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Home Assistant Green Guide



ameriDroid
High-Performance Electronics

03/26/2024

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The Home Assistant Green includes



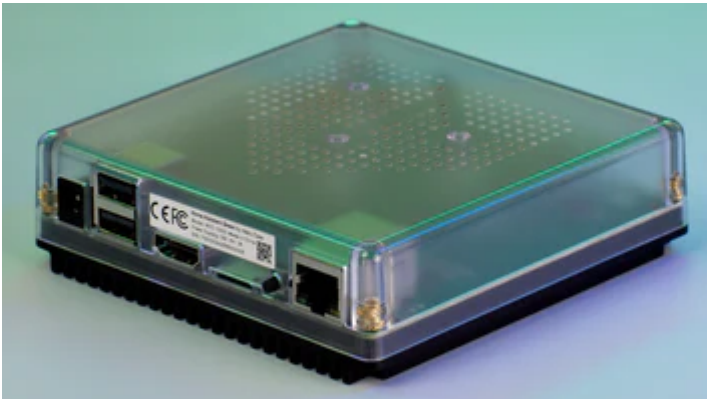
1. Home Assistant Green smart home hub: This is the main board, which comes with a 32GB eMMC on board flashed with the Home Assistant OS
2. Gigabit Ethernet cable: This cable will go from the Ethernet Port in your Green to your Router.
3. Universal power supply, 12VDC/1A, Comes with plug adapters for EU, US, and UK: Provide power to your Green whichever country adapter you need.
4. Quick Start Guide, Warranty and Safety Information.

Things that you need to supply

1. Ethernet connection to the Internet
2. A power outlet into which to plug the power adapter
3. Your excitement!

We'll discover some things you can do with your kit. We're sure you'll find many more things to do after you've gotten familiar with some of these projects!

Connecting Accessories



For the final steps:

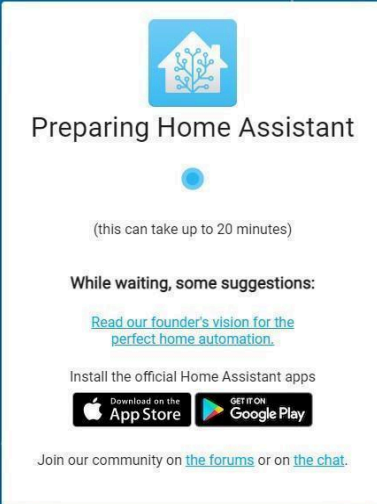
- Use the Ethernet cable by connecting it to the Ethernet port (Gigabit Ethernet) and the other end to your network router or active network port.
- Connect the Power Supply.
- Enjoy Home Assistant Green


Next Steps

Setting up Home Assistant

STEP 1: Go to your browser

Go to your browser on your laptop, phone or tablet and try accessing <http://homeassistant.local:8123/> you can also download the home assistant app on iOS or Android. If this doesn't work, try "Alternate Step 1" below.







Preparing Home Assistant

(this can take up to 20 minutes)

While waiting, some suggestions:

[Read our founder's vision for the perfect home automation.](#)


Install the official Home Assistant apps

Join our community on [the forums](#) or on [the chat](#).

STEP 2: Create Account

Wait until the Home Assistant OS gets updated and create your account.


 Home Assistant


Are you ready to awaken your home, reclaim your privacy and join a worldwide community of tinkerers?

Let's get started by creating a user account.

Name*

Username*

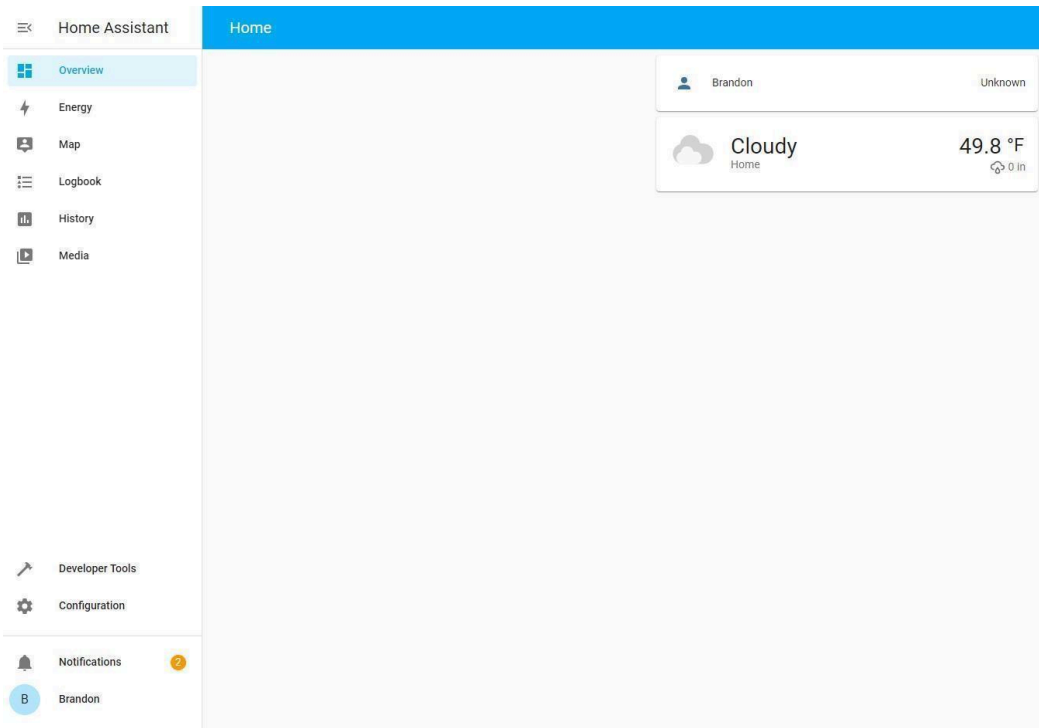
Password* 

Confirm Password* 

[CREATE ACCOUNT](#)

[Alternatively you can restore from a previous backup.](#)

