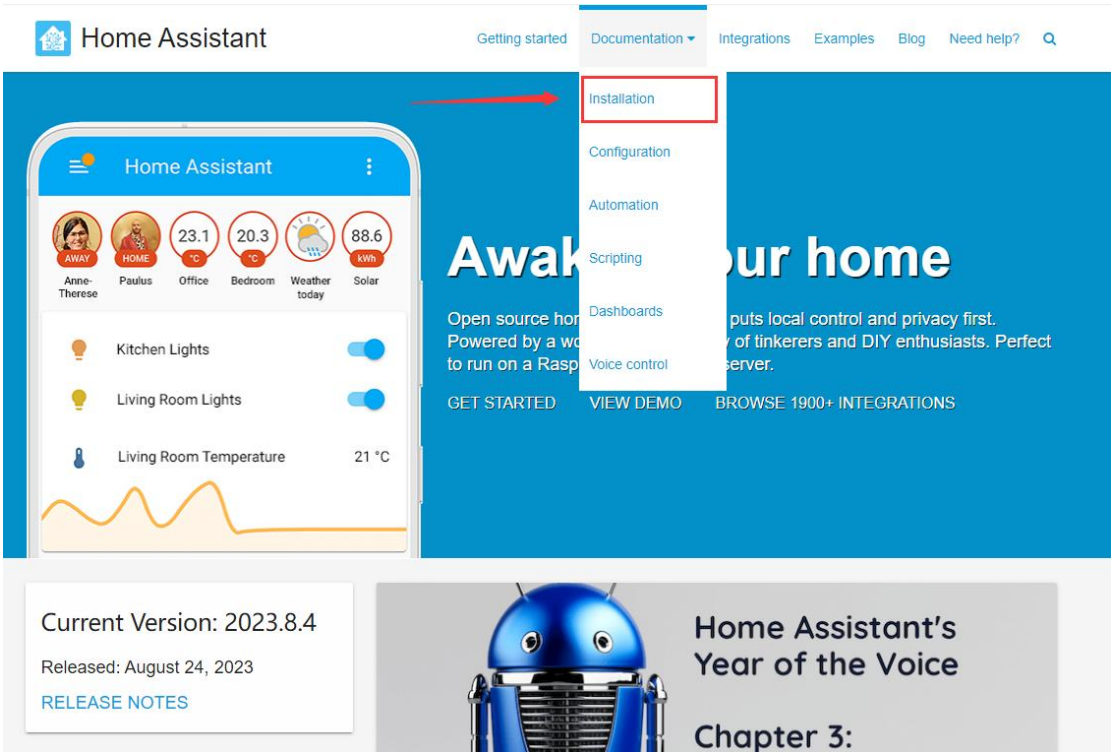
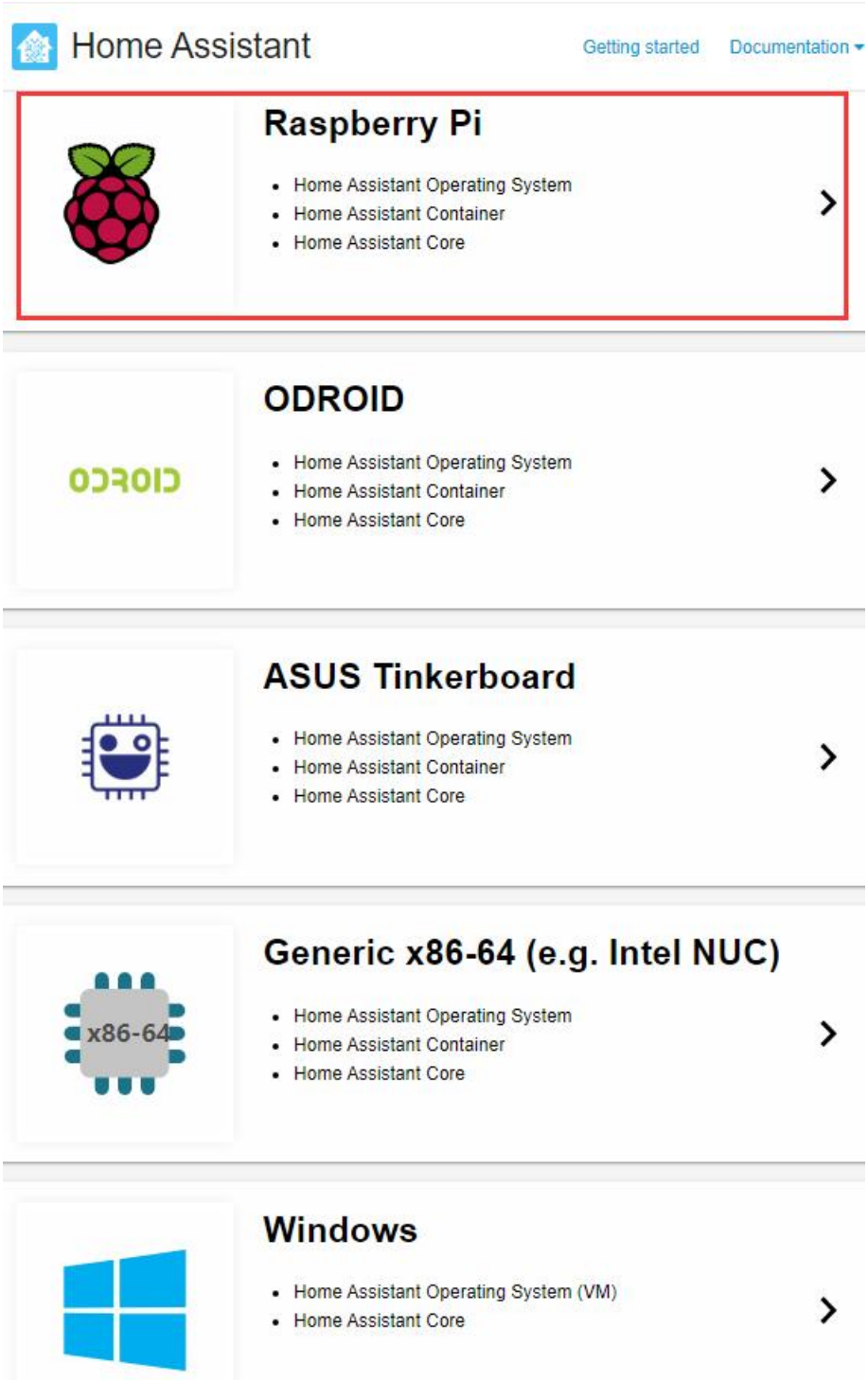
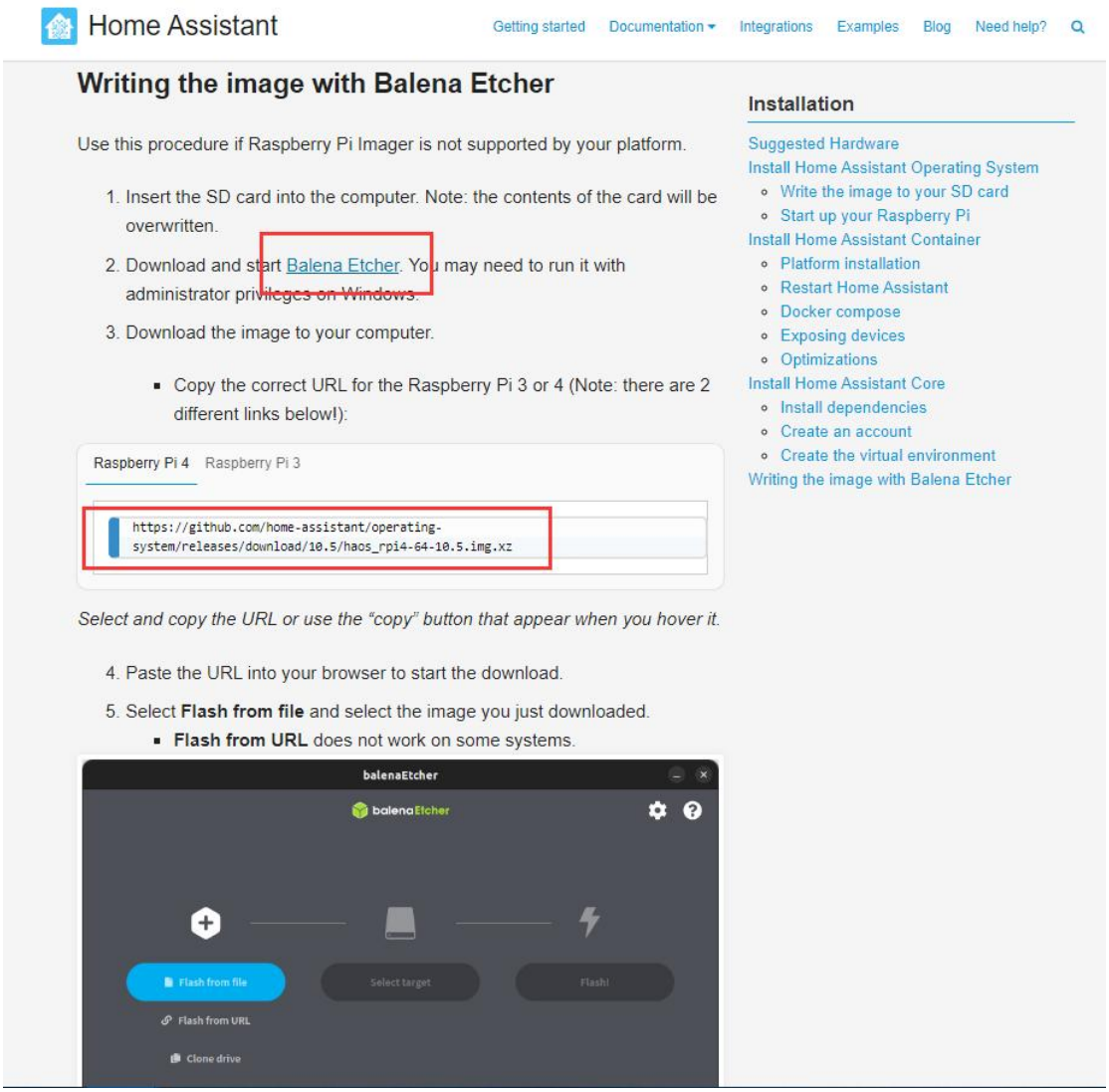
HOMEASSISTANT---ESPHOME

Terminal-SPI

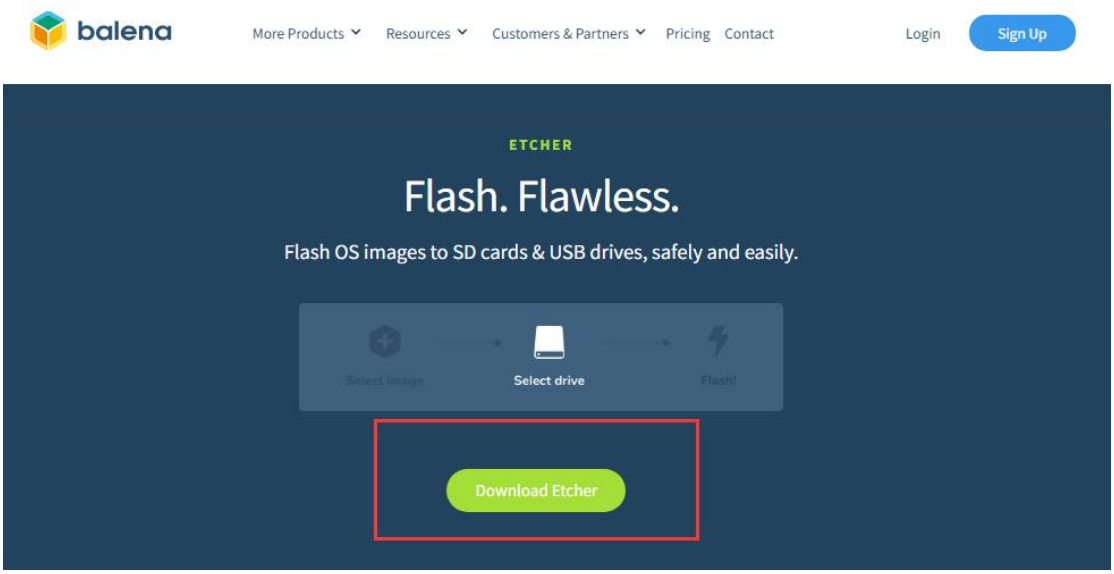
1. Go to https://www.home-assistant.io/




Home Assistant
Getting started
Documentation
Raspberry Pi
Home Assistant Operating System
Home Assistant Container
Home Assistant Core
ODROID
Home Assistant Operating System
Home Assistant Container
Home Assistant Core
ASUS Tinkerboard
Home Assistant Operating System
Home Assistant Container
Home Assistant Core
Generic x86-64 (e.g. Intel NUC)
x86-64
Home Assistant Operating System
Home Assistant Container
Home Assistant Core
Windows
Home Assistant Operating System (VM)
Home Assistant Core



