Workshop 6: Home assistance

1.1 Description

In this workshop we will create a dashboard to monitor several sensors.

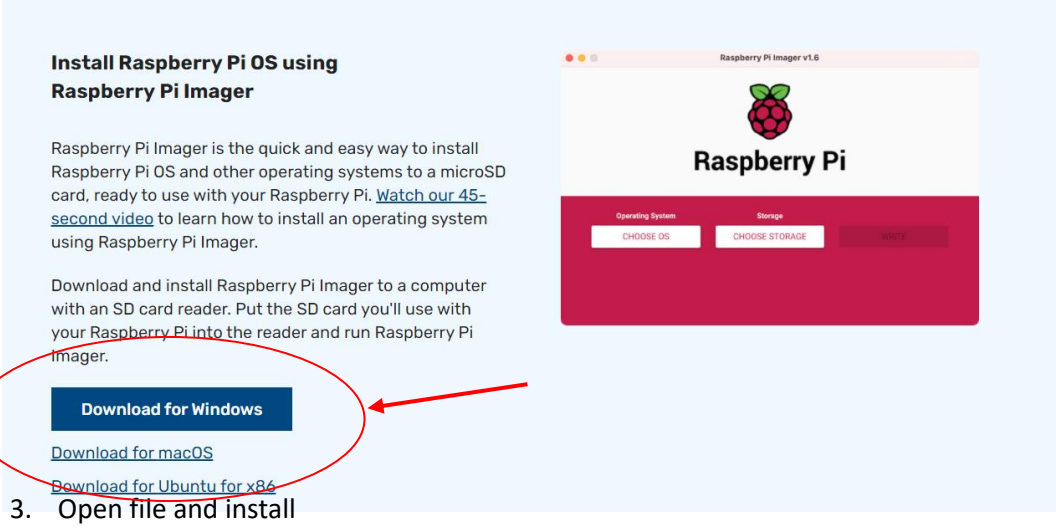
1.2 Equipment

- Raspberry Pi + micro SD
- ESP 32 or ESP 8266
- DHT Sensor

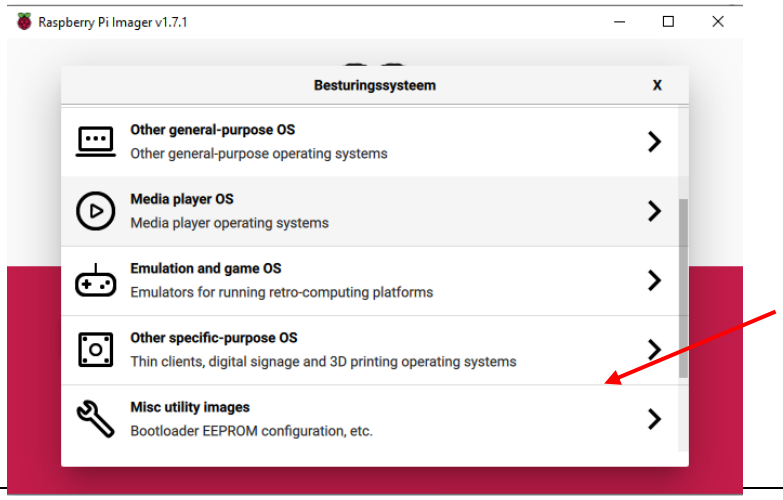
1.3 Installing steps

To install Home Assistant imager we first need to install Raspberry Pi Imager

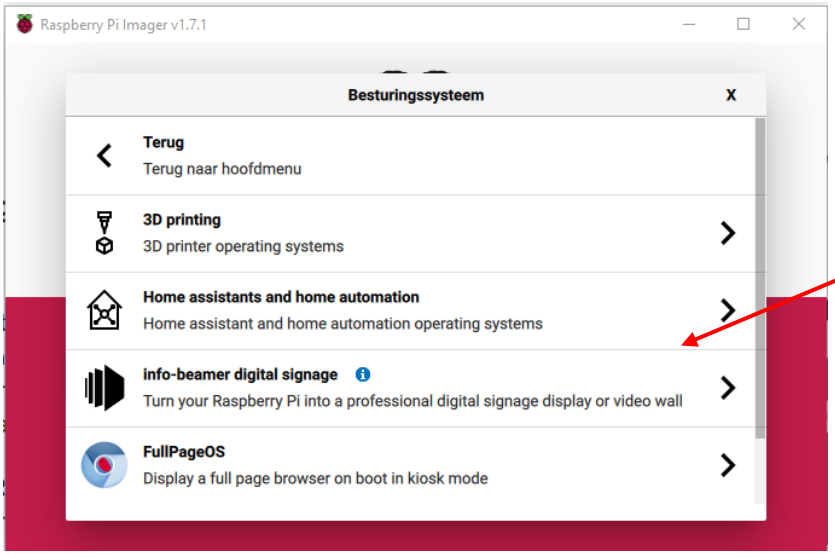