STEP 3: Enjoy Home Assistant



Alternate STEP 1: Accessing Home Assistant from IPv4 Address

```
Home Assistant
Welcome to the Home Assistant command line.

System information
IPv4 addresses for eth0: 192.168.1.31/24
IPv6 addresses for eth0: 2603:6012:13e:3492:4f58:ca3b:ca02:5466/64, 2603:6012:13e:3492::c
OS Version: Home Assistant OS 7.5
Home Assistant Core: 2022.3.5

Home Assistant URL: http://homeassistant.local:8123
Observer URL: http://homeassistant.local:4357
[core-ssh ~]$
```

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If you are not able to access <http://homeassistant.local:8123/> you will most likely be able to access Home Assistant using the IPv4 address assigned to your device. In order to find the IPv4 follow the next steps:

- Connect your Home Assistant Green to a monitor using the HDMI cable and a Keyboard via USB.
- If the username is asked, write “root” and press enter.
- If a password is required, write “root” and press enter.

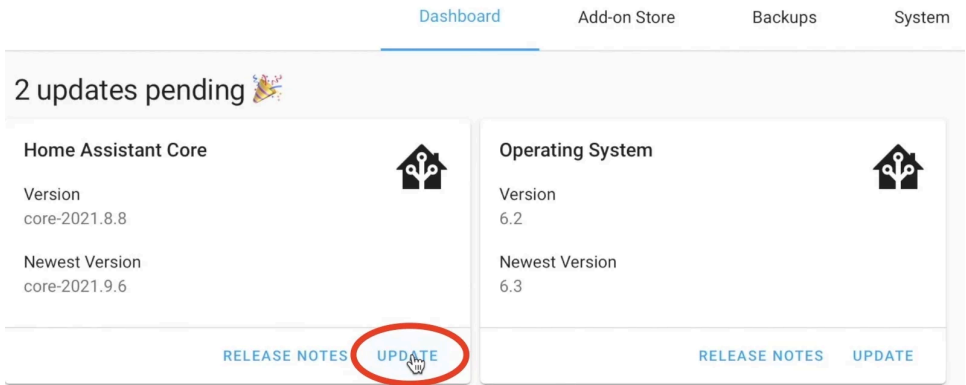
You should get a screen like the one on the one above. Make a note of the line that states “IPv4 addresses for eth0”. The part from the slash to the end of the line (“/24” in the example above) should be ignored in this case.

- Now just use the IPv4 address to access Home Assistant from your web browser.
- Based on the example above, it would be <http://192.168.1.31:8123/> (replace the “192.168.1.31” with the IPv4 address shown on your Home Assistant, but leave the “:8123/” on the end)

If you have the Home Assistant app it will automatically detect your Home Assistant Green if connected to the same network that your phone is connected to, make sure to write down the IPv4 address before you continue with the setup process on your phone.

STEP 4: Check for Updates

After creating a Home Assistant account and logging in, go to the "Settings" option in the sidebar and look at the top item in the list. If it says something about an update, install the Home Assistant updates (Make sure to update both the Operating System and Home Assistant Core).



The screenshot shows the Home Assistant update notification interface. At the top, there are navigation links: "Dashboard" (highlighted with a blue underline), "Add-on Store", "Backups", and "System". Below the navigation, a header indicates "2 updates pending" with a small icon. The main content is divided into two columns. The left column is for "Home Assistant Core", showing the current version "core-2021.8.8" and the newest version "core-2021.9.6". The right column is for "Operating System", showing the current version "6.2" and the newest version "6.3". Both columns have a "RELEASE NOTES" link and an "UPDATE" link. The "UPDATE" link in the Home Assistant Core column is circled in red, with a mouse cursor pointing to it.

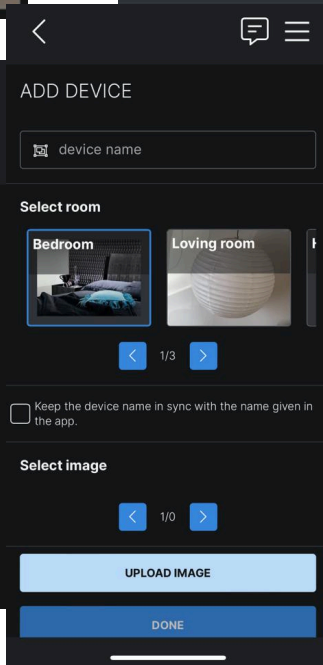
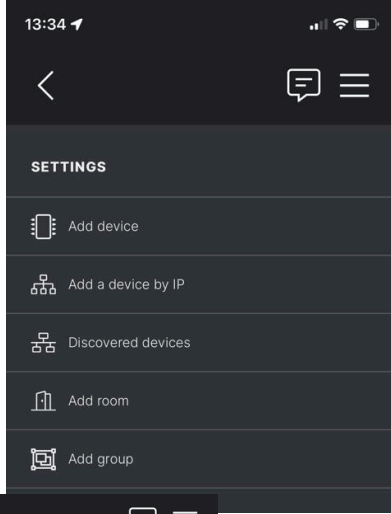
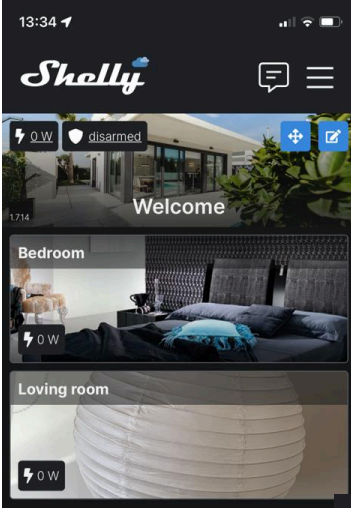
| Component | Current Version | Newest Version |
|---------------------|-----------------|----------------|
| Home Assistant Core | core-2021.8.8 | core-2021.9.6 |
| Operating System | 6.2 | 6.3 |

Setting Up Shelly and Other IP-Based Devices

STEP 1: Add your device in your device's App

(Shelly shown as a demonstration)

