Project ROVe: Design and Build (in-person course)

Project ROVe (Remotely Operated Vehicles for Educators) educates and empowers educators to integrate maritime technology into their curriculum through underwater robots.

In this course, you will collaborate with other educators and representatives from the National Marine Sanctuary Foundation and/or NOAA's Office of National Marine Sanctuaries (ONMS) to explore ROV technology, build MATE Pufferfish ROVs, and create an implementation plan for your classroom. This course will take approximately 30 hours.

Project ROVe Goals:

- To bridge engineering and other subjects in a transdisciplinary and engaging way, while meeting required standards.
- To infuse maritime technology into course curriculum whether you want to build ROVs in the classroom or send students to MATE competitions (or both!).
- To introduce students to various STEM career fields.
- To create opportunities for educators to collaborate around a topic area and form a supportive network.
- To connect educators with NOAA, the National Marine Sanctuary Foundation, and other partners, locally and globally.

Course Overview and Statement of Work

Course Delivery:

This course will consist of an *in-person*, ROV building workshop. For this hands-on workshop, you can expect to build a SeaMATE Pufferfish ROV (which you will get to take home) and connect with ROV cohort alumni as well as representatives from the National Marine Sanctuary Foundation and/or NOAA's Office of National Marine Sanctuaries (ONMS).

Tasks/Responsibilities (before, during, and after the course):

- Active participation in the ROV building workshop.
- Create a detailed plan for integration into your curriculum (building on from your plan in *Introduction to ROVs*, if applicable).
- An ongoing commitment to the use of ROVs in your programming.

Schedule At-A-Glance

Pre-Workshop Prep	In-Person Workshop	Final Implementation Plan
Pre-workshop homework: • Review the following topics: circuits, soldering, and buoyancy • Review pre-course resources	• ROV Building Workshop – 3 day ROV build and test with optional field experience day. Date and Location will vary for each cohort.	• Finalize Project Implementation plan due one month after workshop takes place.

Time Commitment:

- Approximately 30 hours including in-person course and implementation plan completion.

Deliverables for Successful Course Completion:

1. Attend in-person workshop and complete activities.
2. Create ROV Implementation Plan with budget.

Costs Associated with Course:

*The full course and related materials are free of charge to participants thanks to funding provided by the program's supporters.

- One SeaMATE Pufferfish ROV Kit with camera valued at $470
- Pufferfish Practice Board, Wire Soldering Lab Kit, Components Grab Bag, and PowerPole Connector valued at $55
- Tools to build ROV valued at $200
- One lithium battery and charger valued at $100
- Reimbursement for workshop travel expenses

I _____understand that if I fail to participate in the course activities, I may be required to return the course materials. I also understand that I must complete all required activities in order to receive a certificate of course completion.

_____ _____

Signature Date