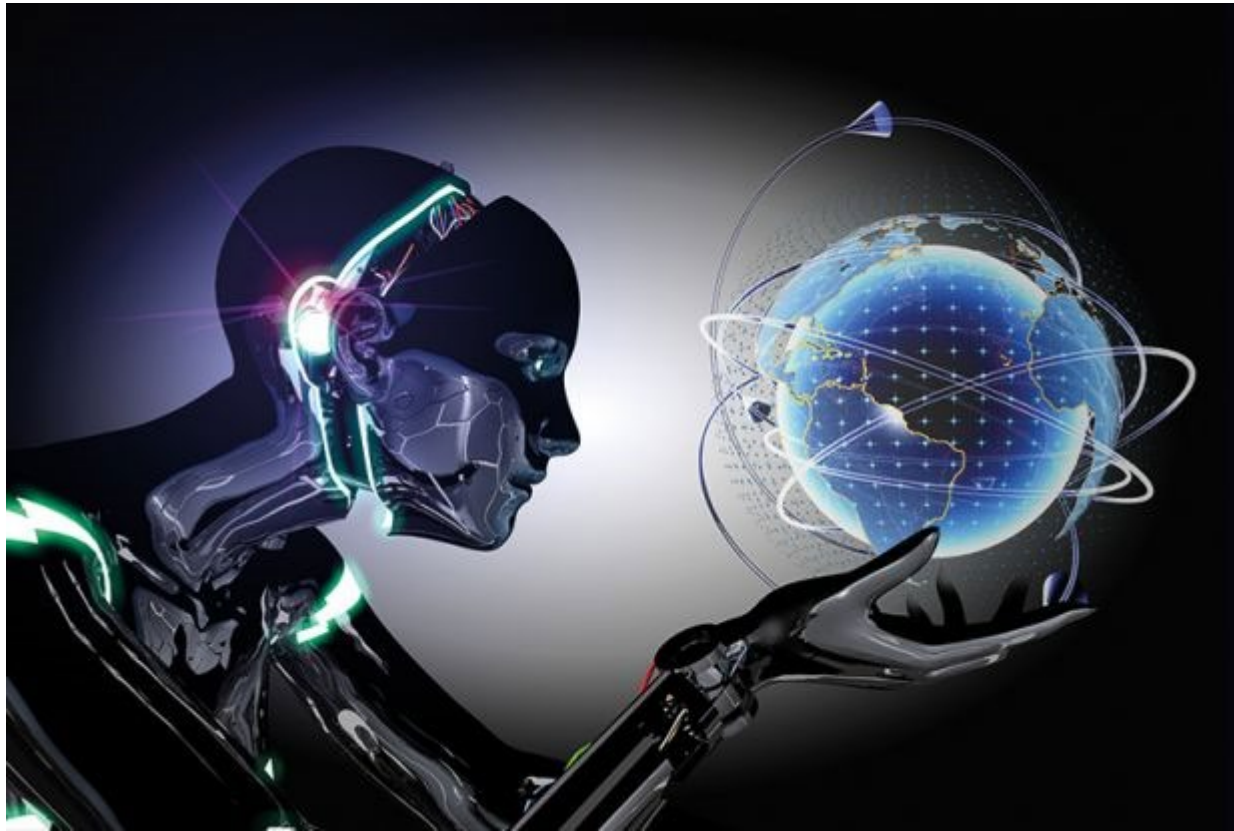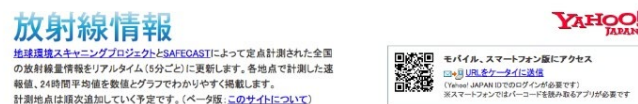# A HYENA ATE MY PROJECT!!!
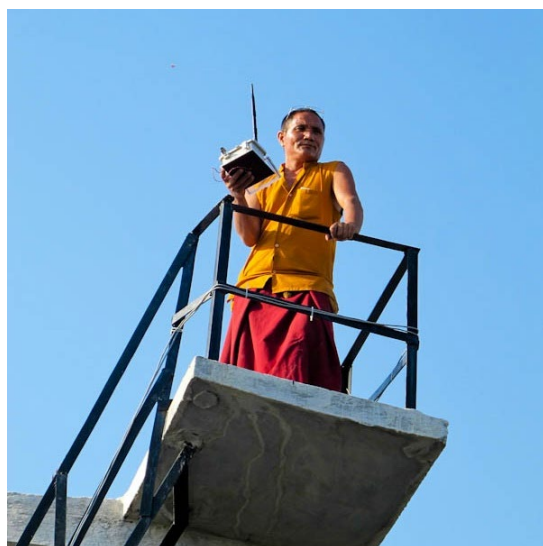
Open Source Hardware and Wildlife Conservation

Technology to Save the World ?!