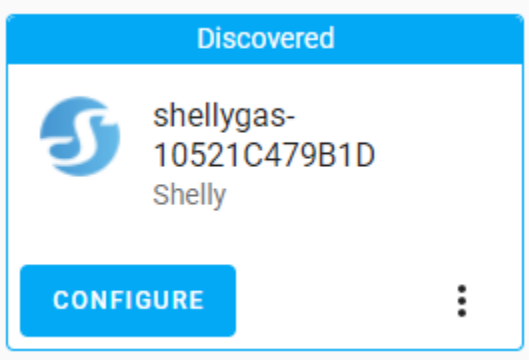
Go to your Shelly app, select  and click on "Add device"



Make sure to connect to your 2.4Ghz network, pick a name, a room and hit "Done"

STEP 2: Configure Shelly Device on Home Assistant

Once your Shelly device is connected to the same network as your Home Assistant, it should be detected automatically. Press “Configure” and then “Submit”.



Shelly



Do you want to set up the Shelly Gas at 192.168.1.42?

Battery-powered devices that are password protected must be woken up before continuing with setting up.

Battery-powered devices that are not password protected will be added when the device wakes up, you can now manually wake the device up using a button on it or wait for the next data update from the device.

SUBMIT

STEP 3: Add device to Overview

In your overview menu, select the three dots on the right top corner, and hit “Edit Dashboard”, once in there select the “Add Card” option, and go to the “Select by Entity” tab.

Which card would you like to add to your "Home" view?

BY CARD

BY ENTITY

| | | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Shelly Gas Gas binary_sensor.shelly_gas_gas |
| <input type="checkbox"/> | <input type="checkbox"/> | Shelly Gas Mute button.shelly_gas_mute |
| <input type="checkbox"/> | <input type="checkbox"/> | Shelly Gas Operation sensor.shelly_gas_operation |
| <input type="checkbox"/> | <input type="checkbox"/> | Shelly Gas OTA Update button.shelly_gas_ota_update |
| <input type="checkbox"/> | <input type="checkbox"/> | Shelly Gas Reboot button.shelly_gas_reboot |
| <input type="checkbox"/> | <input type="checkbox"/> | Shelly Gas Self Test button.shelly_gas_self_test |
| <input type="checkbox"/> | <input type="checkbox"/> | Shelly Gas Unmute button.shelly_gas_unmute |
| <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | Shelly Gas Concentration sensor.shelly_gas_gas_concentration |

CANCEL **CONTINUE**

We created a suggestion for you

| | | |
|-------------------------------------|--------------------------|-------|
| <input checked="" type="checkbox"/> | Shelly Gas Gas | Clear |
| <input type="checkbox"/> | Shelly Gas Concentration | 0 ppm |

CANCEL **PICK DIFFERENT CARD** **ADD TO DASHBOARD**

There you should find the entities included with your device, in my case “Shelly Gas”. Mark all the entities that you would like to add and hit “Continue”

Then you can pick a different card, or add the suggested one to the dashboard, and it will look like this.

| | | |
|-------------------------------------|--------------------------|-------|
| <input checked="" type="checkbox"/> | Shelly Gas Gas | Clear |
| <input type="checkbox"/> | Shelly Gas Concentration | 0 ppm |

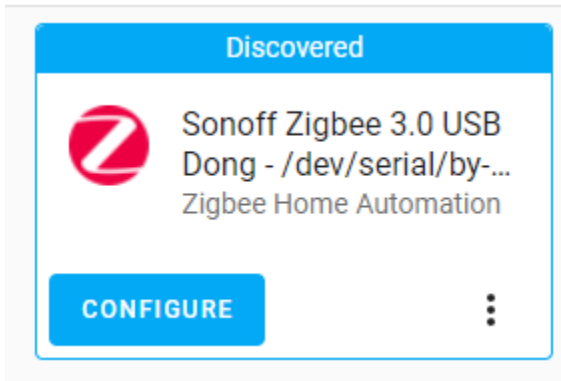
Setting Up Zigbee

STEP 1: Insert the Zigbee 3.0 USB Dongle Plus E or SkyConnect in one of the USB ports

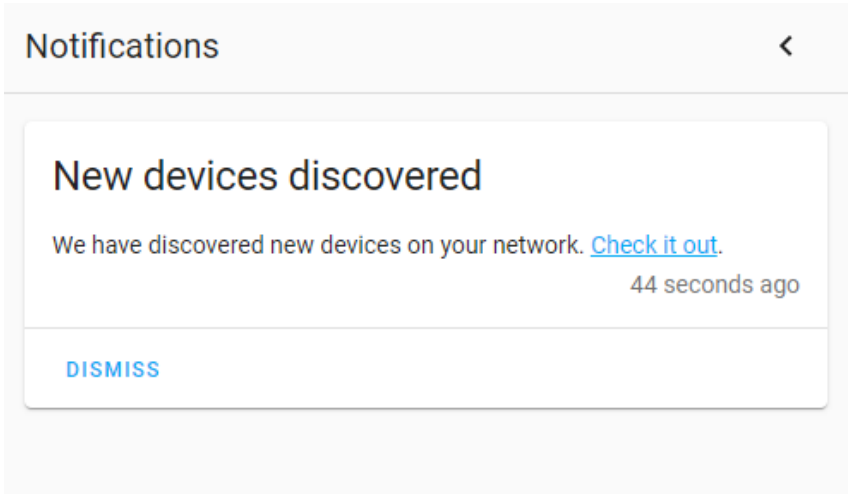


Connect your preferred Zigbee USB Dongle in the USB Port right next to the Power Supply port.

STEP 2: Configure the Zigbee Dongle on the Home Assistant Interface



Check out the new devices discovered, select “configure” and then hit submit, it will take a minute to configure Zigbee.



Zigbee Home Automation



Do you want to setup Sonoff Zigbee 3.0 USB Dongle - /dev/serial/by-id/usb-Itead_Sonoff_Zigbee_3.0_USB_Dongle_Plus_b445bf929012ec118d8d20c7bd930c07-if00-port0, s/n: b445bf929012ec118d8d20c7bd930c07 - ITEAD - 10C4:EA60?