Download：https://etcher.balena.io/

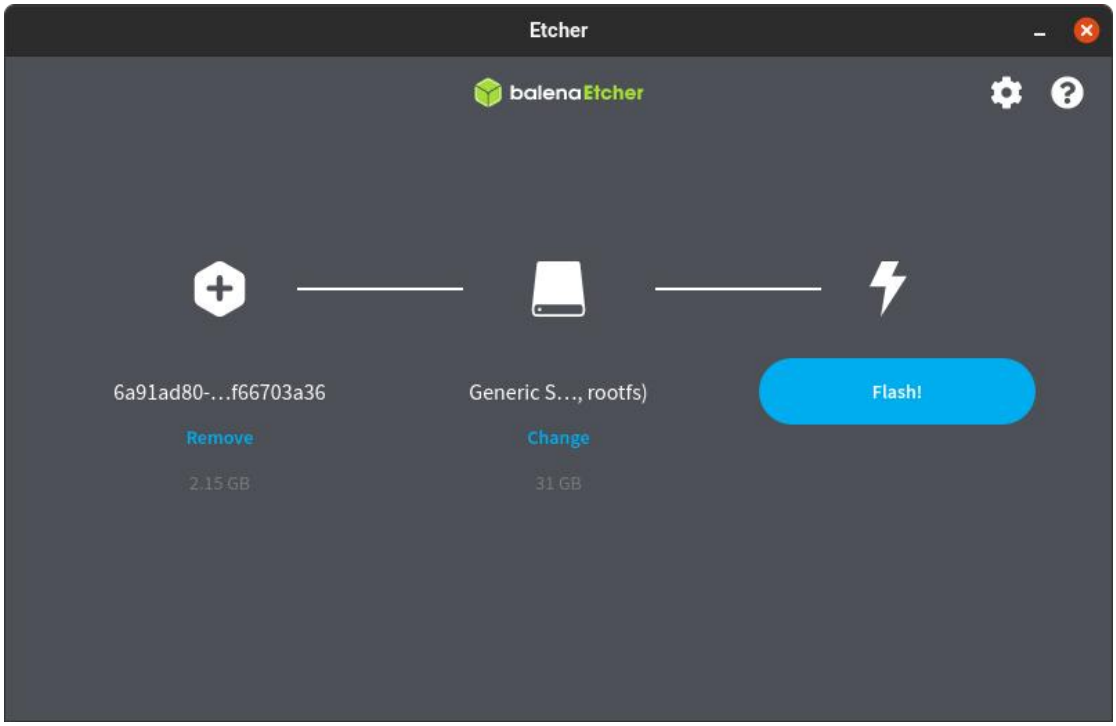


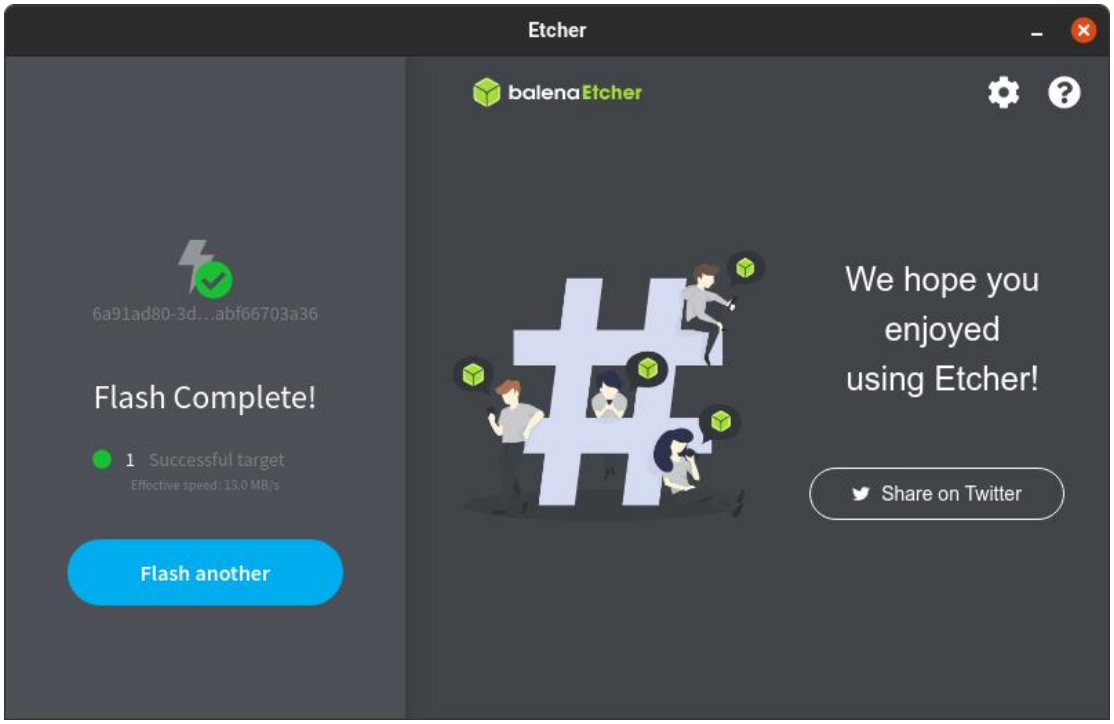
Download mirror image：
https://github.com/home-assistant/operating-system/releases/

haos_ova-10.5.qcow2.xz	318 MB	last week
haos_ova-10.5.raucb	182 MB	last week
haos_ova-10.5.vdi.zip	389 MB	last week
haos_ova-10.5.vhdx.zip	390 MB	last week
haos_ova-10.5.vmdk.zip	389 MB	last week
haos_rpi2-10.5.img.xz	245 MB	last week
haos_rpi2-10.5.raucb	115 MB	last week
haos_rpi3-10.5.img.xz	249 MB	last week
haos_rpi3-10.5.raucb	120 MB	last week
haos_rpi3-64-10.5.img.xz	254 MB	last week
haos_rpi3-64-10.5.raucb	120 MB	last week
haos_rpi4-10.5.img.xz	249 MB	last week
haos_rpi4-10.5.raucb	120 MB	last week
haos_rpi4-64-10.5.img.xz	256 MB	last week
haos_rpi4-64-10.5.raucb	122 MB	last week
haos_tinker-10.5.img.xz	239 MB	last week
haos_tinker-10.5.raucb	108 MB	last week
haos_yellow-10.5.img.xz	254 MB	last week
haos_yellow-10.5.raucb	119 MB	last week
Source code (zip)		last week
Source code (tar.gz)		last week

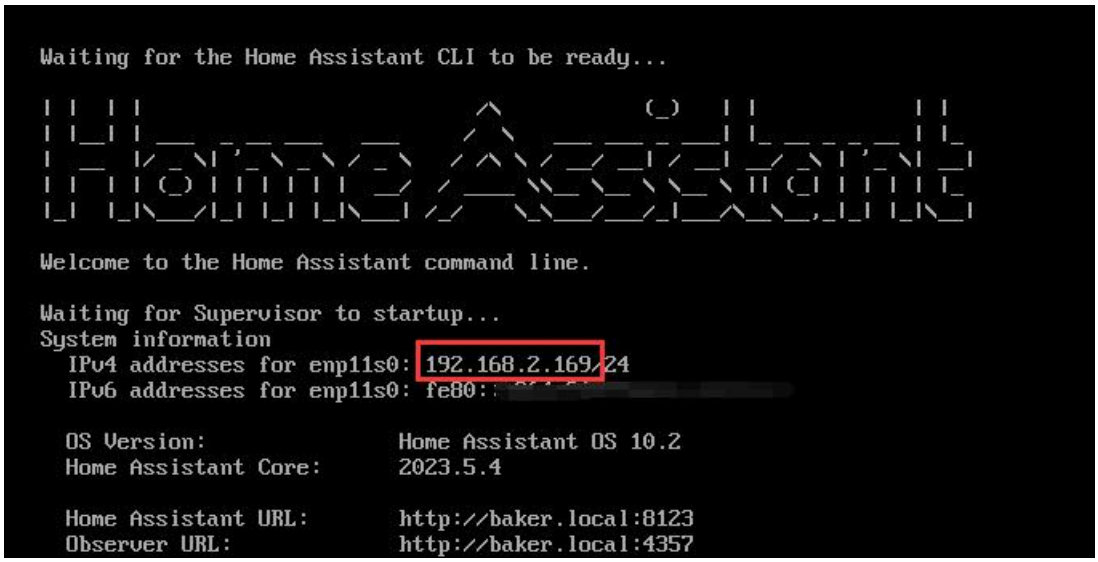
13 3 1 2 18 people reacted

Burn into the mirror:





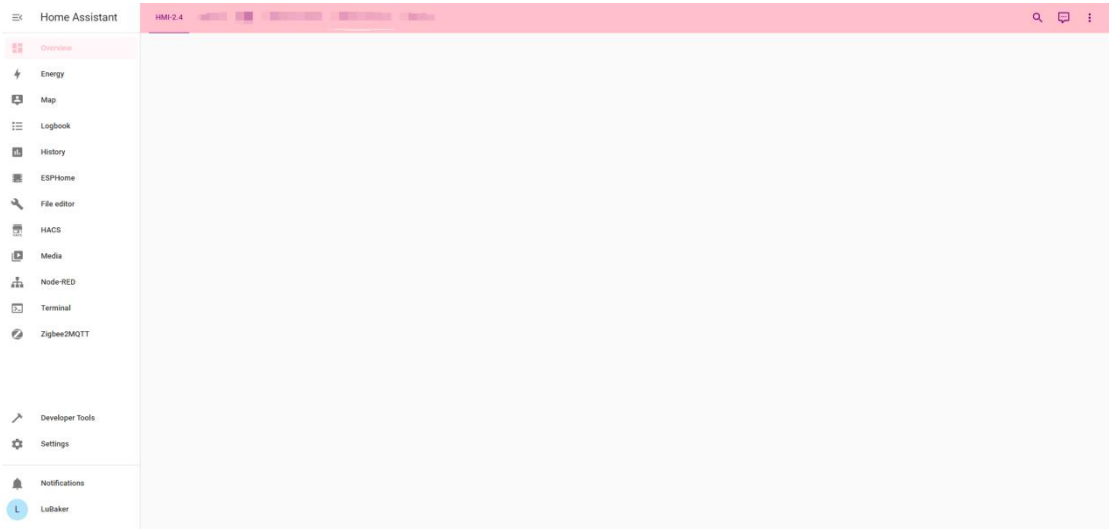
Raspberry Pi Plug in the SD card and boot on：



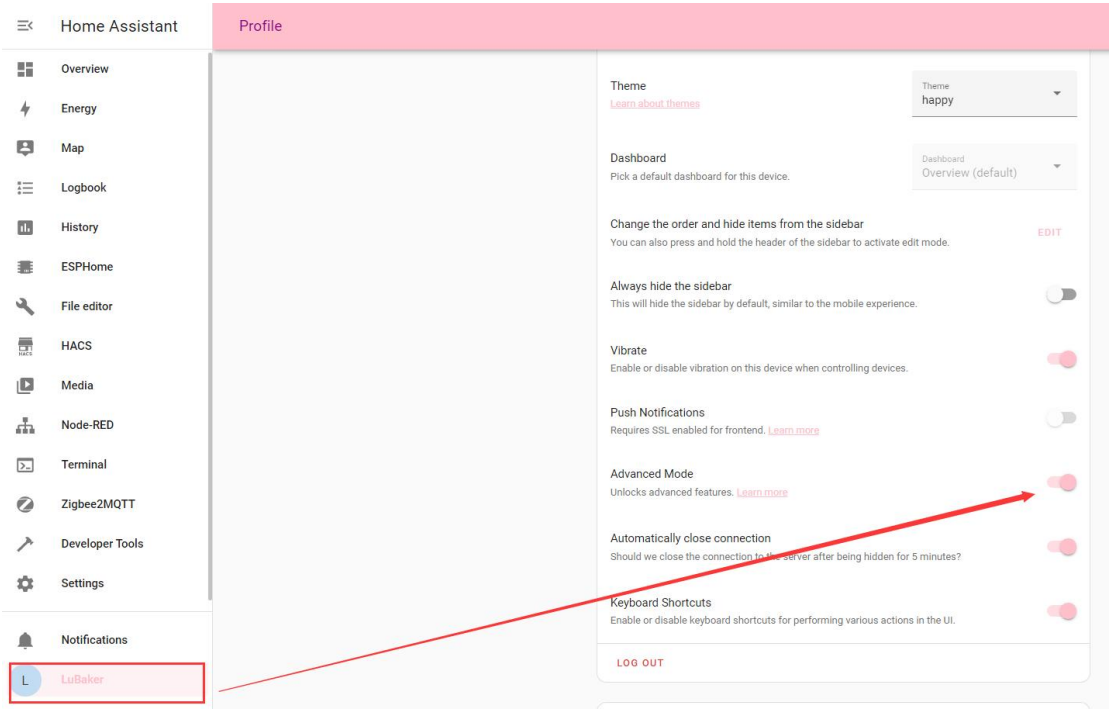
The above interface description is successful

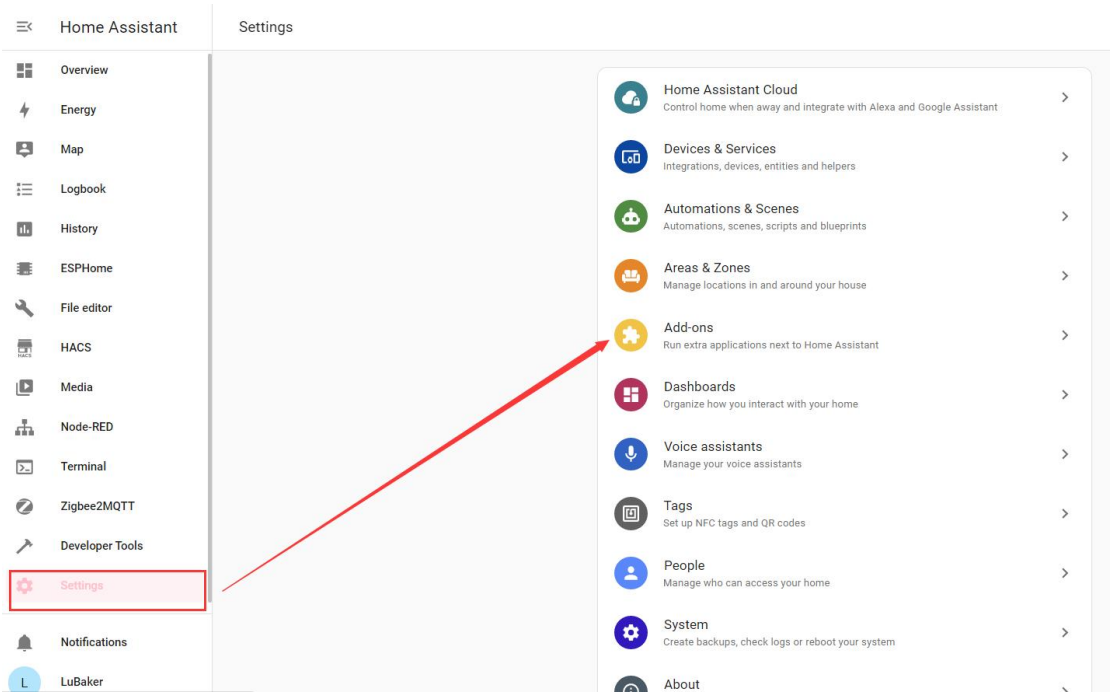
Open the website：http://192.168.2.169:8123