Working On International Problems

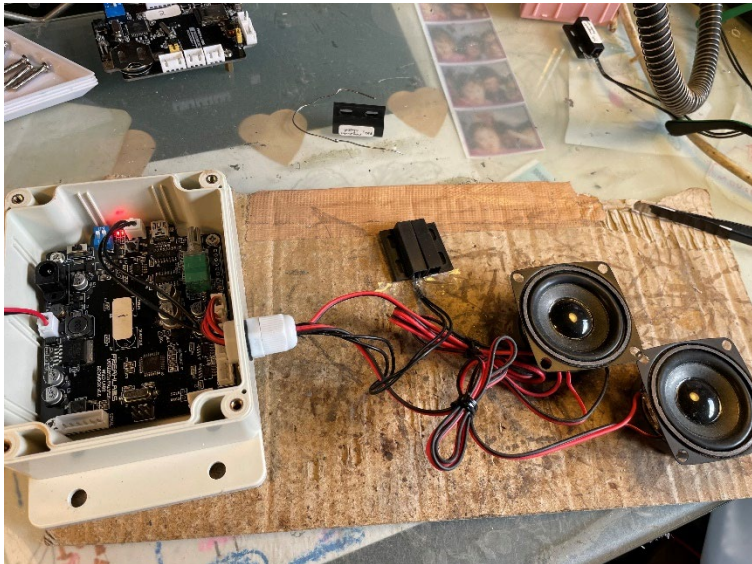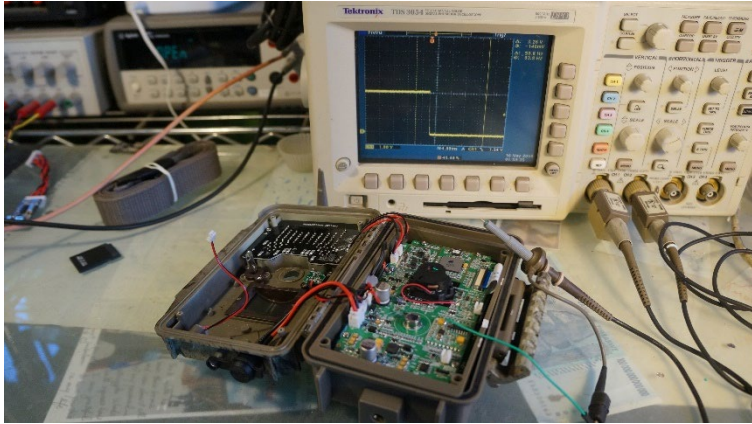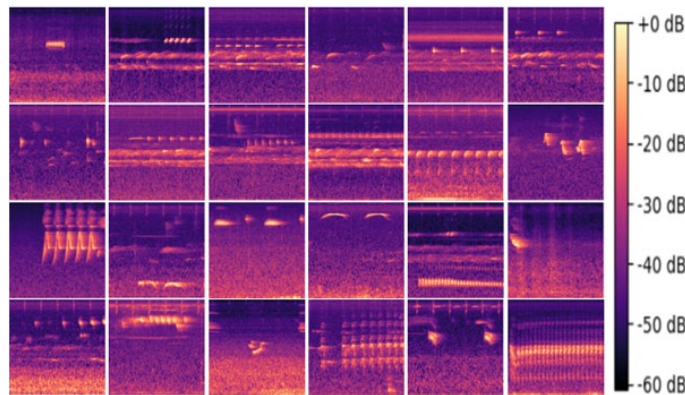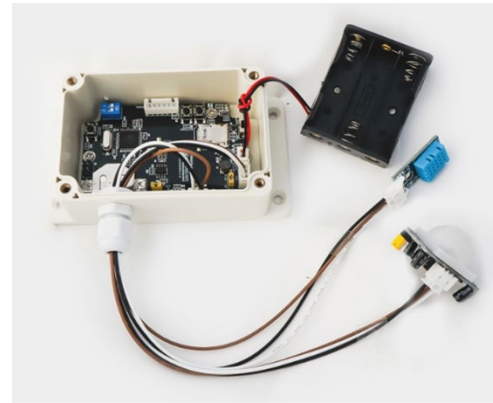# What It's Actually Like

