Underwater Robotics & Engineering Design

MATE Center and Oregon Sea Grant

Design * Innovate * Integrate

INTERMEDIATE LEVEL ROV WORKSHOP

The TriggerFish ROV: Joysticks and speed control with four motors

DATES: August 5-9, 2019

LOCATION: Hatfield Marine Science Center, Newport, Oregon

DESCRIPTION: This workshop introduces participants to the SeaMATE TriggerFish ROV and the art of accomplishing both bi-directional motor speed control using the Sabertooth motor controller.

Workshop topics will include:

- Engineering Design
- ROV Missions and Project Management
- Classroom Management of Engineering Projects
- Building Frames out materials other than PVC
- Electronics and ROV Control Systems
- Buoyancy and Ballasts
- Cameras, Tools and Sensors
- Running a competition at your school & participating in the MATE ROV Competition

WHO SHOULD ATTEND: Educators who have experience building simple switch box ROV controllers (such as the SeaMATE AngelFish or PufferFish ROV) or faculty who have a background teaching robotics, electronics, physics, or a related discipline. All faculty attending should have concrete plans to implement these activities in the following academic year.

COST: The MATE Center's grant from the National Science Foundation provides 6 nights lodging (double occupancy) and lunches. Transportation to and from Newport, Oregon is the responsibility of the participant (limited travel stipends are available for participants with more than $400 of airfare). To ensure participant success, there is a $800 materials fee for this workshop. Participants will return to their school or organization with a TriggerFish ROV Kit and a camera system.

APPLICATION: Application screening starts April 10th; after that time we will accept applications until the workshop is full. We plan to notify participants of their acceptance mid-April.

FILL OUT AN APPLICATION