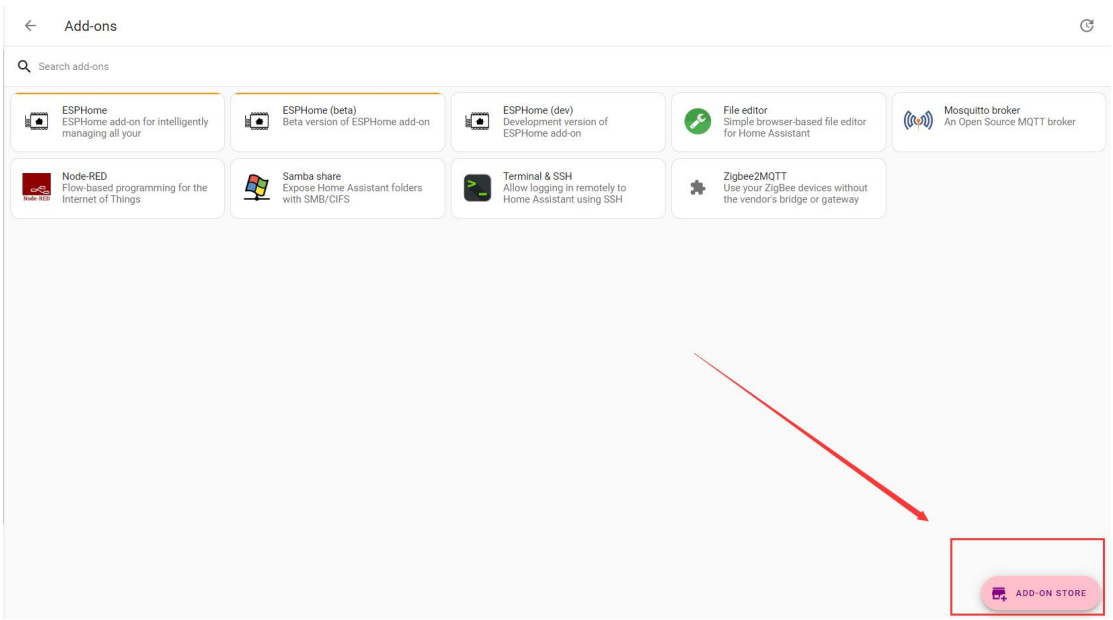
The following interface appears after setting the account and password：

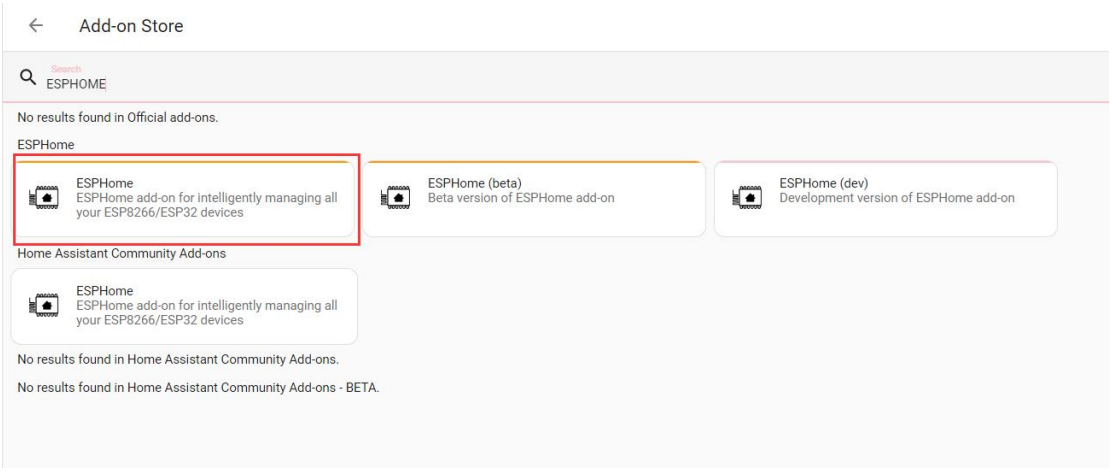


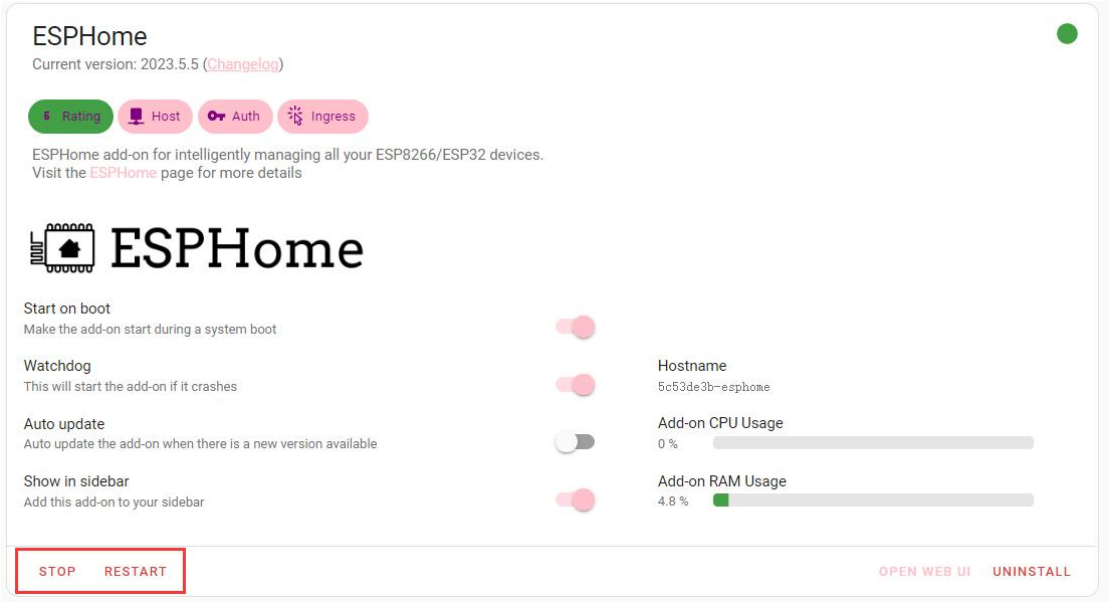
Start downloading and installing the ESPHOME



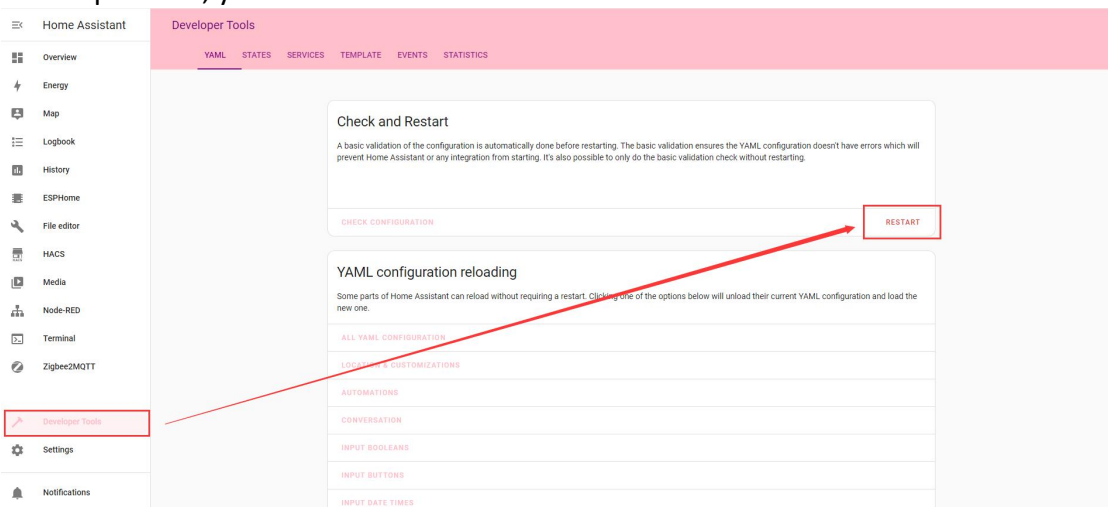

Home Assistant
Settings
Overview
Energy
Map
Logbook
History
ESPHome
File editor
HACS
Media
Node-RED
Terminal
Zigbee2MQTT
Developer Tools
Settings
Notifications
LuBaker
Home Assistant Cloud
Control home when away and integrate with Alexa and Google Assistant
Devices & Services
Integrations, devices, entities and helpers
Automations & Scenes
Automations, scenes, scripts and blueprints
Areas & Zones
Manage locations in and around your house
Add-ons
Run extra applications next to Home Assistant
Dashboards
Organize how you interact with your home
Voice assistants
Manage your voice assistants
Tags
Set up NFC tags and QR codes
People
Manage who can access your home
System
Create backups, check logs or reboot your system
About


Add-ons
Search add-ons
ESPHome
ESPHome add-on for intelligently managing all your
ESPHome (beta)
Beta version of ESPHome add-on
ESPHome (dev)
Development version of ESPHome add-on
File editor
Simple browser-based file editor for Home Assistant
Mosquitto broker
An Open Source MQTT broker
Node-RED
Flow-based programming for the Internet of Things
Samba share
Expose Home Assistant folders with SMB/CIFS
Terminal & SSH
Allow logging in remotely to Home Assistant using SSH
Zigbee2MQTT
Use your ZigBee devices without the vendor's bridge or gateway
ADD-ON STORE

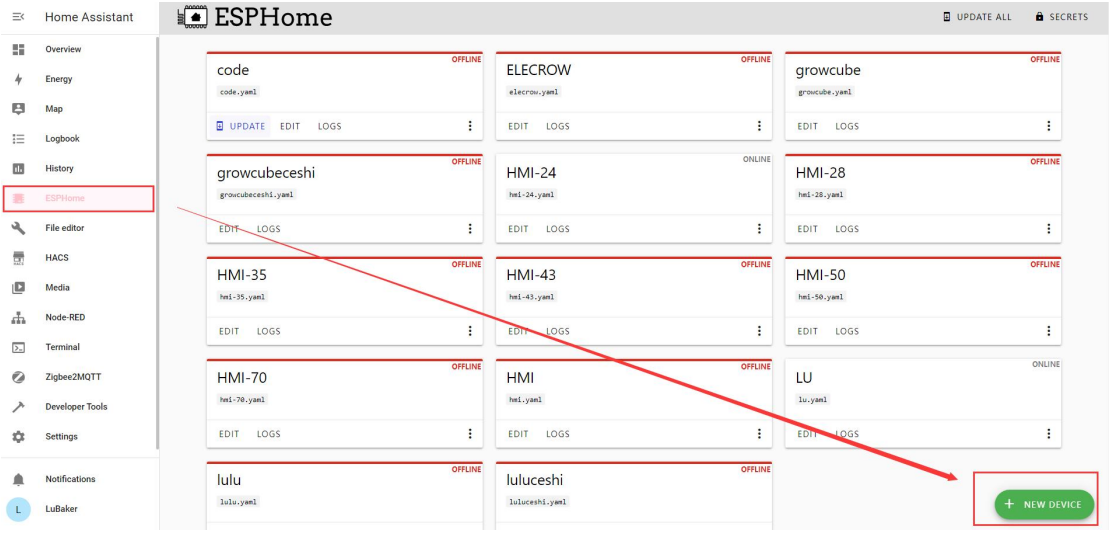

Add-on Store
Search
ESPHOME
No results found in Official add-ons.
ESPHome
ESPHome
ESPHome add-on for intelligently managing all your ESP8266/ESP32 devices
ESPHome (beta)
Beta version of ESPHome add-on
ESPHome (dev)
Development version of ESPHome add-on
Home Assistant Community Add-ons
ESPHome
ESPHome add-on for intelligently managing all your ESP8266/ESP32 devices
No results found in Home Assistant Community Add-ons.
No results found in Home Assistant Community Add-ons - BETA.

