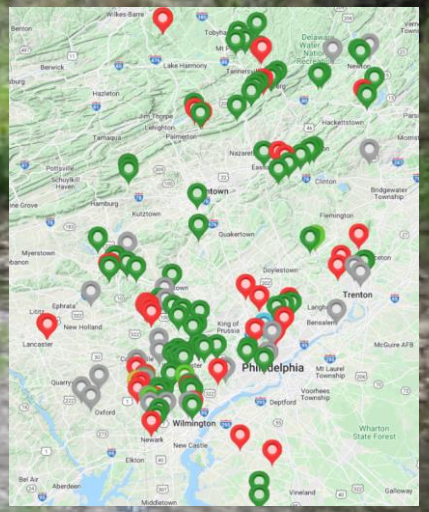
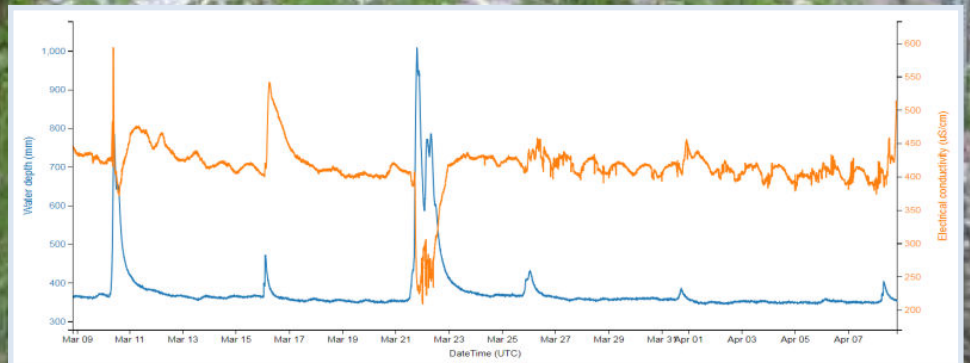
Comprehensive Introduction to the EnviroDIY CTD Monitoring Station

At Berks Nature, Saturday, March 9, 9:00a – 1:00p

EnviroDIY



Monitor My Watershed®



STROUD WATER RESEARCH CENTER

Today's Agenda

- PART 1 – Classroom Presentations, 9:00-11:15a
  - 9:15-9:30a – Introduction
  - 9:30-10:00a – EnviroDIY station technology and Monitor My Watershed
  - 10:00-10:30a – Data, data patterns, relationships
  - 10:30-11:15a – Station management

- PART 2 – Station Visits and Demonstrations, 11:15a-12:45p
  - Visit Angelica Creek stations – tech basics, maintenance, Quality Control
  - Classroom demonstrations
    - Monitor My Watershed
    - EnviroDIY example stations and sensors
    - Review of online resources, https://wikiwatershed.org/drwi/

- PART 3 - Final wrap-up, 12:45-1:00p

Facilitators

- Berks Nature/The Nature Place
  - Beckey Seel,
  - Michael Griffith (Mikey G)

- Penn State Master Watershed Stewards
  - Carol Armstrong
  - Dave Manning
  - Charlie Coulter
  - Eric Frankhouser

- Stroud Water Research Center
  - David Bressler
  - Shannon Hicks

EnviroDIY™

EnviroDIY is a toolkit of open source hardware and resources for the environmental community. Established in 2014.

The main goal: to teach users how to build and maintain instrumentation for do-it-yourself environmental monitoring.

EnviroDIY™

EnviroDIY

An Initiative of S

Blog

Videos

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n GitHub

Shop

Default sorting

EnviroDIY Mayfly Data Logger (Pack of 5)

$580.00

Add to cart

EnviroDIY Mayfly Data Logger Board and Starter Kit (Pack of 5)

$760.00

Add to cart

EnviroDIY LTE Bee (Pack of 5)

$285.00

Add to cart

EnviroDIY OLED Half-shield (Pack of 5)

$115.00

Add to cart

EnviroDIY RS-485 Half-shield (Pack of 5)

$0.00

Read more

EnviroDIY Multipurpose 6-pin Screw Terminal Grove Adapter (Pack of 5)

