



materovcompetition.org

The Marine Advanced Technology Education (MATE) ROV Competition uses underwater robots – also known as remotely operated vehicles, or ROVs – to inspire and challenge students to learn and creatively apply scientific, engineering, and technical skills to solve real-world problems. Working in partnership with the Marine Technology Society’s ROV Committee, the competition was created as a way to:

- Expose students to careers
- Provide access to materials and technical expertise that support student learning
- Strengthen students’ critical thinking, collaboration, entrepreneurship, and innovation



“Get Familiar with Remotely Operated Vehicles (ROVs)”

FREE Teacher, Scout Leader & Team Mentor Training Workshop

Saturday, January 11, 2020
9 a.m.-3 p.m.

\$25 per person plus tax
(includes meals and activities)

Nauticus

One Waterside Drive
Norfolk, VA 23510

- Explore the varieties of underwater robotics and the careers that use them
- Build and test MATE model ROVs in our SeaBots Lab
- Learn basic soldering skills to construct an ROV control box
- Meet with competition team mentors
- Become prepared to host a team in our regional competition
- Register: Nauticus.org/registerrov2020



2020 MATE Mid-Atlantic Regional ROV Competition



Saturday, April 25, 2020
8 a.m.- 4 p.m.

Old Dominion University
Student Recreation &
Wellness Center
4700 Powhatan Avenue
Norfolk, VA 23529



QUESTIONS?

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Every spring, the annual MATE Mid-Atlantic Regional ROV Competition challenges elementary to high school (grades 3-12) students from Delaware, Maryland, Virginia, and upper North Carolina to design, build and demonstrate ROVs to tackle missions modeled after scenarios from the ocean workplace.

In addition, the competition requires students to think of themselves as “entrepreneurs” and transform their teams into companies that manufacture, market, and sell “products.” In addition to engineering their ROVs to complete given mission tasks, the students must also prepare technical reports, poster marketing displays, and engineering presentations that are delivered to working professionals who serve as competition judges.



COMPETITION CLASS STRUCTURE

The competition is divided into 3 classes that vary depending on the team’s level of experience, the vehicle specs, and the complexity of the mission tasks:

SCOUT (Beginner)- New upper elementary to high school teams new to robotics (regional competition only)

NAVIGATOR (Intermediate)- New upper elementary to high school teams with some robotics experience (regional competition only)

RANGER (Advanced)- Middle to high school teams with major robotics experience (regional competition winner advances to world championship)



COMPETITION REQUIREMENTS

As part of the competition, all teams must complete the following tasks:

- Product Pool Mission Demonstration
- Engineering Panel Presentation
- Marketing Display Poster
- Company Team Spec Information Sheet
- Corporate Responsibility (Outreach/Inspiration)
- System Interconnection Diagrams (SIDs) for electrical and fluid (Hydraulic/Pneumatic Power)
- Company Safety Inspection



Register for the 2020 Regional ROV Competition on the MATE website:

<http://midatlantic.materovcompetition.org/registration>

COST

Registration Fees (subject to change)

- \$50 for SCOUT
- \$100 for NAVIGATOR
- \$200 for RANGER

ROV RESOURCES

Total costs depend on competition class and complexity of project design. Teams may purchase competition supplies, including complete ROV kits from the SeaMATE store by visiting:

<http://www.marinetech.org/store>



COMPETITION TIMELINE

(subject to change)

September, 2019- Mission briefing & preview task released

November, 2019 - Specs & missions released

December, 2019- Registration opens

April 25,2020- Regional Competition

June, 25-27, 2020– MATE ROV Competition– World Championship