1. Go to https://www.raspberrypi.com/software/
2. Download Raspberry Pi Imager



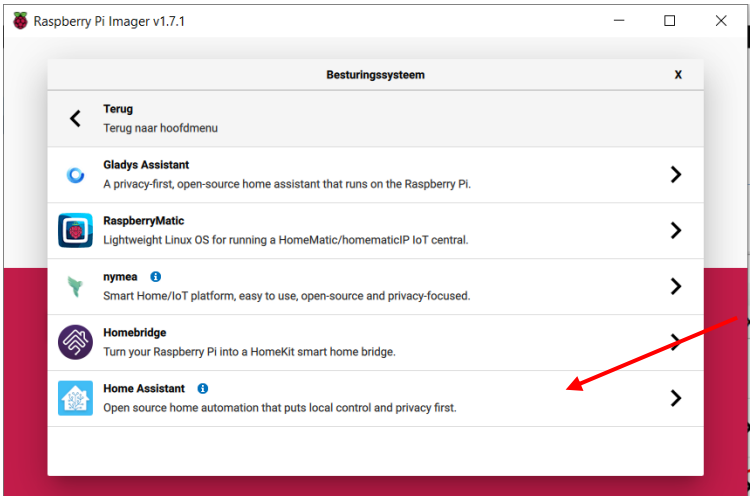
3. Open file and install
4. Open de Raspberry Pi Imager app and plug in a SD-card in to your PC
5. Select OS
6. Scroll down and click on “Other specific-purpose OS”



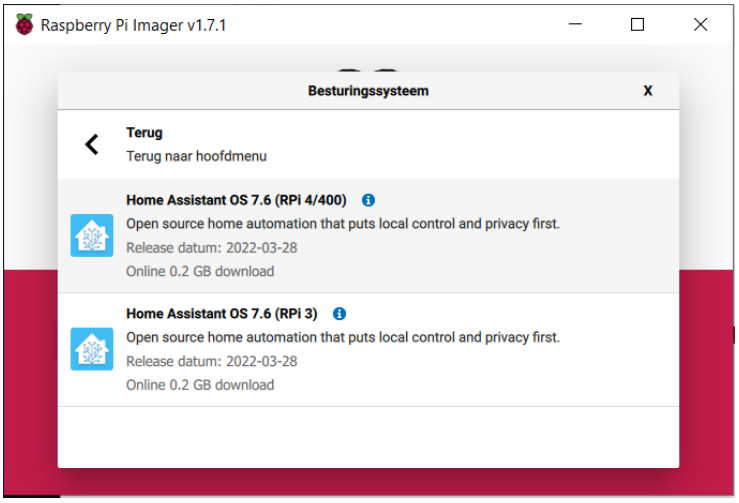
7. Click on “Home Assistants and Home Automation”