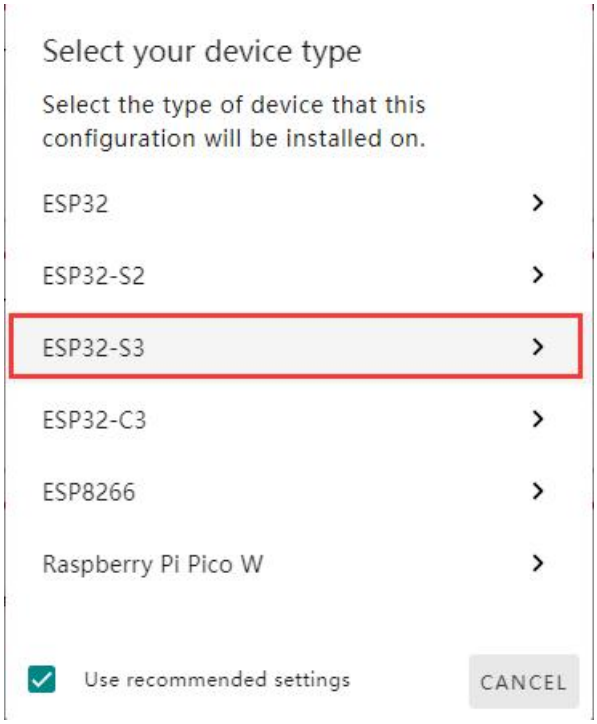


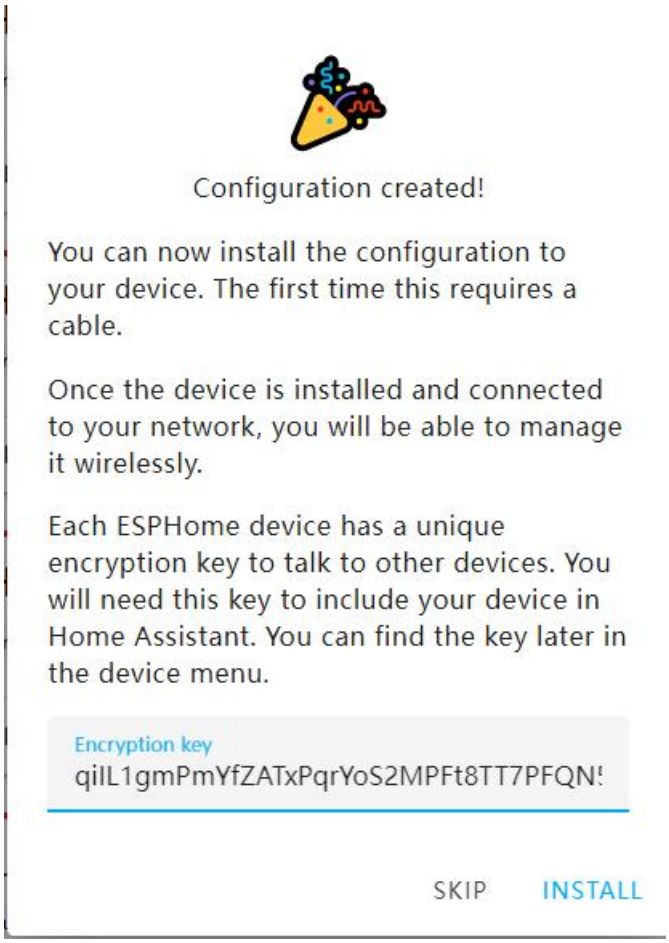
If the open fails, you need to restart the homeassistant



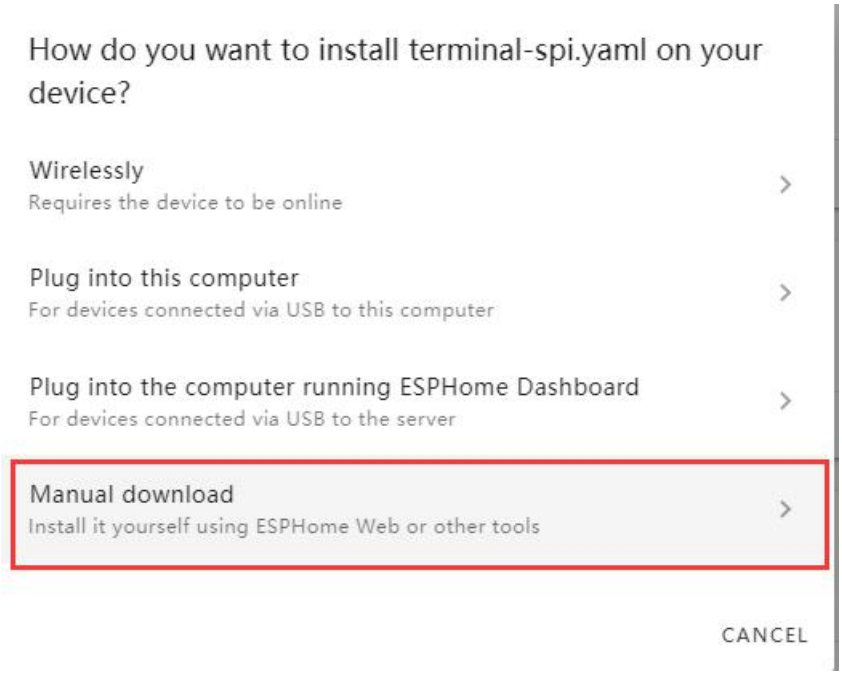
Create the device after the download is complete

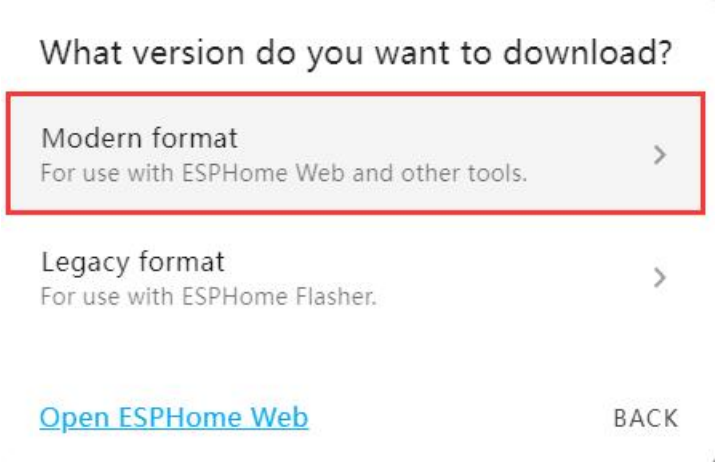


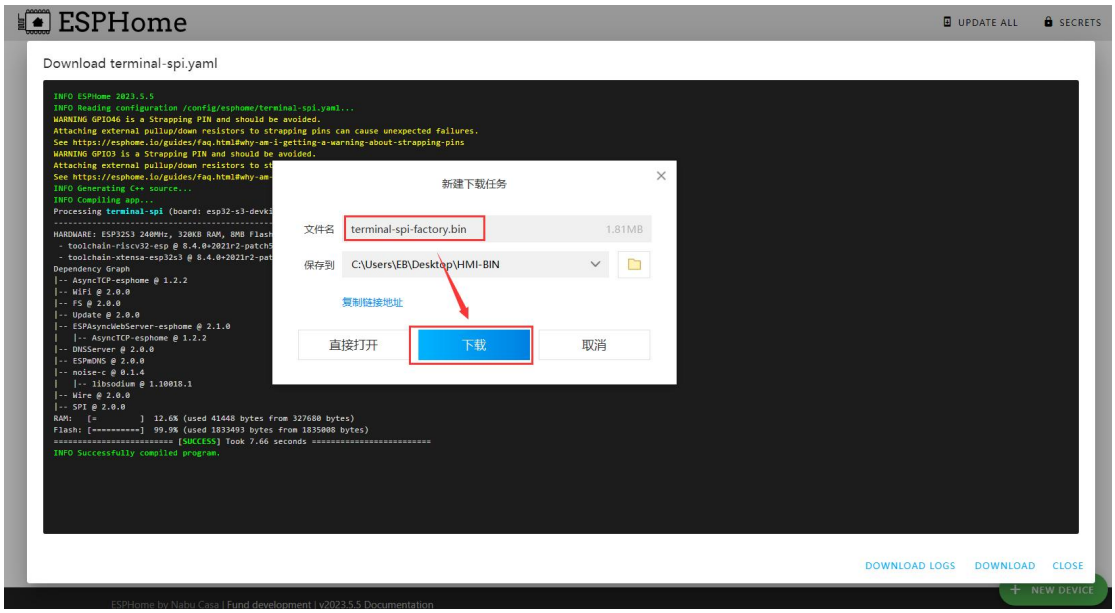

Select your device type
Select the type of device that this configuration will be installed on.
ESP32
ESP32-S2
ESP32-S3
ESP32-C3
ESP8266
Raspberry Pi Pico W
Use recommended settings
CANCEL


Configuration created!
You can now install the configuration to your device. The first time this requires a cable.
Once the device is installed and connected to your network, you will be able to manage it wirelessly.
Each ESPHome device has a unique encryption key to talk to other devices. You will need this key to include your device in Home Assistant. You can find the key later in the device menu.
Encryption key
qilL1gmPmYfZATxPqrYoS2MPFt8TT7PFQN
SKIP
INSTALL

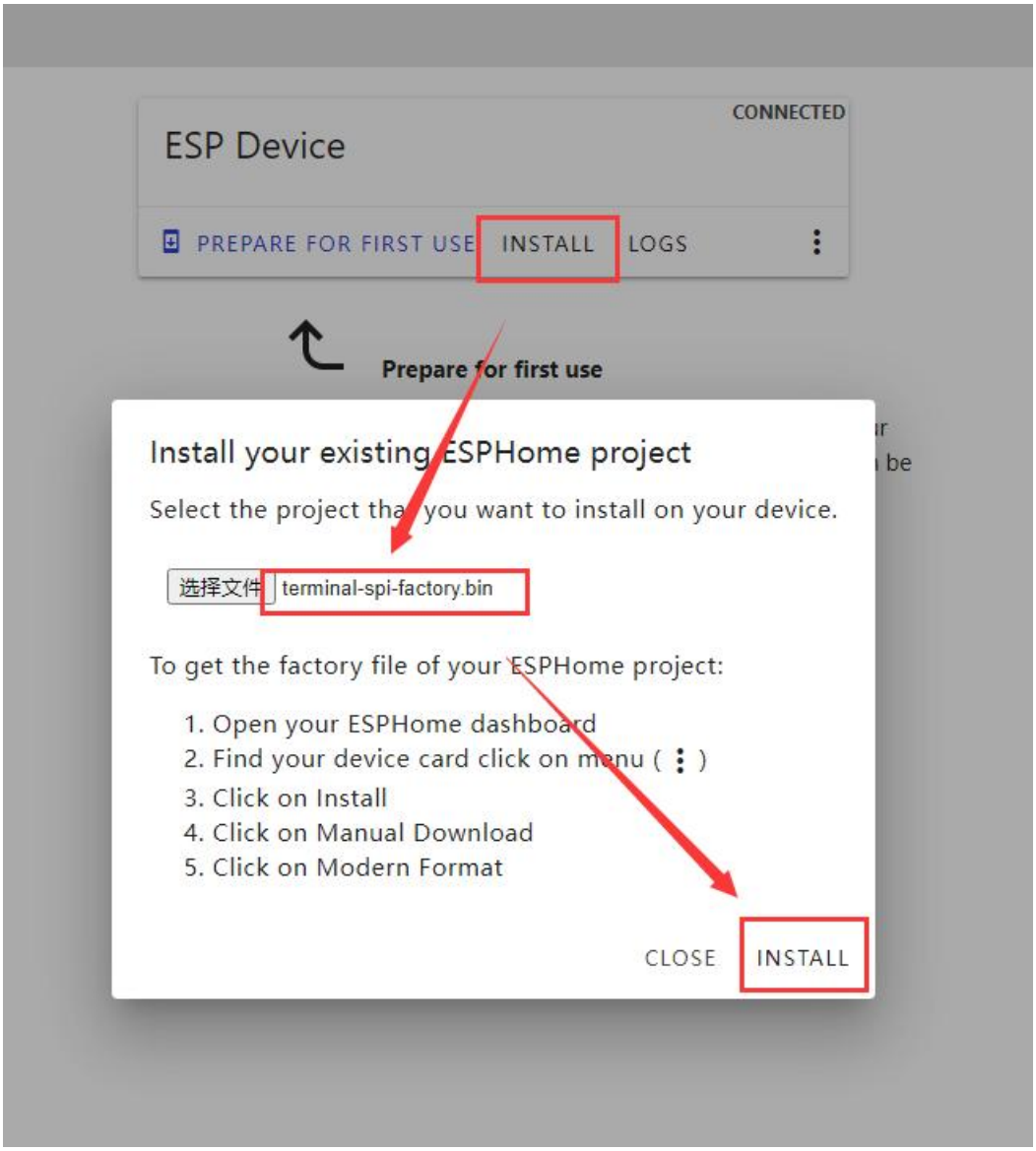
Generate the bin files



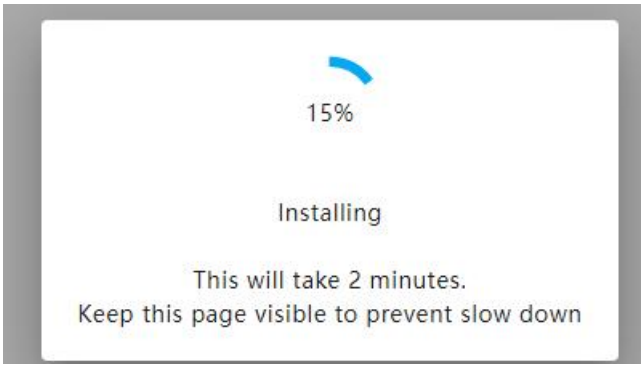


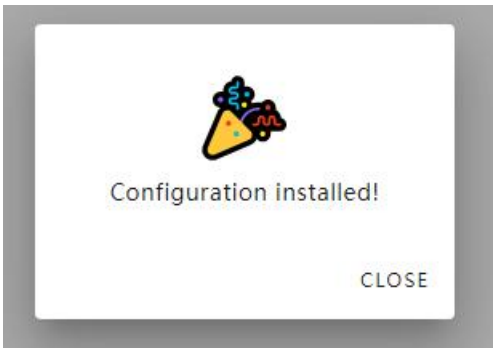


Open the website:https://web.esphome.io/?dashboard_wizard



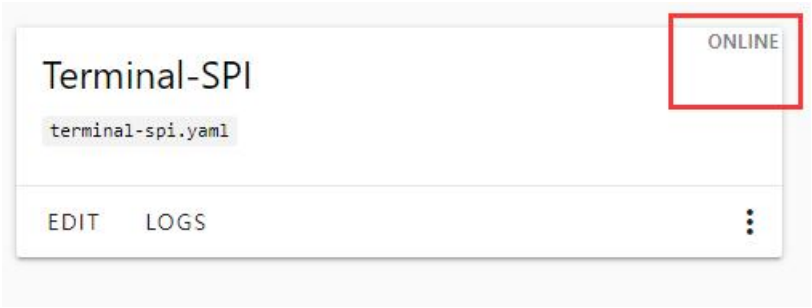
Waiting for the burning to be completed





Back to the ESPHOME interface and then restart the ESP32 to see the created device in the ONLINE state

