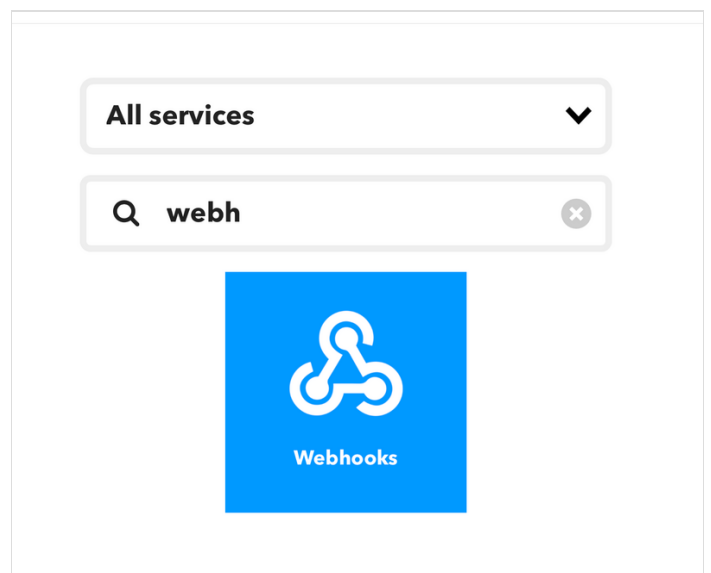
Étape 5 - Set up Applet

Then, hit **Add** next to **IF THIS**



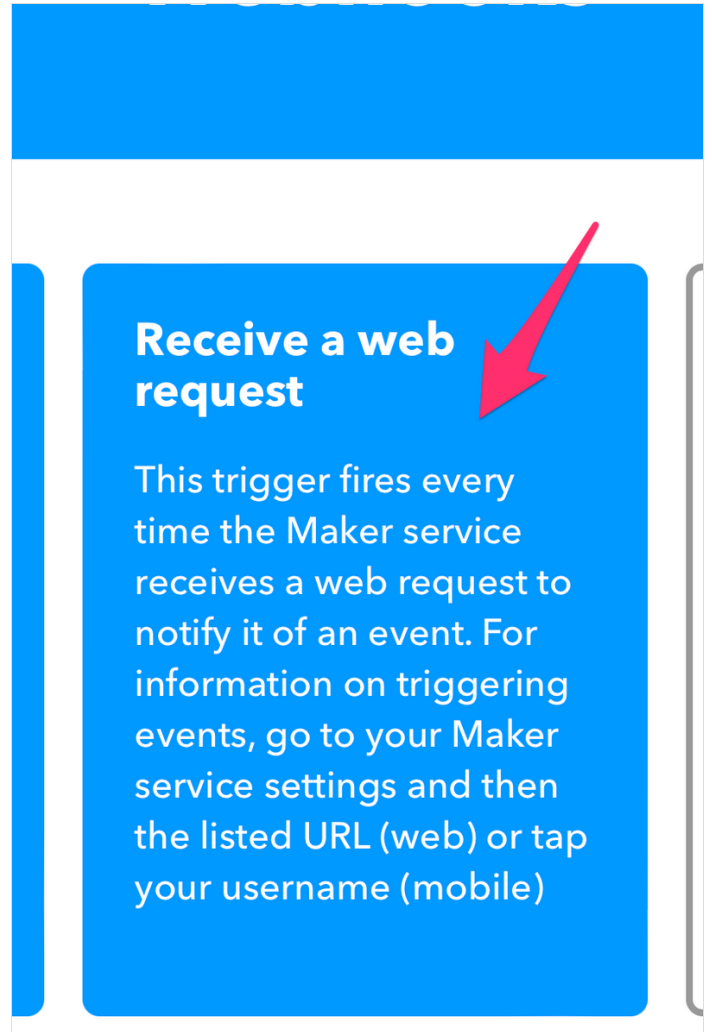
Étape 6 - Select webhooks

Once you are on "choose a service", type in **Webhooks** in the search bar and click **Webhooks**



