

## Gray's Reef 2013 Southeast Regional MATE ROV Competition



Photo: GRNMS

### Gray's Reef Southeast Regional MATE ROV Competition

The Southeast Regional MATE ROV Competition hosted by Gray's Reef National Marine Sanctuary will be held:

When-  
**April 13<sup>th</sup> 8:00am – 4:00pm**

Where-  
**Chatham County Aquatic Center  
7240 Sallie Mood Drive  
Savannah, GA 31406**

For complete registration information please visit the Southeast Regional competition website at:  
<http://graysreef.marinetech2.org/registration>

Competition missions, props, design rules and safety requirements can be found under the **2013 Challenge** tab.

Specific class requirements for the Southeast Regional competition are listed under the **Team Info** tab, select SCOUT, RANGER or EXPLORER for additional details.

The general public is invited to come out and see what STEM education can do!

### Underwater Robotics Competitions

Gray's Reef National Marine Sanctuary is a federally protected sub-tropical reef that is the best example of those typically found off the southeastern coast. Gray's Reef along with 13 other sites located in waters surrounding the continental USA, Hawai'i and American Samoa operate under the umbrella of NOAA Office of National Marine Sanctuaries.

Each of these national underwater treasures employs various technologies to explore and research their underwater resources. Other than scuba diving the next most used technology is remotely operated vehicles or ROVs. Beginning in 2004, Gray's Reef partnered with the Marine Advanced Technology Education Center (or MATE Center) and the

Georgia Aquarium to offer underwater robotics as a vehicle to teach science, technology, engineering, and math (STEM), which prepares students for technical careers. Ocean habitats and in particular sanctuaries serve as backdrops for real life scenarios of exploration, rescue and research upon which annual competition missions are based. Working in partnership with the Marine Technology Society ROV Committee, MATE created the ROV competition as a way to:

- Engage students in STEM and expose them to science and technology careers
- Encourage students to develop and apply technical, teamwork, and problem solving skills
- Provide funds, materials, and technical expertise to support student learning



Photo: GRNMS

2012 Southeast Regional Ranger Class Winners Carrollton High School



Gray's Reef National Marine Sanctuary is one of the largest near-shore live-bottom reefs of the southeastern United States. It's just one of the 14 national marine protected areas that make up the National Marine Sanctuary System and is managed by NOAA. The sanctuary is 22 square miles with an average depth of 62 feet.

- Provide industry with skilled individuals who can fill workforce needs

The MATE competition challenges K-12, community college, and university students from all over the world to design and build ROVs to tackle missions modeled after scenarios from the ocean workplace. The competition's class structure of beginner, intermediate, and advanced complements the education pipeline by providing

students with the opportunity to build upon their skills – and the application of those skills – as they engineer increasingly more complex ROVs for increasingly more complex mission tasks.

The MATE 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, the students are required to prepare

technical reports, poster displays, and engineering presentations that are delivered to working professionals who serve as competition judges.

**Contact Your Southeast Regional ROV Competition Coordinators at Gray's Reef:**

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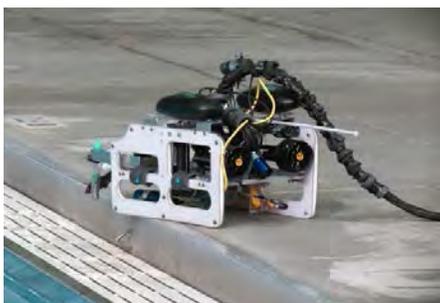


Photo: Michael Tam

2012 competition vehicle

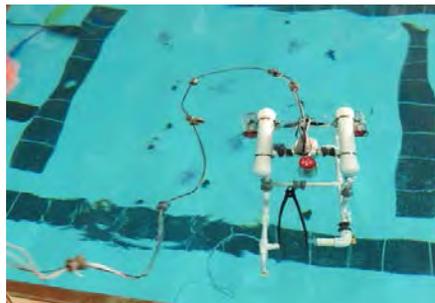


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