



HELPING PEOPLE SENSE HERE

SENSING, COMMUNITY
CoLabs
& NONPROFIT CAPACITY



Photo courtesy Great Pond Foundation

SENSORS, EDGARTOWN GREAT POND & STEM EDUCATION

HERELAB IS PROVIDING GPF A COMMUNITY-BUILT, REAL-TIME POND SENSOR NETWORK

PROJECT OVERVIEW

IMMEDIATE NEED: Great Pond Foundation would like monitor and help the island community better know the current health of Edgartown Great Pond. Through real-time data, GPF can educate the community and foster greater public understanding of the pond's aquatic and coastal habitat.

SOLUTION: HereLab will teach people 12 and up to build and deploy DO and temperature sensors and will provide real-time public data to help stimulate public knowledge, engagement & action.

EDUCATIONAL GOALS

FRAMEWORK: HereLab is a non-profit organization fostering community insight through public good sensors and data. We will teach (up to twenty) young people to code, wire, connect and deploy real-time sensors and will give students the know-how and capacity to build real-time, Internet of Things sensors.

METHOD: In a 5-day 'camp' students will know "the client's" (GPF) needs, and will design, build and deploy sensors that meet that need — in an inquiry-based, hands-on & applied learning environment.

PUBLIC BENEFIT

OBJECTIVES: HereLab strives to be a facilitator of public insight and engagement. We will work with GPF to supply an expandable network of real-time sensors for valuable data points as well as "citizen science" & public information. We will publish meaningful, real-time and accessible data/information.

YOUTH BENEFIT: HereLab feels young & island people will thrive with an awareness of applied technical design skills. Giving young people exposure to STEM skills now expands this opportunity.

MATERIALS AND SERVICES

HereLab will design and provide the overall sensor network with GPF input, will provide an internet-connected, weatherproof sensor gateway and will provide GPF a to be determined number of deployed real-time dissolved oxygen and temperature sensors.

HereLab will also provide a public, web-based dashboard for real-time pond sensor monitoring.

The camp runs August 22-26 & costs \$500 per student. Tuition covers some of the cost of sensors (\$550). All sensors will be donated to Great Pond Foundation.