



## **Top Ten FAQ's for the 2019 Mid-Atlantic MATE Regional ROV Underwater Robotics Competition**

### **1) What is the Mid-Atlantic MATE ROV Competition?**

The Competition is an annual event where teams from the Mid-Atlantic regional states build remotely operated vehicles (ROVs, also known as underwater robots) to compete and solve real-life ocean related missions. The goal is to develop teamwork, problem solving, and building skills while gaining knowledge on ocean technical careers with a Science, Technology, Engineering, and Math (STEM) focus.

### **2) What groups can participate in the MATE ROV Competition?**

Upper Elementary through High School age students (grades 3-12) in school classes, after-school programs, scout groups, and organized youth groups (i.e. Boys and Girls Club, CHROME Club) can form teams to participate.

### **3) What are the Team Levels for the Mid-Atlantic Regional Competition?**

SCOUT (Beginner)- New Upper Elementary to High School Teams new to Robotics (Only competes in Regional Competitions)

NAVIGATOR (Intermediate)- New Upper Elementary to High School Teams with some Robotics Experience (Only competes in Regional Competition)

RANGER (Advanced)- Middle to High School Teams with major Robotics Experience, College Students new to Robotics

(Competes in Regional Competition to Earn Opportunity to Advance to the International Competition)

### **4) What does a team have to do in the Competition?**

Teams build an ROV to complete a given underwater mission, create and present a poster marketing display and engineering technical presentation based on their ROV design. **Competition Manuals will be released on the MATE Website of <http://www.marinetech.org/missions-specs--scoring/> December, 2018!**

### **5) How much are registration fees to enter the Competition?**

Registration fees will be \$50 for SCOUT, \$100 for NAVIGATOR, and \$200 for RANGER Level teams. These fees assist to cover Competition material costs, awards, and lunch. **Fees subject to change.**

### **6) How do I register to have a team in the Competition?**

Registrations for participating Mid-Atlantic teams can be done on the MATE website page of <https://www.marinetech.org/registration/>. **Team Registration Begins December, 2019!**

### **7) How much does it cost for an ROV underwater robot?**

Prices for a completely built ROV are based on material costs. A SCOUT beginner level ROV (i.e. Angelfish, Pufferfish) from MATE will cost around \$250. A RANGER Competition ROV can cost \$1,000 (or a lot more!) based on the required equipment needed (i.e. underwater cameras, sensors, thruster propellers, etc.). Teams can cover costs by conducting fundraisers or collecting donations.

### **8) How long does it take to build an ROV underwater robot?**

It varies based on the team meeting structure time as well as the level competing in. An example would be an after-school program meeting 2-3 hours over a 12-week period (24-36 hours).

### **9) Where can teams find supplies to build an ROV underwater robot?**

Teams will need to check the MATE website to see what ROV supplies will be needed to compete at their Team Level- <http://www.marinetech.org/missions-specs--scoring/>. Teams can purchase complete ROV kits from the MATE Store at <http://www.marinetech.org/store>. Most ROV underwater robot supplies can also be purchased at local hardware stores (i.e. Home Depot, Lowes), technical stores (i.e. Radio Shack), and hobby shops.

### **10) Where can teams go to get help/advice with building ROV underwater robots, writing technical reports, and other Competition concerns?**

Please visit the MATE website of [www.marinetech.org](http://www.marinetech.org) for ROV building tutorials, curriculum, and team information forums.