



AfricaOSH

# THE AFRICA OPEN SCIENCE & HARDWARE COMMUNITY

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# WHAT OUR COMMUNITY IS ABOUT

The AfricaOSH Community is a regional community of the Global Open Science Hardware (GOSH) Community. We are a community that is dedicated to promoting grassroots African innovations through open hardware principles & practices and making OSH ubiquitous in Africa. With membership ranging across 35 African countries and 14 non - African countries. We have a membership of over 350 members.

- Makers
- Makerspaces
- Researchers
- Students
- Educators
- Digital Innovation Hubs
- Open science
- Open science hardware
- Grassroots African innovation through open hardware principles and practices.



# SO, WHAT DO WE DO?

- Promoting grassroots African innovation through open hardware principles.
- Give African makers the platform to showcase their prototypes, and ideas while also providing a platform for collaboration and partnerships.

How do we do that? Through our annual summits and virtual community calls and community platforms.

**2018**

Our first Summit was organized in 2018 at Kumasi HIVE in Ghana.

**2019**

Our second Summit was organized in 2019 at the Dar Es Salaam University in Tanzania.

**2022**

Our third Summit was organized in 2022 at MboaLab in Cameroon.

# OUR SUMMITS

The AfricaOSH Summits is a grassroots effort to bring together researchers, technologists, hacker hobbyists, educators, government officials, and start-up innovators from around the world. Our goal is to create a conversation and set of actions on OSH, among African actors, and between them and the international community, in order to adopt OSH principles and practices appropriate to our African context. We want to create an alternative path to education, research, scholarly communication, and manufacturing through OSH given the barriers imposed by traditional Intellectual