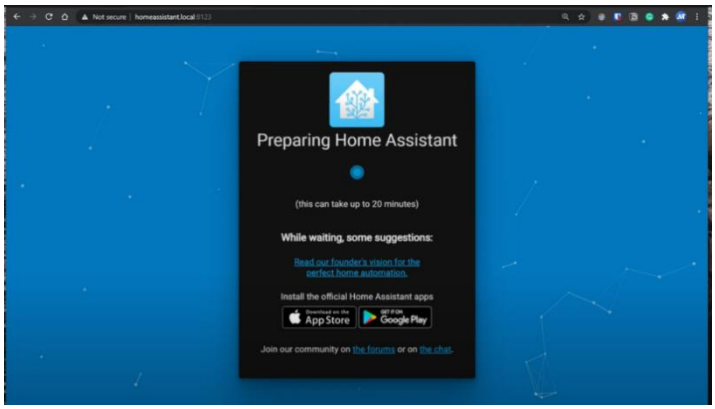
8. Click on Home Assistant



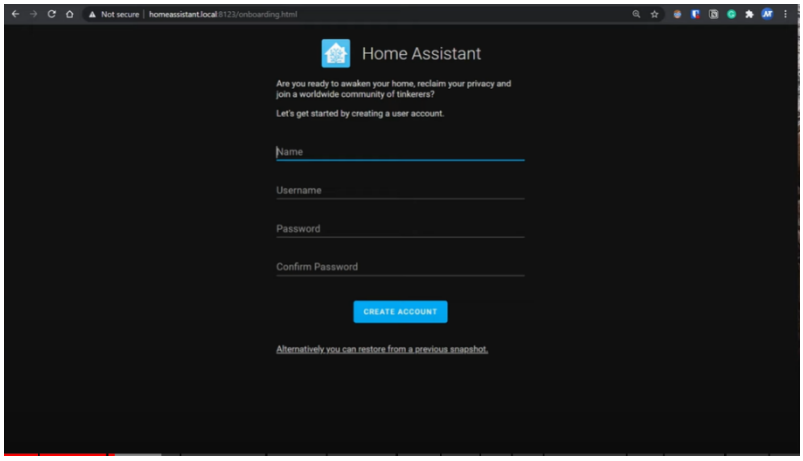
9. Select the version for Raspberry.



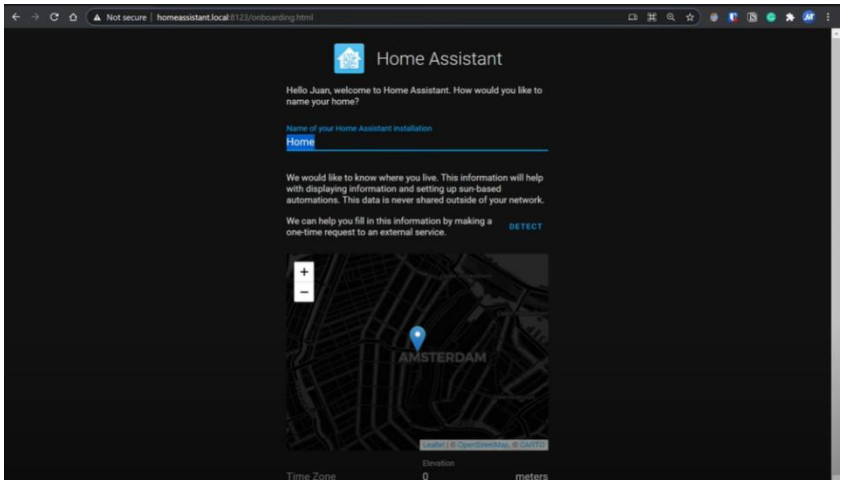
10. After flashing the SD card place it back into the Rpi and connect Rpi with ethernet cable.
11. Go to the site “homeassiten.local:8123” and wait until you see next screen.



