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(Report 20181107)

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Step1. home-assistant的安裝與配置階段

安裝依賴關係

sudo apt-get install python3 python3-venv python3-pip

新增一個為Home Assistant的帳戶homeassistant

引數-rm 用以建立系統帳戶並建立主目錄

引數-G dialout將使用者新增到dialout組中

sudo useradd -rm homeassistant -G dialout,gpio

chown用以將homeassistant目錄的所有者改為homeassistant帳戶

cd /srv

sudo mkdir homeassistant

sudo chown homeassistant:homeassistant homeassistant

建立並更改為homeassistant的虛擬環境 (每次進入虛擬環境都要打一遍)

sudo -u homeassistant -H -s

cd /srv/homeassistant

python3 -m venv .

source bin/activate

提示符會修改為這樣(homeassistant) homeassistant@raspberrypi:/srv/homeassistant $

在安裝Home Assistant前須先安裝python軟件包

python3 -m pip install wheel

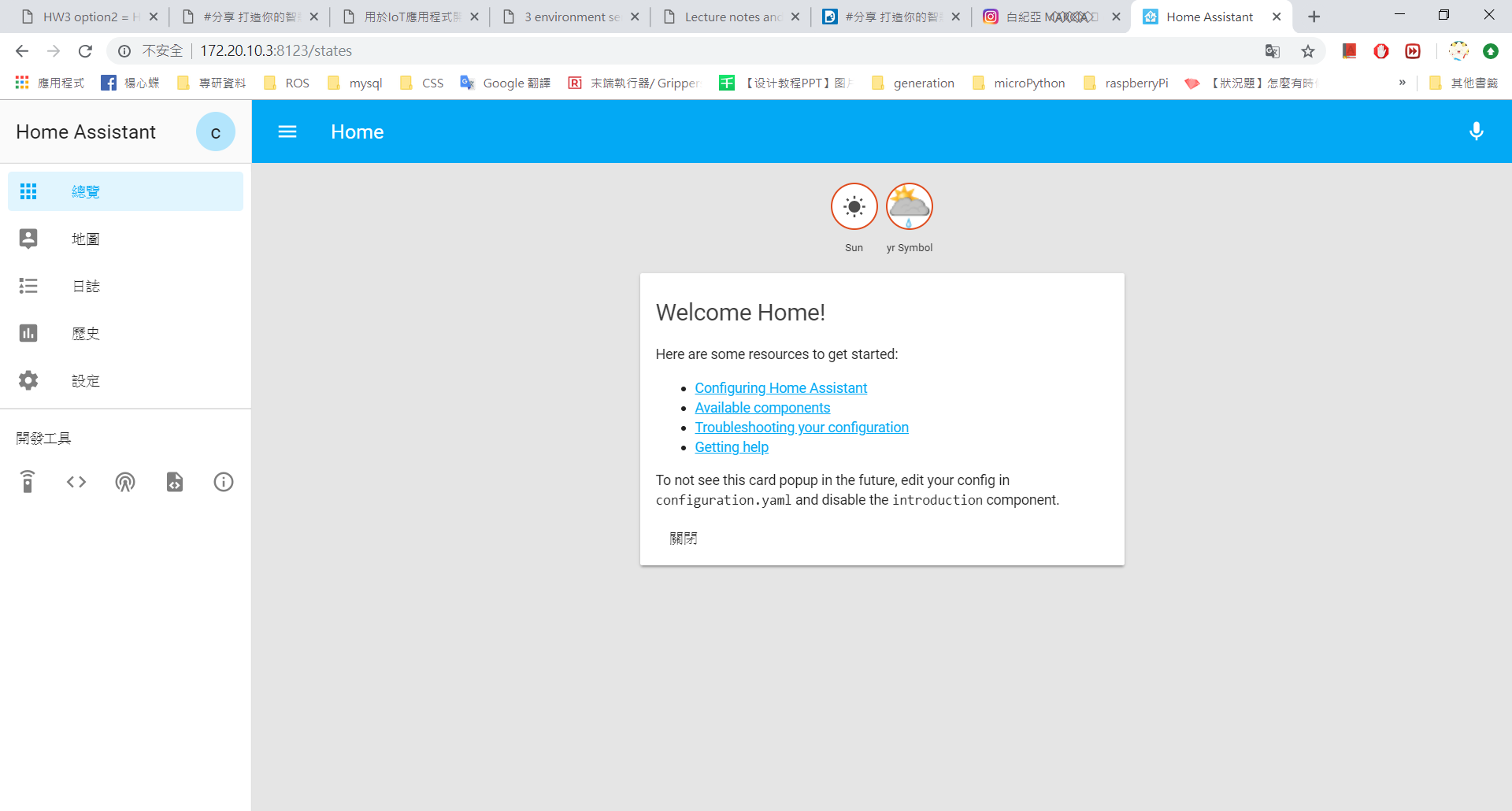
pip3 install homeassistant

執行並自動下載安裝和快取必要的依賴項

hass

打開游覽器，訪問 Home Assistant

http:// ipaddress:8123

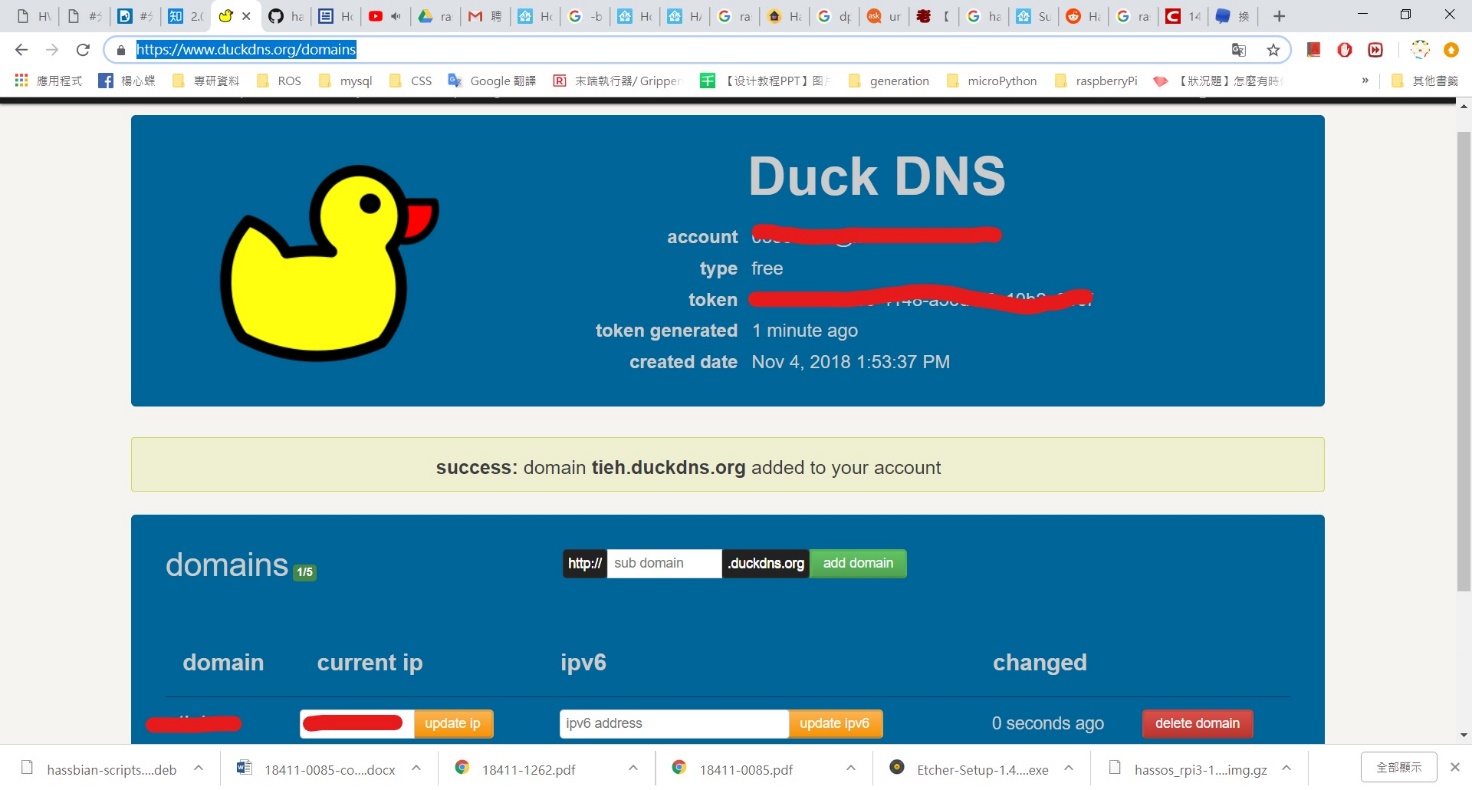


補充\* 更新到最新版本的Home Assistant(在虛擬環境輸入)