Our First Foray Into Conservation Technology

Play Demo Videos

Conservation Technology
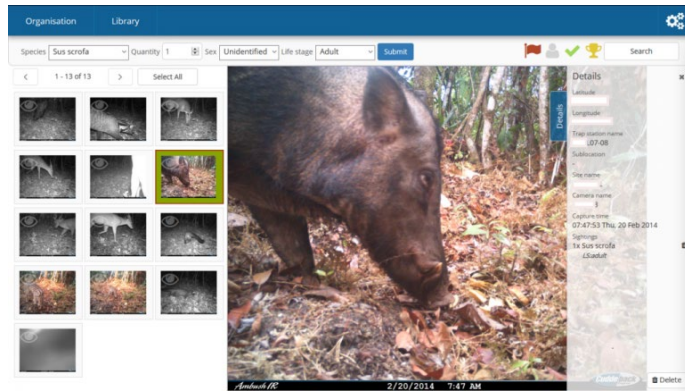
Challenges in Technology for Conservationists

- **Costly equipment**
  - Wildlife trackers ~$1,000-5,000/each
  - Dataloggers ~$1,000+
  - Field acoustic recorders ~$1,000+

- **Most devices need to be customized**
  - Highly specialized applications
  - Small quantities

- **Lots with small to mid budgets**
  - Only a few top tier projects get big funding
  - Lots of individual researchers, conservationists working
  - Little technology catering to them

Hacking and Open Source Hardware
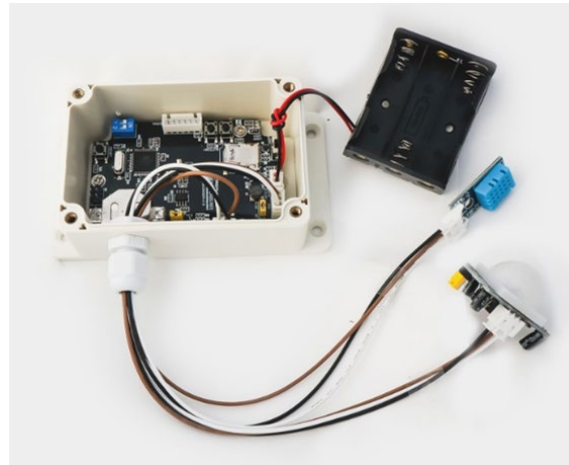
But Open Source Is Not Enough
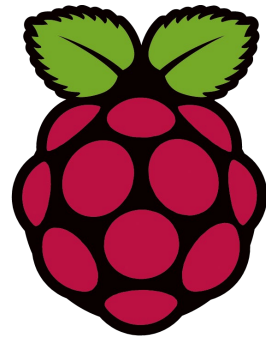
Specific Requirements

- Field Deployable
  - High reliability
  - Low power consumption
  - Wide operating temperature
  - Ruggedized
  - Water resistant
  - Assumption of no communications infrastructure

  … and **Affordable**

Our Approach

- **Building Tools**
  - Standardize on classic Arduino platform
    - Mature, reliable, excellent peripheral support, excellent community support
    - Needs some modification for field deployability
   - Let researchers focus on application