Success!



Created configuration for Sonoff Zigbee 3.0 USB Dong - /dev/serial/by-id/usb-ITead_Sonoff_Zigbee_3.0_USB_Dongle_Plus_b445bf929012ec118d8d20c7bd930c07-if00-port0, s/n: b445bf929012ec118d8d20c7bd930c07 - ITeaD - 10C4:EA60.

We found the following devices:

Zigbee Coordinator

ZNP = Texas Instruments Z-Stack

ZNP protocol: CC253x, CC26x2,

CC13x2 (ZHA)

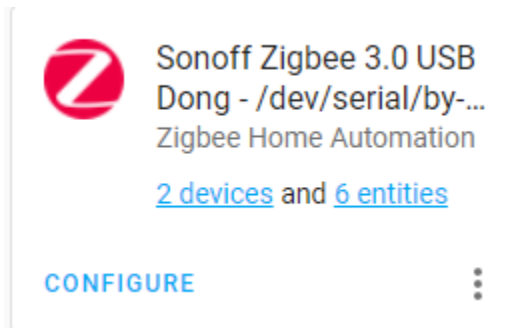
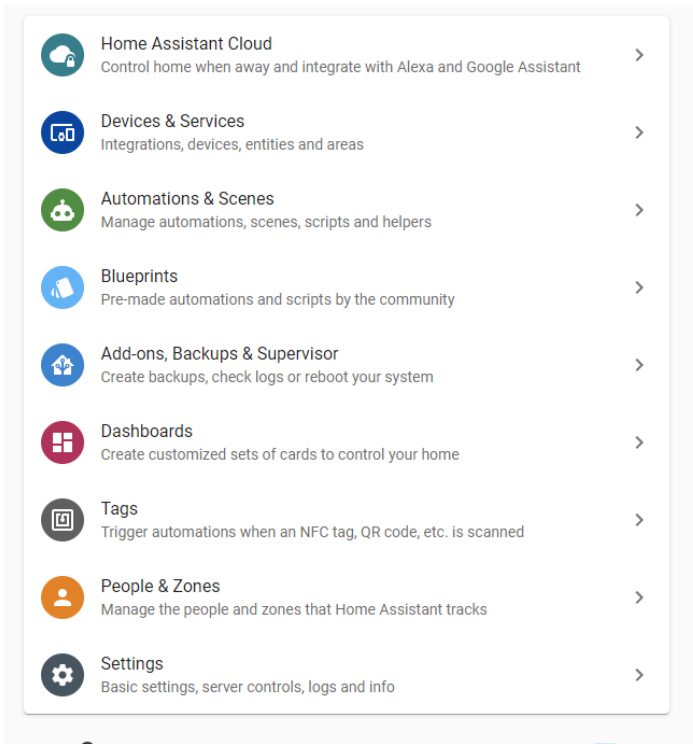
Area



FINISH

Once you get the success message, select the area where your Zigbee is and hit “finish”

Go to “Configuration”-->”Devices & Services” and hit “Configure” on your Zigbee Device.



Once you enter your Zigbee configuration select “Add device”

on your bottom right.

Home Assistant will use the Zigbee Dongle to search for Zigbee compatible devices that are in pairing mode.

Network Groups Visualization

Shortcuts

DEVICES ENTITIES

Global Options

Default light transition time (seconds)

Enable identify effect when devices join the network

Consider mains powered devices unavailable after (seconds)

Consider battery powered devices unavailable after (seconds)

UPDATE CONFIGURATION

+ ADD DEVICE

Searching for Zigbee devices...



Make sure your devices are in pairing mode. Check the instructions of your device on how to do this.

Devices will show up here once discovered.

Searching for Zigbee devices...

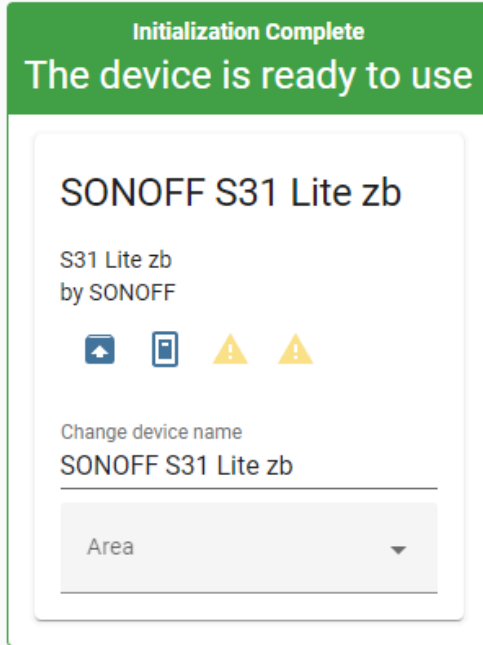


Interview Complete
Configuring

S31 Lite zb
by SONOFF
IEEE: 00:12:4b:00:25:0c:50:54
NWK: 0xa6c1

Home Assistant will automatically detect and configure the device

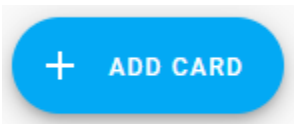
Searching for Zigbee devices...



The screenshot shows a Home Assistant interface during device discovery. At the top, a green banner reads "Initialization Complete" and "The device is ready to use". Below this, the device name "SONOFF S31 Lite zb" is displayed. Underneath, it says "S31 Lite zb by SONOFF". There are four icons: a blue square with a white up arrow, a blue square with a white mobile phone icon, and two yellow triangles with black exclamation marks. Below the icons, there is a section for "Change device name" with the current name "SONOFF S31 Lite zb" and a text input field containing "Area".

STEP 3: Add your new device to your Overview

In your overview menu, select the three dots on the right top corner, and hit "Edit Dashboard", once in there select the "Add Card" option, where you should find the option of adding your recently detected device



Which card would you like to add to your "Home" view?

BY CARD

BY ENTITY

Q Search cards

Alarm Panel

The Alarm Panel card allows you to arm and disarm your alarm control panel integrations.

