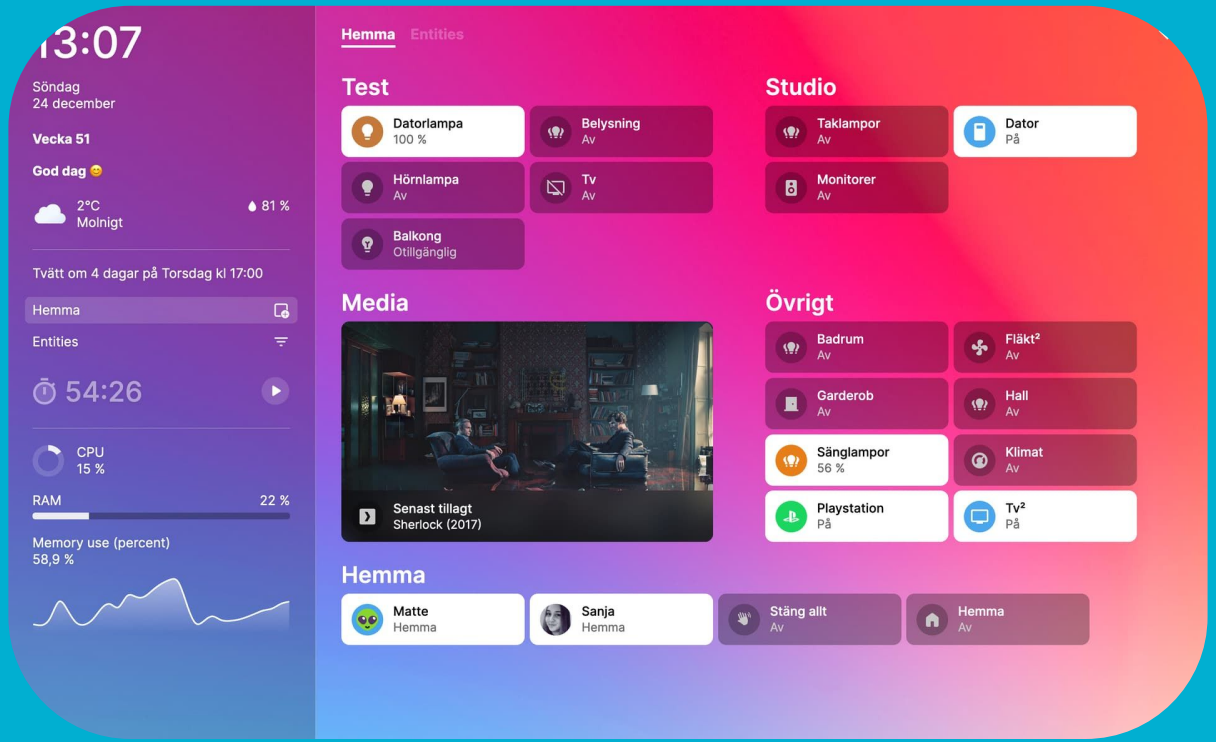
Home Assistant

What is the purpose of the project?

"It's the brain of a smart home"