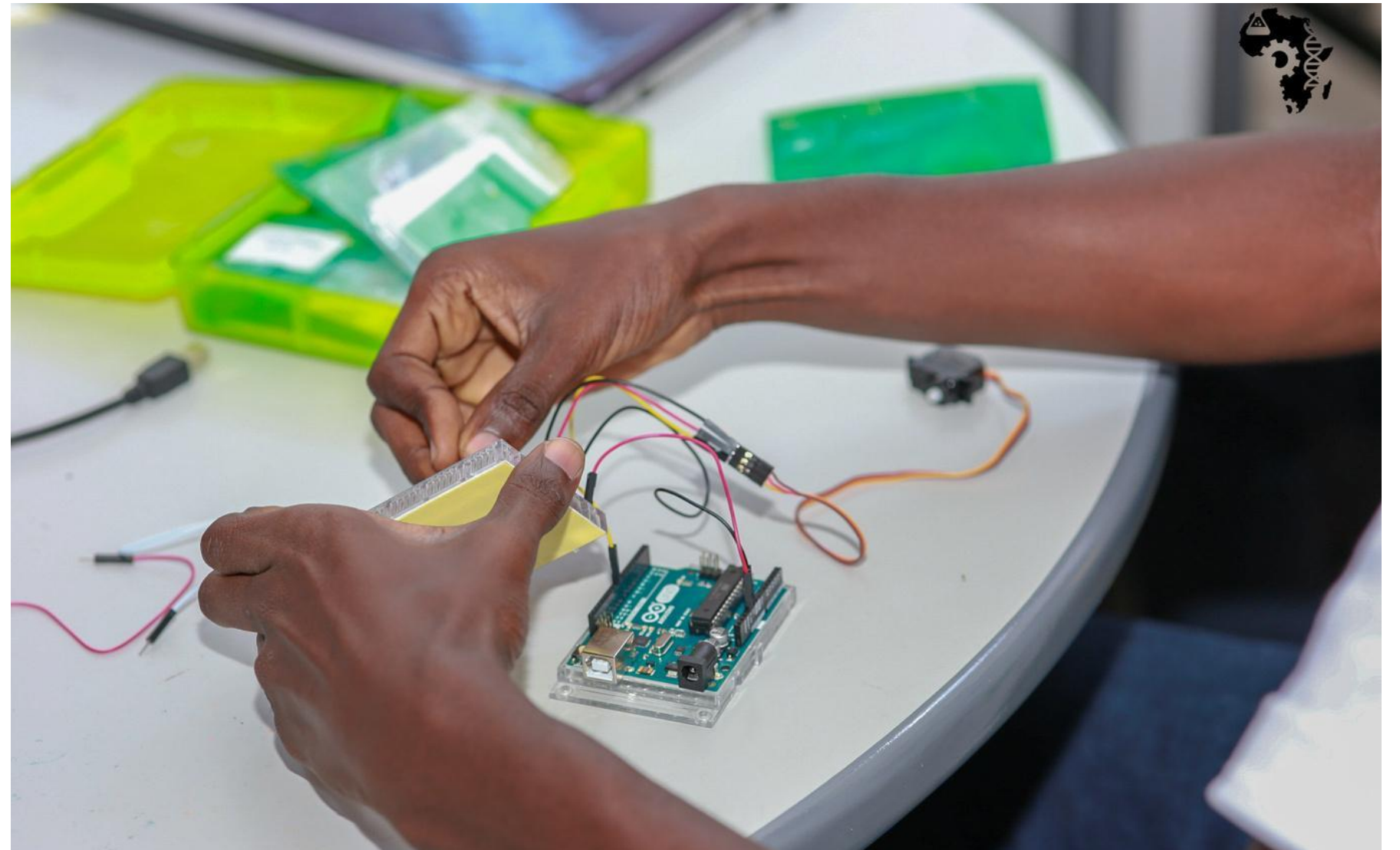
# OPEN SCIENCE HARDWARE IN THE

# AFRICAN CONTEXT

Science hardware encompasses the tools and machinery we use for scientific endeavours

(for example, a microscope or environmental sensor). Open Science Hardware refers to science hardware that is open source - or free to use, change, study or distribute. By making science hardware open, more people can have access to the tools we use to do science.

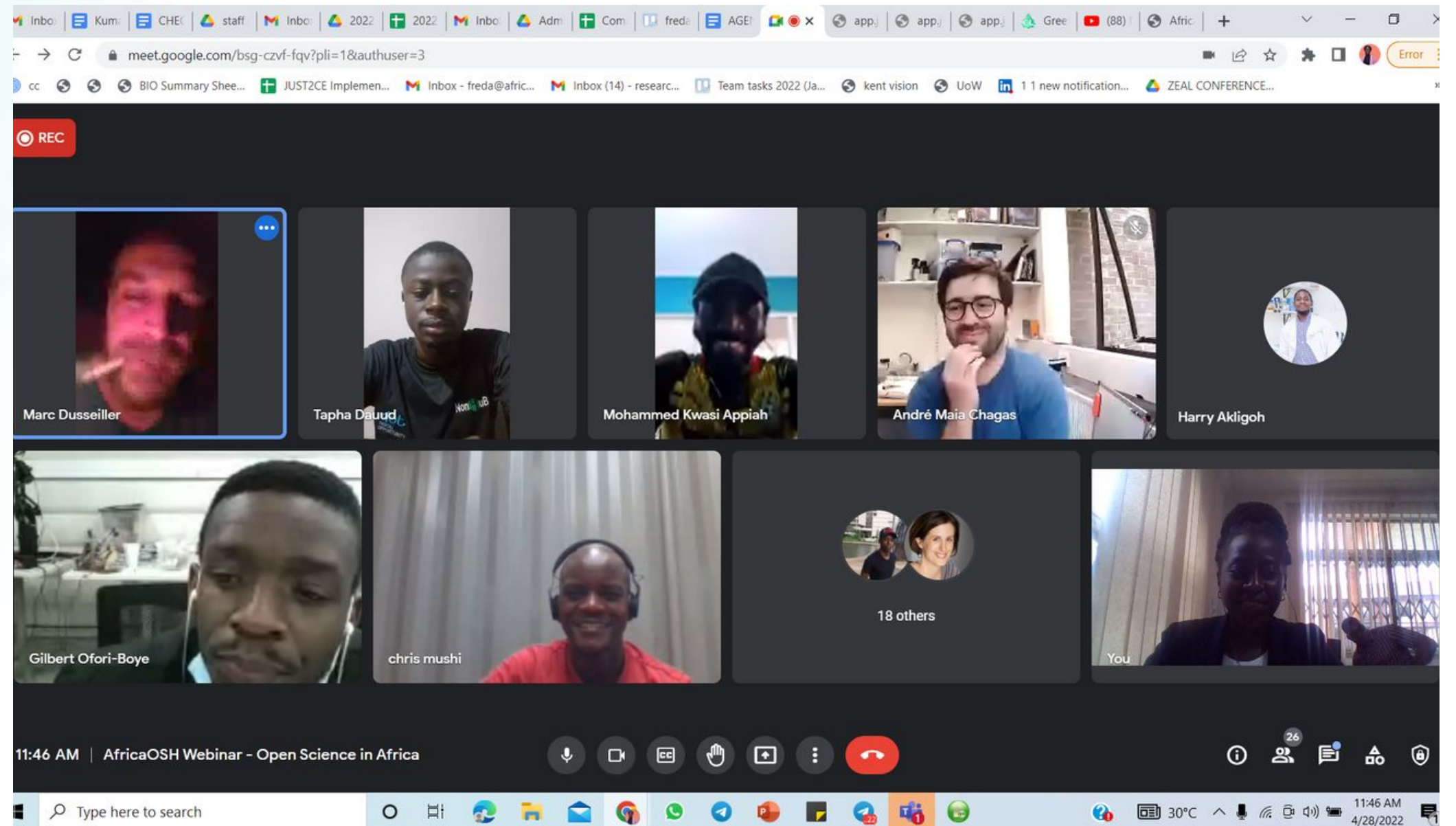
We are committed to promoting open and collaborative approaches to scientific research and innovation, and to democratizing access to tools and technologies that can help solve local challenges