Button



SONOFF S31 Lite zb 54500c25 on_off

Cal

The Calendar card including day, w

Button Card Configuration



Entity
SONOFF S31 Lite zb 54500c25 on_off X

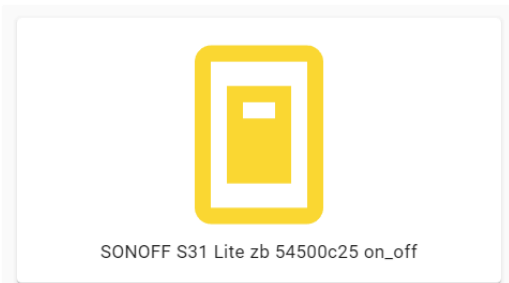
Name Icon

Show Name? Show State? Show Icon?

Icon Height Theme (optional)

Tap Action (optional)
Toggle

Hold Action (optional)
More Info



[SHOW CODE EDITOR](#)

[CANCEL](#) [SAVE](#)

Configure your selected card and hit “save”.
Now you will be able to control your new device from your Home Assistant Overview.



Brandon

Unknown



Cloudy

Home

81 °F

0.2 in



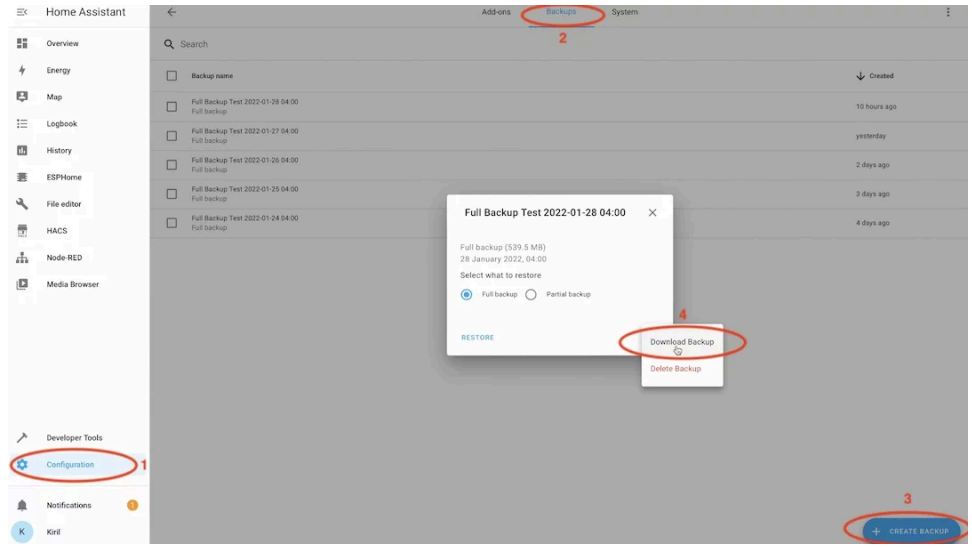
SONOFF S31 Lite zb 54500c25 on_off



Moving data to external hard drive (SSD)

STEP 1: Create and Download Backup

Create a backup & download it first, before continuing with the Home Assistant External Data Disk move procedure.



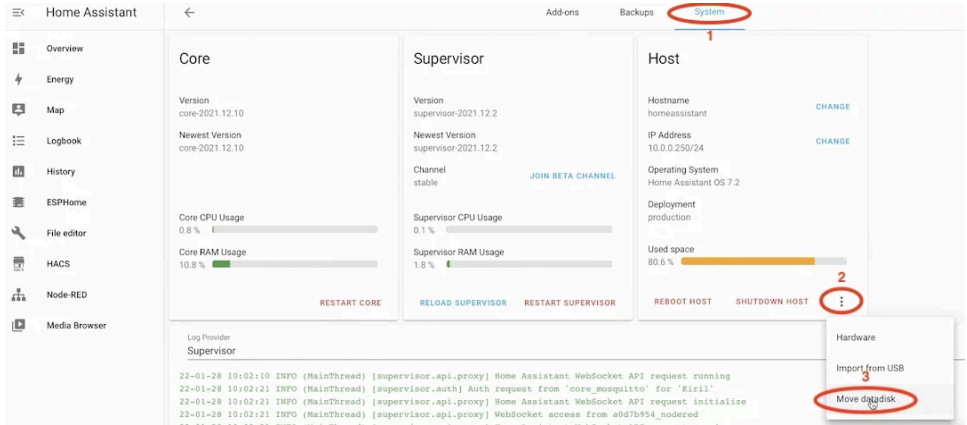
STEP 2: Connect your external SSD

When you are ready with the backups, boot your Home Assistant as usual and connect the SSD drive to any of the blue USB ports (USB 3.0) on your device, as they are faster.

STEP 3: Use UI to move the Home Assistant data to the external data disk

Open your Home Assistant web interface and go to:

Configuration > Add-ons, Backups & Supervisor > System tab and click on this three dots menu then select Move datadisk.



You should see a warning/dialog saying the following:

You are currently using /dev/mmcblkXXXX (this is the representation of your eMMC or microSD) as data disk.

Moving data disk will reboot your device and it is estimated to take 10 minutes.

Your Home Assistant installation will not be accessible during this period.

Do not disconnect the power during the move.

To continue, select your SSD drive from the dropdown list and click on the move button.

Select USB drive and move the data disk

Move datadisk

You are currently using '/dev/mmcblk0p8' as datadisk. Moving data disks will reboot your device and it's estimated to take 10 minutes. Your Home Assistant installation will not be accessible during this period. Do not disconnect the power during the move!

Select new datadisk

/dev/sda

1

2

CANCEL

MOVE

Installing Home Assistant Community Store (HACS)

Allowing Additional Functionality

STEP 0: Create Github account

If you already have a Github account, continue to Step 1.

Otherwise, go to <https://github.com> and follow the instructions to create an account.

