Community Science with Public Lab

Jeff Warren

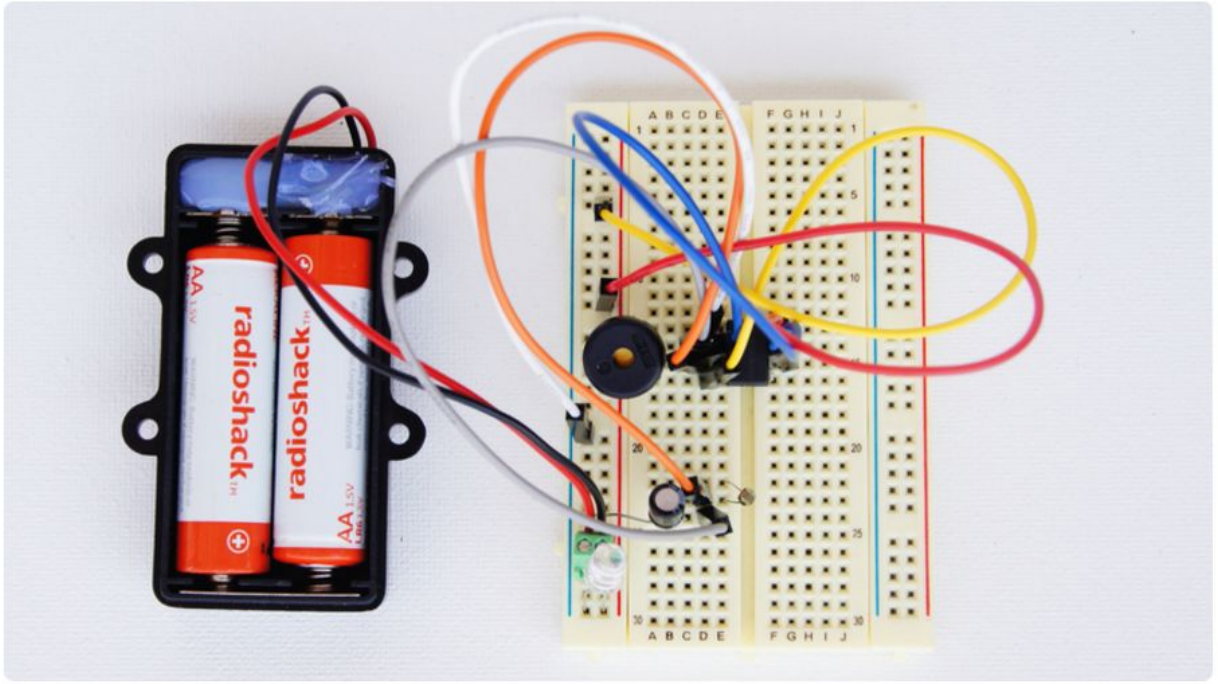
Public Lab

is a community and a non-profit, democratizing science to address environmental issues that affect people.

THE
LAW
OF
TWO
FEET

community science
civic science
citizen science

@eustatic



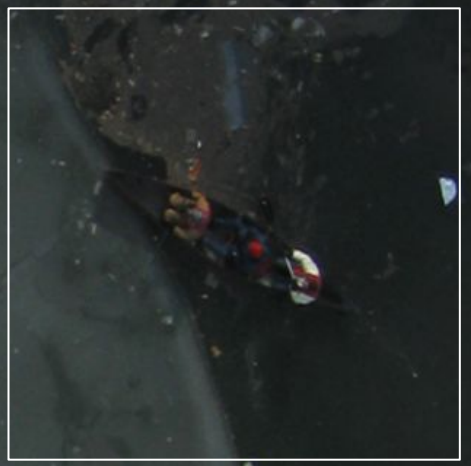
4

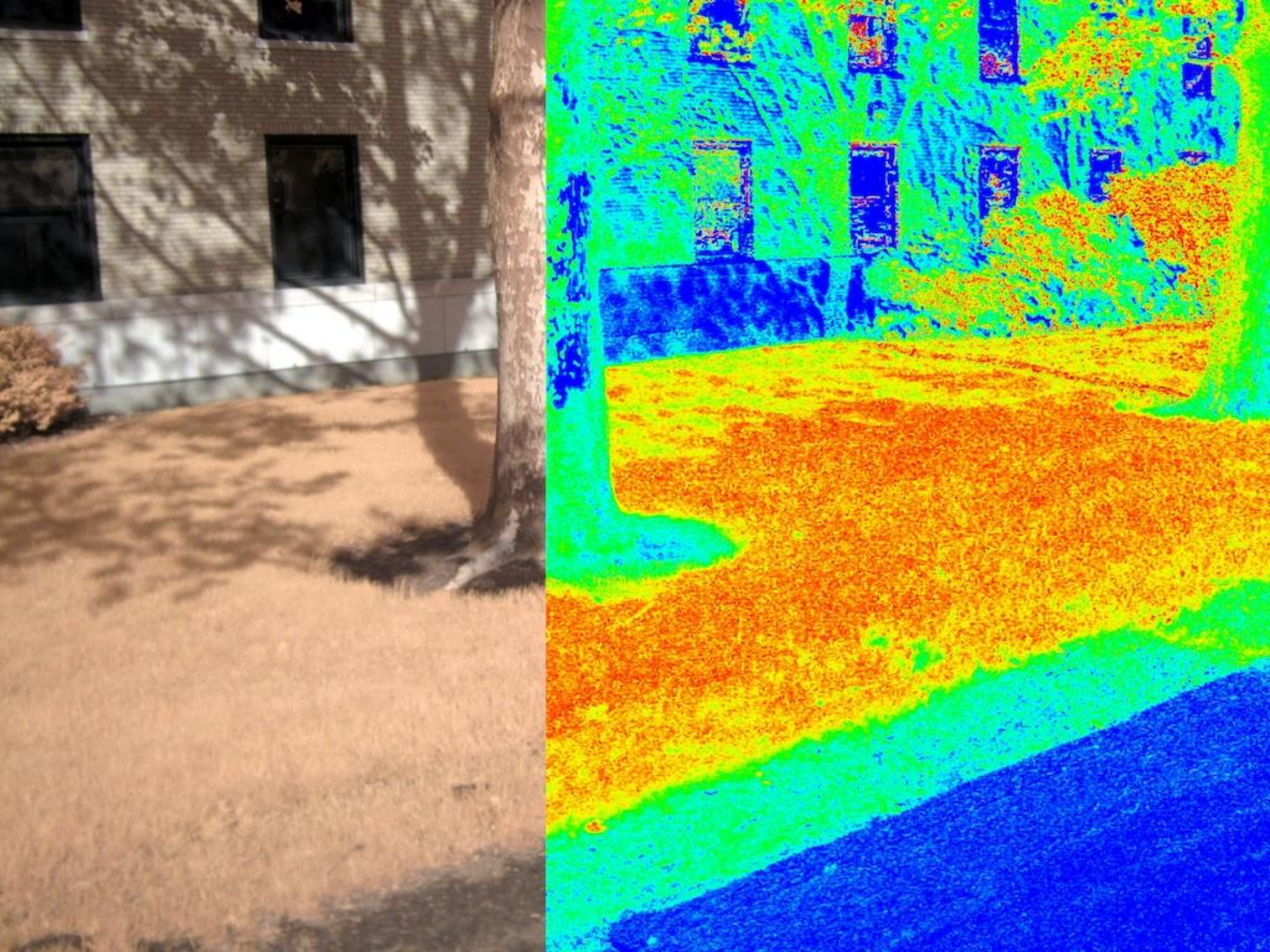
Build a Coquí: A Simple Water Conductivity Sensor