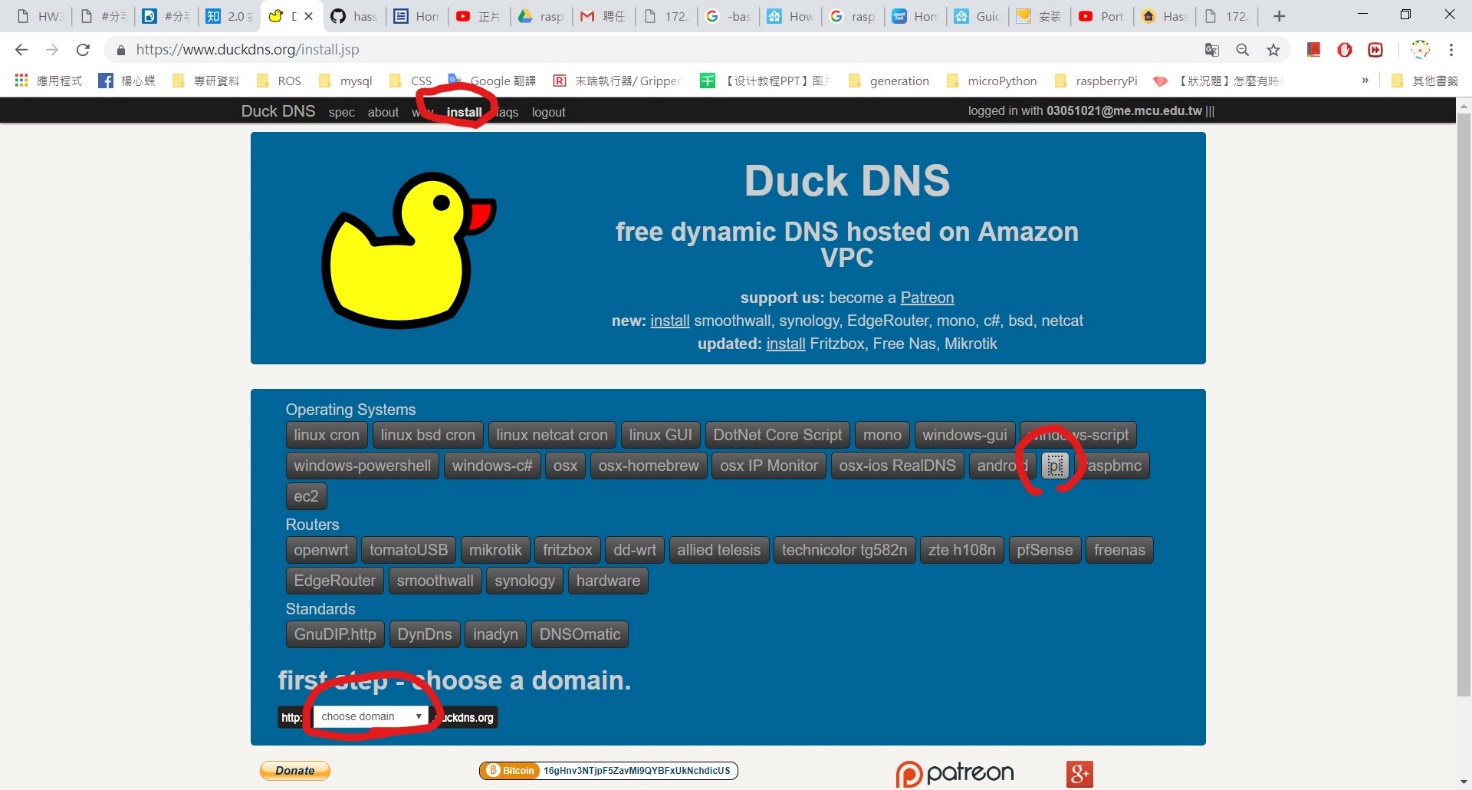
pip3 install --upgrade homeassistant

Step2.能透過外網連線

<https://www.duckdns.org/domains> 註冊帳號



照著圈起來的地方點，之後在pi照著Duck指令設定



在pi建立duck的腳本(在虛擬環境輸入)

mkdir duckdns

cd duckdns

nano duck.sh

duck.sh內容(在虛擬環境輸入)

echo url =“https://www.duckdns.org/update?domains= Your\_Domain\_Name＆token = Your\_Token\_Number＆ip =”| curl -k -o~ / duckdns / duck.log -K -