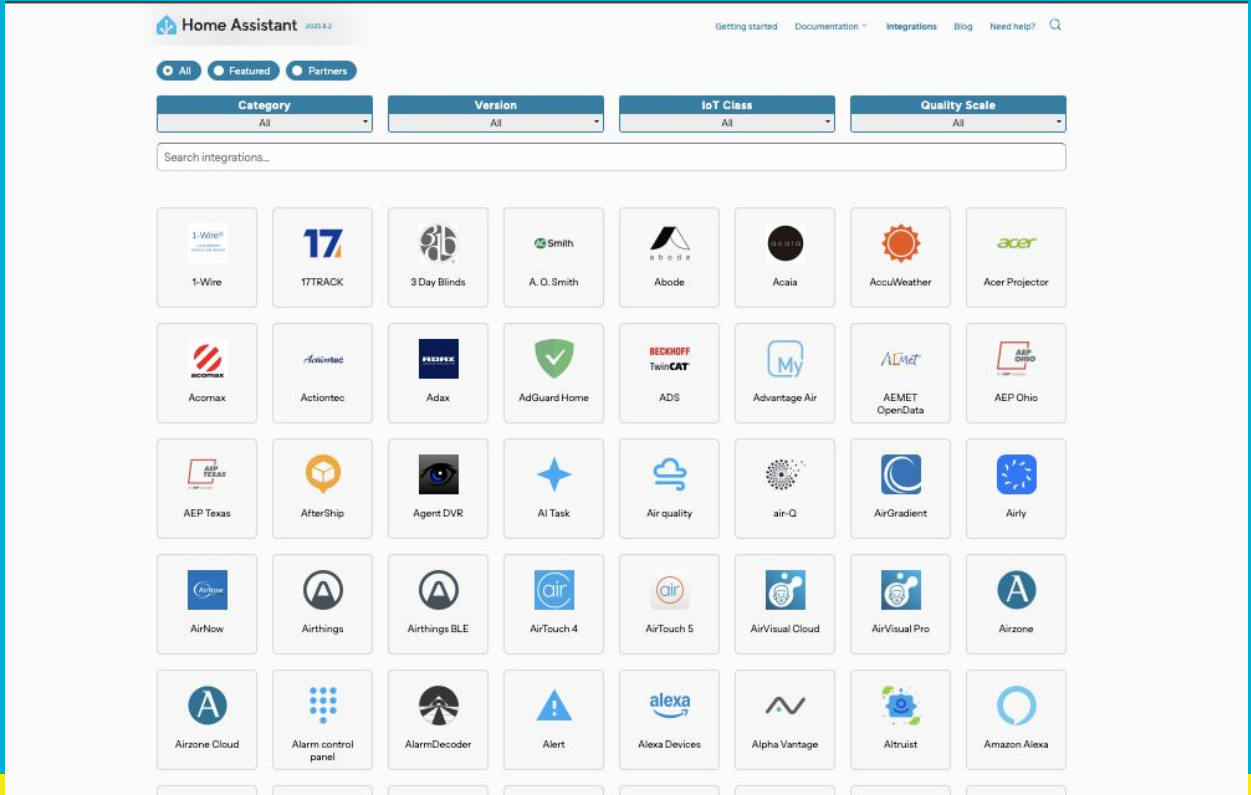


What is the purpose of the project?

For Paulus Schoutsen: “It’s the brain of a smart home”

- Local Control
- Privacy
- Interoperability

Integrations



tv

ADD INTEGRATION TO MY

The Apple TV integration was introduced in Home Assistant 0.49, and it's used by 15.4% of the active installations.

Its IoT class is Local Push.

View source on GitHub

View known issues

INTEGRATION OWNERS

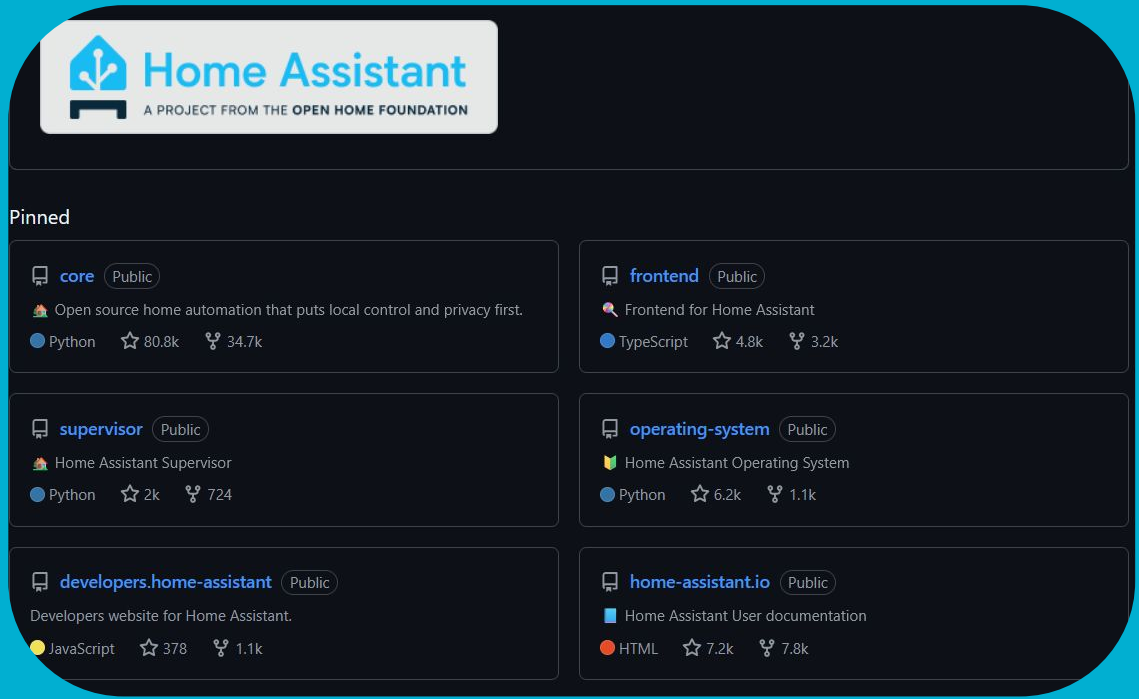
We are incredibly grateful to the following contributors who currently maintain this integration:

@postlund

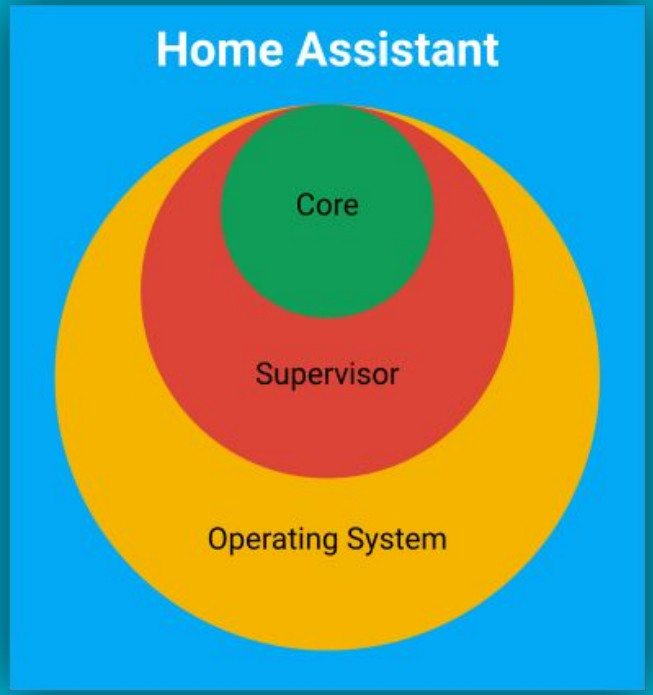
What is the purpose of the project?

Top 10 public projects by contributors on GitHub	
Project	**Contributor count**
home-assistant/core	>21K
microsoft/vscode	>20K
ProvableHQ/leo	>20K
firstcontributions/first-contributions	>13k
flutter/flutter	>10K

Where is the source code located?



Which technologies are used?



Which technologies are used?
CORE

Backend:

- Python
- SQLite
- aiohttp
- YAML

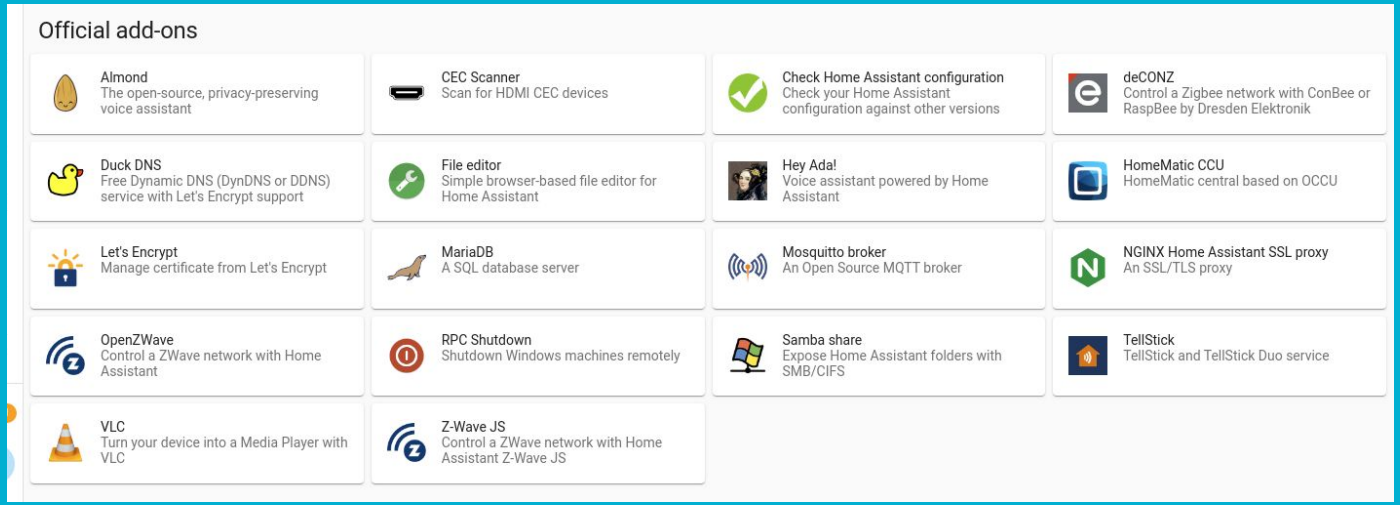
Frontend:

- HTML/CSS
- JS
- Lit/Web components
- YAML

Which technologies are used?
Supervisor

Backend:

- Python
- Docker

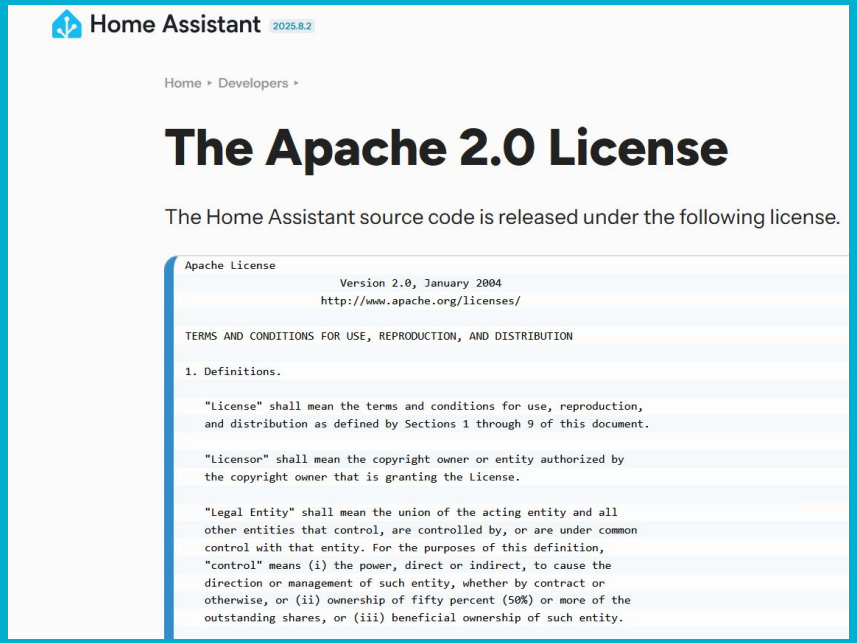


Which technologies are used?
OS

Backend:

- Linux
- Buildroot
- GRUB

License and contribution guidelines



Home Assistant 2025.8.2

Home ▸ Developers ▸

The Apache 2.0 License

The Home Assistant source code is released under the following license.

```
Apache License
                           Version 2.0, January 2004
                        http://www.apache.org/licenses/

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1. Definitions.

   "License" shall mean the terms and conditions for use, reproduction,
   and distribution as defined by Sections 1 through 9 of this document.

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   the copyright owner that is granting the License.

   "Legal Entity" shall mean the union of the acting entity and all
   other entities that control, are controlled by, or are under common
   control with that entity. For the purposes of this definition,
   "control" means (i) the power, direct or indirect, to cause the
   direction or management of such entity, whether by contract or
   otherwise, or (ii) ownership of fifty percent (50%) or more of the
   outstanding shares, or (iii) beneficial ownership of such entity.
```