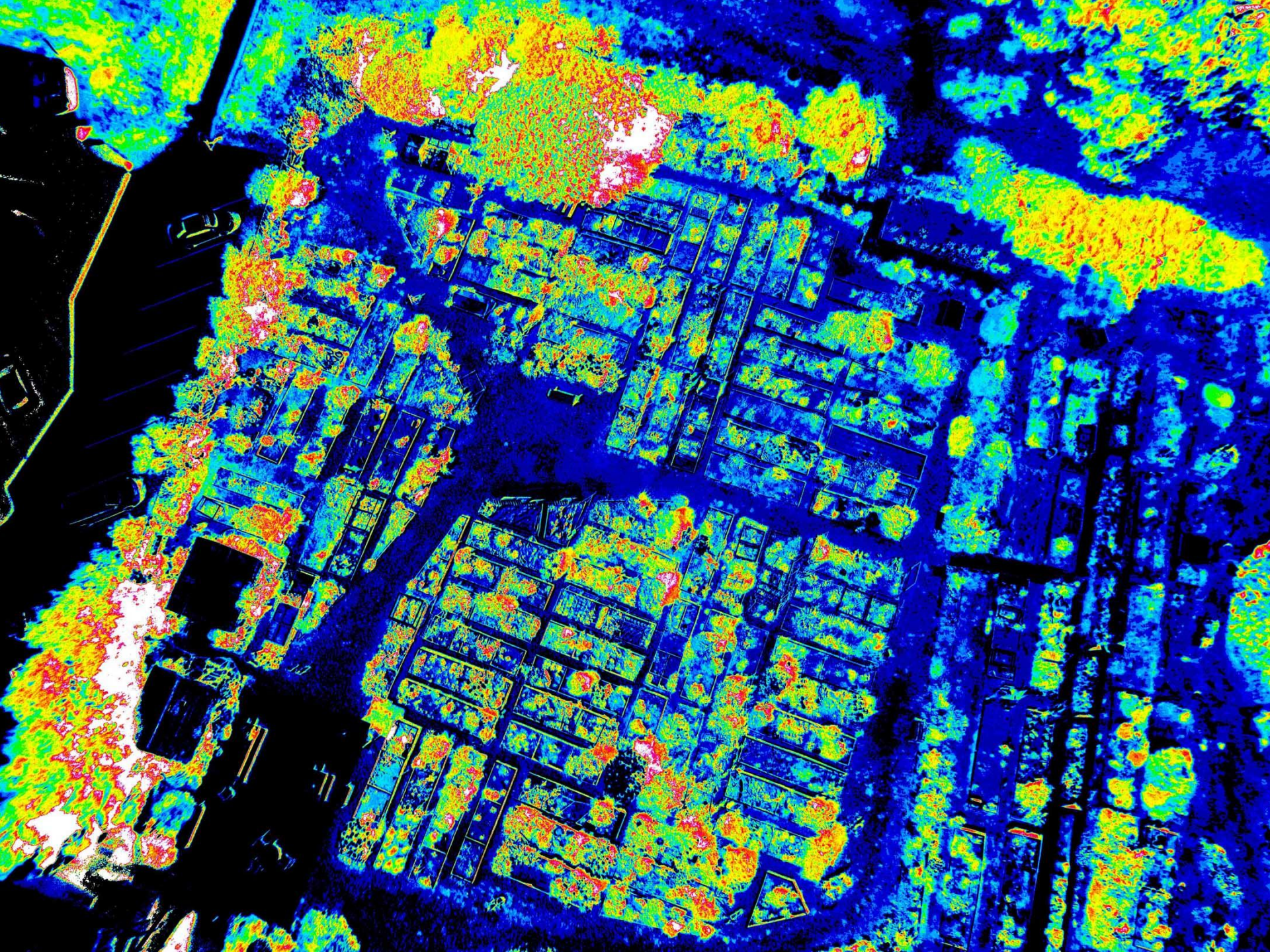
by akshaya with kanarinka | 17 Sep 23:21