Étape 7 - Select request type

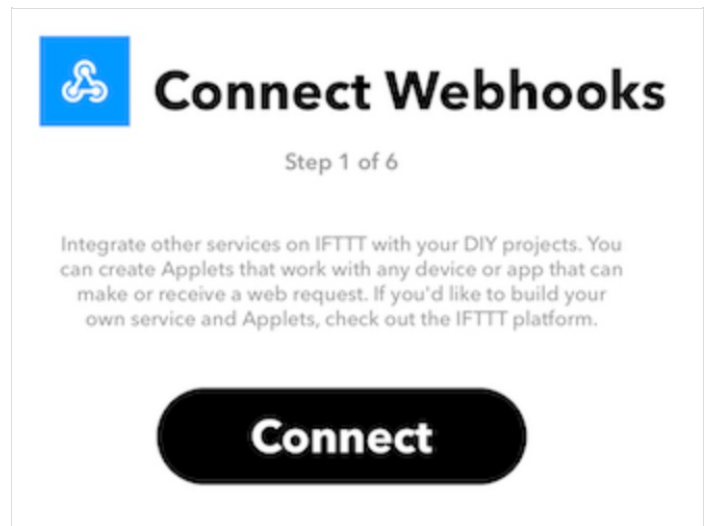
On webhooks, select **receive a web request**



Étape 8 - Set up Webhooks Account

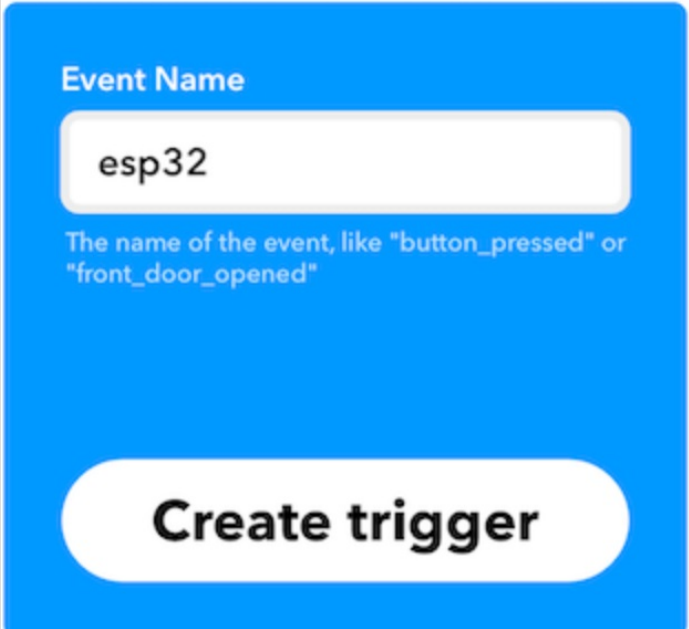
- If you already have a webhooks account, skip this step

Otherwise, click the **connect** button and follow the steps on their website to create a webhooks account



Étape 9 - Name event for trigger

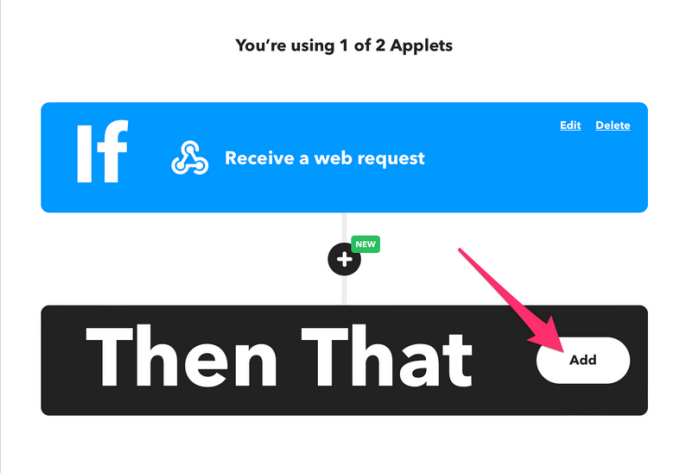
Name the event for the trigger **esp32** (it is case sensitive so be careful)



The screenshot shows a blue interface for naming an event. At the top, it says "Event Name". Below that is a white input field containing the text "esp32". Underneath the input field, there is a small text explanation: "The name of the event, like 'button_pressed' or 'front_door_opened'". At the bottom of the blue area is a large white button with the text "Create trigger".