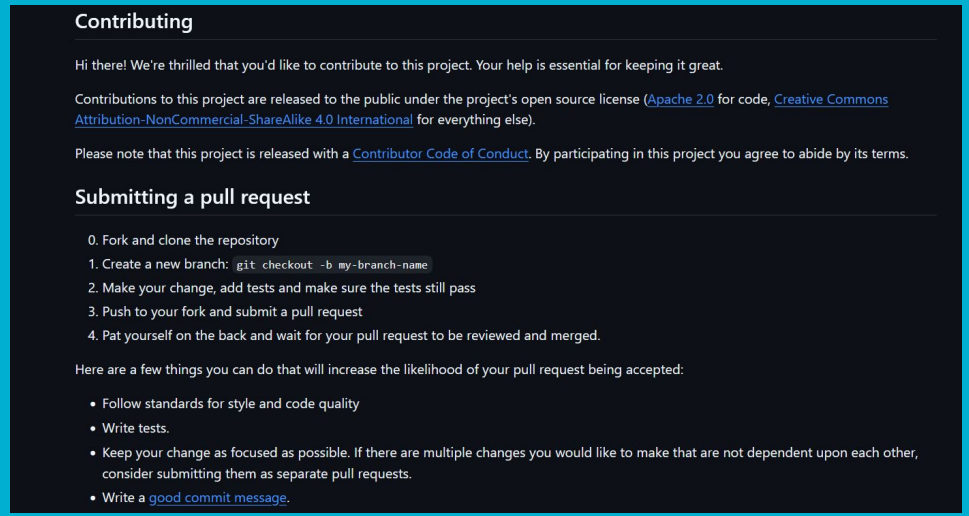

Contributing

Hi there! We're thrilled that you'd like to contribute to this project. Your help is essential for keeping it great.

Contributions to this project are released to the public under the project's open source license (Apache 2.0 for code, Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International for everything else).

Please note that this project is released with a Contributor Code of Conduct. By participating in this project you agree to abide by its terms.

Submitting a pull request

0. Fork and clone the repository
1. Create a new branch: `git checkout -b my-branch-name`
2. Make your change, add tests and make sure the tests still pass
3. Push to your fork and submit a pull request
4. Pat yourself on the back and wait for your pull request to be reviewed and merged.

Here are a few things you can do that will increase the likelihood of your pull request being accepted:

- Follow standards for style and code quality
- Write tests.
- Keep your change as focused as possible. If there are multiple changes you would like to make that are not dependent upon each other, consider submitting them as separate pull requests.
- Write a good commit message.

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- Patent use
- Private use

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- State changes

Limitations

- Liability
- Trademark use
- Warranty

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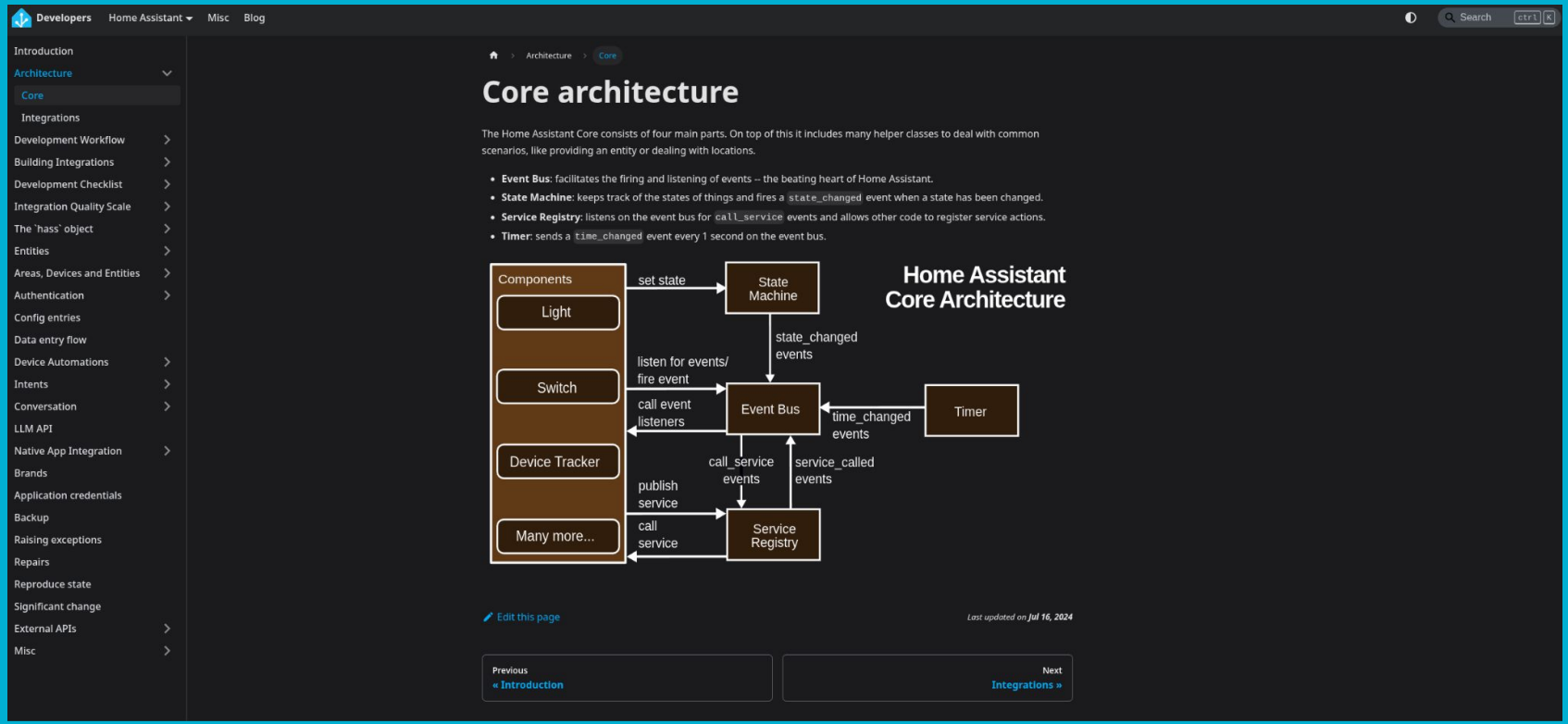
Docs