繼續執行指令(在虛擬環境輸入)

chmod 700 duck.sh

crontab -e

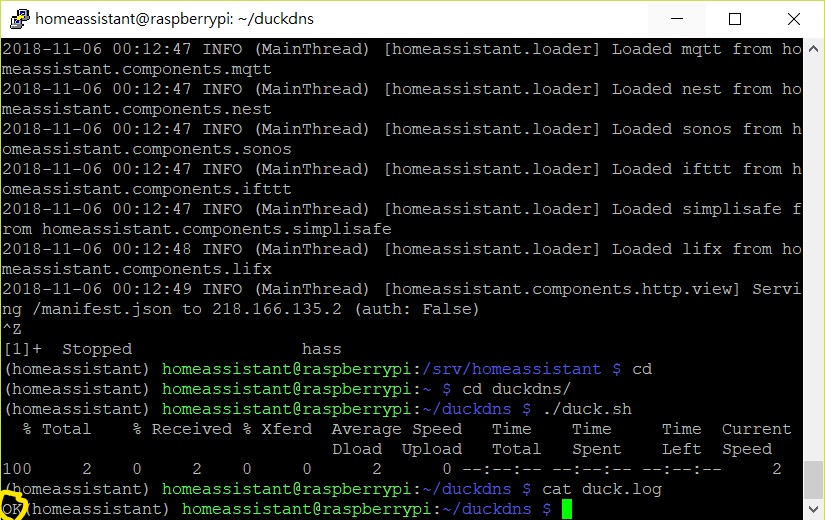
拉到底部置入以下內容，意思是每五分鐘執行一次腳本(在虛擬環境輸入)

\* / 5 \* \* \* \*〜/ duckdns / duck.sh> / dev / null 2>＆1

運行指令，duck.log運行後再提示列最前面出現ok就成功了 (在虛擬環境輸入)

./duck.sh

Cat duck.log



為了取得SSL，需要先去設置router的端口，因為每個router的GUI不太一樣，所以也沒什麼步驟。設置port range:80 local IP:PI\_IP local port :80 及 port range:443 local IP:PI\_IP local port :443

取的ssl證書的兩種方式，這是第一個，我沒試過

mkdir certbot

cd certbot

wget https://dl.eff.org/certbot-auto

chmod a+x certbot-auto

./certbot-auto certonly --standalone --preferred-challenges http-01 --email your@email -d yourduck.duckdns.org

取的ssl證書的兩種方式，這是第二個，我試過

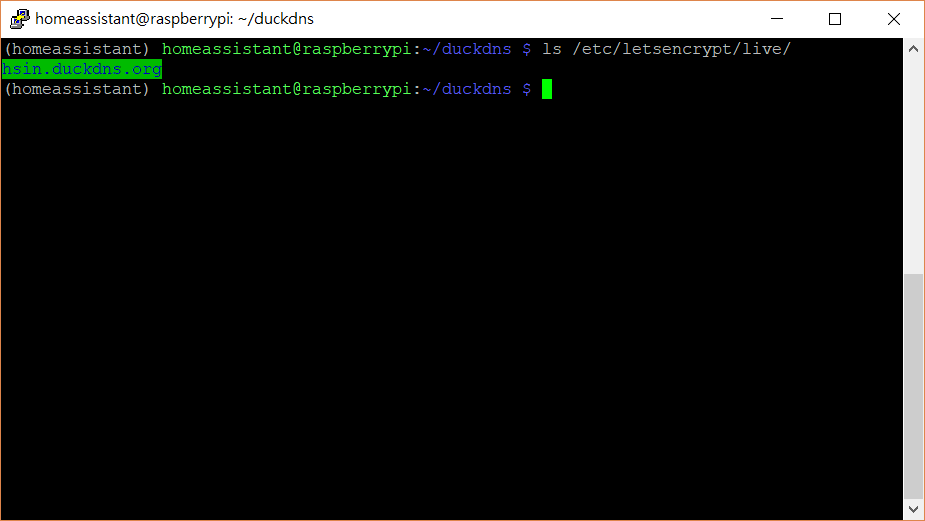
git clone https://github.com/letsencrypt/letsencrypt