Étape 10 - Set up reaction

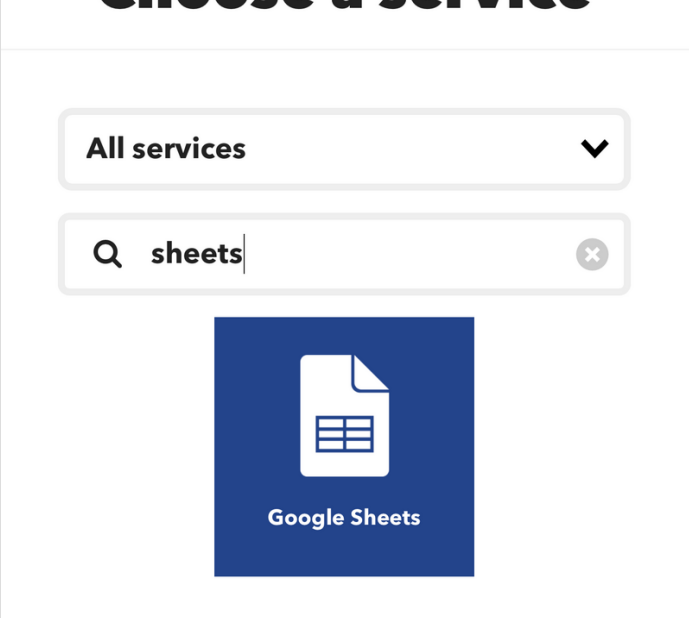
Once the trigger is set up, click **Add** next to **Then That**



The screenshot shows a configuration screen for a reaction. At the top, it says "You're using 1 of 2 Applets". Below this is a blue "If" trigger block labeled "Receive a web request" with "Edit" and "Delete" options. A vertical line with a plus sign and a "NEW" tag connects the trigger to a black "Then That" reaction block. A red arrow points to a white "Add" button on the right side of the "Then That" block.

Étape 11 - Select google sheets

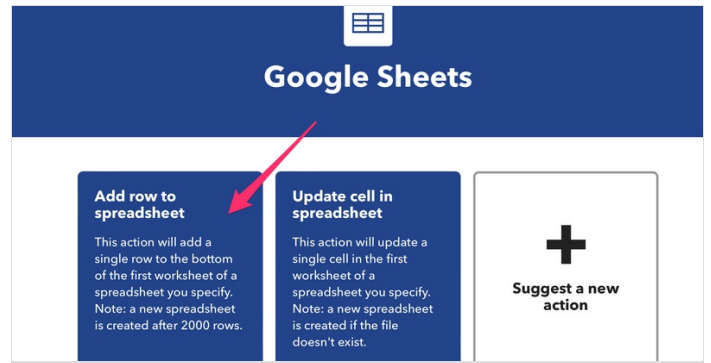
In the search bar, search **sheets** and click **google sheets**



The screenshot shows a "CHOOSE A SERVICE" interface. At the top, there is a dropdown menu currently set to "All services". Below it is a search bar containing the text "sheets". Underneath the search bar, a blue square icon with a white document and grid symbol is displayed, with the text "Google Sheets" written below it.