- **Building knowledge**
  - Create virtual courses specifically for conservation and wildlife technology
    - Hands on with accompanying hardware
    - Assumes no engineering or technical experience
    - Free
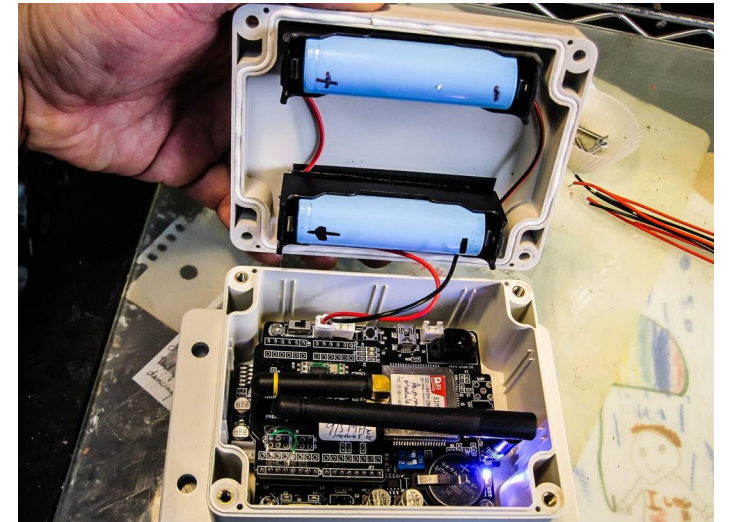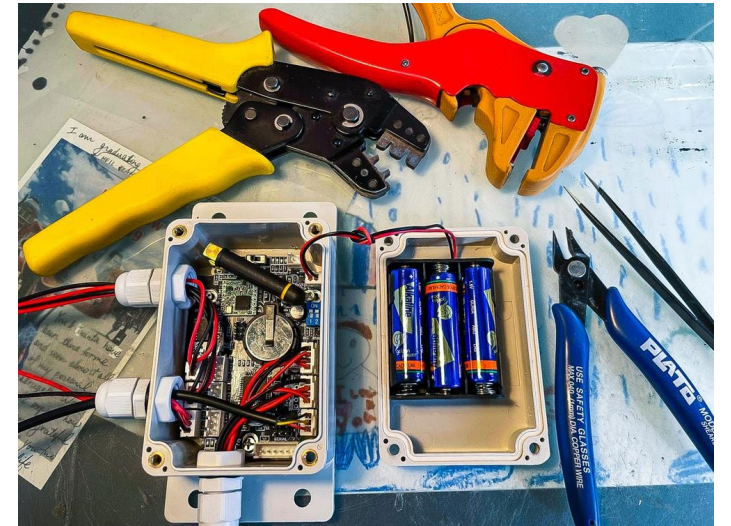
Build Your Own Datalogger

- Build Your Own Datalogger course
  - Collaboration with WILDLabs
  - https://www.wildlabs.net/resources/build-your-own-data-logger/course-directory
  - Supposed to be a 5-part video series released over 2.5 months
  - Currently a 14-part video series with 36 videos and on it's sixth month of development
  - We're betting it will pay off though by creating a shared repository of community knowledge
  - https://github.com/freaklabs/byo-datalogger
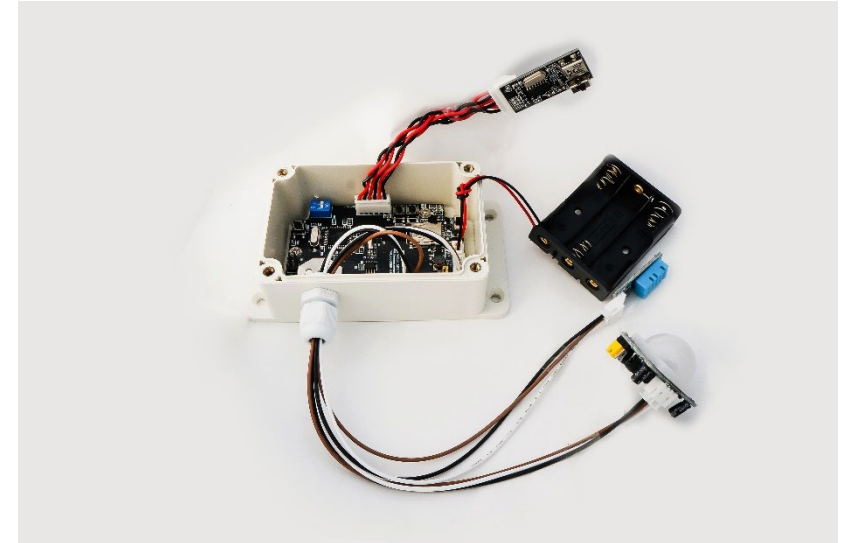
Our Approach

- **Build cross –disciplinary collaborations**
  - BoomBox Project
  - Baseliner Soil Health Project (researchers, land managers, government, tech developers)

- **Thinking about inclusion and diversity from the start**
  - Understanding barriers people might be facing
  - Explaining terminology as it's used (rather than relying on industry jargon)
  - Creating a safe space to ask questions
  - Behavior guidelines at events or office hours
  - Respectful interactions
  - Making course content free and publicly available

Future

Our hope is the next generation of wildlife and environmental conservationists are proficient in their field and in technology

Thank You!

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