This is a beginner's guide to assembling the Coquí

@AssemblePapers

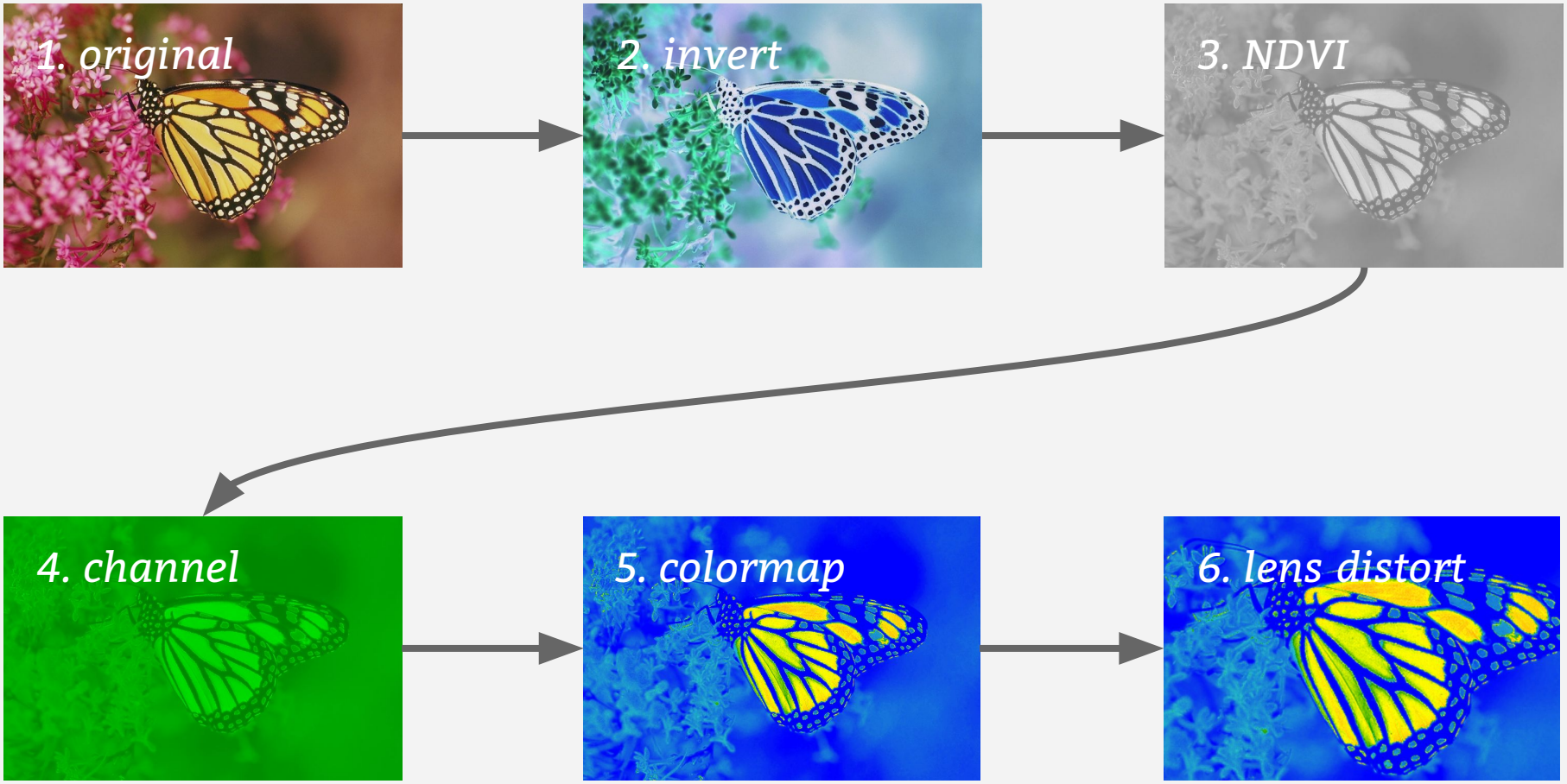




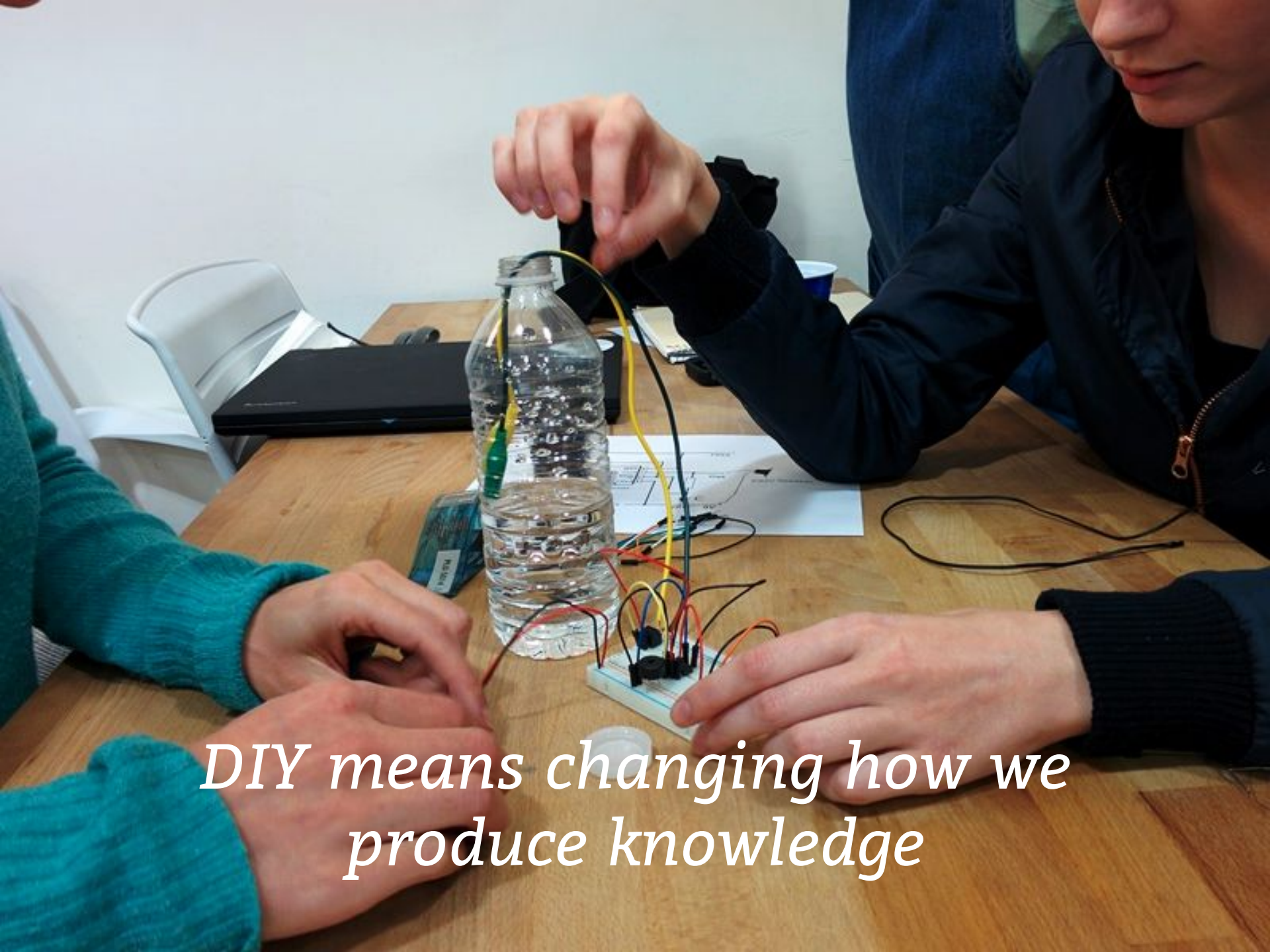


Typical workflow

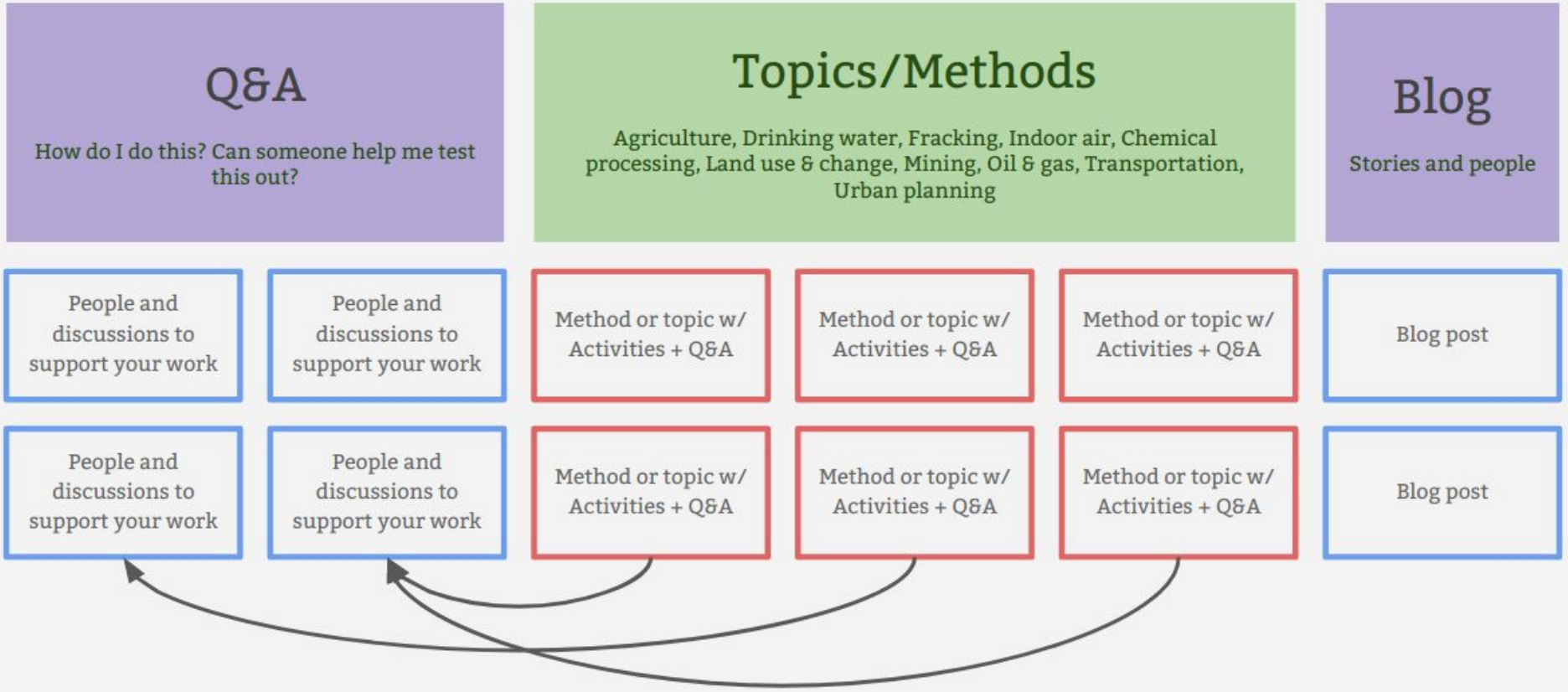
Image Sequencer workflow


1. original
2. invert
3. NDVI
4. channel
5. colormap
6. lens distort

Why Do It Yourself?
Why go beyond
"public understanding of
& involvement in science"?