# OUR VIRTUAL MEETUPS

Community Calls

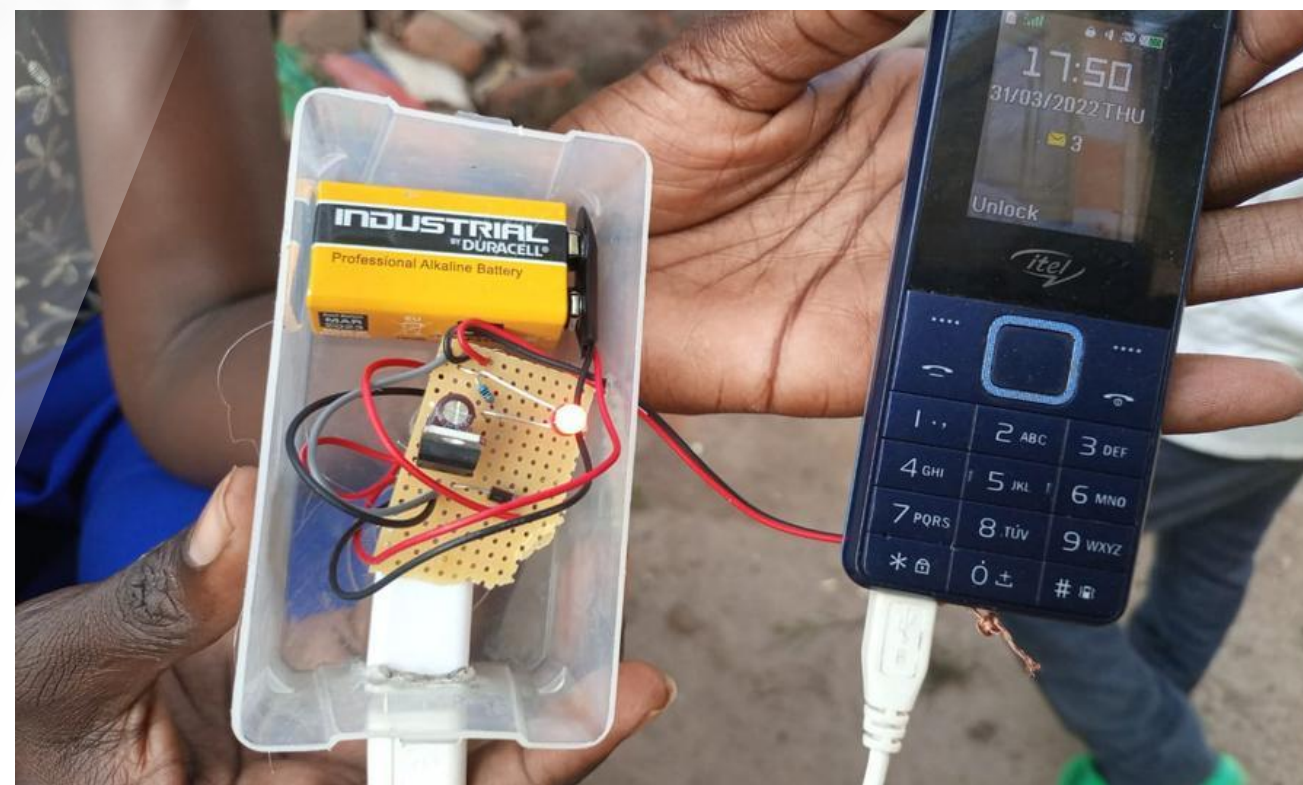
Webinars & Workshops



# SOME COMMUNITY PROJECTS

## A DIY Solar Mobile Phone Charger by Community Creativity for Development (CC4D) in Uganda

This project is aiming at training women in Ugandan communities on how to build their own solar mobile phone chargers and also to save them from traveling long distances in order to charge their mobile phones.