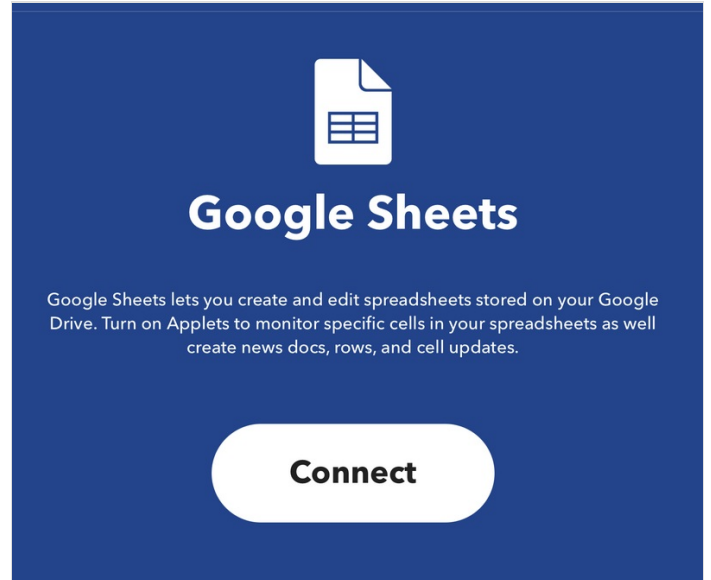
Étape 12 - Set up sheets

Select **Add row to spreadsheet**



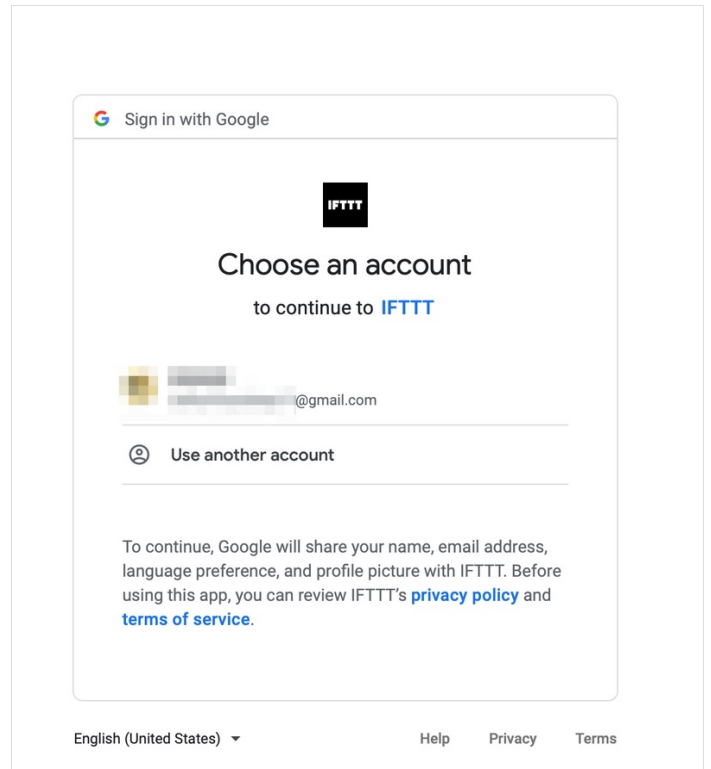
Étape 13 - Connect to sheets

Click the **Connect** button



Étape 14 - Sign in using gmail

Use your gmail to sign in to sheets



Étape 15 - Configure spreadsheet

Select all the values you want returned to the spreadsheet, along with the path the sheet has to follow in your drive.

For this project, we are returning Temperature and Humidity values from the DHT22, so we will select **Value1** and **Value2**

Add row to spreadsheet

This action will add a single row to the bottom of the first worksheet of a spreadsheet you specify. Note: a new spreadsheet is created after 2000 rows.

Google Sheets account
[Account Name]@gmail.com [v]
[Add new account]

Spreadsheet name
IFTTT_Maker_Webhooks_Events
Will create a new spreadsheet if one with this title doesn't exist [Add ingredient]

Formatted row
OccurredAt ||| EventName |||
Value1 ||| Value2 ||| Value3
Use "|||" to separate cells [Add ingredient]

Formatted row
OccurredAt ||| EventName |||
Value1 ||| Value2 ||| Value3
Use "|||" to separate cells [Add ingredient]

Drive folder path
IFTTT/MakerWebhooks/
EventName
Format: some/folder/path (defaults to "IFTTT") [Add ingredient]

