

Custom design of low-cost environmental sensing for oyster aquaculture

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Background

Oyster health and growth rate can be influenced by water temperature, dissolved oxygen, salinity, daily air exposure time, and wave action. However, no **affordable, open-source sensor** is ideally suited to capture this suite of data, especially from within an oyster aquaculture bag.



Oyster farming. Credit: USDA.

Goal

Develop and test a **robust data logging device** for oyster aquaculture.

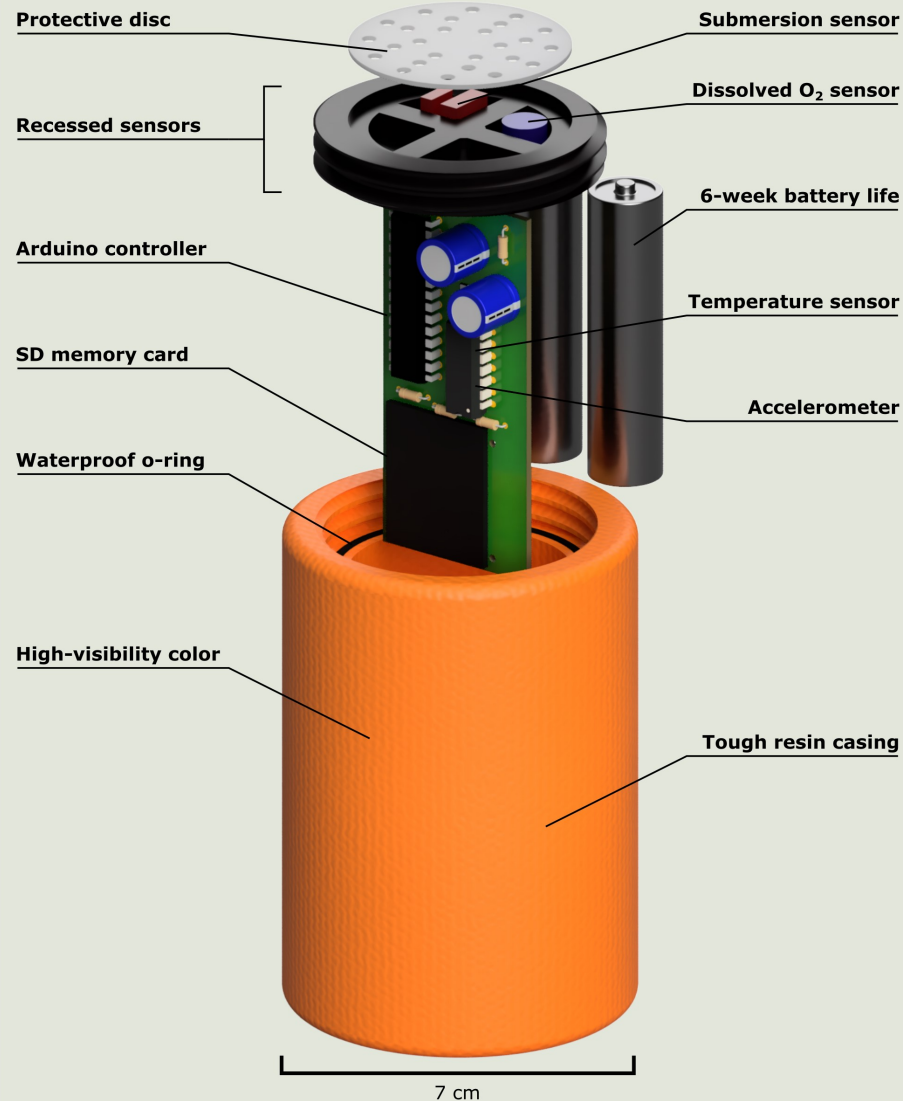
Objectives

Prototype to test ruggedness and data collection.

Validate sensors against known data.

Iterate on this design with increasing capabilities.

Design



Data management

Capture through modular sensors.

Storage in an onboard SD card.

Transfer by a Bluetooth Low Energy module to a cell phone.

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What we do

The Aquatic Germplasm and Genetic Resources Center supports aquatic repositories and industry through **process and device development**.

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