DIY means changing how we
produce knowledge

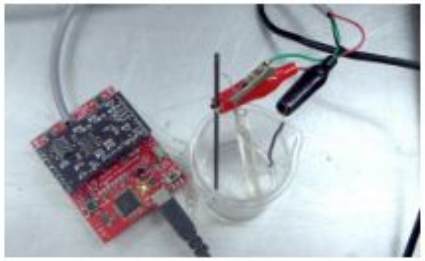
PublicLab.org



Methods

developed by Public Lab contributors

Public Lab's community collaboratively develops many different techniques and methods for DIY environmental monitoring. Browse many of them here and learn how to get involved.

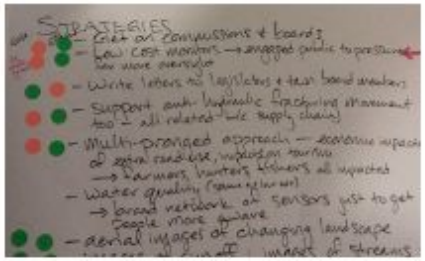


Potentiostat

last edit by dwheeler about 7 hours ago | 26,798 views | ☆ 13

0 activities 0 upgrades

Read more



Choosing advocacy pathways

last edit by stevie 26 days ago | 446 views | ☆ 0

0 activities 0 upgrades

Read more

Host an event

last edit by stevie 26 days ago | 41 views | ☆ 1

2 activities 0 upgrades

Read more

Site Survey

last edit by stevie 26 days ago | 58 views | ☆ 1

0 activities 0 upgrades

Read more

Stormwater Monitoring

last edit by stevie 26 days ago | 126 views | ☆ 1

4 activities 0 upgrades

Photo Monitoring

last edit by warren about 1 month ago | 518 views | ☆ 2

9 activities 0 upgrades

Riffle: an Open Source Water Monitoring Approach

last edit by liz about 1 month ago | 24,642

KAPtery Aerial Rigs

last edit by cfastie about 1 month ago | 4,602 views | ☆ 15

0 activities 0 upgrades

We support communities in applying science to local problems.
@matej

Data and its interpretation increasingly drives decision making in our society.

Challenges:

Limited ability to evaluate or test

Processes too big to see feedback loop in individual actions

Environmental issues "affect someone else"

Trust issues with industry -- and the science they produce

Local expertise

Public Lab | Projects | Search | About | Get Involved | Data | Donate | Store

Dashboard

Share your work

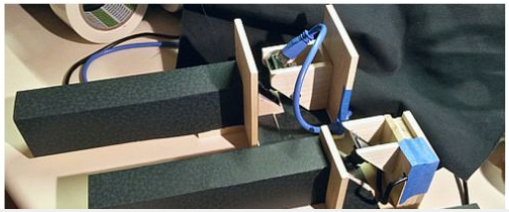
Welcome, warren! 60 notes and 111 wiki edits posted in the past week. You've shared 523 research notes.

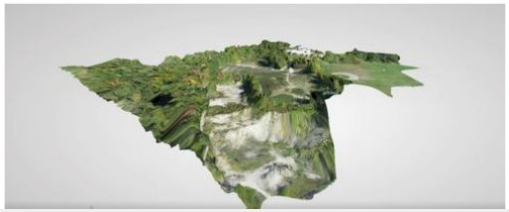
Enforcing Stormwater Permits with Google Street View along the Mystic River by mathew

From the Public Lab Blog

Activity

Selected updates | from other community scientists in the past week | Your work | Share your work