STEP 1: Install SSH add-on

Go to Settings→Add-ons→Add-on Store and search for “Terminal & SSH”, if it is not showing up, please make sure “Advanced mode” is enabled, to enable Advanced mode, go to your profile (Bottom left corner) scroll down the the end of “User Settings” and enable “Advanced mode”. Once enabled go back and search for “Terminal & SSH”. Once there click install

Terminal & SSH

[Changelog](#)

7 Rating

🏠 Manager

🌐 Ingress

🔑 Signed

Allow logging in remotely to Home Assistant using SSH.
Visit the [Terminal & SSH](#) page for more details



INSTALL

Once installed, enable Show in sidebar, and either click on the sidebar icon, or click on “open web ui”



Terminal

That will take you to the Home Assistant Terminal where you can download HACS.

STEP 2: Download and Install HACS

Once on the terminal run this command:

```
"wget -O - https://get.hacs.xyz | bash -" (without the """)
```

Alternatively you can try following these instructions

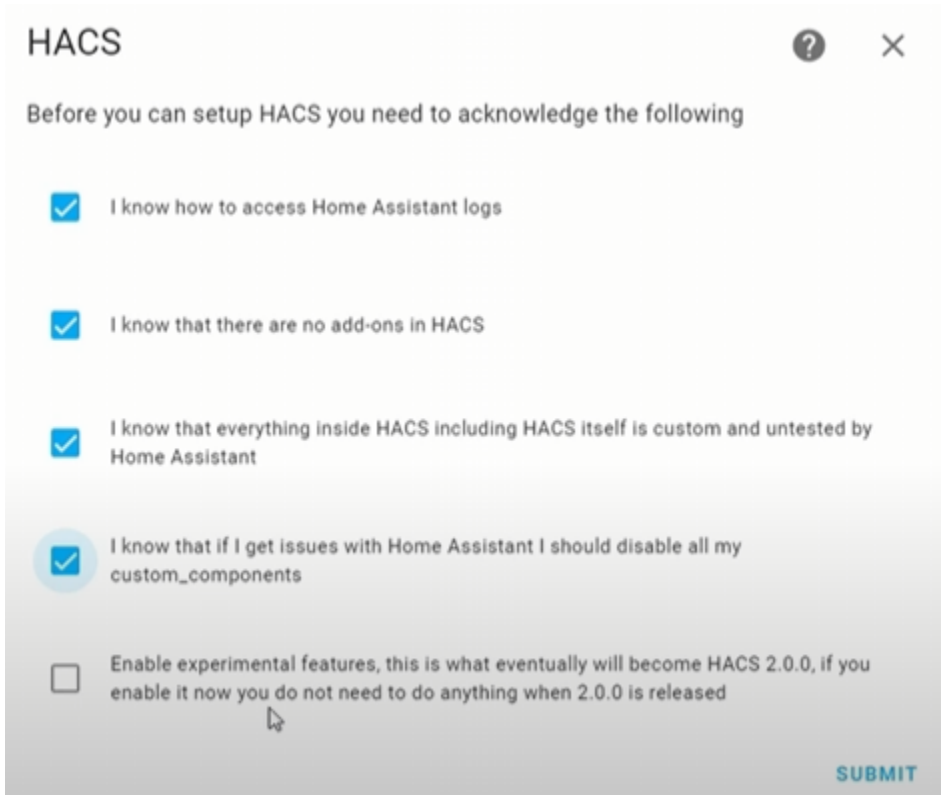
["https://hacs.xyz/docs/use/download/download/"](https://hacs.xyz/docs/use/download/download/)

Once the command has finished, go to settings, click the 3 dots on the top right and restart Home Assistant.



Once HA has restarted, go to Settings, Devices & Services, Add Integration and search for HACS

Mark all boxes except the last one and submit.



Follow the instructions for device



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activation in Github (you need a Github account)

Once you have the success message, just click on finish.



Home Assistant

HACS will not show up in your sidebar.



Overview

Now you can browse the Home Assistant Community Store.



Map



Energy



Logbook



History



HACS



Media

Add SONOFF WiFi Devices to Home Assistant

Now that we have HACS installed we can add integrations like SONOFF LAN, SONOFF LAN will allow us to add to Home Assistant SONOFF WiFi devices that are not directly supported by Home Assistant.

For instance, to install SONOFF LAN, click “HACS” in the sidebar and enter “SONOFFLAN” in the search bar. When it is found, click on it and select “Download” from the bottom right corner.

First, go to HACS > Integrations > Plus > SonoffLAN and click install.

Then simply go to Settings > Integrations > Add integration and search for SONOFF



Then use your eWeLink username and password and you will be able to import your eWeLink devices to Home Assistant.

Appendices

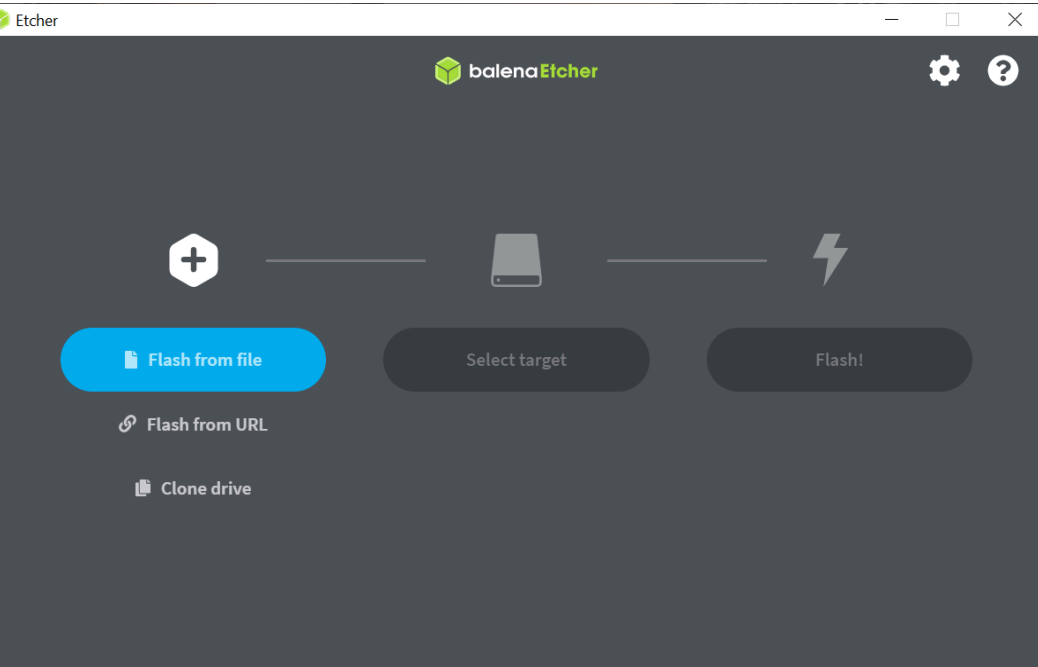
Appendix A: Reflash your eMMC or microSD with Home Assistant or Other Operating System