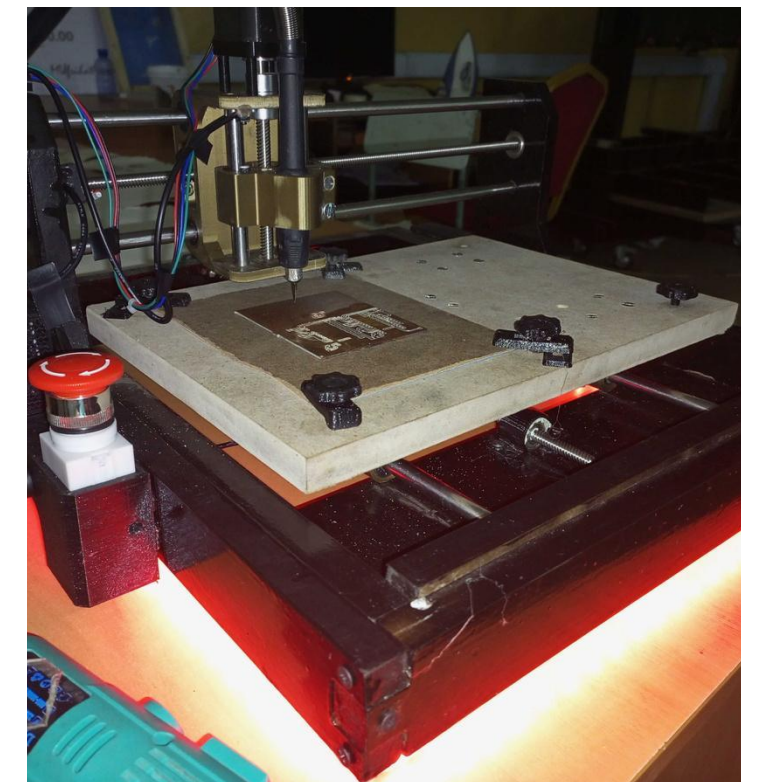
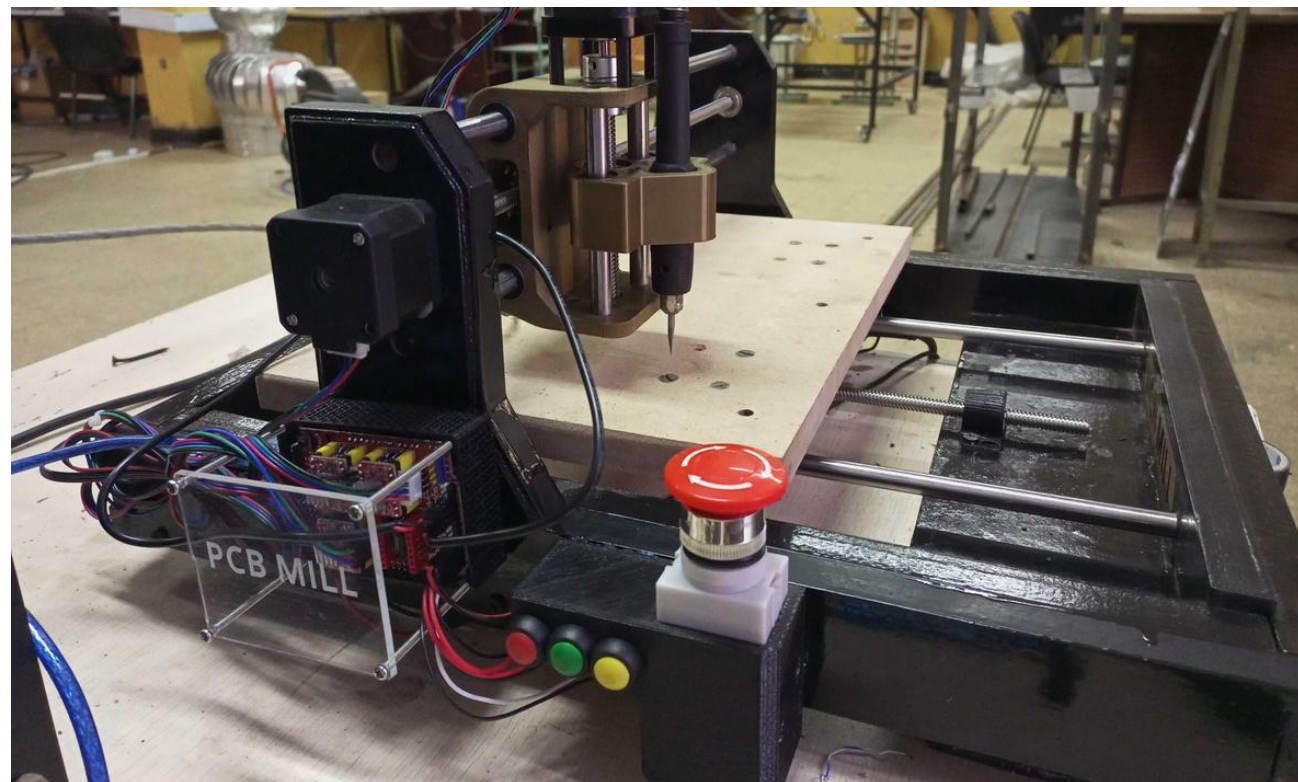