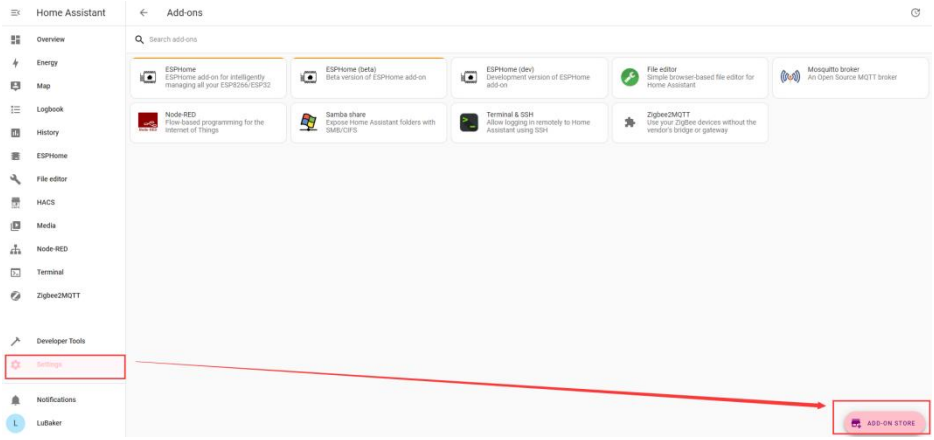
Note: Set the same WIFI account and password

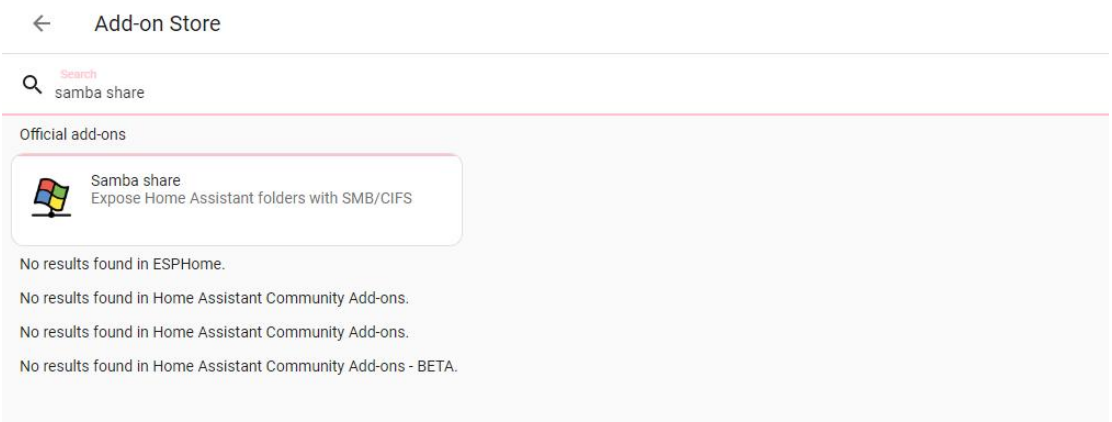


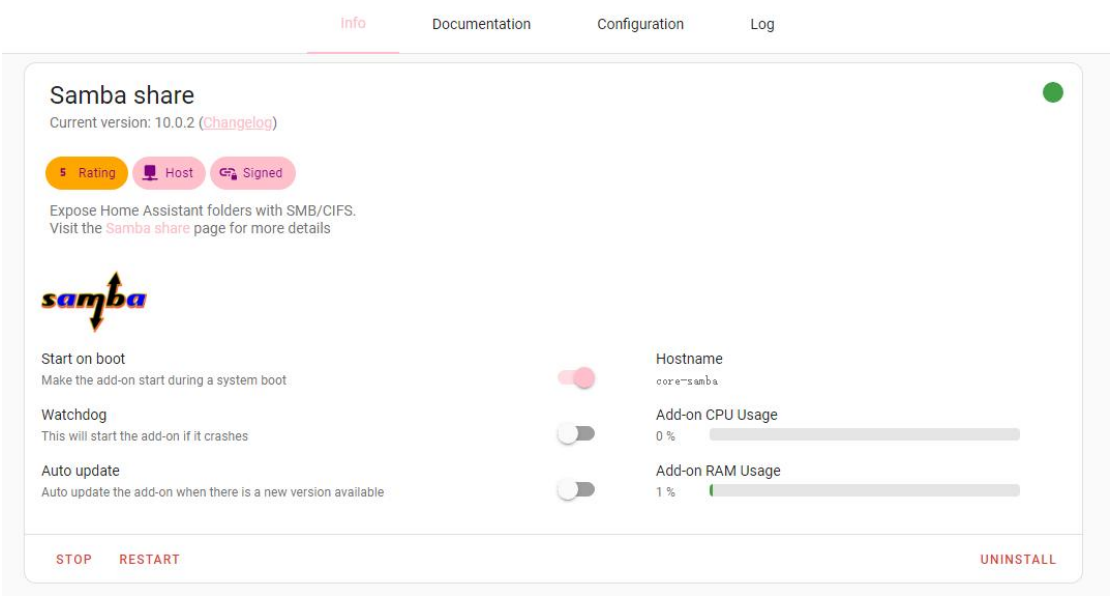
Before we start editing our code, we do some preparations:

Put the picture and tft font file into the / config / esphonme directory

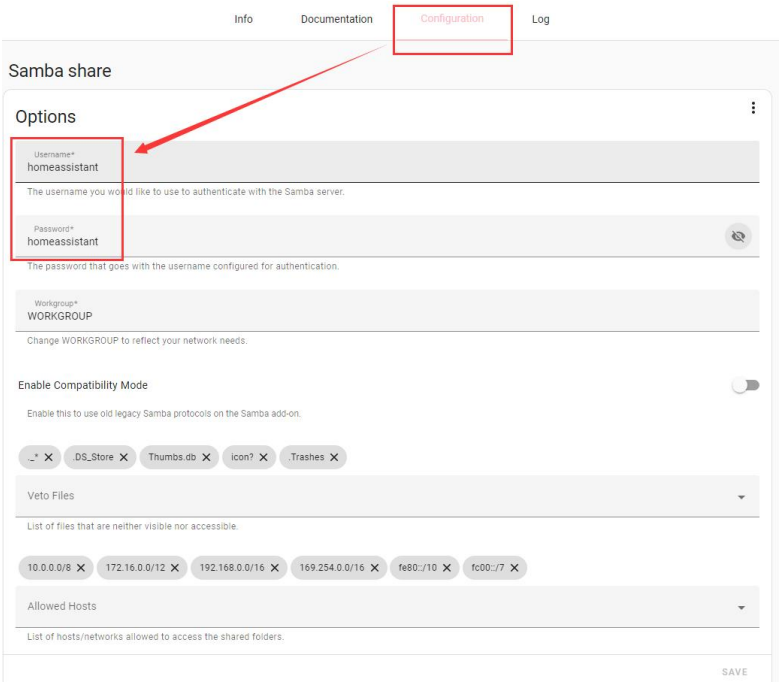
We use a simple and easy to use tool to complete our requirements



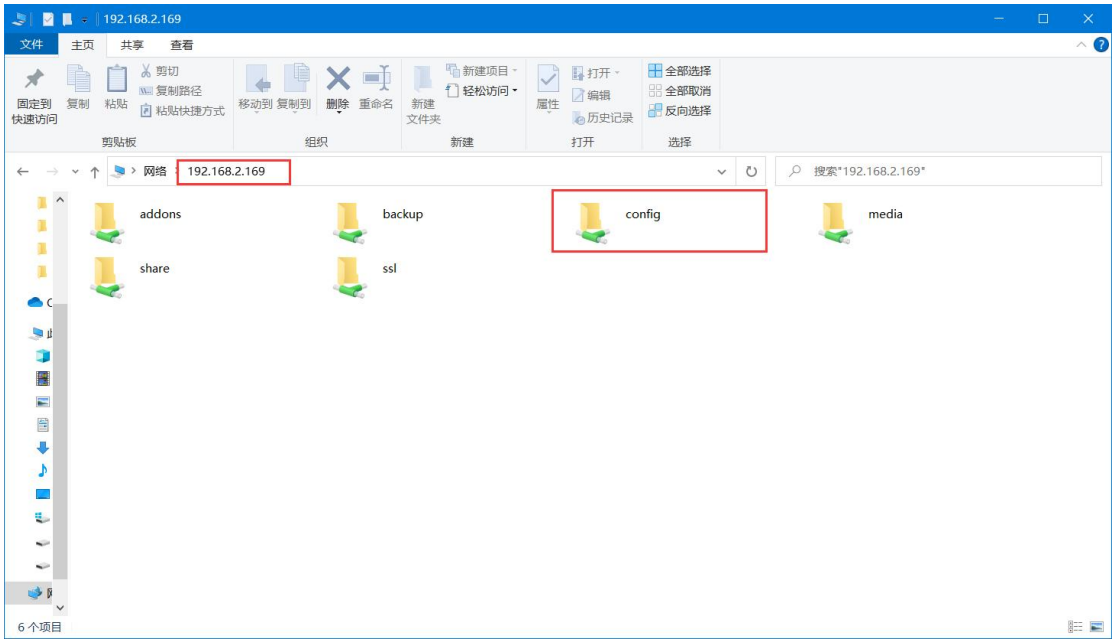


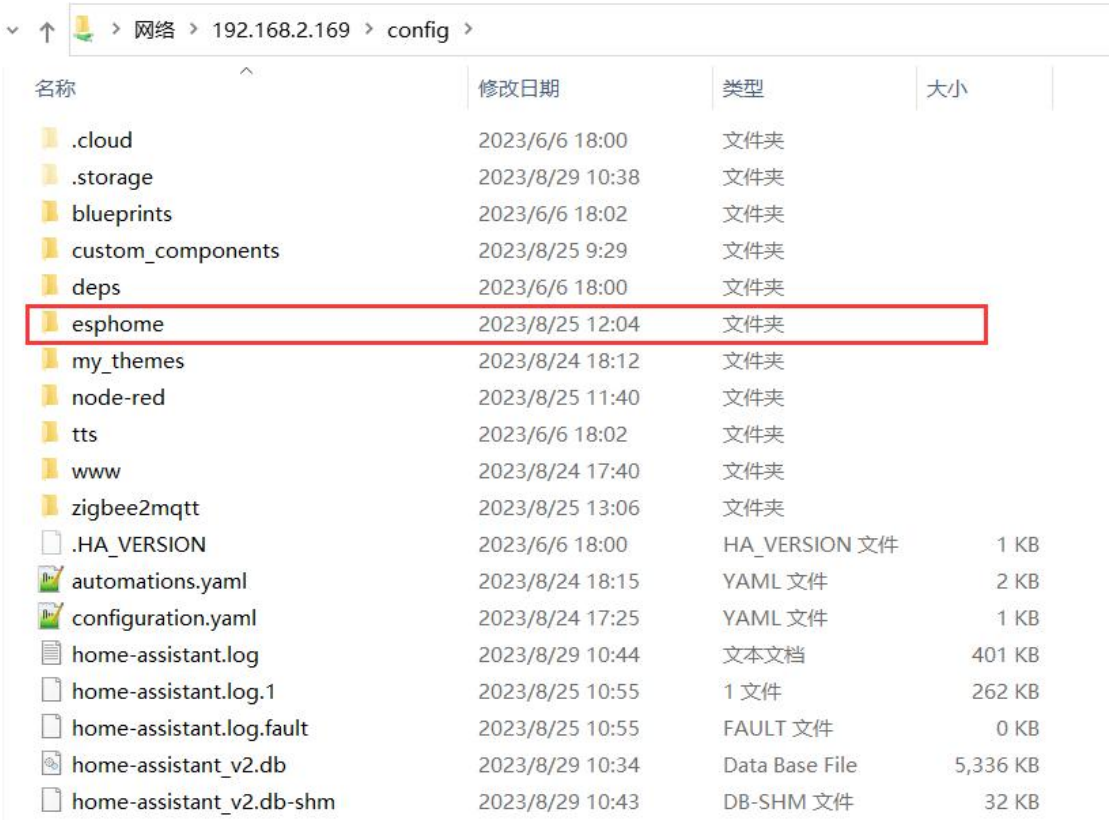


Enter the configuration interface and set up the account number and password

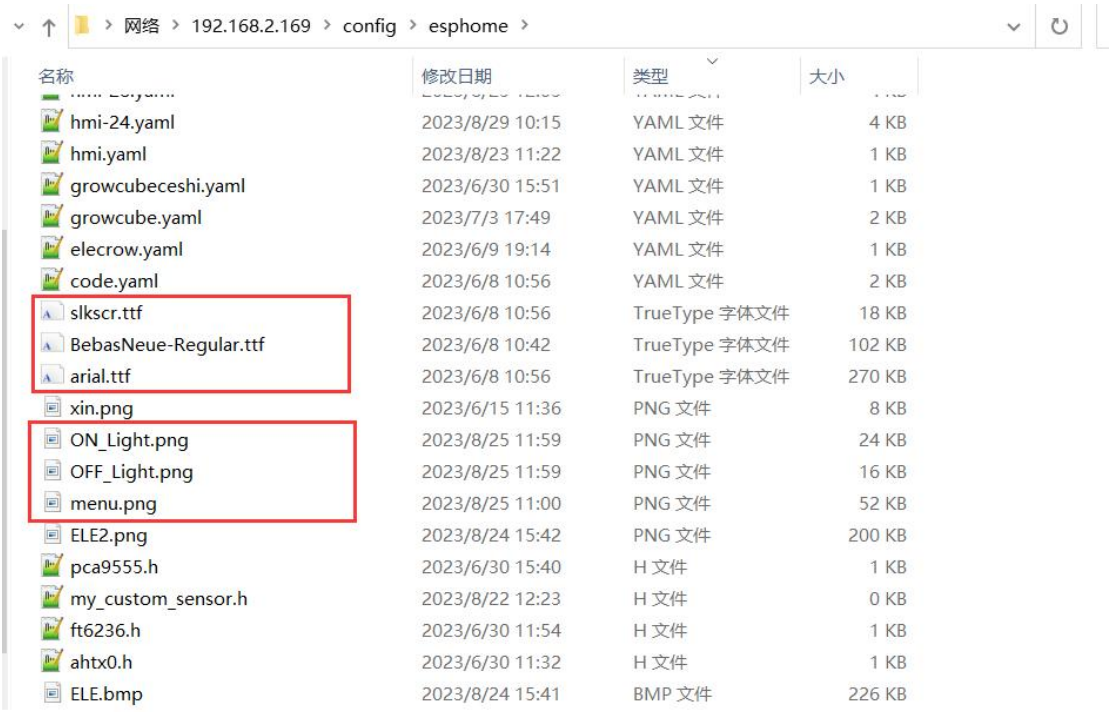


Then open my computer input \\192.168.2.169 and display the following interface, and then we enter the / config / esphome directory