$35.00

Add to cart

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6. Buildir

7. Installi

8. Manag

9. Refere

Measuring and Predicting Discharge and Chloride and/or Sediment Loads

EnviroDIY™ Monitoring Stations

Waterproof logger box and solar panel

Meter Hydros 21 CTD sensor

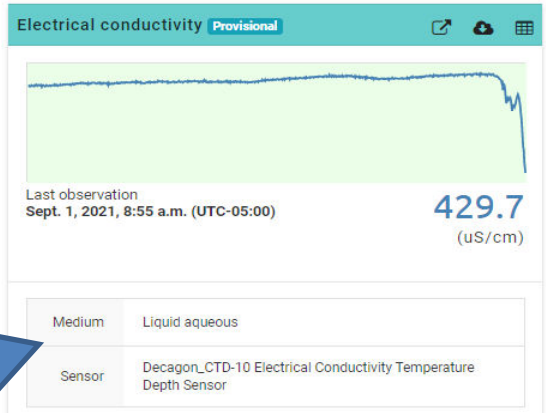
Mayfly Data Logger

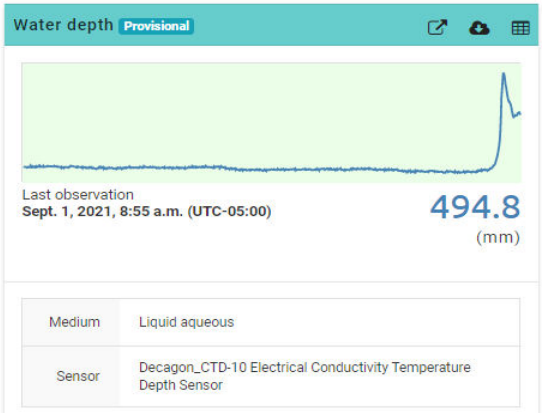
EnviroDIY™ CTD Monitoring Station

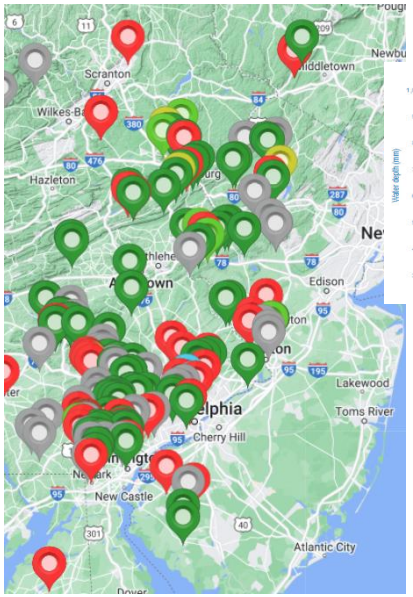
Basic station function

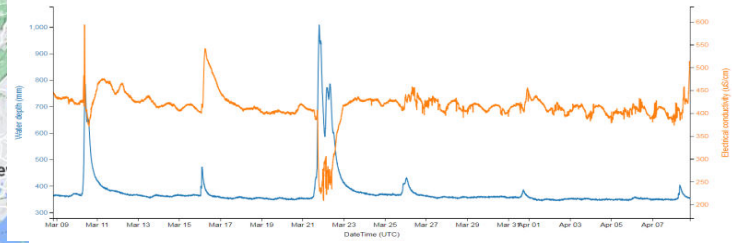
EnviroDIY

Monitor My Watershed®









Monitor My Watershed®

Sensor Observations at this Site

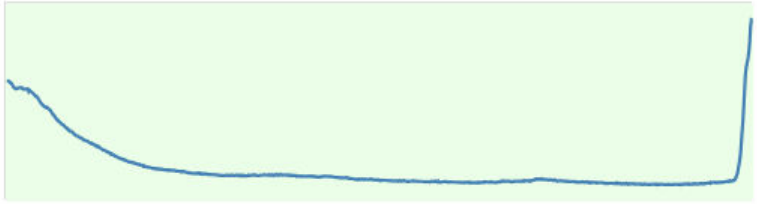
EnviroDIY

DOWNLOAD SENSOR DATA | MANAGE SENSORS

Only the most recent 72 hours of available data are shown on the sparkline plots. The plots are broken when there are gaps in the data longer than 6 hours. Plots shaded in green have recent data. Plots shaded in red have not reported data in the last 72 hours.

