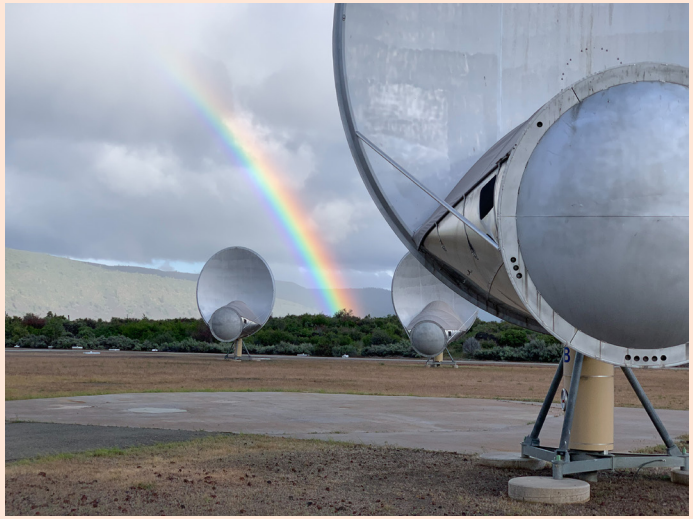
How Can We Help You?

Do you have work that you want to share with the public? Want to join or start a project? Get in touch! We'd love to talk with you.

How Can We Help You?

Want to support our work? Interested in helping our volunteers succeed?

Welcome aboard! Let's talk.



Join ORI
https://www.openresearch.institute/getting-started/

Where Are We?

We welcome participants from all over the world. Most of us are from the United States, but we have active members in Europe and Asia. The majority of our collaboration is online through the mailing list, Slack workspace, and GitHub repositories.

Here are some of the events where we have presented, exhibited or run workshops:

GNU Radio Conference, IEEE Radio and Wireless Week, TAPR DCC, Open Source Cubesat Workshop, AMSAT-NA Space Symposium, JAMSAT Space Symposium, Microwave Update, DEFCON, Burning Man, HamCation, Hamvention, QSO Today Ham Expo, International Microwave Symposium, and RATPAC

Participants are active at local hamfests, as school volunteers, at radio club meetups, DEFCON groups, and maker meetups.

Board of Directors of ORI

Steve Conklin AI4QR
Anshul Makkar
Frank Brickle AB2KT
Michelle Thompson W5NYV
Keith Wheeler KI7PEM

Contact us!

ori@openresearch.institute

#1873
3525 Del Mar Heights Road
San Diego, CA 92130
USA

Events:

Open Research Institute prioritizes live over-the-air demonstrations. Do you know of a great place to show working open source digital radio designs? Get in touch!

Annual in-person board meeting is at DEFCON, with meetings held virtually throughout the year

Exhibition, technical demos, and sponsored activities at DEFCON, QSO Today Academy, RATPAC, IEEE, and a variety of open source conferences.

The Exemplar of Open Research and Development

Find us on Twitter, Mastodon, Instagram, Facebook, LinkedIn, YouTube, and more.

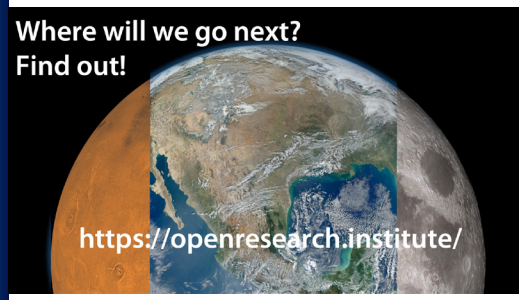
Open Research Institute

2024

newsletter signup

Open Research Institute

The Exemplar of Open Research and Development



Visit the website for our latest news!

Open Research Institute (ORI) is a non-profit research and development organization which provides all of its work to the general public under the principles of Open Source and Open Access to Research.

ORI is a United States 501(c)(3) with contributors around the world.

There are no membership fees or applications to join ORI. You join by participating. We have a mailing list, a Slack workspace, and GitHub repositories.

We have Developer and Participant Policies, and a Code of Conduct. Both are available on our website along with our corporate documents and our bylaws.

www.openresearch.institute/getting-started

Regulatory

ORI supports people peacefully working together on open source projects.

All of our work (source code, schematics, hardware designs) is available for public download, worldwide, from https://github.com/OpenResearchInstitute/ and https://github.com/Haifuraiya/

All of this work is "Public Domain" under ITAR 120.11 and "Published" under EAR 734.7, and thus not subject to ITAR or EAR. These regulations are relevant in the United States.

In addition, it is ORI's policy not to provide services that might be restricted under ITAR or EAR, and we do not engage in projects involving the national defense of any country.

Technology

Technical achievements include:

Dual-band feeds for 5/10 and 10/24 GHz amateur satellite payloads.

Generic Stream Encapsulation (GSE) protocol from DVB now in GNU Radio and Wireshark.

Support of Low Density Parity Check (LDPC) open source codebases. This work is in GNU Radio, leandvb, and more.

Open source VHDL implementation of DVB-S2/X encoder, COBS decoder, and polyphase filter banks. Open source broadband microwave digital transponder suitable for space and terrestrial use. Open source 6U GEO payload project Haifuraiya.

Opulent Voice high bitrate voice and data protocol.

Teaching

We believe you do not have to be an expert to participate. You just have to be willing to become one along the way.

We believe that even the most complex digital signal processing algorithm can be broken down into components and functions, and understood by motivated participants.

Open source projects remove some of the barriers to sharing and learning, but not all. Advanced digital communications work is challenging. It does take commitment to work through the math and physics. We are here to help each other with that process.

We believe that this makes the community stronger and improves the quality of life of our volunteers.

Transparency

We believe that open source is the right solution for the types of problems we are trying to solve and the types of equipment we are trying to build.

We also believe that the process of creation, not just the product, should be as open as possible.

Design reviews should happen as early and often as they are useful.

Wireless designs should be tested over the air as soon as possible, and results disclosed quickly.

Mechanical designs should be prototyped early and often and failures discussed.

Fear of failure and unnecessary risk aversion should never hold anyone back.

Amateur Radio

International Goodwill

We build international goodwill and cooperation through open source research and development, primarily within the amateur radio service.

Amateur Radio

We believe that the amateur radio service provides the best way to learn, experiment, develop, and build modern open source communications systems.

Open Source Helps Businesses

Open source work accelerates business development. Using **and contributing back** to bodies of open source work frees commercial organizations to focus on business-differentiating technologies.