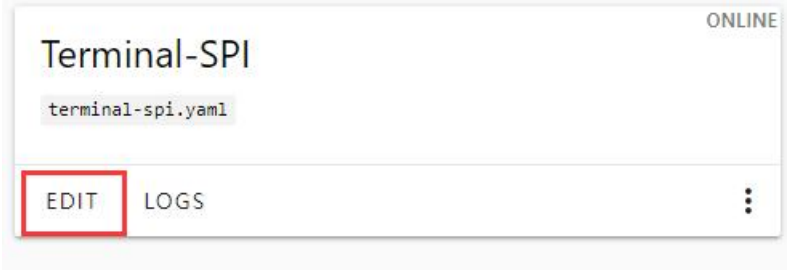




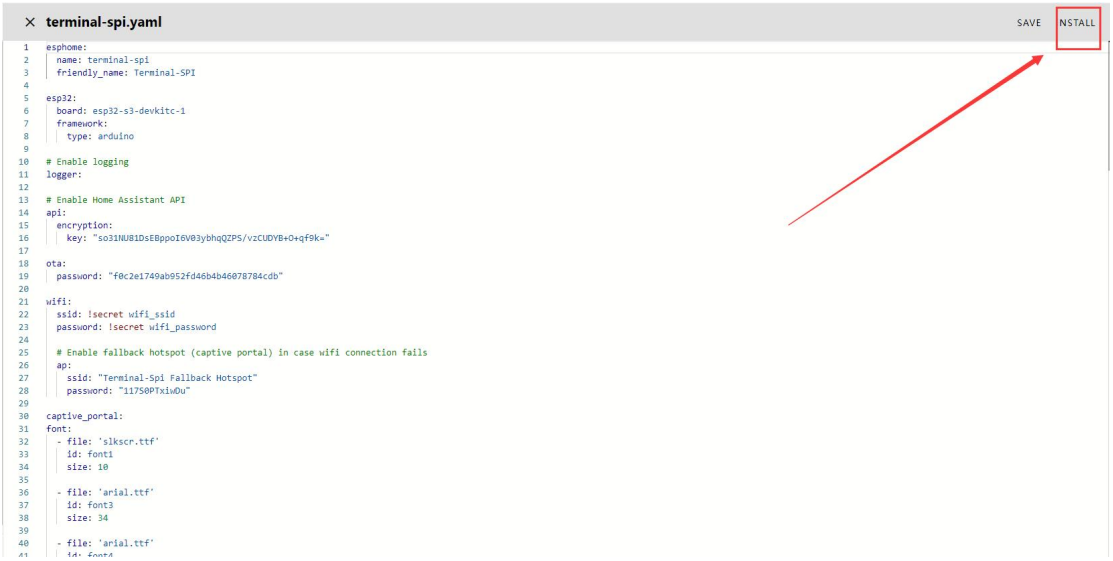
Put the following files into the folder

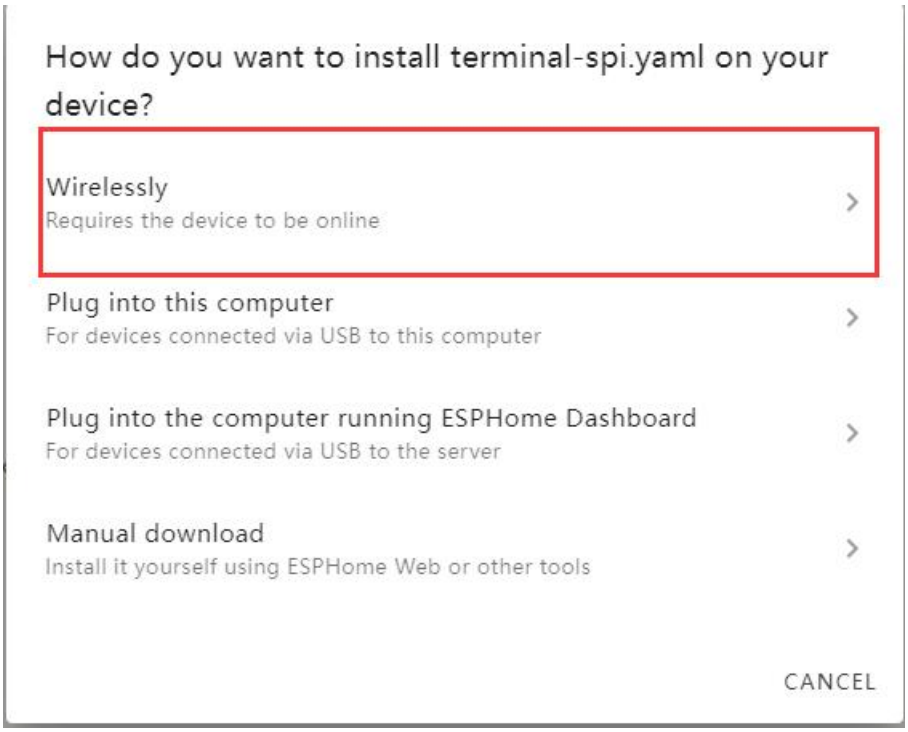


Then we can start editing the program

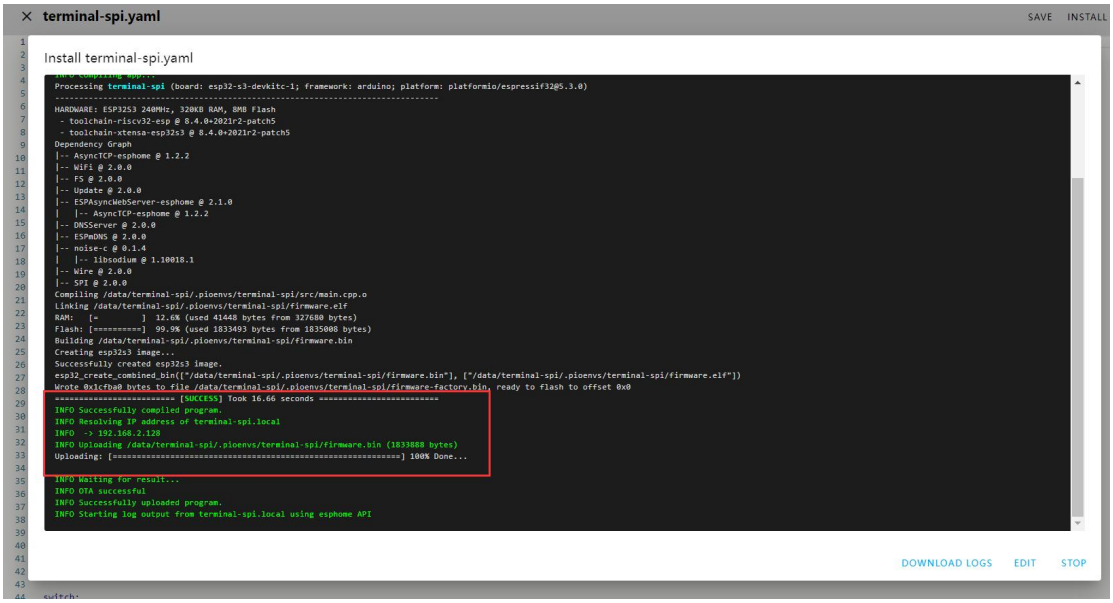


After editing the program, you can choose to burn online recording, which becomes very convenient





Successful burning:

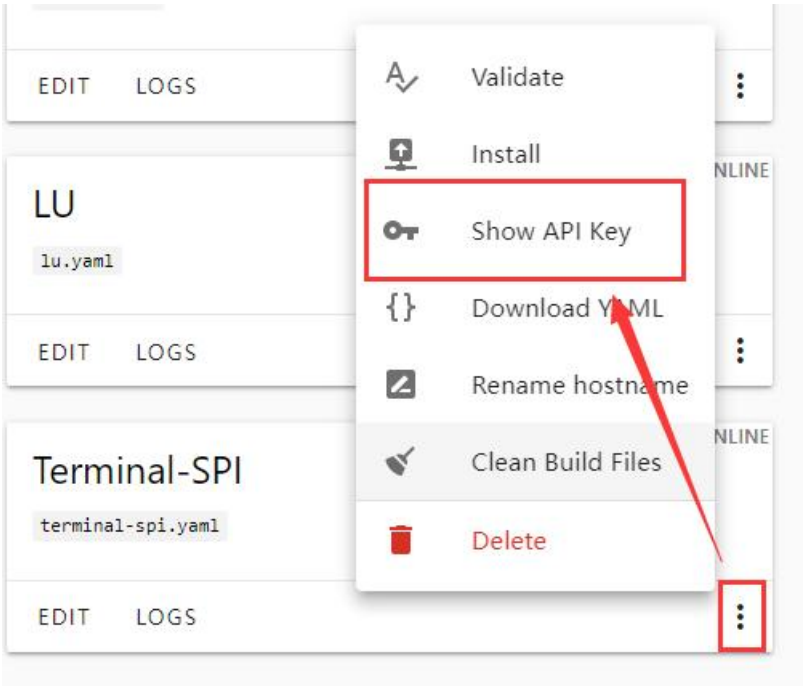


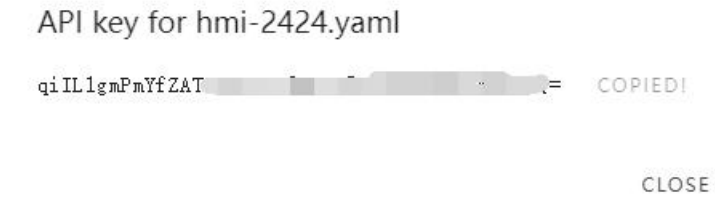
Remember this IP address:192.168.2.128

Install terminal-spi.yaml

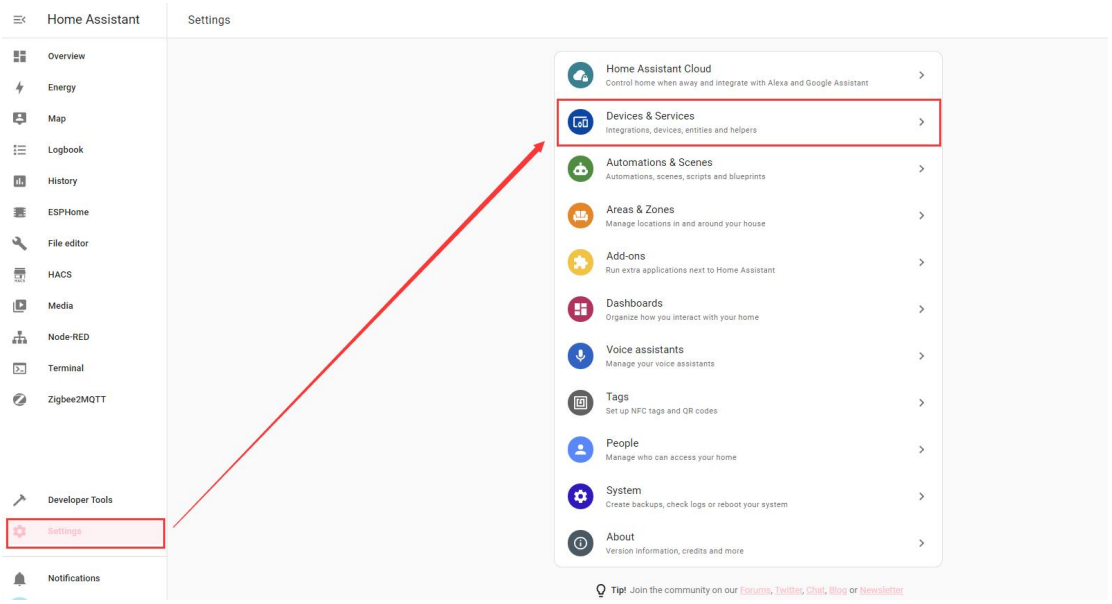
```
INFO OTA successful
INFO Successfully uploaded program.
INFO Starting log output from terminal-spi.local using esphome API
INFO Successfully connected to terminal-spi.local
[10:41:04][I][app:102]: ESPHome version 2023.5.5 compiled on Sep  1 2023, 10:40:20
[10:41:04][C][wifi:505]: WiFi:
[10:41:04][C][wifi:363]:   Local MAC: 34:85:18:45:FD:18
[10:41:04][C][wifi:364]:   SSID: 'alsorouter'
[10:41:04][C][wifi:365]:   IP Address: 192.168.2.128
[10:41:04][C][wifi:367]:   BSSID: 00:5C:86:04:49:94
[10:41:04][C][wifi:368]:   Hostname: 'terminal-spi'
[10:41:04][C][wifi:370]:   Signal strength: -39 dB
[10:41:04][C][wifi:374]:   Channel: 1
[10:41:04][C][wifi:375]:   Subnet: 255.255.255.0
[10:41:04][C][wifi:376]:   Gateway: 192.168.2.1
[10:41:04][C][wifi:377]:   DNS1: 192.168.2.1
[10:41:04][C][wifi:378]:   DNS2: 192.168.2.1
[10:41:06][C][logger:301]: Logger:
[10:41:06][C][logger:302]:   Level: DEBUG
[10:41:06][C][logger:303]:   Log Baud Rate: 115200
[10:41:06][C][logger:305]:   Hardware UART: UART0
[10:41:07][C][i2c.arduino:053]: I2C Bus:
[10:41:07][C][i2c.arduino:054]:   SDA Pin: GPIO2
[10:41:07][C][i2c.arduino:055]:   SCL Pin: GPIO1
[10:41:07][C][i2c.arduino:056]:   Frequency: 50000 Hz
[10:41:07][C][i2c.arduino:059]:   Recovery: bus successfully recovered
[10:41:07][I][i2c.arduino:069]: Results from i2c bus scan:
[10:41:07][I][i2c.arduino:075]: Found i2c device at address 0x38
[10:41:08][C][spi:101]: SPI bus:
[10:41:08][C][spi:102]:   CLK Pin: GPIO12
[10:41:08][C][spi:103]:   MISO Pin: GPIO14
[10:41:08][C][spi:104]:   MOSI Pin: GPIO13
[10:41:08][C][spi:106]:   Using HW SPI: YES
[10:41:10][D][dht:048]: Got Temperature=27.6°C Humidity=46.0%
[10:41:10][D][sensor:094]: 'Terminal-spi Temperature': Sending state 27.60000 °C with 1 decimals of accuracy
[10:41:10][D][sensor:094]: 'Terminal-spi Humidity': Sending state 46.00000 % with 0 decimals of accuracy
[10:41:11][C][switch.gpio:068]: GPIO Switch 'led'
[10:41:11][C][switch.gpio:091]:   Restore Mode: always OFF
[10:41:11][C][switch.gpio:031]:   Pin: GPIO40
```