cd letsencrypt

./ letsencrypt-auto certonly –-email your@maill –d yourduck.duckdns.org

不過用哪種方式，創建的ssl都會在/etc/letsencrypt，可透過下命指令查證

Ls /etc/letsencrypt/live/



因為我們會透過homeassistant訪問letsencrypt，所以要更改權限

sudo chmod 755 /etc/letsencrypt/live/

sudo chmod 755 /etc/letsencrypt/archive/

因為我們取得ssl了，所以在route新加的端口可以刪掉，然後可以設一個端口443轉向8123的端口

在 /home/homeassistant/. homeassistant /configuration.yaml 底部加入以下內容

http：

api\_password：YOUR\_PASSWORD

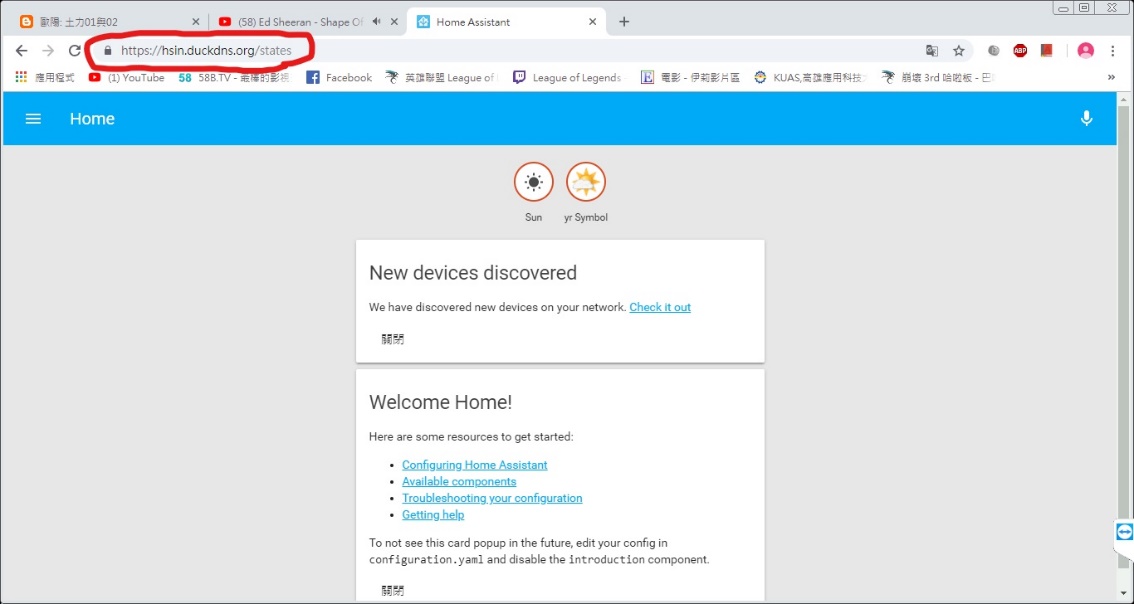
ssl\_certificate：/etc/letsencrypt/live/**examplehome**.duckdns.org/fullchain.pem

ssl\_key：/etc/letsencrypt/live/**examplehome**.duckdns.org/privkey.pem

base\_url：**examplehome** .duckdns.org

運行，如果運行發生一堆錯誤，可以先檢查configuration.yaml的縮排及內容，之後還不行的話，可以刪掉. Homeassistant/deps然後重開pi，在不行可以嘗試降homeassistant的版本。理論上來說這樣就可以從外網連到homeassistant。

hass



補充\* 遇到 -bash: hassbian-config: command not found 解決辦法如下

補充\*\* 遇到權限不足狀況: 將homeassistant提升到最高權限 /etc/group

Step3. Broadlink RM Pro

* Broadlink RM Pro

加入switch nano /home/homeassistant/.homeassistant/configuration.ymal (虛擬機內)

switch:

- platform: broadlink

host: 192.168.0.15

mac: 'b8:27:eb:a1:cc:b9'

switches:

tv:

friendly\_name: "TV"

command\_on: "JgBQAAASSpMTEhMREhQRExETEhQROBITEBQSExETEhMSEhITETgRFRETETgTExE3ExMREhEVERQRNxMTETcTExA5EjcSOBE4FAAGAgABJUoSAA0FAAAAAAAAAAA="