Wiki | Discussion lists

A shared knowledge base for community science

Search for... | New page

New edit by liz about 5 hours ago - changes

OpenHour

New edit by pablo about 6 hours ago - changes

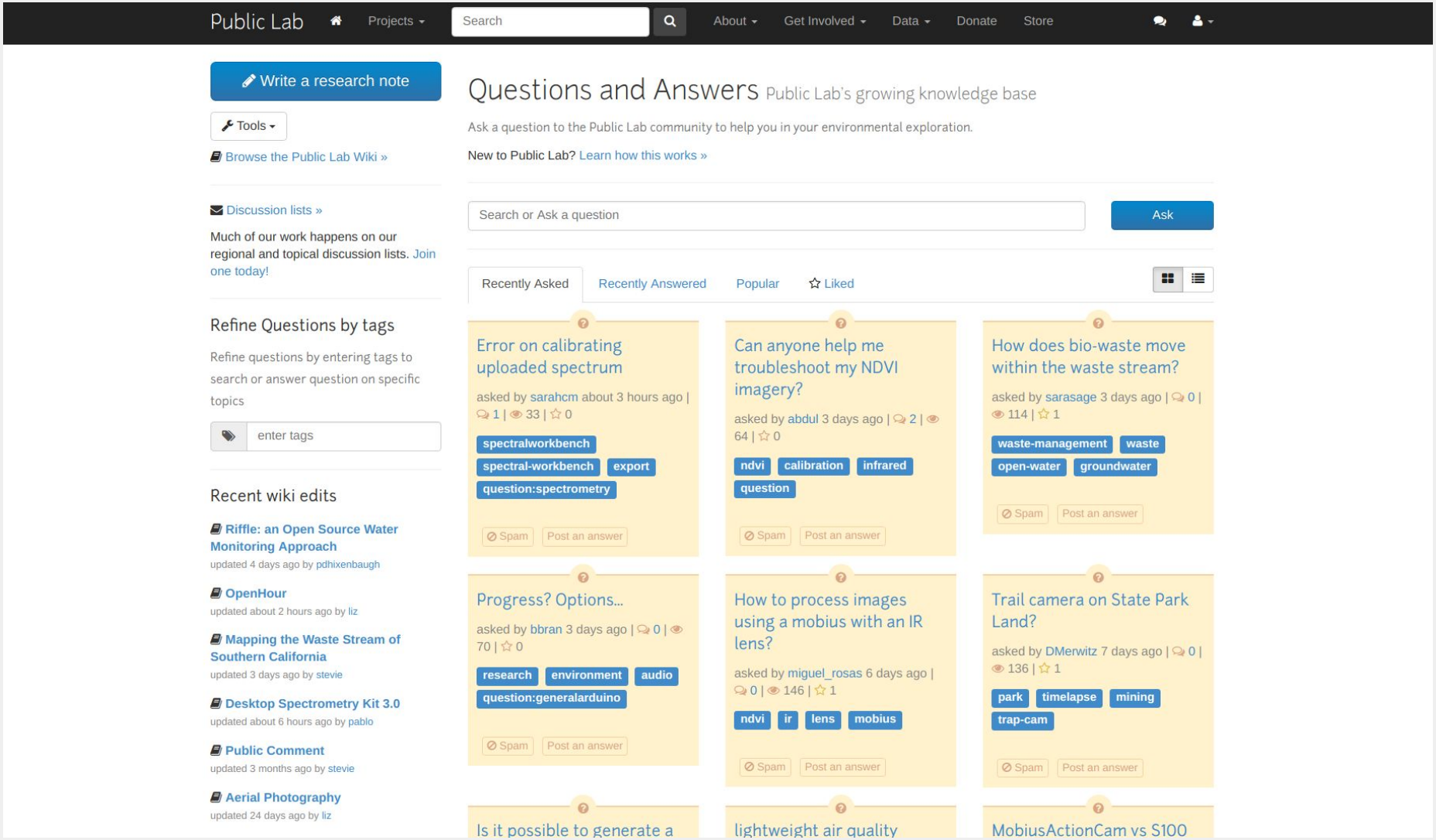
Desktop Spectrometry Kit 3.0

New edit by stevie 3 days ago - changes

Coqui

New edit by stevie 3 days ago - changes

Mapping the Waste Stream of Southern

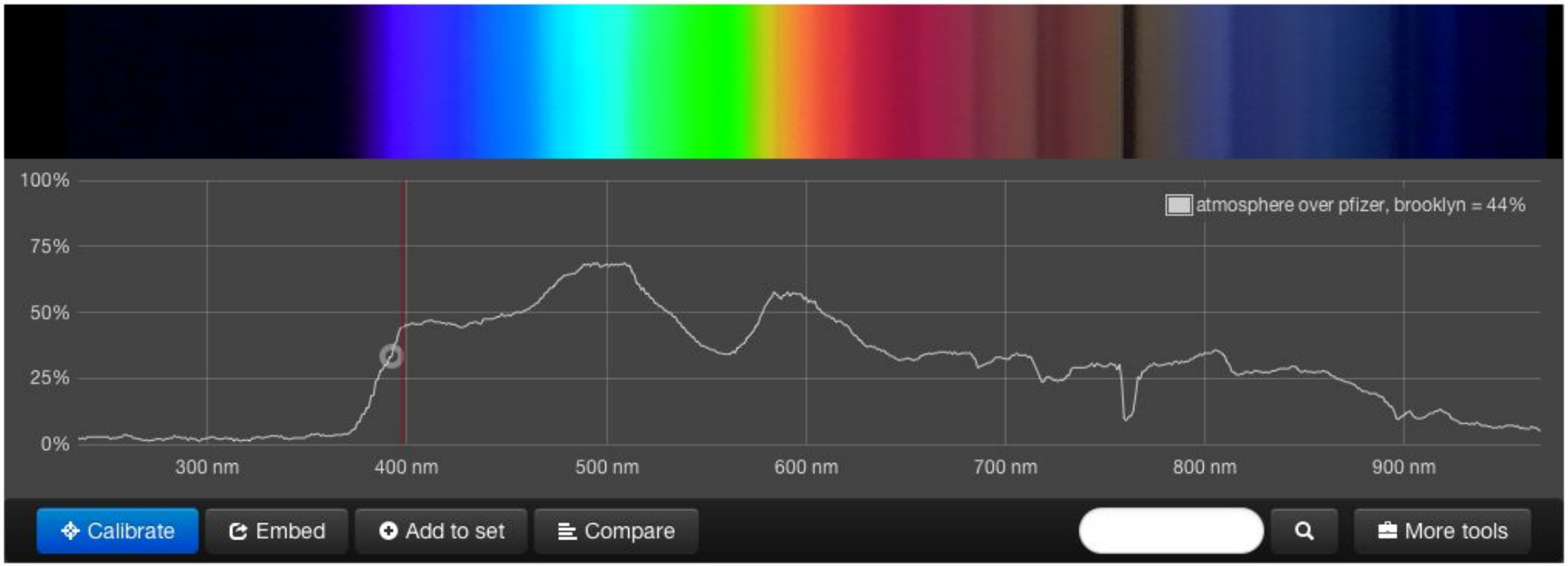

Public Lab
Projects
Search
About
Get Involved
Data
Donate
Store
Write a research note
Tools
Browse the Public Lab Wiki »
Discussion lists »
Much of our work happens on our regional and topical discussion lists. Join one today!
Refine Questions by tags
Refine questions by entering tags to search or answer question on specific topics
enter tags
Recent wiki edits
Riffle: an Open Source Water Monitoring Approach
updated 4 days ago by pdhixenbaugh
OpenHour
updated about 2 hours ago by liz
Mapping the Waste Stream of Southern California
updated 3 days ago by stevie
Desktop Spectrometry Kit 3.0
updated about 6 hours ago by pablo
Public Comment
updated 3 months ago by stevie
Aerial Photography
updated 24 days ago by liz
Questions and Answers
Public Lab's growing knowledge base
Ask a question to the Public Lab community to help you in your environmental exploration.
New to Public Lab? Learn how this works »
Search or Ask a question
Ask
Recently Asked
Recently Answered
Popular
Liked
Error on calibrating uploaded spectrum