Time Series Visualization
View data for this site.
Related Link

Water depth Provisional

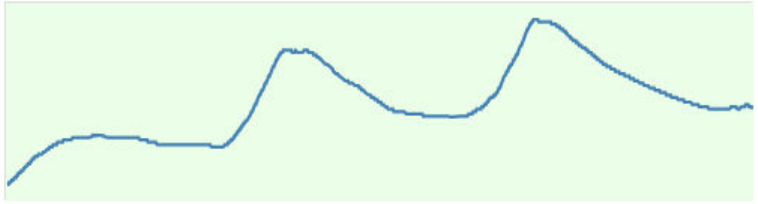


Last observation
March 5, 2024, 11:35 a.m. (UTC-05:00)

577.5
(mm)

Medium	Liquid aqueous
Sensor	Decagon_CTD-10 Electrical Conductivity Temperature Depth Sensor

Temperature Provisional



Last observation
March 5, 2024, 11:35 a.m. (UTC-05:00)

9.3
(degC)

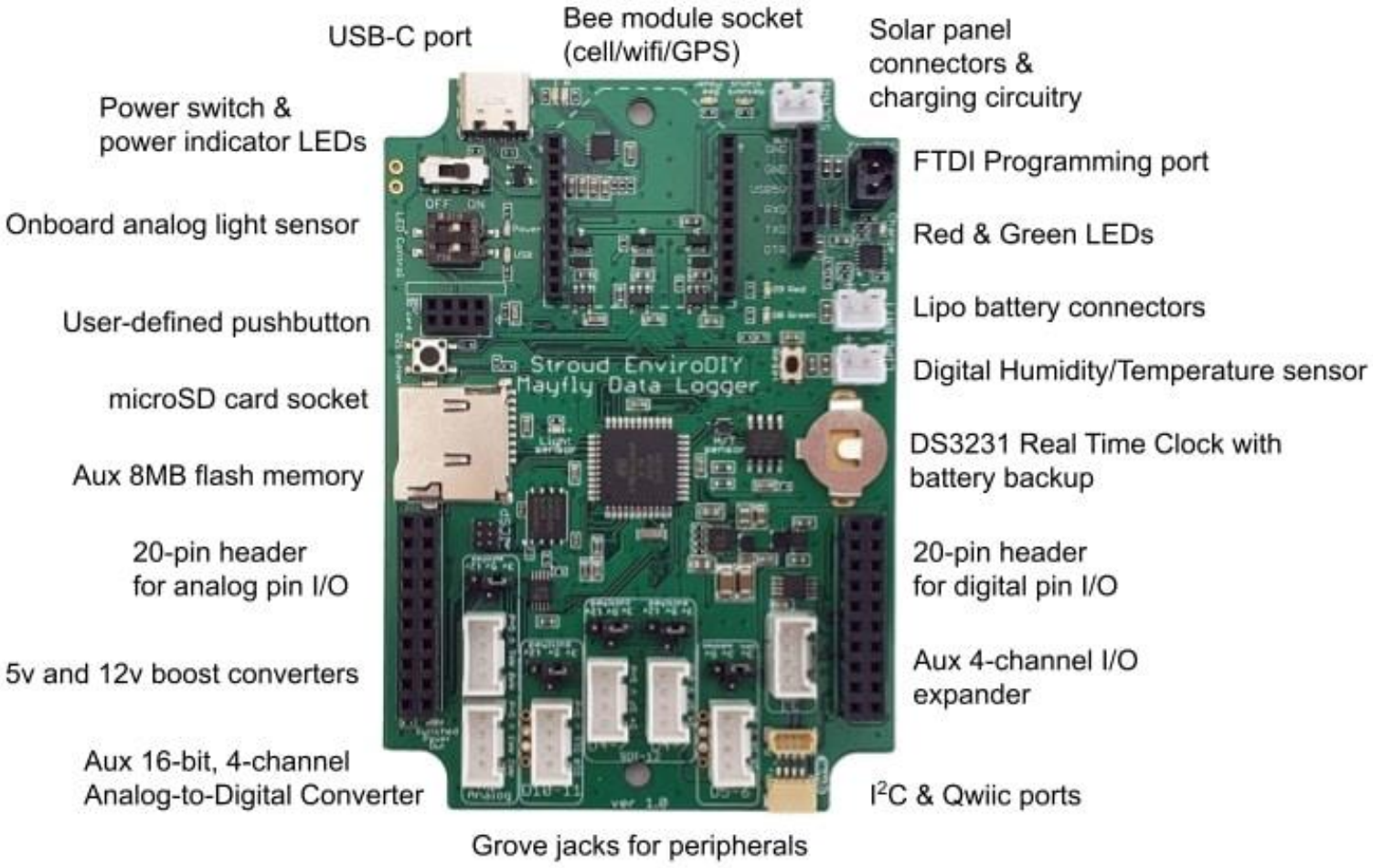
Medium	Liquid aqueous
Sensor	Decagon_CTD-10 Electrical Conductivity Temperature Depth Sensor