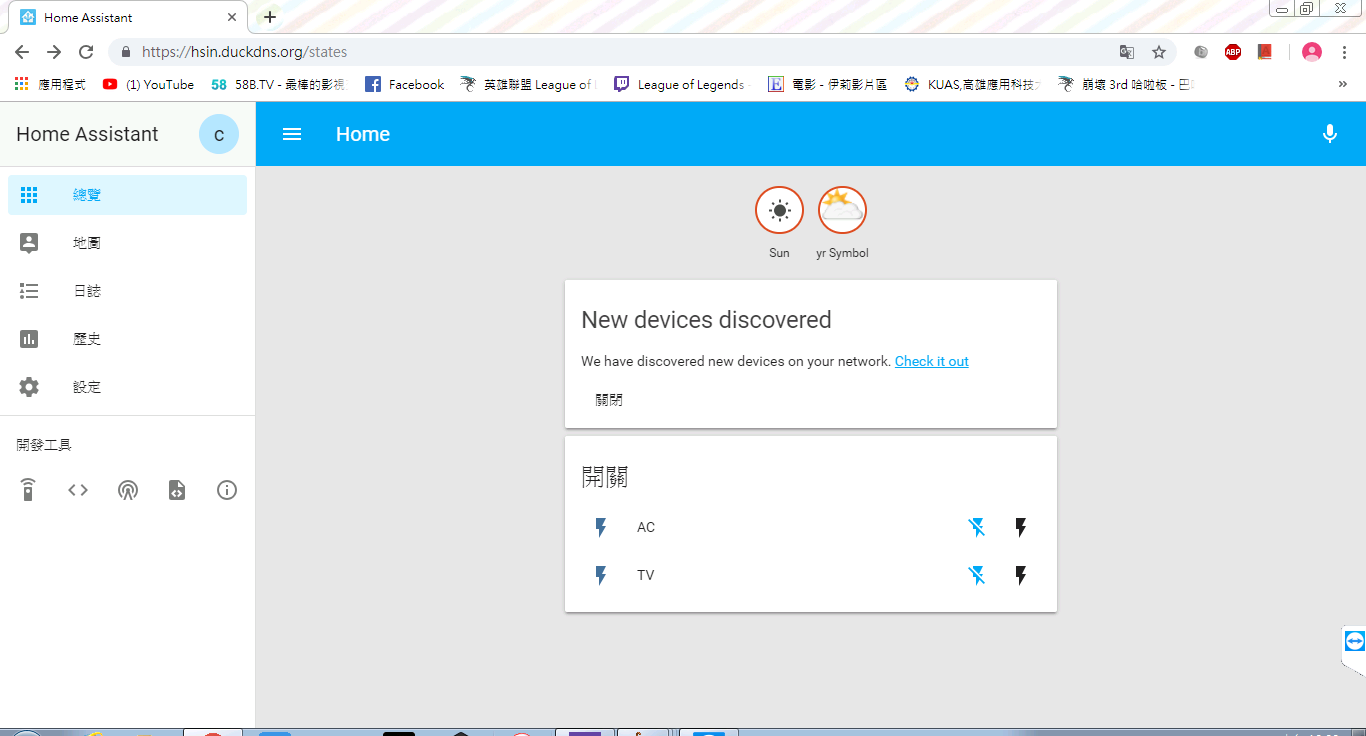
command\_off: "JgBQAAABJpMTEhMREhQRExETEhQROBITEBQSExETEhMSEhITETgRFRETETgTExE3ExMREhEVERQRNxMTETcTExA5EjcSOBE4FAAGAgABJUoSAA0FAAAAAAAAAAA="

ac:

friendly\_name: "AC"

command\_on: "JgAkAQABIpQUFBIVFSSTNxUTExQSFRMUEzkSFBMVEzcUFBMTFBQTFBMVEhUTExQUEhUTNxQUFRMTFBMUExQSFRM3ExUSOBQTFRQSOBMUFAACjBQUExQTExQUExUSFBQUEhQUFBMUExUTExQTFDcWEhIVExQTFBMVFRMTExQUFBMTFRMUExQTFBIWEhUTFBMUExQTFBQUEhUTFBMUExQSOBQ3FRMUNhQADQUAAAAA"

command\_off: "JgAkAQABIpQUFBIVFBMSSxUTExQSFRMUEzkSFBMVEzcUFBMTFBQTFBMVEhUTExQUEhUTNxQUFRMTFBMUExQSFRM3ExUSOBQTFRQSOBMUFAACjBQUExQTExQUExUSFBQUEhQUFBMUExUTExQTFDcWEhIVExQTFBM UFRMTExQUFBMTFRMUExQTFBIWEhUTFBMUExQTFBQUEhUTFBMUExQSOBQ3FRMUNhQADQUAAAAA"