asked by sarahcm about 3 hours ago | 1 | 33 | 0
spectralworkbench
spectral-workbench
export
question:spectrometry
Spam
Post an answer
Can anyone help me troubleshoot my NDVI imagery?
asked by abdul 3 days ago | 2 | 64 | 0
ndvi
calibration
infrared
question
Spam
Post an answer
How does bio-waste move within the waste stream?
asked by sarasage 3 days ago | 0 | 114 | 1
waste-management
waste
open-water
groundwater
Spam
Post an answer
Progress? Options...
asked by bbran 3 days ago | 0 | 70 | 0
research
environment
audio
question:generalarduino
Spam
Post an answer
How to process images using a mobius with an IR lens?
asked by miguel_rosas 6 days ago | 0 | 146 | 1
ndvi
ir
lens
mobius
Spam
Post an answer
Trail camera on State Park Land?
asked by DMerwitz 7 days ago | 0 | 136 | 1
park
timelapse
mining
trap-cam
Spam
Post an answer
Is it possible to generate a
lightweight air quality
MobiusActionCam vs S100

PublicLab.org
CERN Open Hardware License
Public Lab Foldable
Mini-spectrometer

Public Lab
Public Lab Spectrometer 3.0
Open hardware released under the CERN Open Hardware License 1.2
• connect to a computer and spectralworkbench.org
• see and share research at publiclab.org
• see the bottom of this box for project ideas

Spectral Workbench by Public Lab

Learn Help warren Capture spectra



atmosphere over pfizer, brooklyn

uploaded by liz RSS

-- (Cloned calibration from calibration)

JSON CSV XML

Like 0 Tweet 0

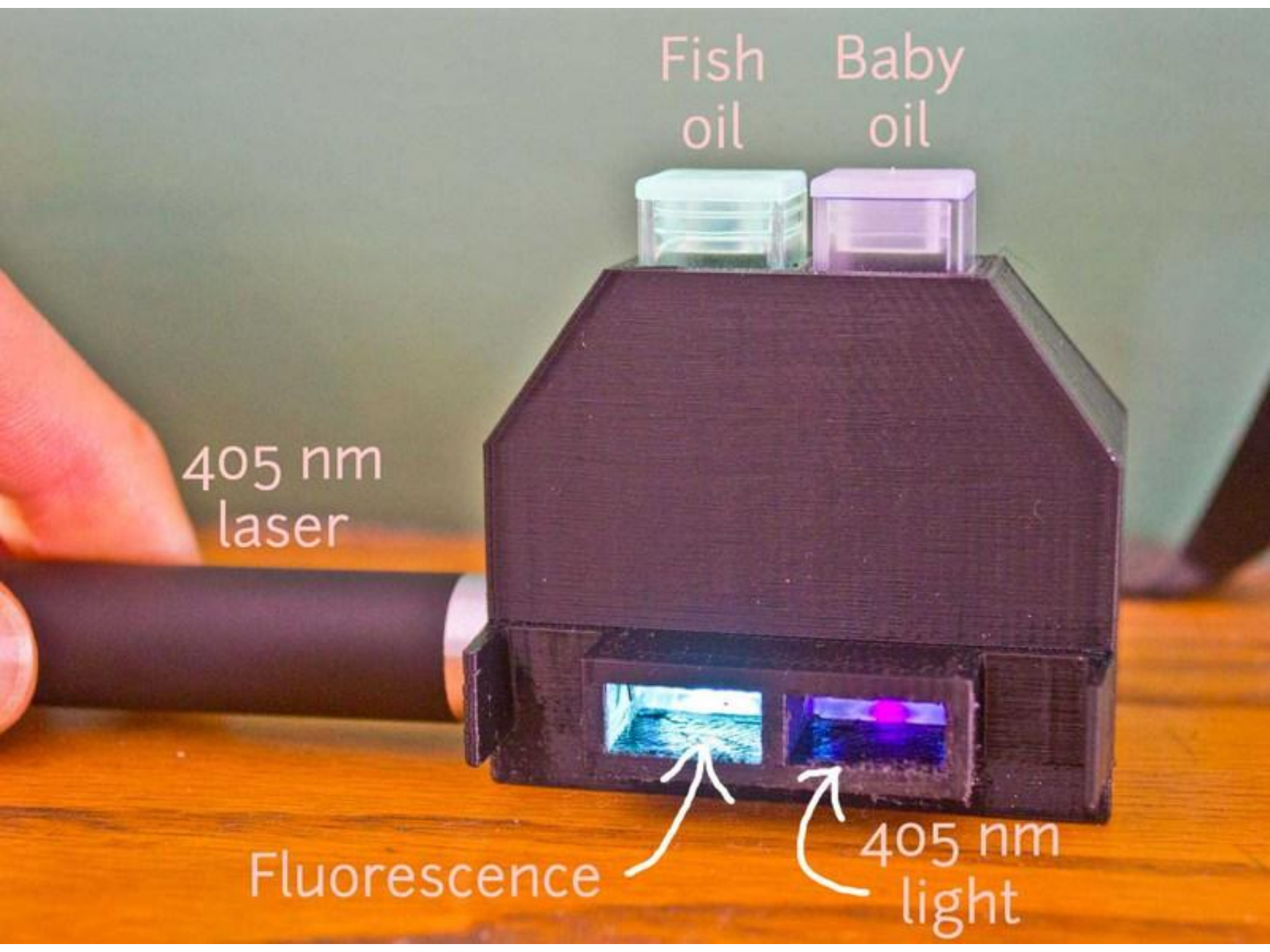
Comments (2)

