

# Request for Proposals: Open Hardware Trailblazers Fellowship

The Open Source Hardware Association (OSHW) invites applications to its Open Hardware Trailblazers Fellowship. The one year Fellowship provides \$50k or \$100k grants to individuals who are actively leading the development and application of open hardware within universities. The goals of the program are to recognize and connect a peer cohort of these leaders, and to create a library of resources representing best practices in open source hardware in academia. The Open Hardware Trailblazers Fellowship recognizes academic leaders in open hardware, providing support for those leaders to share how they have done their work, and supports the production of documentation and best practices to make it easier to expand open hardware at academic institutions more broadly. [Fellowship applications are due April 7th.](#)

## Background and Approach

Open hardware is [accelerating the pace of research](#) in academic settings. Three open hardware Journals have come of age in the past five years.<sup>1</sup> The [Gathering for Open Science Hardware \(GOSH\)](#) is transforming the development of open hardware scientific equipment. Open hardware's use in academia has become an [area of study in and of itself](#). However, many academic institutions are not yet aware of open hardware techniques and do not actively support their adoption. The Fellowship program will raise the profile of existing open hardware work within academia, and make it easier for others to take similar paths. Applications should identify existing efforts to expand the use of open hardware within an academic setting, and outline proposals to grow and document those successes. OSHWA's definition of success within the context of the Open Hardware Trailblazers Fellowship focuses on the academic context. While that can include commercial success, more relevant success is

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<sup>1</sup> Journal of Open Hardware ([openhardware.metajnl.com](http://openhardware.metajnl.com)), HardwareX ([www.journals.elsevier.com/hardwarex](http://www.journals.elsevier.com/hardwarex)), and The Journal of Open Engineering ([www.tjoe.org](http://www.tjoe.org))

tied to professional advancement, awards and other recognition for contributions, or hardware created. We expect to fund meta-level research on hardware, but not the production of hardware directly.

Networks and communities can be helpful when embracing new territory. Fellows will be part of a cohort, creating a network focused on growing institutional support and expanding the impact of individual projects. The Trailblazers Network is designed to:

1. Recognize existing leaders
2. Give those leaders tools to expand their work
3. Encourage the leaders' institutions to recognize and value their work
4. Identify and accelerate the development and dissemination of information about developing open hardware within the context of universities
5. Leverage diversity, equity, inclusion, and justice initiatives to broaden the community of open hardware practitioners at universities
6. Pair leaders with industry mentors to share knowledge when applicable

## What to expect if you're accepted as a Fellow

The purpose of this funding is to give the Fellows the time needed to document their work with open source hardware in a way that allows others to adopt similar techniques. All Fellows will attend regular virtual meetings with their Fellowship cohort, including two in-person meetings with travel costs paid for by OSHWA. Fellows will be introduced to mentors or collaborators from industry with relevant expertise. The Fellowship will build a beneficial network to share work being done, ask questions, and gain feedback from each other. Each Fellow's documentation will be a valuable piece of the resource library produced within this Fellowship.

## Example Questions and Outputs

Example questions that could be answered as part of the Fellowship include, but are not restricted to:

- What documentation practices help academics share and disseminate their open hardware projects?
- What makes hardware more replicable in academia and what is missing from current documentation standards?
- How do various fields of study approach problems, such as licensing, around open hardware in their departments and what are common threads seen at other academic institutions?
- What is the business case of open hardware in academia and how has open hardware developed in academia thus far?

Example outputs could include, but are not restricted to:

- A guide or playbook for how a specific successful open hardware project was created in academia and lessons learned that can be extrapolated to Fellow academics.
- A case study and blown out diagram to describe every piece of meta information that goes into the creation of open source hardware.
- A case study of metrics that could be used by departments to determine a person's contributions to open source hardware and how those might fit into service criteria
- A how-to guide for talking to tech transfer offices and deans about opening up IP for hardware

Fellowship funding is not intended to fund new technical development of individual hardware projects. Applications that ask for funding hardware development costs will not be funded.

Furthermore, Fellowship funding is not intended to fund tools for developing hardware. Proposals for building tools such as documentation platforms will be considered out of scope.

Upon completion of this project, the work from the Fellowship will be compiled into a physical or digital library of resources which may include books, guides, instruction sets, maps, or diagrams. These resources will be disseminated more broadly to help people create and advocate for open hardware at their academic institution.