加入sensor(DHT11) nano /home/homeassistant/.homeassistant/configuration.ymal (虛擬機內)

sensor:

- platform: dht

sensor: DHT11

name: dht

pin: 4

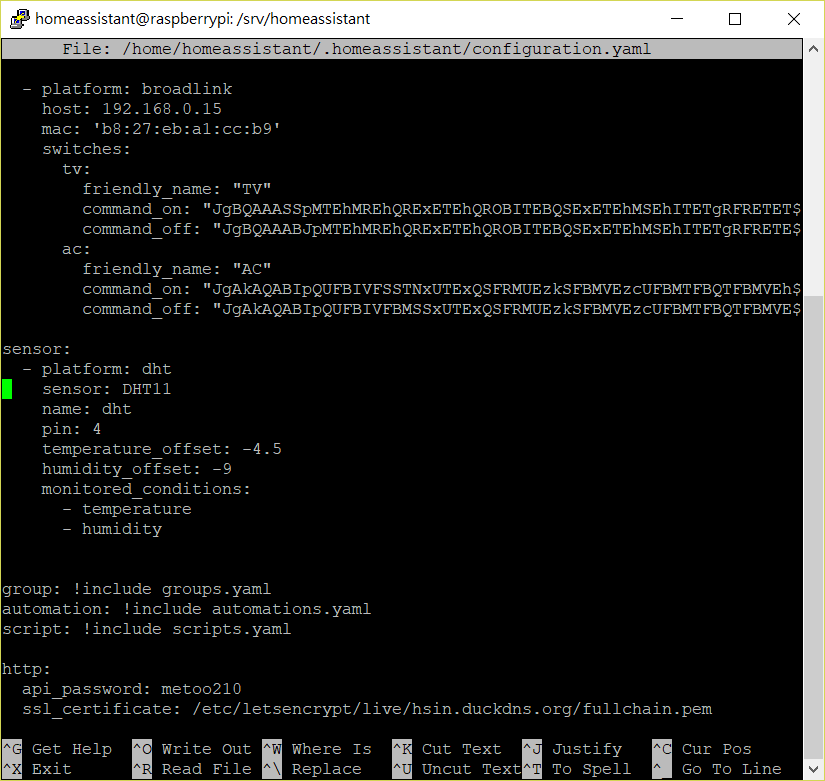
temperature\_offset: -4.5

humidity\_offset: -9

monitored\_conditions:

- temperature

- humidity





* BridgeKit

安裝node

sudo apt-get update

curl -sL https://deb.nodesource.com/setup\_6.x | sudo -E bash

sudo apt-get install -y nodejs

sudo apt-get install -y build-essential

安裝 avahi

sudo apt-get install libavahi-compat-libdnssd-dev

安裝 homebridge

sudo npm install -g --unsafe-perm homebridge

安裝 homebridge

sudo npm install -g --unsafe-perm homebridge

先建立管理 Homebridge 專用的使用者帳號與目錄

sudo useradd --system homebridge  
sudo mkdir /etc/homebridge

建立 Homebridge 的主設定檔，sudo nano /etc/homebridge/config.json。

Bridge

* Name:隨便設
* Username:其實也可以隨便設，不過要大寫，推薦在configuration.ymal設的MAC
* Port:隨便，不要跟其他衝突到就好
* Pin:隨便設，將在iphone的home用到

Platforms

* Host:從外網的話就duckdns address ，內網就http://127.0.0.1:8123
* Password: 在configuration.ymal找的到

{

"bridge": {

"name":"Homebridge",

"username":"MAC address",

"port":51826,

"pin":"031-45-154"

},

"description": "this is an configuration file",

"accessories": [

],

"platforms": [

{

"platform": "HomeAssistant",

"default\_visibility": "visible",

"name": "HomeAssistant",

"host": "https://yourduck.duckdns.org",

"password": "xxxxx",

"supported\_types": ["binary\_sensor", "climate", "cover", "device\_tracker", "fan", "group", "input\_boo$

}

]

}

啟動 Homebridge

sudo homebridge -U /etc/homebridge -D



打開iphone 的home app，掃QR code

結果(AC、TV我並沒有實體設備，所以開不了)