Create action

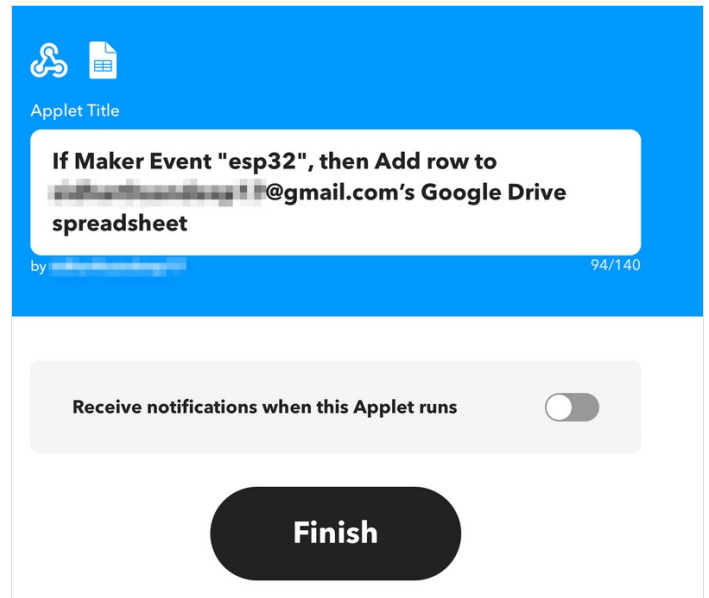
Étape 16 - Finish applet

Once you have finished all the previous steps, hit continue on the applet page



Étape 17 - Name applet

Rename the applet to an appropriate name



Applet Title

If Maker Event "esp32", then Add row to [redacted]@gmail.com's Google Drive spreadsheet

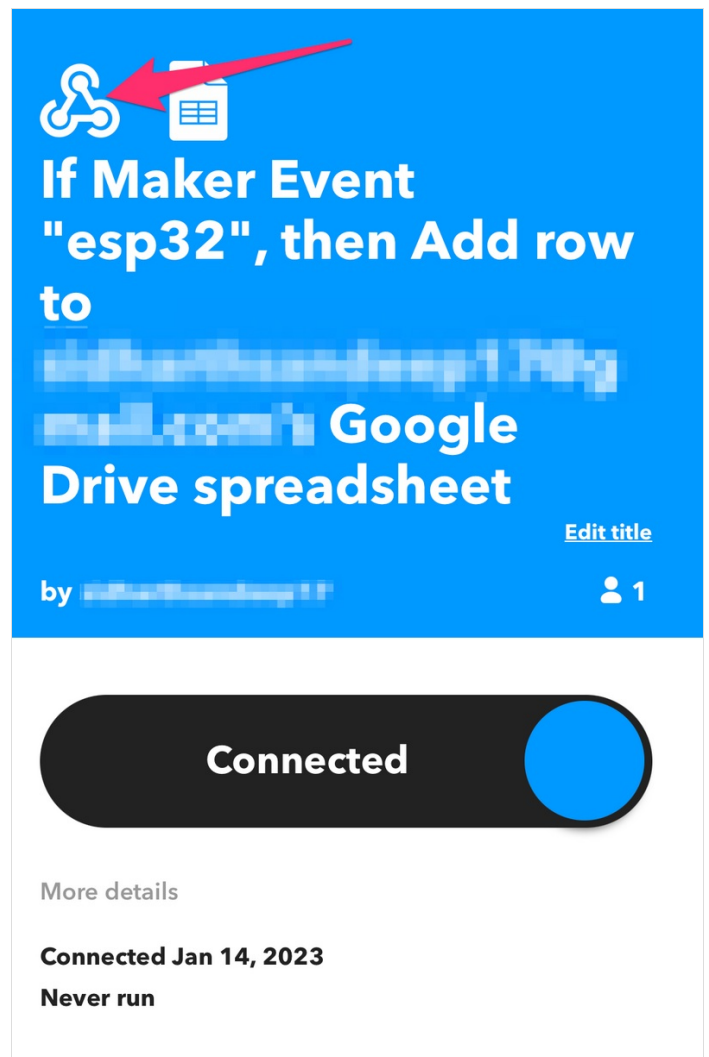
by [redacted] 94/140

Receive notifications when this Applet runs

Finish

Étape 18 - Get API key

Select the **Webhooks** icon on the finished page



If Maker Event "esp32", then Add row to [redacted]@gmail.com's Google Drive spreadsheet