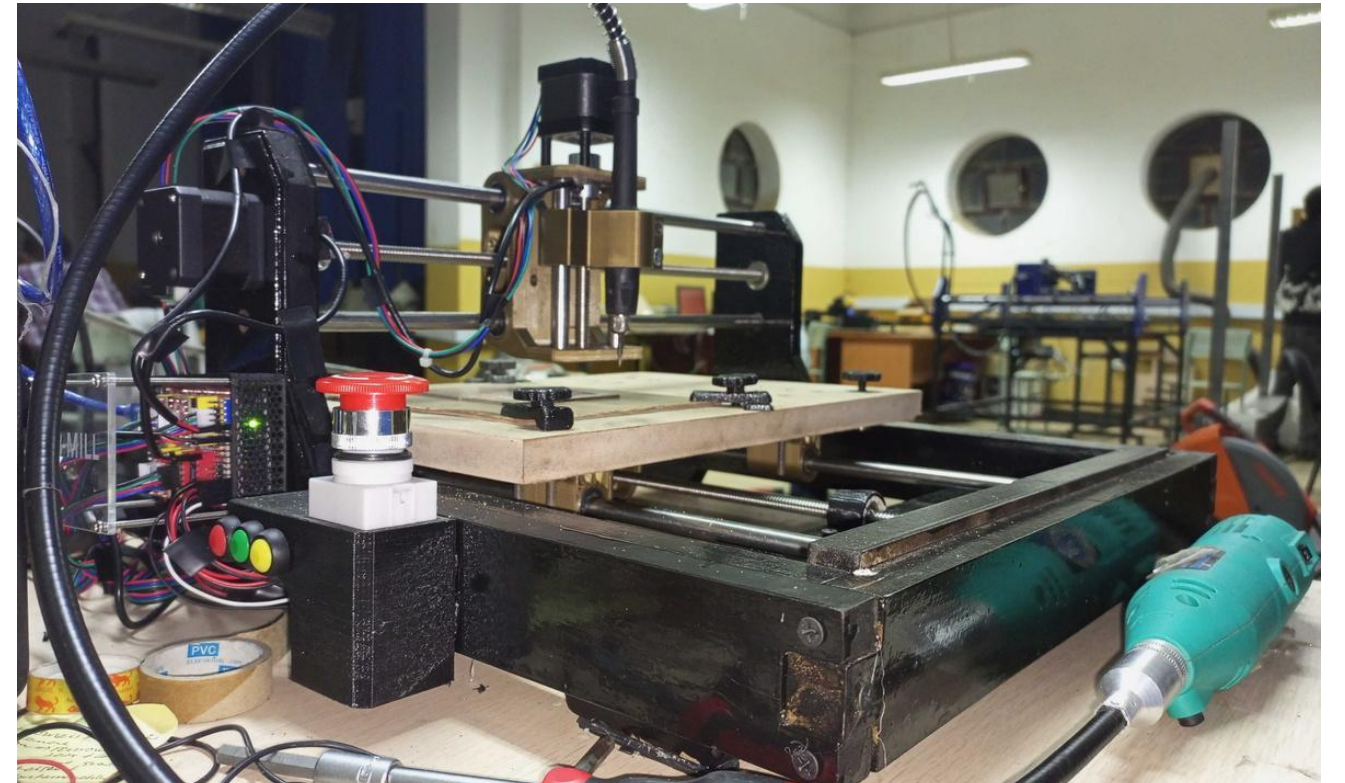