STEP 1: Download the Home Assistant OS for the Green

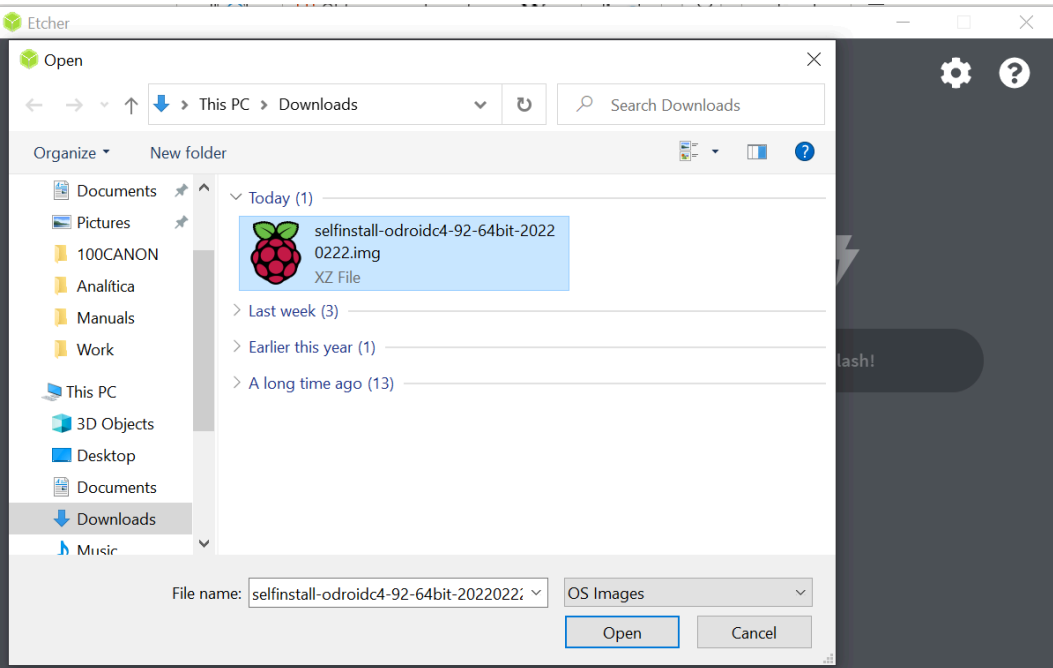
To download the Home Assistant Green OS installer, paste this URL

“<https://github.com/NabuCasa/buildroot-installer/releases/tag/green-installer-20230822>” into your browser. You can use the QR code above to gain access to the virtual version of this guide.

STEP 2: Connect your microSD to a computer and Download Balena Etcher



Download balenaEtcher from <https://www.balena.io/etcher/>. Next, Now, run balenaEtcher and select the “Flash from file” option and find the operating system file that was just downloaded on step 1.



Next, click “Target” and select the microSD card

Select target 2 found

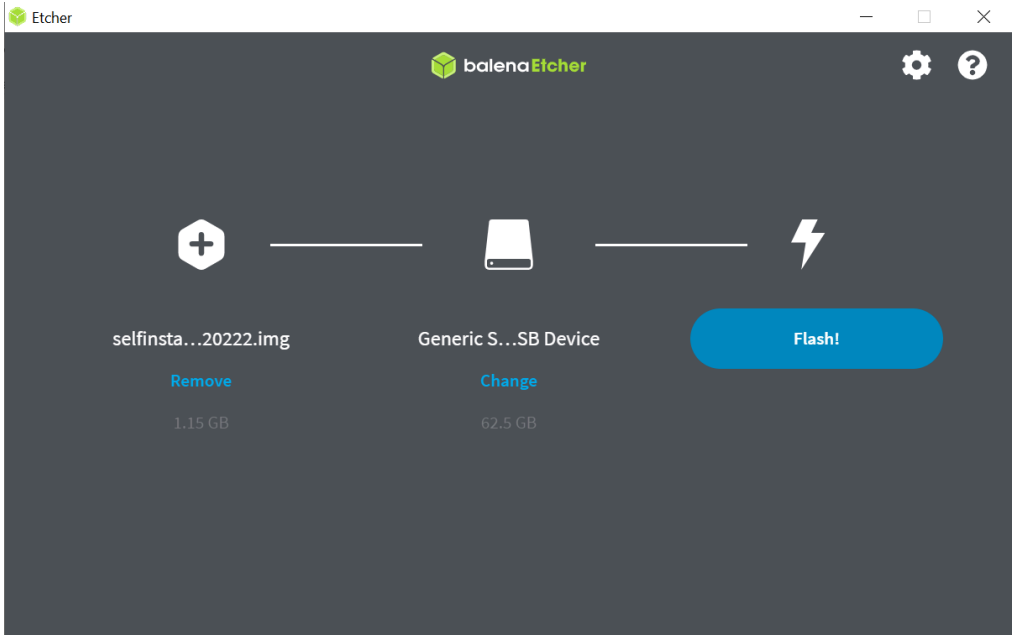
| <input checked="" type="checkbox"/> | Name | Size | Location |
|-------------------------------------|-----------------------------------|---------|----------|
| <input checked="" type="checkbox"/> | Generic STORAGE DEVICE USB Device | 62.5 GB | D:\, E:\ |