Developers
Home Assistant
Misc
Blog
Search
Introduction
Architecture
Core
Integrations
Development Workflow
Building Integrations
Development Checklist
Integration Quality Scale
The `hass` object
Entities
Areas, Devices and Entities
Authentication
Config entries
Data entry flow
Device Automations
Intents
Conversation
LLM API
Native App Integration
Brands
Application credentials
Backup
Raising exceptions
Repairs
Reproduce state
Significant change
External APIs
Misc
Architecture
Core
Core architecture
The Home Assistant Core consists of four main parts. On top of this it includes many helper classes to deal with common scenarios, like providing an entity or dealing with locations.
Event Bus: facilitates the firing and listening of events -- the beating heart of Home Assistant.
State Machine: keeps track of the states of things and fires a state_changed event when a state has been changed.
Service Registry: listens on the event bus for call_service events and allows other code to register service actions.
Timer: sends a time_changed event every 1 second on the event bus.
Components
Light
Switch
Device Tracker
Many more...
set state
State Machine
state_changed events
listen for events/ fire event
call event listeners
Event Bus
time_changed events
Timer
call_service events
service_called events
publish service
call service
Service Registry
Home Assistant Core Architecture
Edit this page
Last updated on Jul 16, 2024
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« Introduction
Next
Integrations »

Governance

Governance

Paulus Schoutsen
President

Pascal Vizeli
Treasurer

J. Nick Koston
Member

Projects

Home Assistant

Home Assistant is an open-source, home automation platform that puts local control and privacy first. It is powered by a worldwide community of tinkerers and DIY enthusiasts, and exists to put users in control of their homes, their data, and their personal well-being.

LEARN MORE

Music Assistant

Music Assistant is a music library manager for your offline and online music sources, which can easily stream your favourite music to a wide range of supported players. It becomes incredibly powerful when combined with Home Assistant!