EnviroDIY™ Monitoring Kit

EnviroDIY™ Mayfly Data Logger

https://www.envirodiy.org/mayfly/

Features of the EnviroDIY Mayfly Data Logger v1.0 and v1.1



Workshop 1: Introduction to EnviroDIY

- Intro to Mayfly Data Logger
- Intro to Arduino
- Programming logger using Arduino sketches
- Testing on low cost sensors

Workshop 2: Building an EnviroDIY Monitoring Station (programming and assembling a CTD station)

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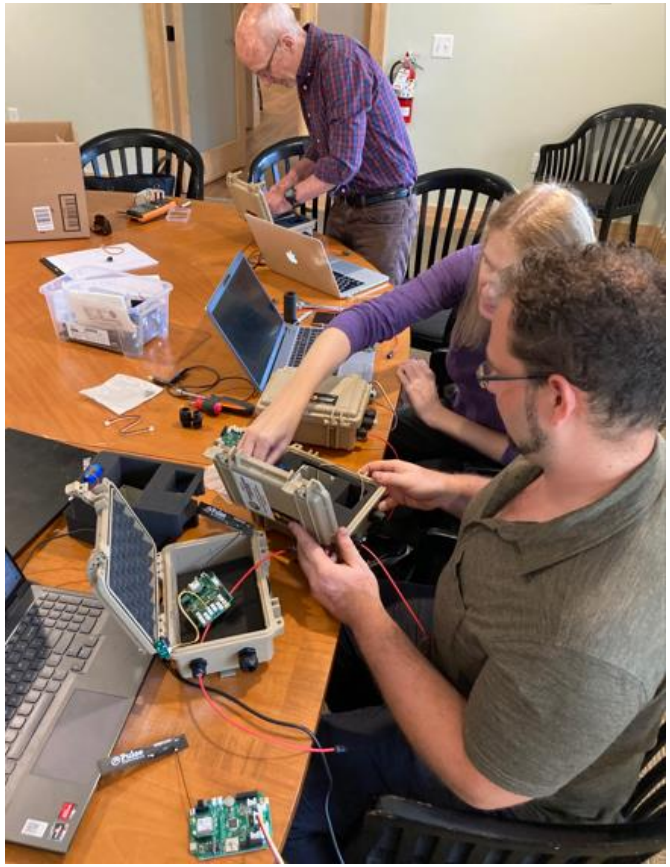


Waterproof logger box and solar panel

Mayfly Data Logger

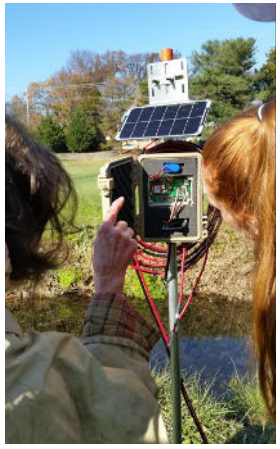
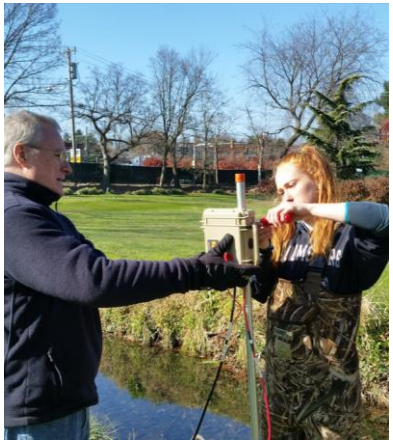
Meter Hydros 21 CTD sensor

