Our project is PUCKfish, a data collection device designed for more efficient, effective, and environmentally friendly lobster trapping. Lobster trappers currently have access to some historical data as to conditions on the ocean floor, but no real resource exists to help trappers decide on placement. PUCKfish aims to revolutionize this space, bringing 21st century technology to an industry largely trapped in the 19th century.

PUCKfish collects temperature, depth, ambient light, dissolved oxygen, water current, and salinity, as these variables are most correlated with where lobsters form pods. It can additionally detect when it has either surfaced or submerged, allowing for automatic, wireless, data transmission to the base station when the trap is collected. To last up to ten days on a charge, each puck will collect data every hour, with higher rates available if a shorter battery life is acceptable.

Designed to be simple but robust, PUCKfish can operate at up to 1,100 ft below sea level (34.4 atm), and withstand extended exposure to harsh oceanic conditions.

Prototypes are set to cost less than $150, with the final product less than $50 when mass manufactured.