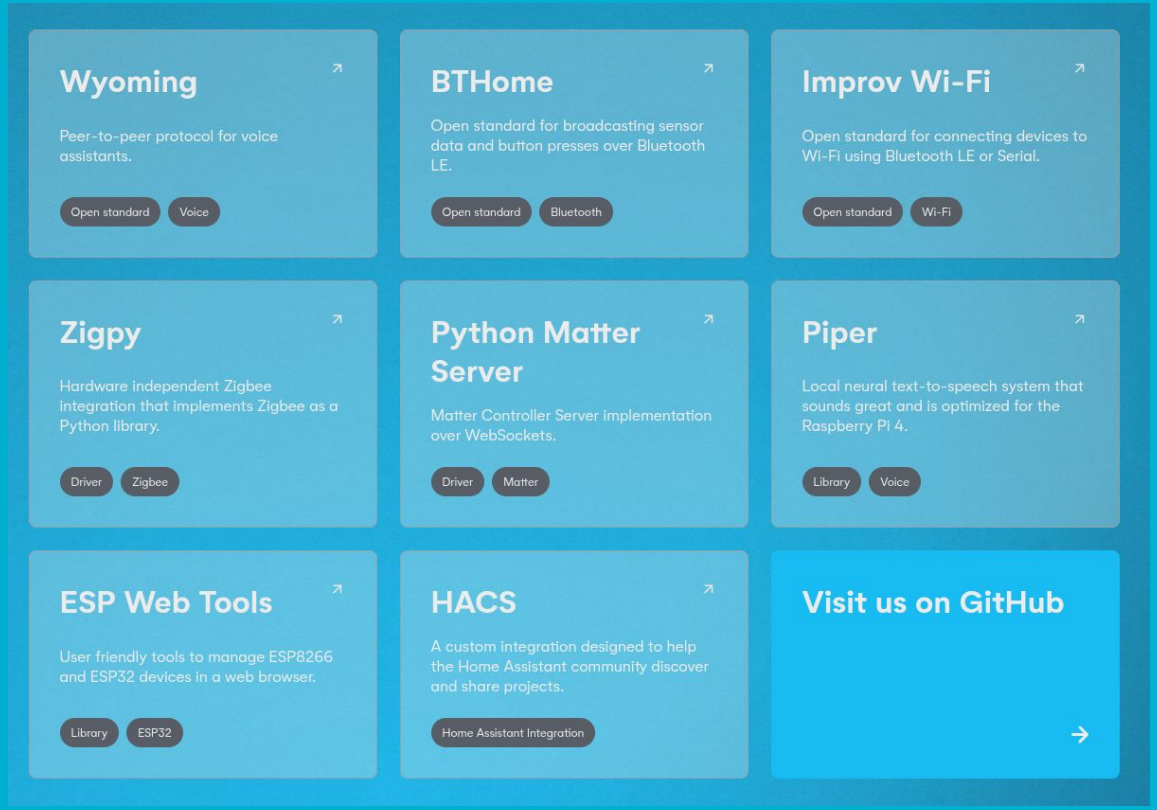
LEARN MORE

ESPHome

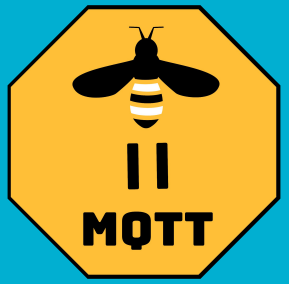
ESPHome is a system to control ESP8266, ESP32, and other microcontrollers to empower makers to repurpose or create custom smart home devices. It's based on simple, yet powerful low-code configuration files, and is compatible with Home Assistant and other home automation systems. It also works as a standalone system.