▼ Show 1 hidden

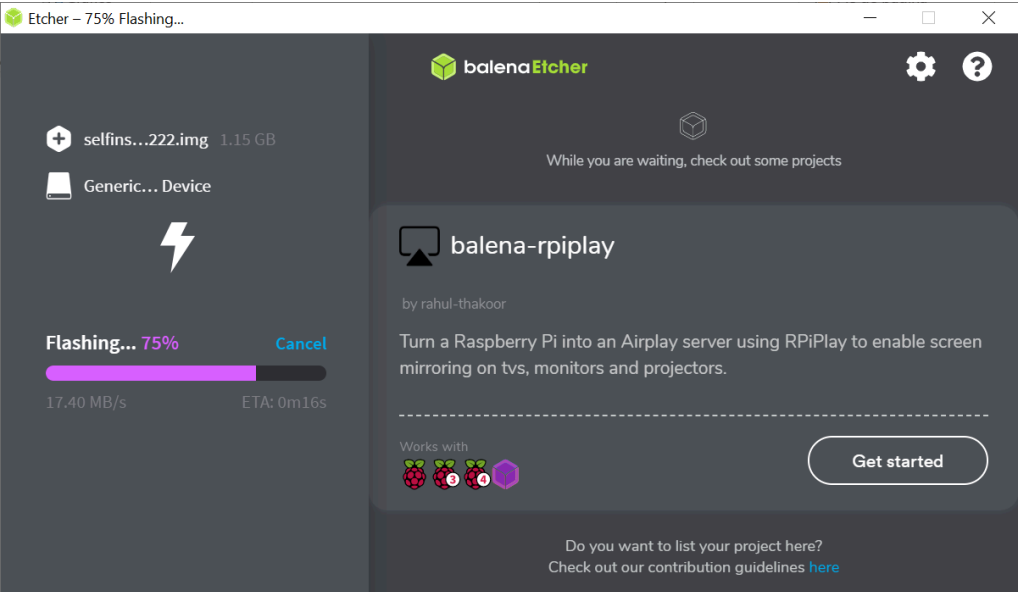
Cancel

Select (1)

Once the correct target is selected, click “Flash!”



Wait while it flashes



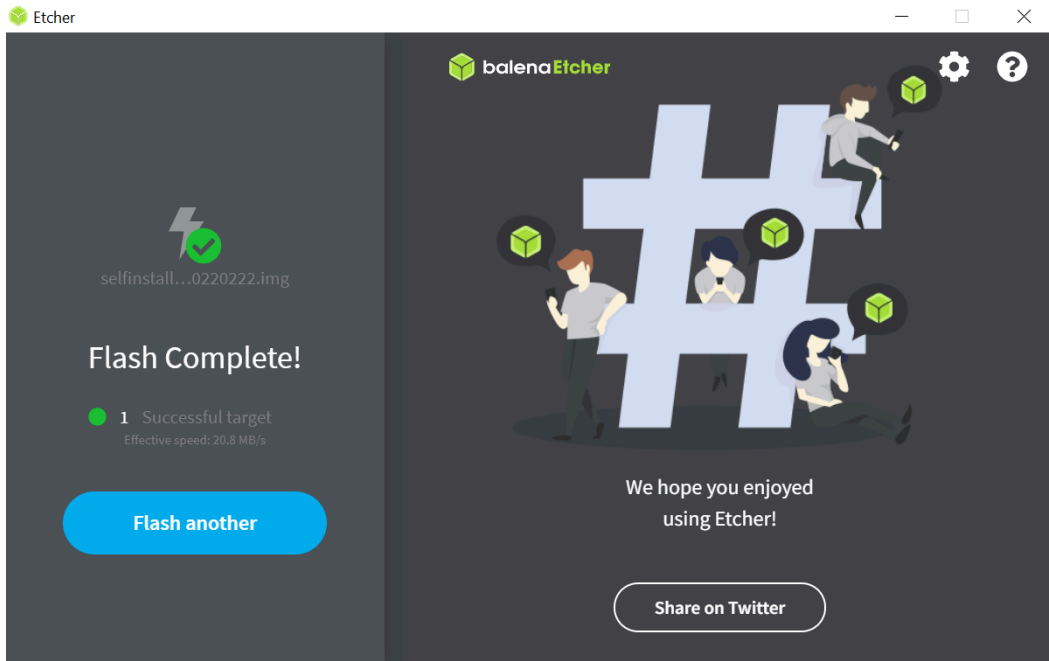
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And it is done!



STEP 3: Insert the microSD card in your Home Assistant Green
Make sure the Home Assistant Green is connected to the Internet and Press the power button, the operating system is being written to the eMMC. During this time, the yellow LED will be blinking fast. Wait for the LEDs to turn off. When the LEDs turn off, the operating system has been written to the eMMC. Remove the SD card. Press the power button. Once the yellow LED blinks in a heartbeat pattern, the system is ready.

Appendix B: Interesting Notes About Power Supplies

Did you know that almost all electronic devices are designed to work with a specific voltage (V), or range of voltages? It's easiest to use the power supply recommended by the manufacturer. However, in some cases it may be necessary to find a different power supply.

- When deciding whether or not to connect a power supply to a device, check to make sure the voltage (V) of the power supply is in the range required by the device, not more or less.
- Check the amperage (A) of the power supply. Make sure it is equal to or more than the amperage specified by the device.
- If the amperage is listed in **mA**, simply move the decimal three digits to the left to find out how much it is in amps. For instance, $1500\text{mA} = 1500.0\text{mA} = 1.5\text{A}$. Again, this number should be equal to or more than the device calls for.
- In some cases, it is possible for the device to draw more power than what is specified under "normal" operation. For instance, if a USB device is connected that draws a lot of power, like an external hard drive, it can require more power from the device than is stated for "normal" operation.
- These reasons (and others) are why we recommend particular power supplies for each device.