Edit title

by [redacted] 1

Connected

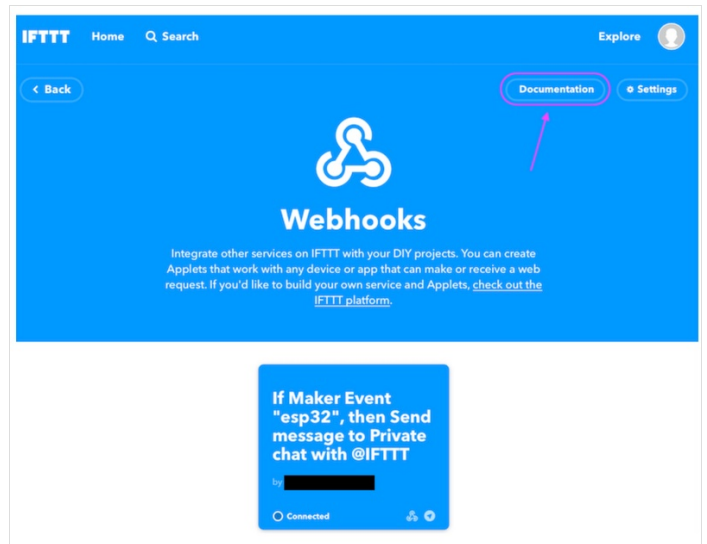
More details

Connected Jan 14, 2023

Never run

Étape 19 - Go to documentation

Click **documentation** on the webhooks page

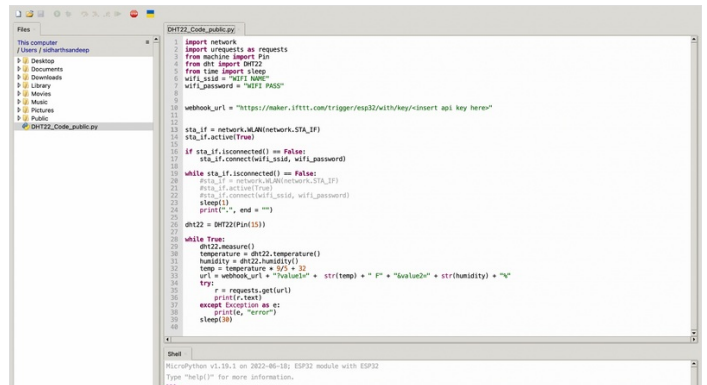


Étape 20 - Copy API key

Once you get onto this page, copy the api key and URL to paste into the code in Thonny



Étape 21 - Source Code for thonny (insert api key and URL from previous step)



```

import network
import urequests as requests
from machine import Pin
from dht import DHT22
from time import sleep
#Replace the values below with the correct WIFI SSID and Password
wifi_ssid = "WIFI NAME"
wifi_password = "WIFI PASS"

#This is the webhook URL with API Key from IFTTT

webhook_url = "https://maker.ifttt.com/trigger/esp32/with/key/<insert api
key here>"

sta_if = network.WLAN(network.STA_IF)
sta_if.active(True)

if sta_if.isconnected() == False:
    sta_if.connect(wifi_ssid, wifi_password)

while sta_if.isconnected() == False:
    #sta_if = network.WLAN(network.STA_IF)
    #sta_if.active(True)
    #sta_if.connect(wifi_ssid, wifi_password)
    sleep(1)
    print(".", end = "")

dht22 = DHT22(Pin(15))

while True:
    dht22.measure()
    temperature = dht22.temperature()
    humidity = dht22.humidity()
    temp = temperature * 9/5 + 32
    url = webhook_url + "?value1=" + str(temp) + " F" + "&value2=" + str
r(humidity) + "%"
    try:
        r = requests.get(url)
        print(r.text)
    except Exception as e:
        print(e, "error")
    sleep(30)

```

Étape 22 - View output in spreadsheet

Go to whichever path you set the spreadsheet to in your drive

IFTTT_Maker_Webhooks_Events ☆ 📁 ☁

File Edit View Insert Format Data Tools Extensions Help Last edit was seconds ago

100% \$ % .00 123 Default (Arial) 10 B I U A

A1 $\int x$ January 14, 2023 at 11:36AM

	A	B	C	D	E
1	January 14, 2023 at 11:36AM	esp32	73.58F	34.60%	
2	January 14, 2023 at 11:37AM	esp32	73.58F	34.10%	
3	January 14, 2023 at 11:37AM	esp32	73.58F	34.10%	
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