LEARN MORE

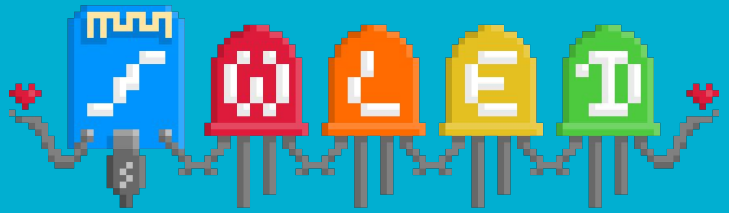
Minor projects



Colabs



Zigbee2Mqtt



WLED

Rhasspy

Who supports our work

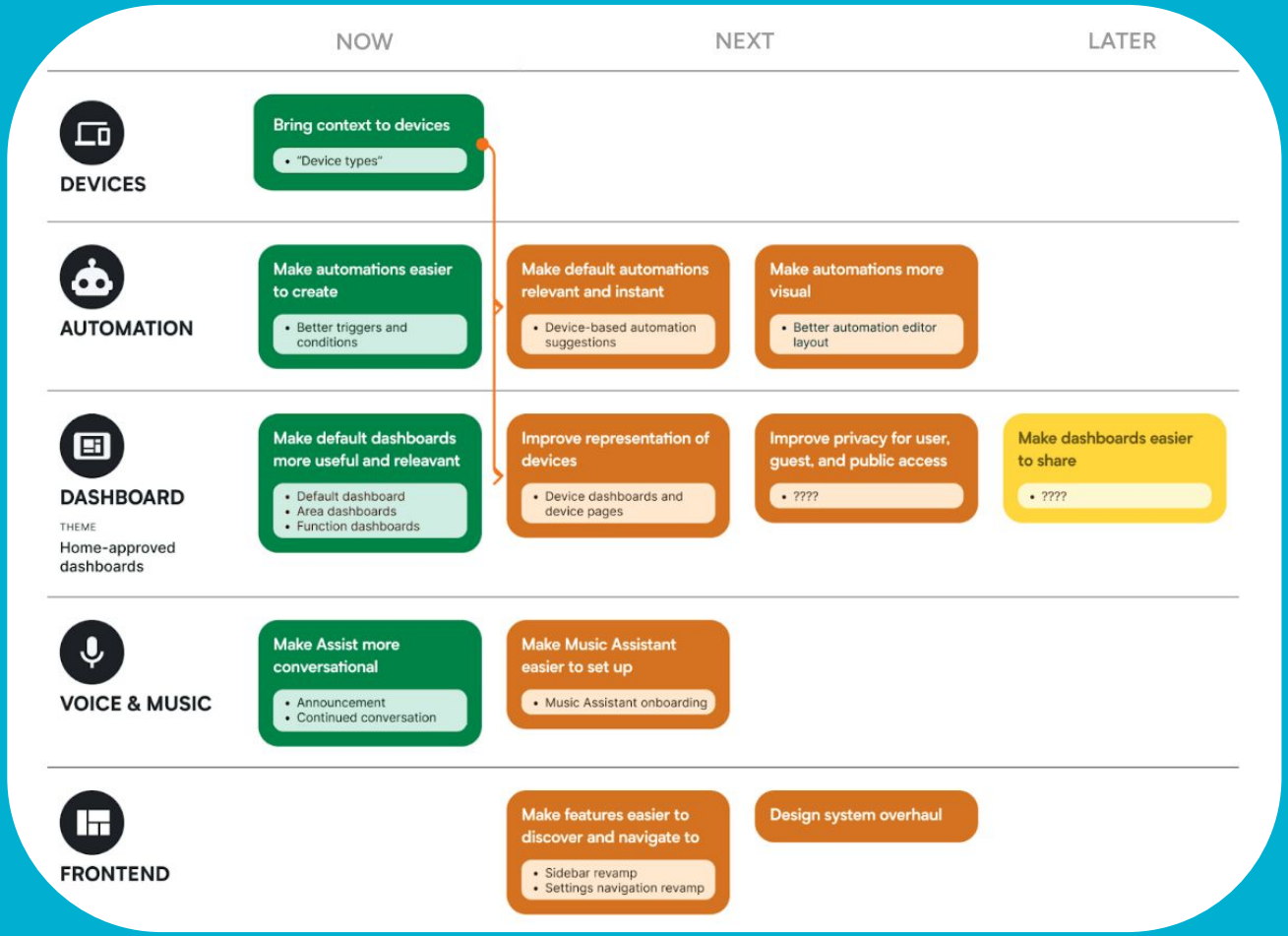
The work of the Open Home Foundation is made possible through the contributions of these organizations:

Who they support

AIOHTTP

Alpine Linux

Buildroot


NOW
NEXT
LATER
DEVICES
Bring context to devices
• "Device types"
AUTOMATION
Make automations easier to create
• Better triggers and conditions
Make default automations relevant and instant
• Device-based automation suggestions
Make automations more visual
• Better automation editor layout
DASHBOARD
THEME
Home-approved dashboards
Make default dashboards more useful and releavant
• Default dashboard
• Area dashboards
• Function dashboards
Improve representation of devices
• Device dashboards and device pages
Improve privacy for user, guest, and public access
• ????
Make dashboards easier to share
• ????
VOICE & MUSIC
Make Assist more conversational
• Announcement
• Continued conversation
Make Music Assistant easier to set up
• Music Assistant onboarding
FRONTEND
Make features easier to discover and navigate to
• Sidebar revamp
• Settings navigation revamp
Design system overhaul