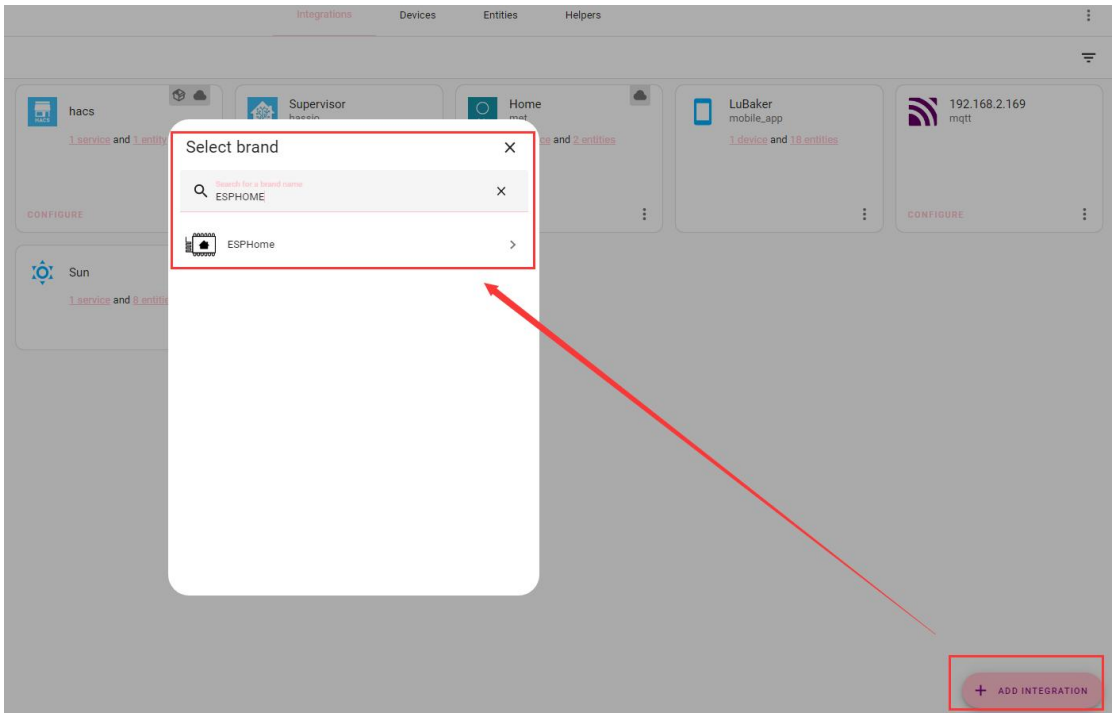
Remember this key：





Now we begin to add our integrated devices

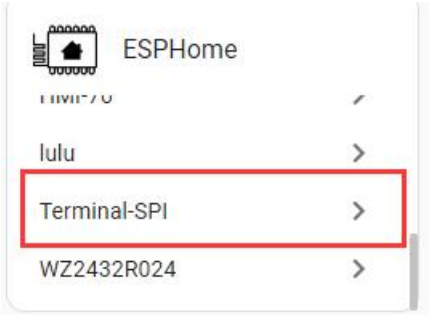




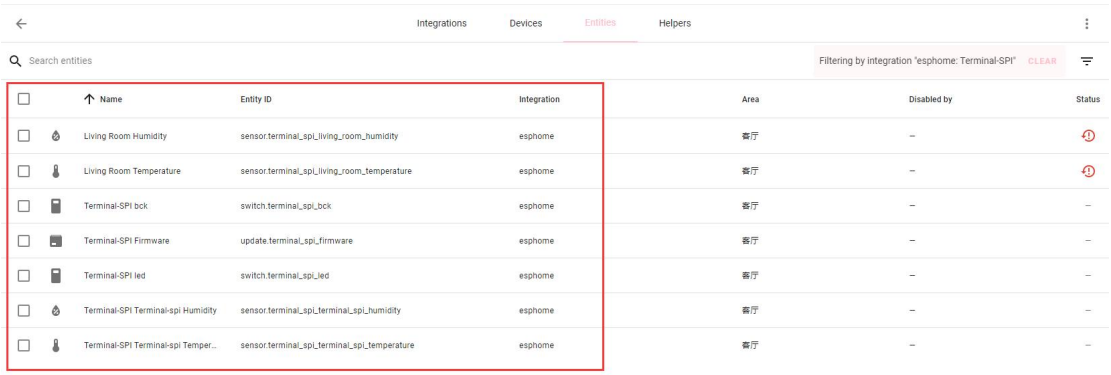
Enter the remembered IP address：

Enter the remembered key：

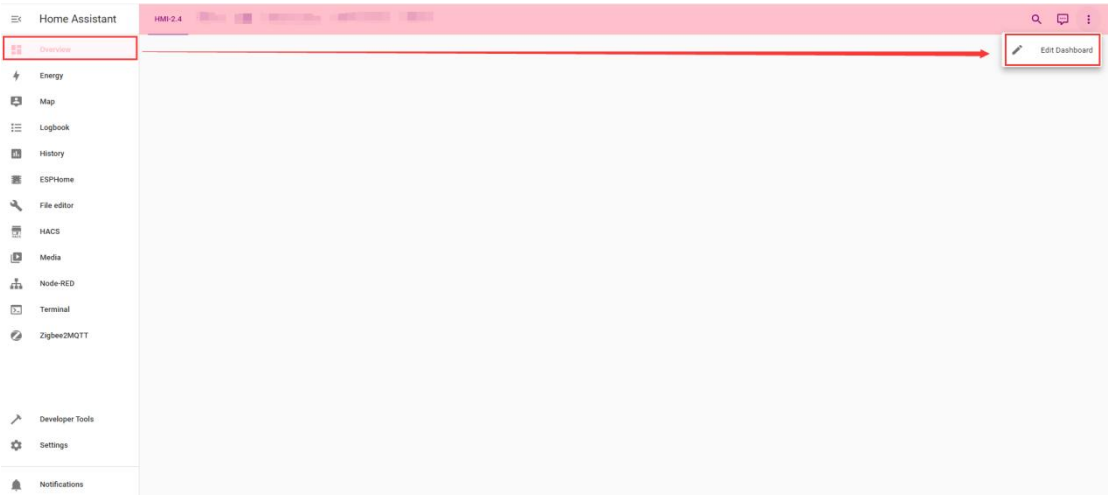
After completion, we can see that our device was added successfully：

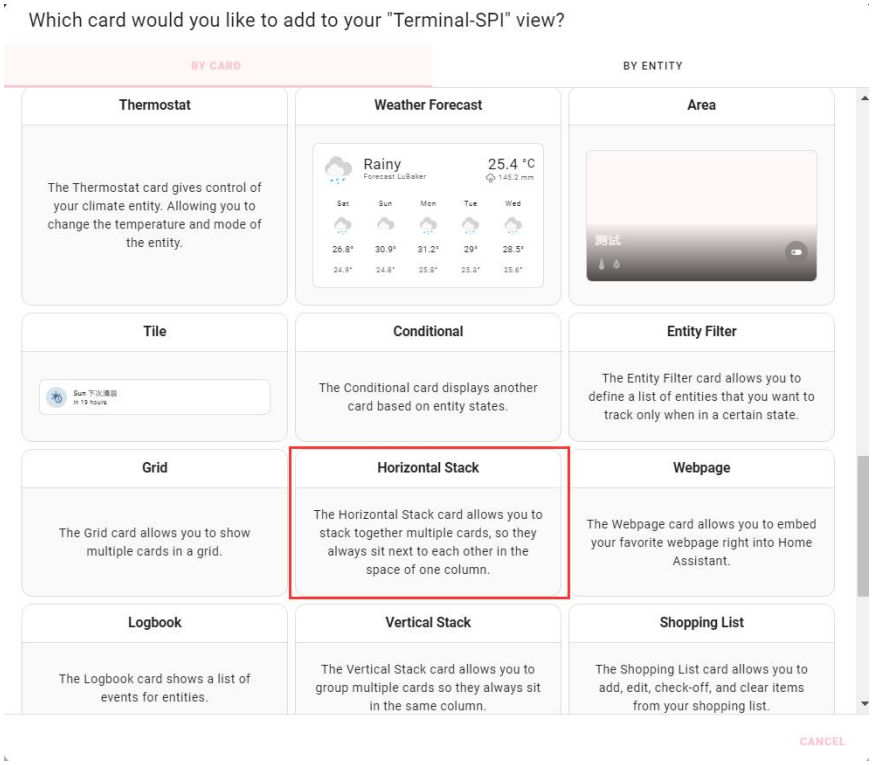


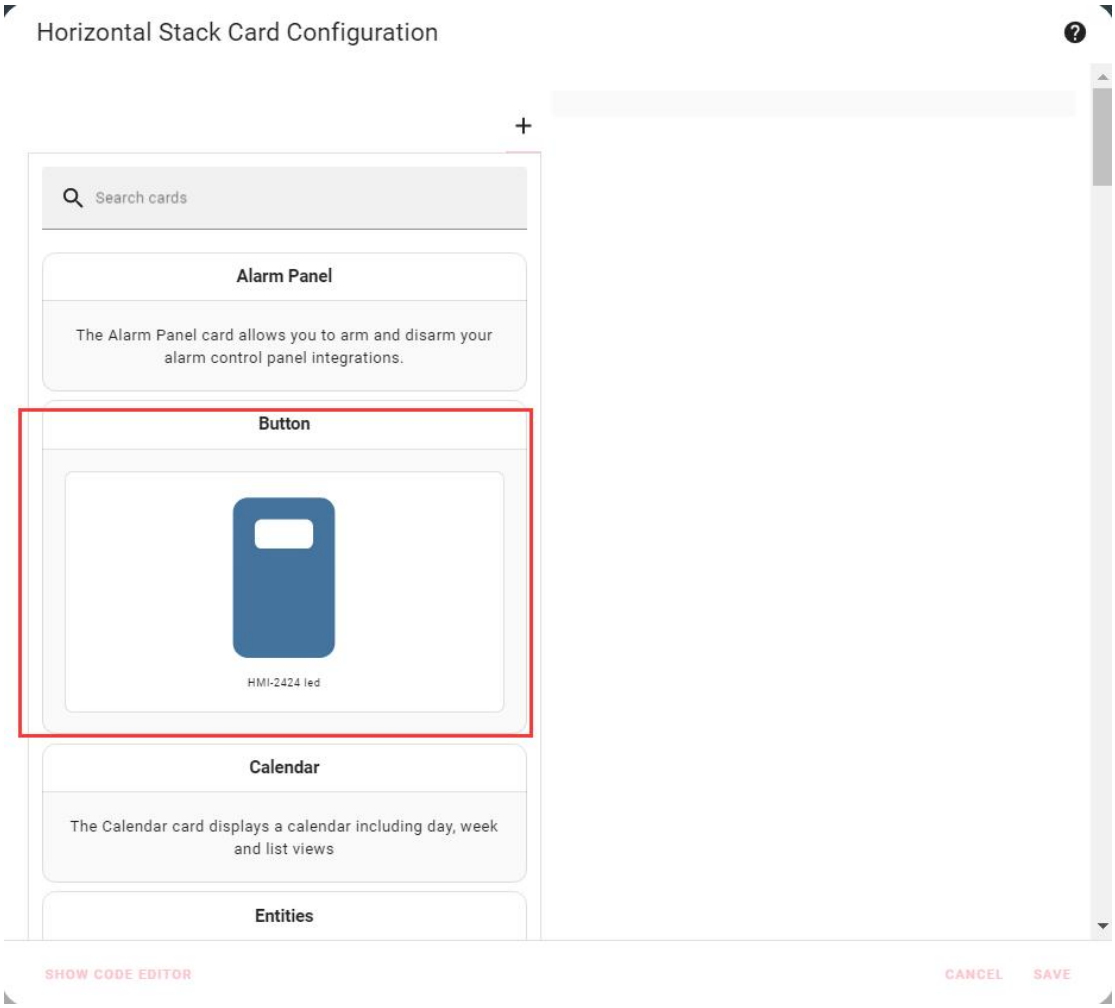
You can see the entities we created inside：