We welcome applications from individuals affiliated with all kinds of departments and institutions ranging from Engineering to Arts and Sciences to Business Schools, and from R1s to primarily undergraduate institutions.

Fellowship applications can cover the costs for multiple people working together as teams, but each application must specify a lead Fellow. For example, we imagine that Fellows might be faculty but that the Fellowship will fund work conducted by students.

## Eligibility

Open source hardware's diversity is one of its strengths. As such, we encourage applicants to interpret "projects related to open source hardware" broadly and creatively. OSHWA defines open hardware broadly, and invites applications from non-engineering or -science disciplines. People who are eligible to hold funds at their academic institution are eligible to apply to this Fellowship. We have attempted to make the initial application process relatively brief in order to encourage experimentation.

That being said, applicants should have a demonstrated record of success in the use and/or support of open source hardware in academic settings. They do not need to be project leads,

however, they do have to be in a position of leadership sufficient to develop and implement the proposed project. Since this program is designed to help create examples for others to follow, we also value a demonstrated interest in mentoring or other types of community leadership. We recognize that opportunities for community leadership are not equally distributed and therefore understand that term broadly.

By applying, applicants are indicating that they have the time and capacity to implement their proposed program, participate in regular Fellow cohort meetings, and document their work so that it can serve as a guide to others. Applicants are also indicating that they understand that all work created as part of this program will be made publicly available under a Creative Commons CC-BY 4.0 license, or a similarly permissive license, and open hardware referenced meets the guidelines set forth in OSHWA's [Open Hardware Definition](#).

Awards will be disbursed as unrestricted gifts to the academic institution and are not intended for overhead or indirect costs. We expect the main expenditures will be allocated to personnel.

## Apply!

Applicants should use [this form](#) to submit their initial applications. OSHWA will then invite finalists to present a more detailed proposal. For questions or additional information, please email [alicia@oshwa.org](mailto:alicia@oshwa.org).

OSHWAs believes that the open source hardware community is strengthened by its diversity and, as such, encourages people of color, women, the LGBTQIA+ community, persons with disabilities, and people at intersections of these identities, from across the spectrum of disciplines and methods, to apply.

## Estimated Timeline

- Application Deadline: April 7th
- May 2022: Fellows are selected and awards are announced
- June 2022: Initial in-person Fellow meeting
- August 2022: Fellows present on their in-progress research
- November 2022: In-person Fellow meeting with cohort
- December 2022: Fellows present on their in-progress research
- May 2023: Final presentation of research outcomes

## FAQ

### **How long do we have to conduct the research?**

The Fellowship is a one year program.

### **How many grants are being awarded?**

Eight in total: Five \$100,000 grants and three \$50,000 grants.

### **Who can receive the \$50,000 grant vs. the \$100,000 grant?**

If you meet the requirements sent forth in the Eligibility section of this RFP, you are eligible for either amount. We expect Fellows given \$100,000 will have longer or multiple outputs.

### **Can I use this for summer salary?**

Yes.

### **I'm a postdoc, can I apply?**

Yes, if you are able to receive academic institution funds, or partner with someone who can.

### **I'm at a community college, can I apply?**

Yes, as long as you are able to hold funds at your community college.

### **Can I use this to make this [really cool hardware project]?**

No, but you can use these funds to document how you were able to make a project open source.

### **I have an open hardware project that isn't completed, can I apply?**

Yes, but keep in mind that funding is not intended for hardware development.

**I would like to use the Fellowship to manufacture existing hardware, distribute it, and then evaluate how it is used by others in a way that would advance open hardware in academia, is that okay?**

Yes, this is acceptable, as long as the primary contribution of your work is the evaluation and advancement of open hardware in academia.

**Can I apply for the funding with a partner at my or another institution?**

We encourage you and your partner both to apply for the Fellowship separately, but you can mention that you're hoping to partner with another institution.

**I have another question! Where can I ask it?**

Email Alicia Gibb at [alicia@oshwa.org](mailto:alicia@oshwa.org) with any further questions.

Thank You

Thank **you** for taking the time to consider this Fellowship.

Thank you to the Alfred P. Sloan Foundation for the program funding to make the Open Hardware Trailblazers Fellowship possible.