12. Make an account.



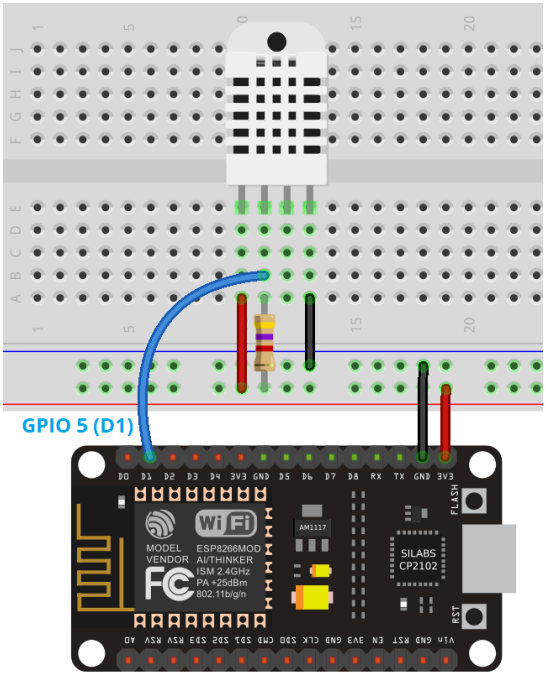
13. Fill in



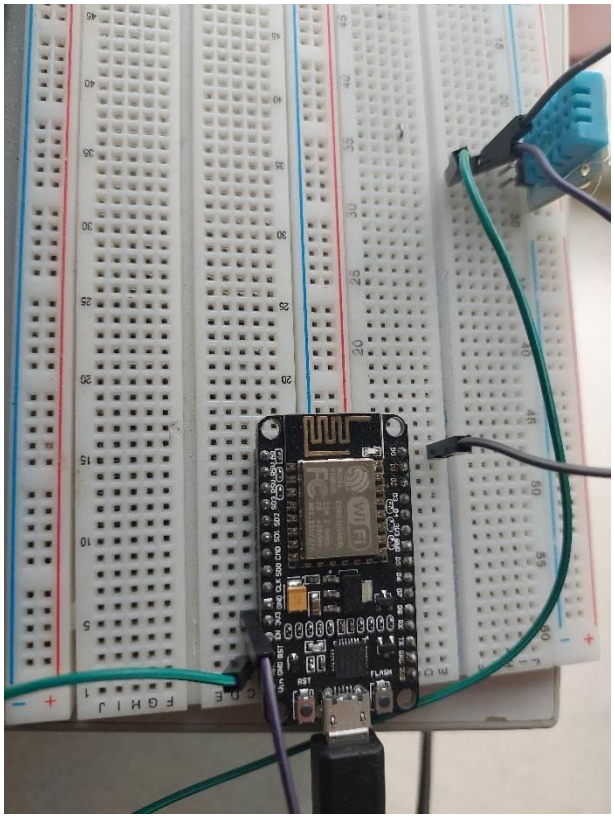
14. Setup is ready now.

1.4 ESP with DHT Sensor

Schema:

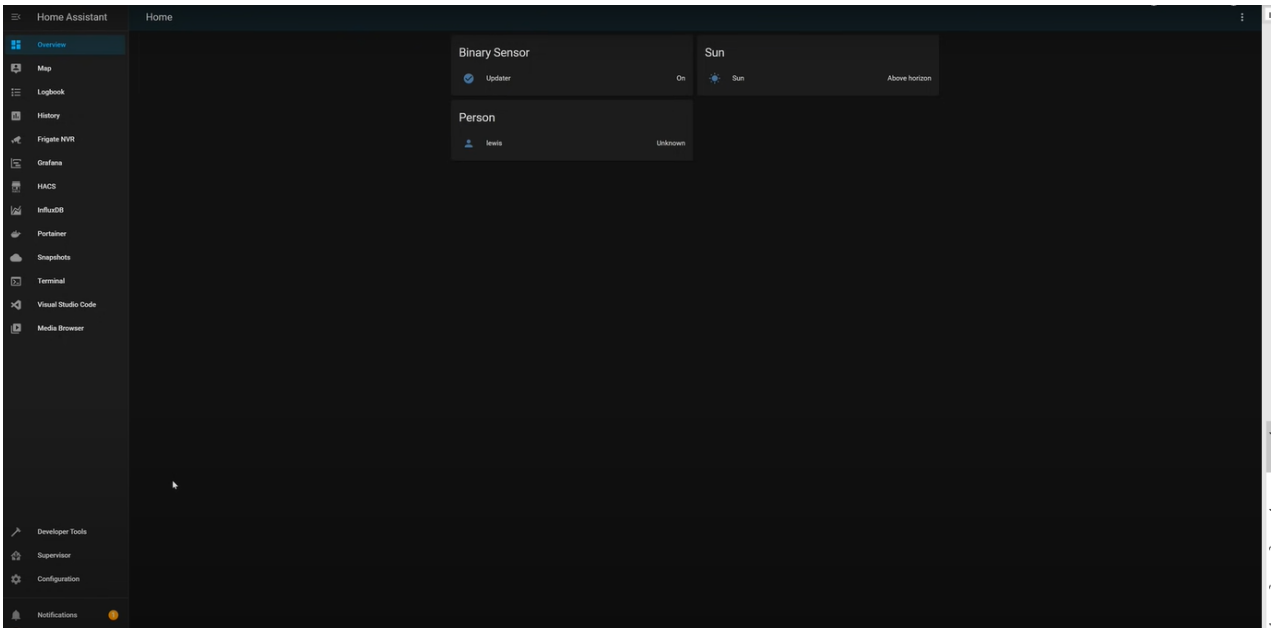


Realisation:

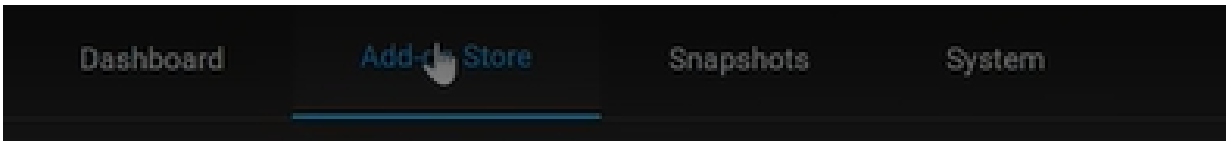


1.5 ESP connect with Home Assistent

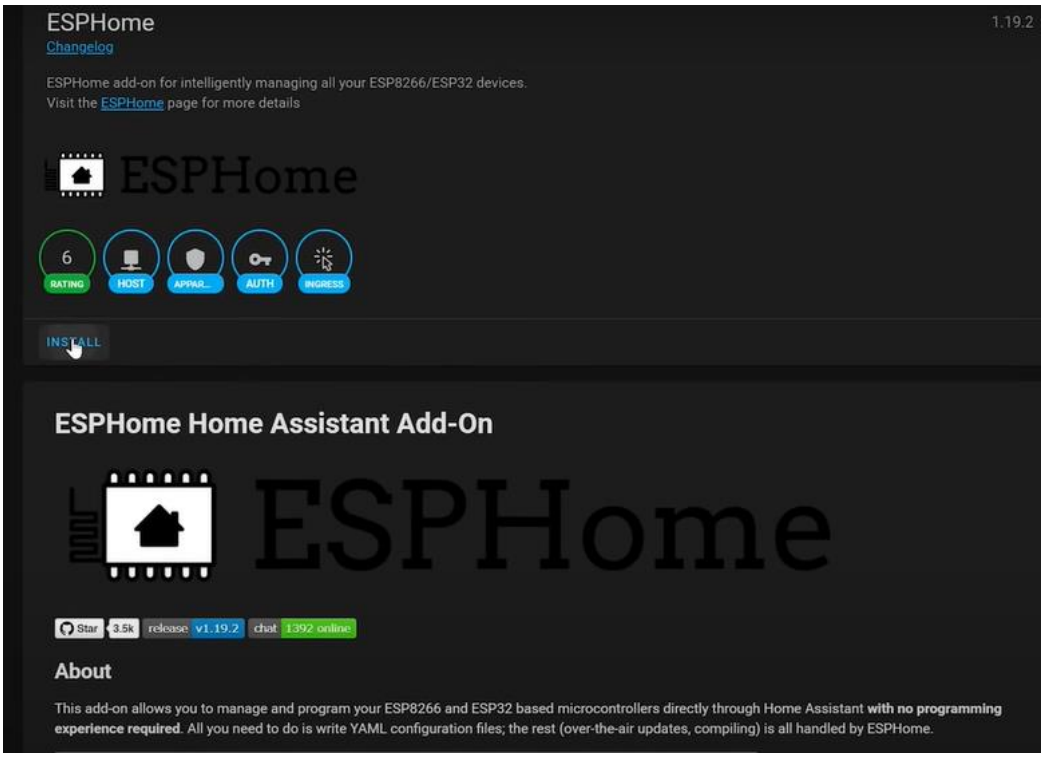
1. Go to Supervisor



2. Click on “Add Store” and search type “ESP HOME”.



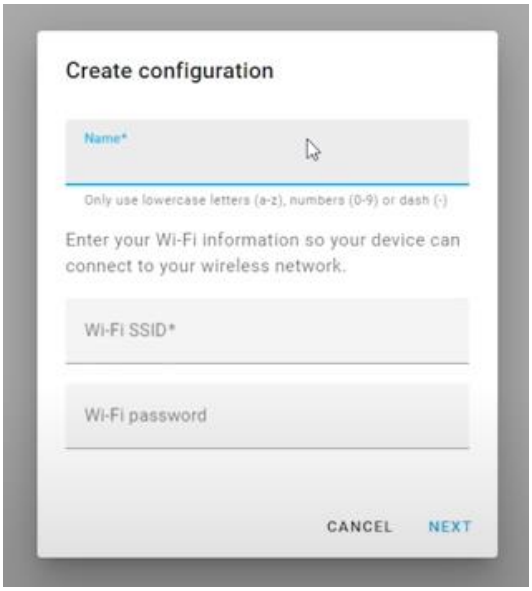
3. Click on “INSTALL”



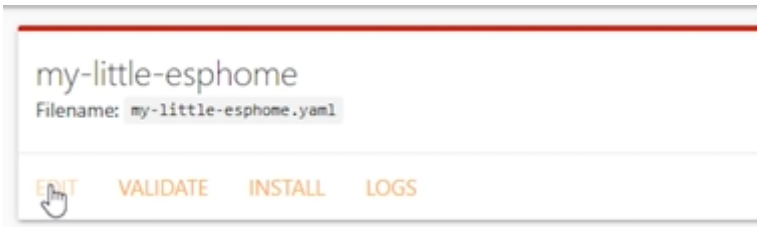
4. Click “ADD NODE



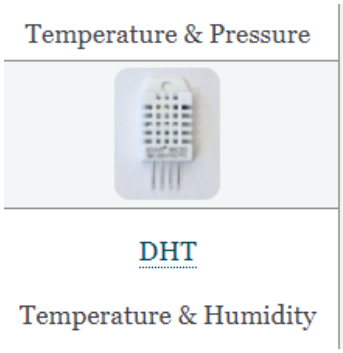
5. Give it a name “DHT Sensor” and give your SSID and WiFi password.



6. Click “EDIT”



7. Go to the website https://esphome.io/ and scroll until you find the DHT sensor and click.



8. Scroll and you will find some code you may copy. You can find all info.

```
# Example configuration entry
sensor:
  - platform: dht
    pin: D2
    temperature:
      name: "Living Room Temperature"