2 months ago, warren wrote:
https://en.wikipedia.org/wiki/Fraunhofer_lines Fantastic O2 lines at ~900nm, 760nm and 685nm! 760 especially. The double line at 717 and 725 that we were wondering about seems to be H20 according to the graph on Wikipedia: https://en.wikipedia.org/wiki/File:Spectrum_of_blue_sky.svg I think that if it weren't as overexposed in the blue-green region we'd have gotten some of those lines as well.

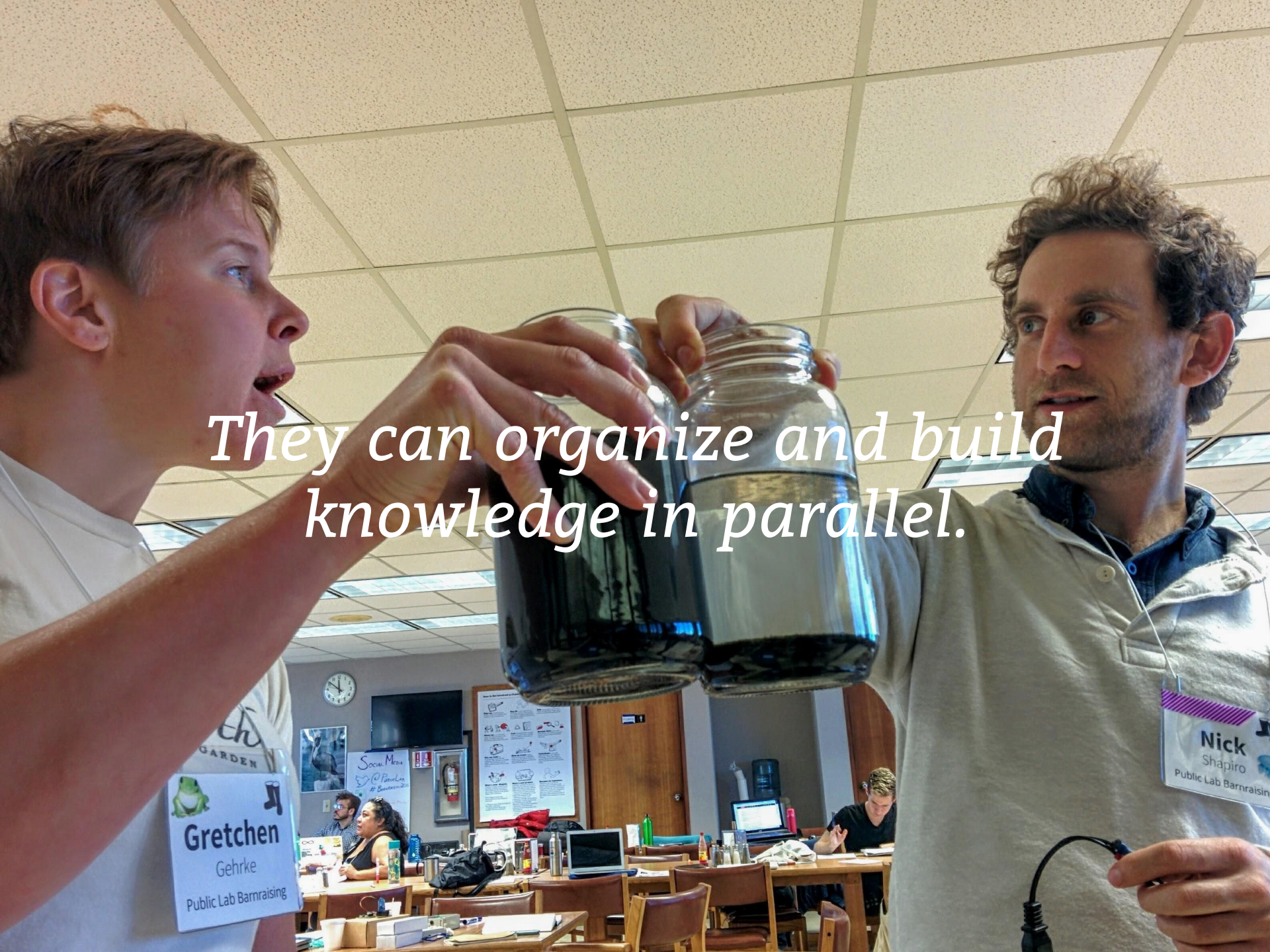
Delete

about 1 month ago, Fernando wrote:
By the way, the spectrum you took looks really interesting! You cansee the Oxygen absorption aroun 760nm quite well. Although there is a whole world of information in the IR which is not present, where you can see CO2, water vapour and other greenhouse gases: http://www.stellarnet-inc.com/images/solar%20image%20200-2400nm.gif

Delete


Fish oil
Baby oil
405 nm laser
Fluorescence
405 nm light

Local groups can acquire expertise more readily today.
@gwirth



They can organize and build knowledge in parallel.

Which is why we need to build bridges.

FRIDAY CLASSROOM
FRIDAY CONFERENCE ROOM
FRIDAY AUDITORIUM
SAT CLASSROOM
SAT CONFERENCE
SAT AUDITORIUM
SUN CLASSROOM
SUN CONFERENCE ROOM
SUN AUDITORIUM
Lunch
LUNCH
Mentor tour
Clean up
Vans Out

PublicLab.org