

Practicing Staff+ Principles in Open Source

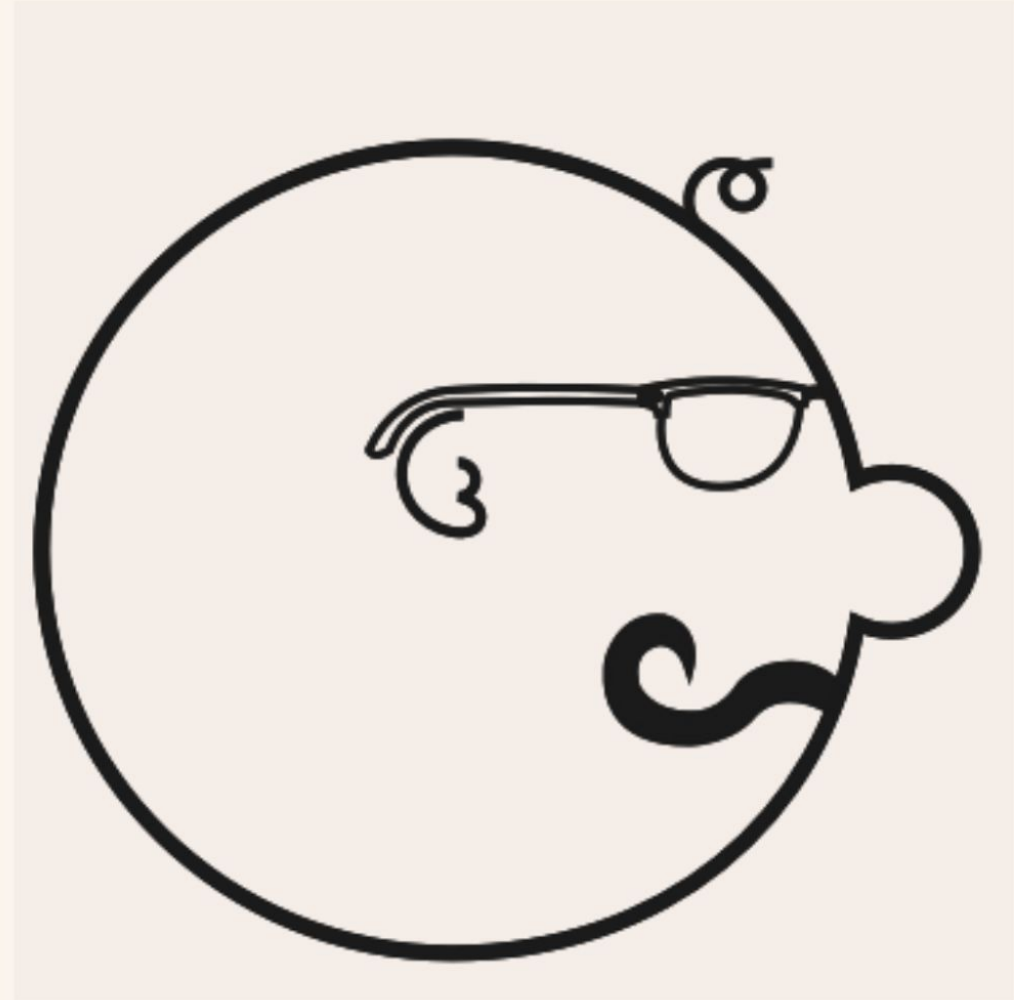
Quick Facts

- Nick Hehr (@hipsterbrown)
- Senior Developer Advocate @ Viam
- Indoor climber / outdoor cyclist
- Home automation & embedded JS

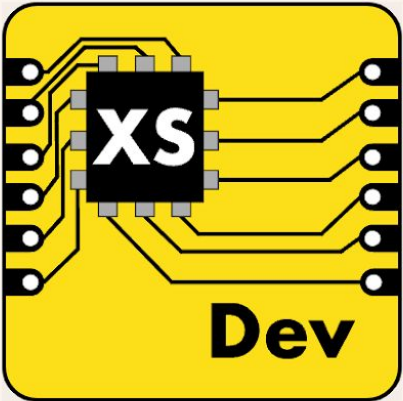
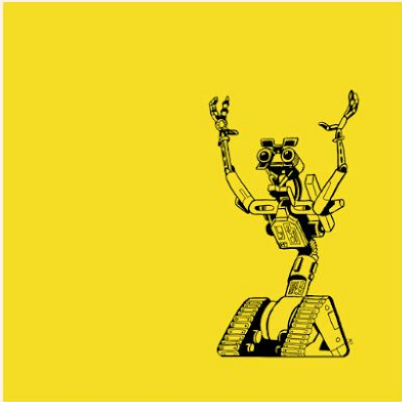


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I ❤️ Open Source



Contributing & maintaining open source projects taught me to be a staff engineer

Learn & adapt open source practices in your role

Three Tenets of Staff+ Open Source

1. Influence without Authority
2. Scaling Yourself
3. Being Glue

Influence without Authority

**Influence the technical direction of a project
without holding authority over team**

Maintainers are held to a high standard but they do not manage contributors

Strong, meaningful communication matters

Open & Shared Context

Artifacts for Communication

- Design Documents
- Architecture Decision Records (ADR)
- Request for Comments (RFC)

One way of thinking about software is as a collection of decisions made at a certain point in time.