EnviroDIY™ Workshops

Workshop 3: Managing an EnviroDIY Monitoring Station (managing a CTD station)

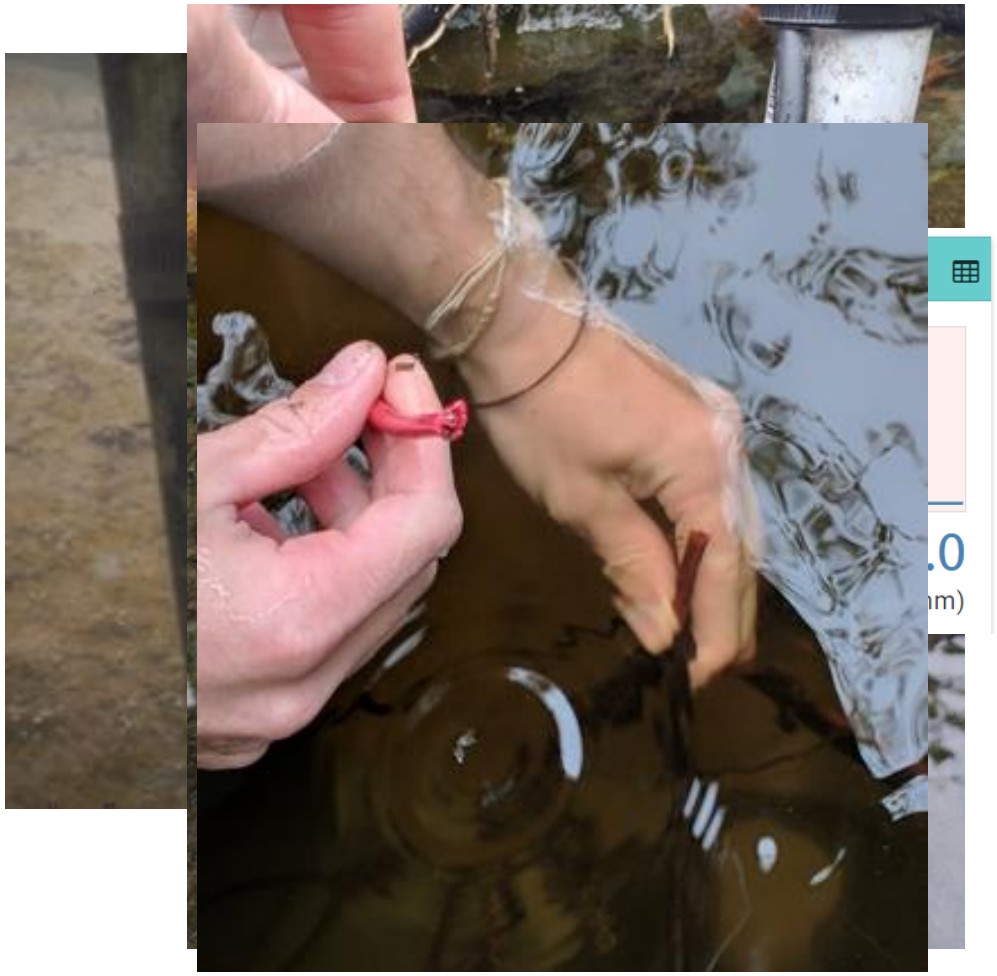




Workshop 3: Managing an EnviroDIY Monitoring Station (managing a CTD station)

- Monitoring the data
- Sensor cleaning
- Quality Control
- Troubleshooting



In Conclusion

- Contacts for follow up with Berks Nature organizations:
  - David George, dlgpab1@gmail.com
  - Michael Griffith, michael.griffith@berksnature.org

- Contacts for follow up with other organizations:
  - Dave Bressler, dbressler@stroudcenter.org
  - Shannon Hicks, shicks@stroudcenter.org

- Final materials and follow up email that will include the additional resources

In Conclusion

- A follow up email will be sent
  - Resources list
  - Presentations from today

- EnviroDIY in the Delaware River Basin network

  - Monthly meetings - third Thursday of the month, 2:30-3:30p via zoom

  - *Be in touch with Dave Bressler if you would like to be added to the email distribution list

Final Questions/Discussion?