    humidity:
      name: "Living Room Humidity"
    update_interval: 60s
```

9. Paste code and change pin name and pins if necessary.

```
esphome:
  name: my-little-esphome
  platform: ESP8266
  board: esp01_1m

# Enable logging
logger:

# Enable Home Assistant API
api:

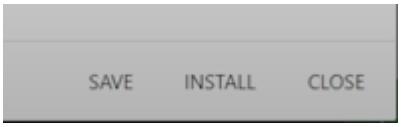
ota:
  password: "052f44ee8300e4983274027675l6c445"

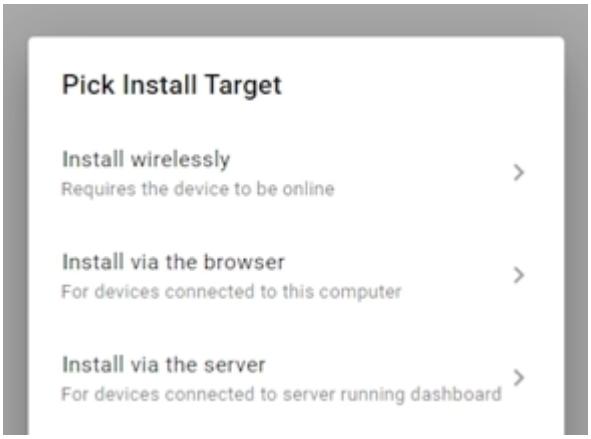
wifi:
  ssid: "No Wifi Here."
  password: !secret wifi_password

  # Enable fallback hotspot (captive portal) in case wifi connection fails
  ap:
    ssid: "My-Little-Esphome"
    password: "LYcG0za5es7b"

captive_portal:
```

10. Click on "install" and connect your esp in the Rpi, computer or wireless





11. Dashboard