- Juan Pablo Buriticá

<https://github.com/readme/guides/making-decisions-in-OSS>

RFCs

- Internet Engineering Task Force (IETF) - <https://www.ietf.org/process/rfc/>
- Rust - <https://github.com/rust-lang/rfc>
- Swift Evolution <https://www.swift.org/swift-evolution/>
- Python Enhancement Proposals <https://peps.python.org/>
- Gov.UK <https://github.com/alphagov/govuk-rfcs>
- Hoodie Discussions <https://github.com/hoodiehq/discussion>

ADRs

- Home Assistant - <https://github.com/home-assistant/architecture>
- TestTrack - https://github.com/betterment/test_track
- GitHub - <https://adr.github.io>
 - Actions Runner
 - Primer Design System

Resources

- Architectural Decision Records - <https://adr.github.io>
- Why Write ADRS - <https://github.blog/engineering/architecture-optimization/why-write-adrs/>
- Understanding Legacy Code - <https://understandlegacycode.com/blog/earn-maintainers-esteem-with-adrs/>
- Open Decision Framework - <https://github.com/open-organization/open-decision-framework>
- Design Doc templates - <https://www.designdocs.dev/library>

Remember to connect with the human on the other side

Scaling Yourself

What could you accomplish as a team of one?

Where is the bottleneck?

~~Where~~ Who is the bottleneck?

Who is the bottleneck?

Hi. It's me.

Automate the tedious tasks, so you can spend more time on the human ones

Enable more people to help through tooling

Help

AVRGirl Arduino test pilot



Thank you for agreeing to test pilot AVRGirl Arduino!

Note: running this test will overwrite any code you have saved on your Arduino.

We'll be logging you in using your Github account. Click the button below to get started.

Log in via Github

<https://github.com/noopkat/avrgirl-arduino/blob/master/CONTRIBUTING.md#manual-testing>

Enable more people to help through tooling

Crash report: Error: No device found in bootloader mode #1037 Edit New issue

Closed tessell-crashbot opened this issue on Oct 12, 2016 · 16 comments

tessell-crashbot commented on Oct 12, 2016 Member ...

```
Error: No device found in bootloader mode
at t2-cli\lib\usb-connection.js:334:19
at USB.Connection.exec.USB.Connection._receiveMessages.USB.Connection.open.setAltSetting.then.then.USB.Con
at retry [as _onTimeout] (t2-cli\lib\usb-connection.js:295:12)
at Timer.listOnTimeout (timers.js:92:15)
```

Full report is at [-0x6cf53c42](#)

tessell-crashbot added the **crash reporter** label on Oct 12, 2016

rwaldron commented on Oct 17, 2016 Member ...

I just encountered this error while testing on a windows 10 machine.

Assignees ...

- rwaldron**

Labels ...

- crash reporter**

Projects ...

None yet

Milestone ...

No milestone

Development ...

[Create a branch](#) for this issue or link a pull request.

Notifications Customize

Unsubscribe

You're receiving notifications because you're watching this repository.

<https://github.com/tessel/t2-crash-reporter>

Grow the next generation

Set the path from "good first issue" to core maintainer

You are the best equipped to distribute work to those looking to help

Working on open source helped me overcome this. If you don't get yourself out of the main flow, the project will never exceed your own capabilities and that's a very limiting situation.

- Jan Lehnardt (CouchDB, Hoodie, Greenkeeper, Neighborhoodies)

Pull Request Fan Out

Checklist

- The code change is tested and works locally.
- Local tests pass. **Your PR cannot be merged unless tests pass**
- There is no commented out code in this PR.
- I have followed the [development checklist](#)
- I have followed the [perfect PR recommendations](#)
- The code has been formatted using Ruff (`ruff format homeassistant tests`)
- Tests have been added to verify that the new code works.

If user exposed functionality or configuration variables are added/changed:

- Documentation added/updated for www.home-assistant.io

If the code communicates with devices, web services, or third-party tools:

- The [manifest file](#) has all fields filled out correctly.
Updated and included derived files by running: `python3 -m script.hassfest` .
- New or updated dependencies have been added to `requirements_all.txt` .
Updated by running `python3 -m script.gen_requirements_all` .
- For the updated dependencies - a link to the changelog, or at minimum a diff between library versions is added to the PR description.