<https://app.jogl.io/project/1679/DIYSolarMobilePhoneCharger>

# SOME COMMUNITY PROJECTS

## An open-source low-cost PCB milling machine by Fasil from BIT Makerspace in Ethiopia

The PCB milling process is a subtractive way of producing electronic boards. Material is removed to create the electrical isolation and ground planes required by controlling it through a computer. However, unlike the chemical etch process, PCB milling is typically a non-chemical process and as such, it can be completed in a typical office or lab environment without



<https://app.jogli.io/project/1678/CNCPCBMillingMachine>



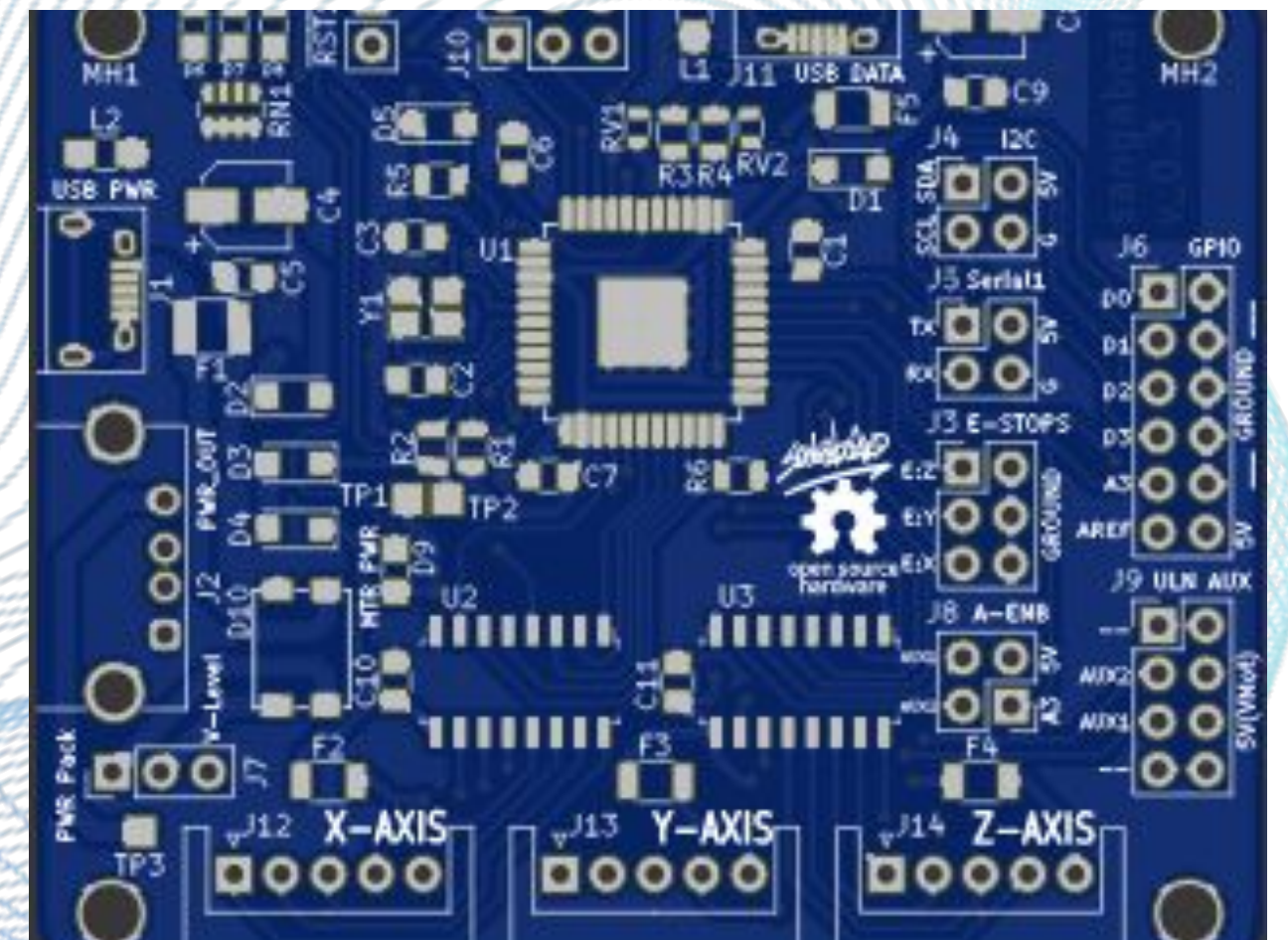
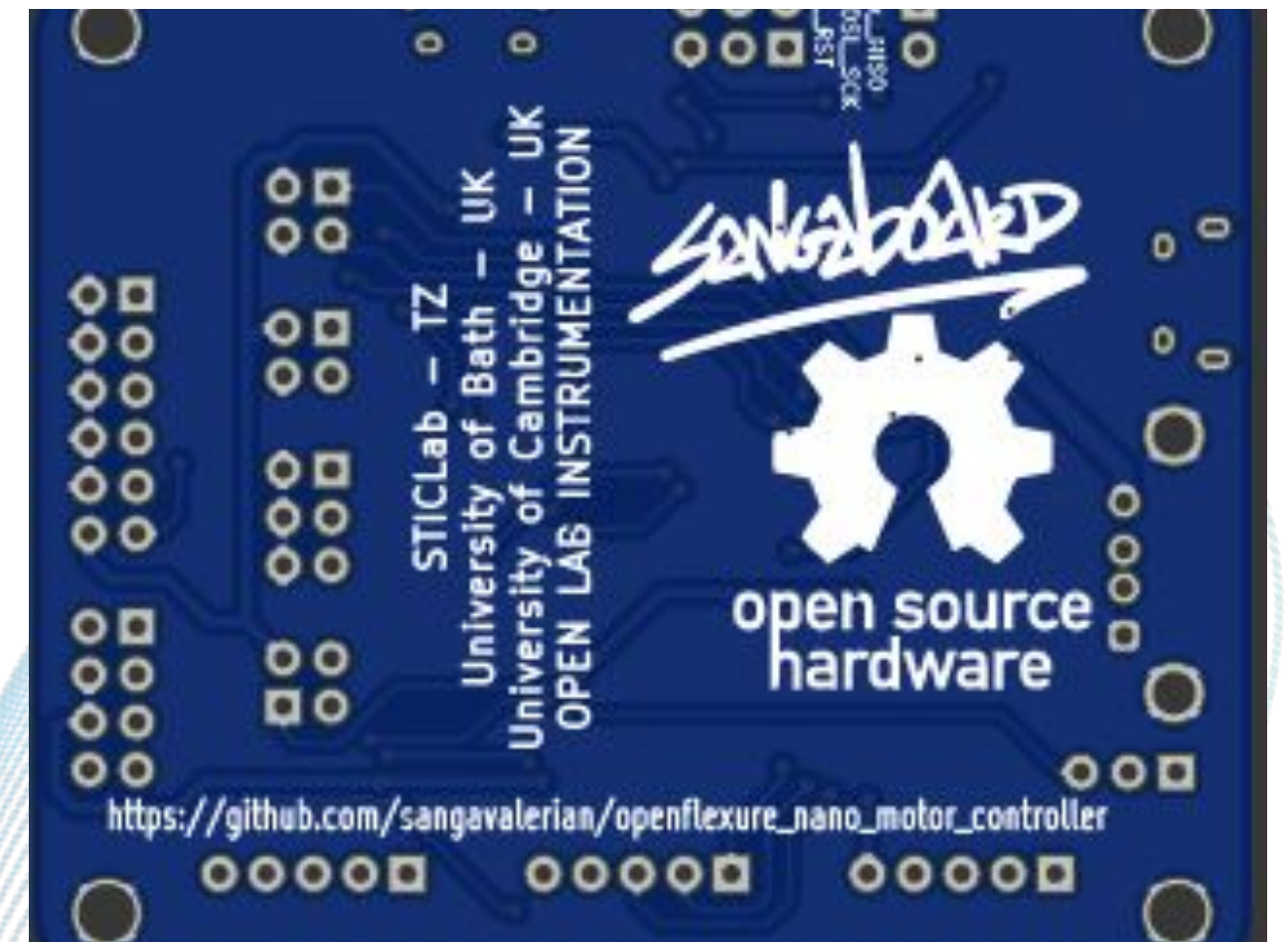
# SOME COMMUNITY PROJECTS