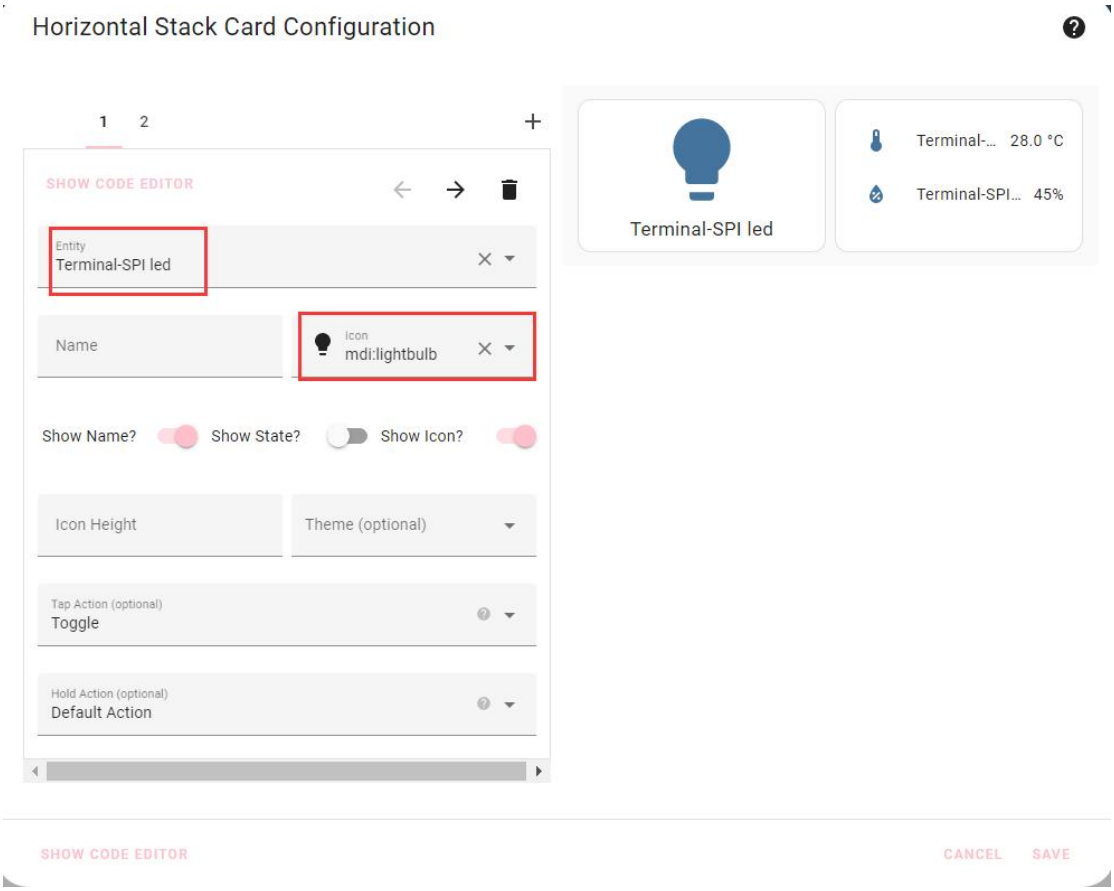


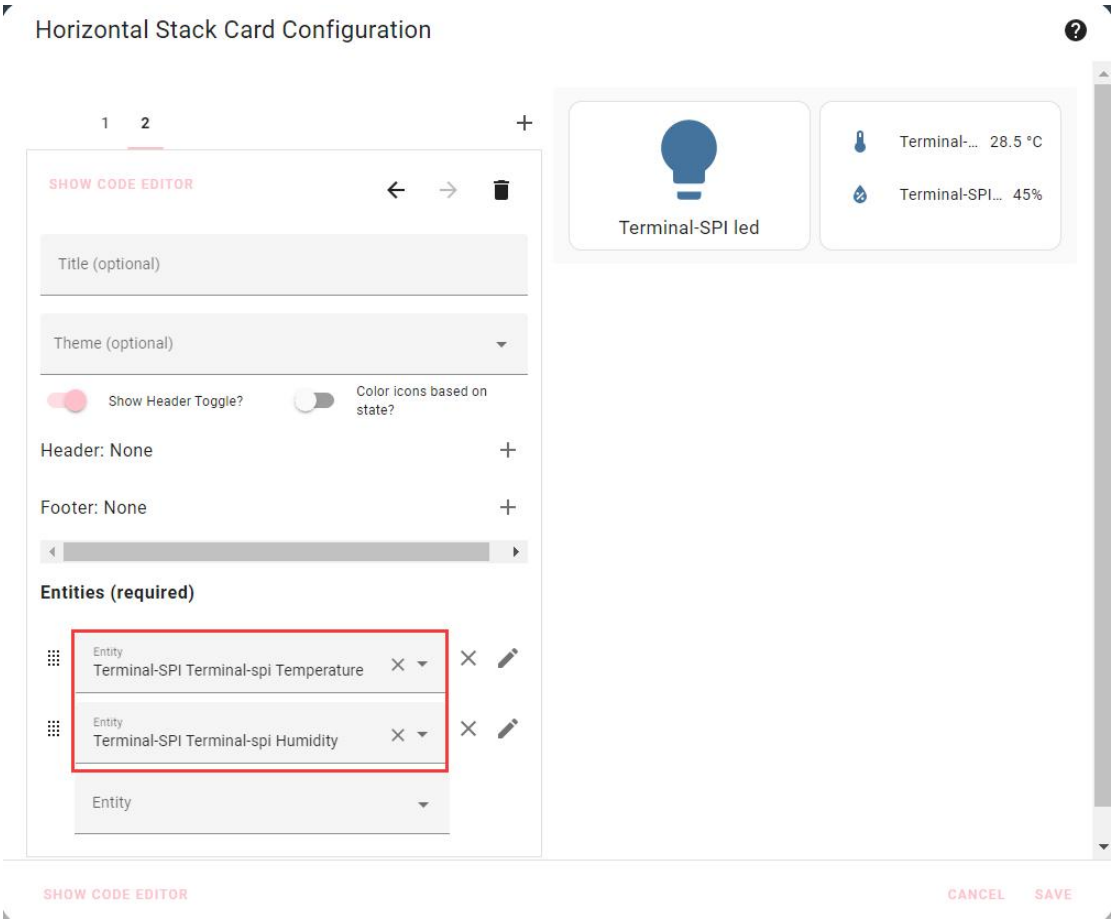
Now we start adding entities to the main interface

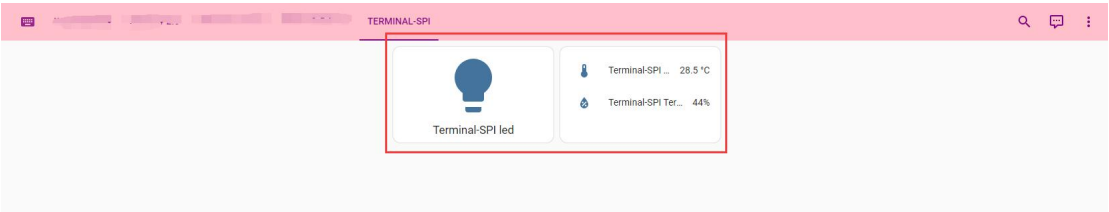



Which card would you like to add to your "Terminal-SPI" view?
BY CARD
BY ENTITY
Thermostat
The Thermostat card gives control of your climate entity. Allowing you to change the temperature and mode of the entity.
Weather Forecast
Rainy
25.4 °C
Area
Tile
Conditional
The Conditional card displays another card based on entity states.
Entity Filter
The Entity Filter card allows you to define a list of entities that you want to track only when in a certain state.
Grid
The Grid card allows you to show multiple cards in a grid.
Horizontal Stack
The Horizontal Stack card allows you to stack together multiple cards, so they always sit next to each other in the space of one column.
Webpage
The Webpage card allows you to embed your favorite webpage right into Home Assistant.
Logbook
The Logbook card shows a list of events for entities.
Vertical Stack
The Vertical Stack card allows you to group multiple cards so they always sit in the same column.
Shopping List
The Shopping List card allows you to add, edit, check-off, and clear items from your shopping list.
CANCEL

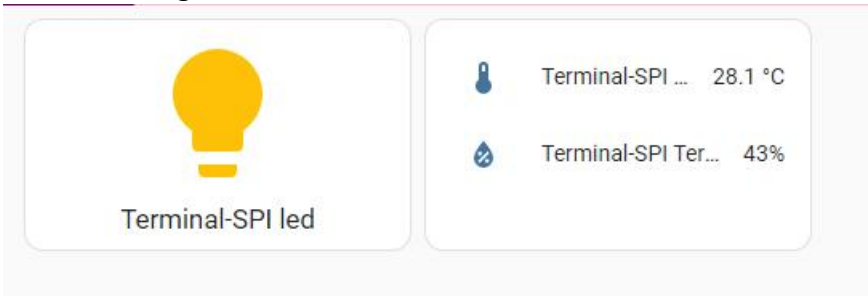

Horizontal Stack Card Configuration
Search cards
Alarm Panel
The Alarm Panel card allows you to arm and disarm your alarm control panel integrations.
Button
HMI-2424 led
Calendar
The Calendar card displays a calendar including day, week and list views
Entities
SHOW CODE EDITOR
CANCEL
SAVE


Horizontal Stack Card Configuration
1
2
SHOW CODE EDITOR
Entity
Terminal-SPI led
Name
Icon
mdi:lightbulb
Show Name?
Show State?
Show Icon?
Icon Height
Theme (optional)
Tap Action (optional)
Toggle
Hold Action (optional)
Default Action
Terminal-SPI led
Terminal-... 28.0 °C
Terminal-SPI... 45%
SHOW CODE EDITOR
CANCEL
SAVE

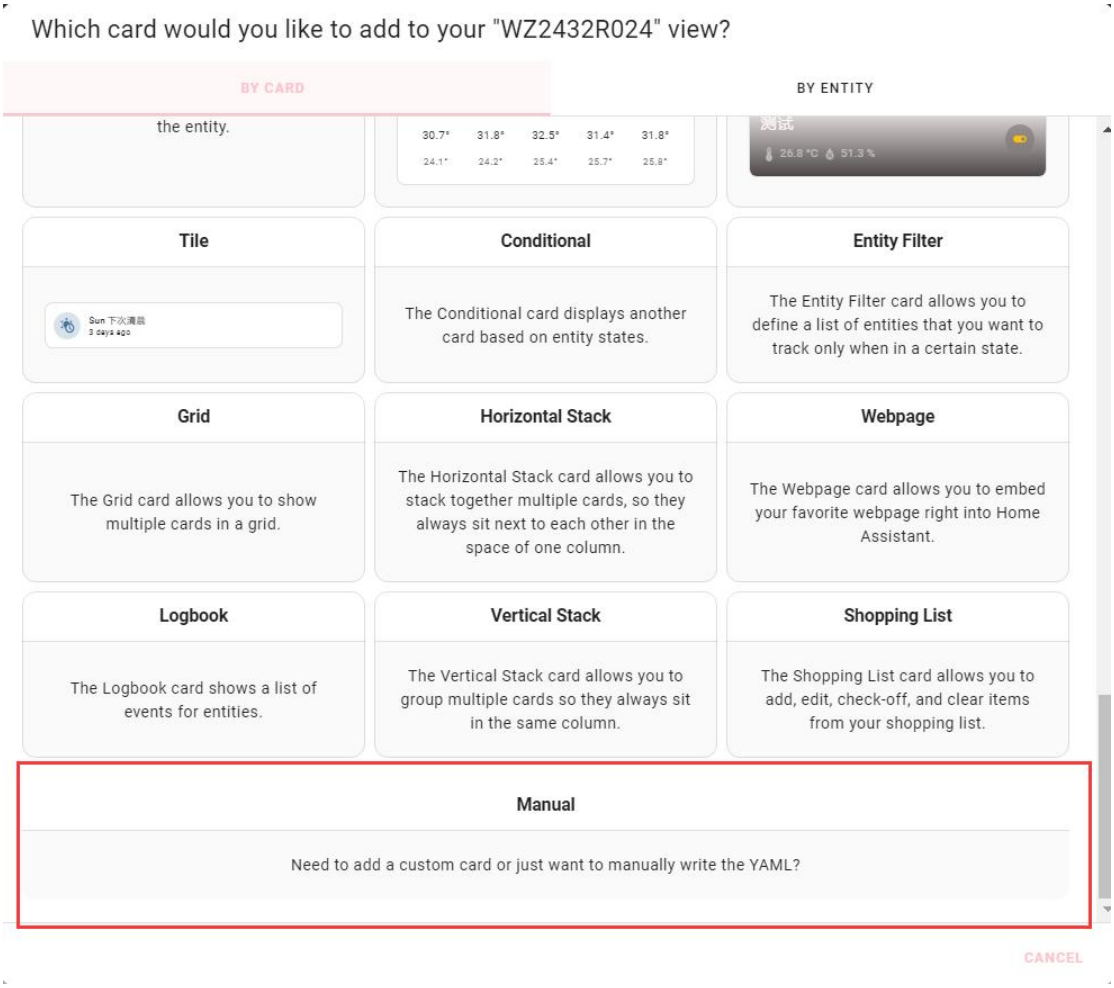

Horizontal Stack Card Configuration
1
2
SHOW CODE EDITOR
Title (optional)
Theme (optional)
Show Header Toggle?
Color icons based on state?
Header: None
Footer: None
Entities (required)
Entity
Terminal-SPI Terminal-spi Temperature
Entity
Terminal-SPI Terminal-spi Humidity
Entity
Terminal-SPI led
Terminal-... 28.5 °C
Terminal-SPI... 45%
SHOW CODE EDITOR
CANCEL
SAVE



Click on the light：

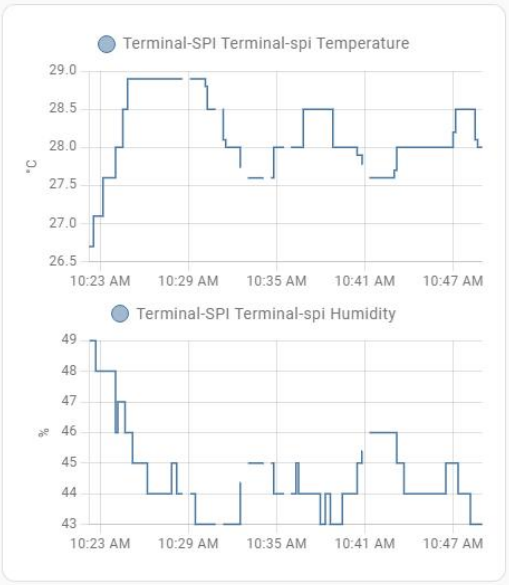


Next, we make a graph of the temperature and humidity：



History Graph Card Configuration

```yaml
type: history-graph
entities:
  - entity: sensor.terminal_spi_terminal_spi_temperature
  - entity: sensor.terminal_spi_terminal_spi_humidity
hours_to_show: 1
```



SHOW VISUAL EDITOR CANCEL SAVE

done ！