To help with the load of incoming pull requests:

- I have reviewed two other [open pull requests](#) in this repository.

https://github.com/home-assistant/core/blob/dev/github/PULL_REQUEST_TEMPLATE.md

How are you setting up your team for success without you?

Being Glue

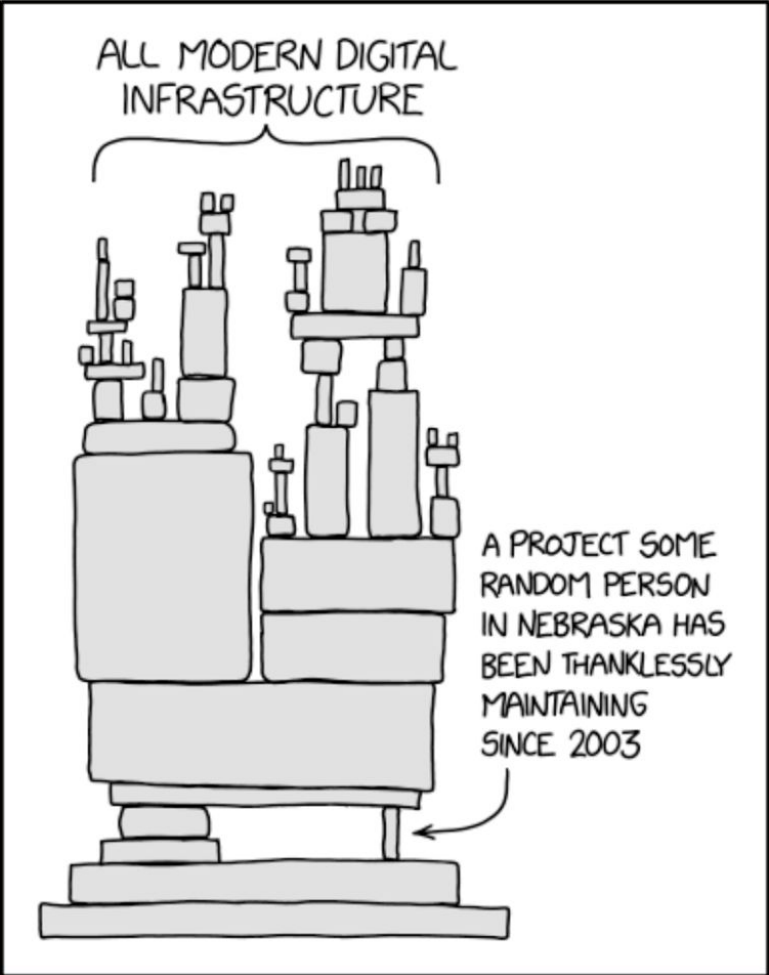
* 14. **What role occupies most of your time in the open source projects you are involved with?**
(select one)

- Maintainer.** A maintainer is a key individual (or group of individuals) responsible for the overall management and well-being of the open source project. They make critical decisions, merge contributions into the project, release new versions, and ensure the project's long-term viability.
- Committer.** Committers are contributors who have been granted the ability to directly commit changes to a project's repository. This role is often earned through consistent and high-quality contributions to the project.
- Core contributor.** Core contributors are individuals who are significantly invested in the project and contribute regularly.
- Occasional contributor.** These are contributors who contribute to the project on an irregular basis. Their contributions can vary widely in scope and frequency, from minor bug fixes to substantial new features.
- Non-development contributor.** Not all contributions to an open-source project involve writing code. Non-developmental contributors can include individuals who work on documentation, design, marketing, community management, fundraising, and other non-code aspects of the project.

Maintainers are the glue for open source

Glue work in open source

- triaging issues
- answering support requests
- reviewing PRs
- monitoring automations
- moderating discussions
- preparing releases
- maybe code



<https://xkcd.com/2347>

Maintainers are the glue for your product

SUPPLY CHAIN ATTACK —

Backdoor found in widely used Linux utility targets encrypted SSH connections

Malicious code planted in xz Utils has been circulating for more than a month.

DAN GOODIN - 3/29/2024, 2:50 PM



Enlarge / Internet Backdoor in a string of binary code in a shape of an eye.

<https://arstechnica.com/security/2024/03/backdoor-found-in-widely-used-linux-utility-breaks-encrypted-ssh-connections/>

Thank the maintainers in your life

Pay the maintainers of your stack

- <https://opencollective.com/>
- <https://github.com/sponsors>
- <https://tidelift.com/>
- <https://polar.sh/>

Contribute to your stack

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Thank You