## sangaboard\_v0.3

An Arduino-compatible motor driver board for three unipolar stepper motors. Version 0.3

[https://kitspace.org/boards/gitlab.com/bath\\_open\\_instrumentation\\_group/sangaboard/sangaboard\\_v0.3/](https://kitspace.org/boards/gitlab.com/bath_open_instrumentation_group/sangaboard/sangaboard_v0.3/)

[https://gitlab.com/bath\\_open\\_instrumentation\\_group/sangaboard](https://gitlab.com/bath_open_instrumentation_group/sangaboard)



# THE AFRICAN EUROPEAN MAKER INNOVATION ECOSYSTEM (MAKE) PROJECT



**Discover MAKE!**  
African European Maker Innovation Ecosystem

mAKE is a European H2020 project focusing on makerspaces as key drivers for local digital innovation.

A transdisciplinary approach to connect European and African Digital Innovation Hubs to maximise their potential as spaces for digital innovation, skill building, job creation and contact points for global collaboration networks.

Subscribe to the mAKE newsletter for more info ✨

[makeafricaeu.org](http://makeafricaeu.org)

 This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No 101016858.

[www.makeafricaeu.org](http://www.makeafricaeu.org)

# INVOLVING CONTRIBUTORS AND STAKEHOLDERS IN CONVERSATIONS AND ACTIONS AROUND OPEN SCIENCE HARDWARE IN AFRICA.

In our efforts to advocate for openness in the scientific process, we have to involve the relevant stakeholders in these conversations and actions.

- Identifying the relevant stakeholders
- Creating a platform for discussion
- Organizing workshops and events
- Fostering collaborations
- Highlighting success stories

# THANK YOU / MERCI CONNECT WITH US!

We believe that science is for everyone and therefore it's no one's property. We need to develop the culture of sharing if we want to progress as a continent and as a people.

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