



A focus on developing *Science, Technology, Engineering and Math* (STEM) skills has gained nationwide attention in K-12 education. Its purpose is to excite and prepare students for majors and careers as scientists, technologists, engineers and mathematicians in order to meet the growing workforce demands of the 21st century. Remotely Operated Vehicle (ROV) competitions are a way to engage and challenge students in these fields. Worldwide, these competitions provide a forum for exploring physical science concepts, basic engineering principles, basic circuitry, oceanography and deep sea biology, as well as showcasing student ingenuity.





ABOUT DISL

The DISL's mission encompasses marine science education, marine science research, coastal zone management policy and educating the general public. Located on a barrier island and surrounded by Mobile Bay, Mississippi Sound and the Gulf of Mexico, DISL is perfectly situated for marine science activities.

ABOUT DEEP-C

The Deep-C Consortium investigated the environmental consequences of petroleum hydrocarbon (oil) on living marine resources and ecosystem health in the northeastern Gulf of Mexico. The consortium members sought to increase understanding of the fundamental physical, chemical, and biological connections between the deep sea, continental slope, and coastal waters and their

linkages to critical habitats



This project was previously made possible by a grant from BP/The Gulf of Mexico Research Initiative to the Deep-C Consortium.

WHAT IS THE ANNUAL STUDENT ROV COMPETITION?

This competition is part of the Dauphin Island Sea Lab's hands-on education program, Discovery Hall Programs (DHP) and the Marine Advanced

Technology Education (MATE) Regional Competition network. DHP hosts an annual teacher workshop in which teachers learn about the importance of ROVs during the Deepwater Horizon oil spill response; how they are used in marine industry and exploration; how to build, wire and operate ROVs; and how to integrate what they've learned into their STEM education efforts. Teachers take this information and new skills back to their classrooms or student clubs, and work



with students studying the connection between the deep sea and the coast, as well as how scientists use ROVs to conduct research, thereby integrating STEM activities and skills into their curricula.

THE 2016 EVENT

Students from middle and high schools in Alabama, Mississippi, Louisiana and northern Florida will be vying for ROV domination during April 22-24, 2016. This event also serves as the Northern Gulf Coast regional competition for the MATE program offering Scout, Navigator and Ranger ROV classes. Student teams will have designed and built a unique ROV that they will use to compete in a series of missions based on the MATE theme for the year - ROV Encounters in Inner and Outer Space. Student teams will also give a presentation, judged by local engineers and scientists, on the design of their ROV. The weekend will also be a learning experience above and beyond the competition as students will learn about the Gulf of Mexico, hear from scientists who use ROVs in their research and enjoy meeting students from other teams. The winner of the Ranger class competition is eligible to compete in the International MATE competition to be held June 23-25, 2015 at the NASA Johnson Space Center's Neutral Buoyancy Lab in Houston, Texas.



FOR MORE INFORMATION

For more information about the ROV competition, visit the Dauphin Island Sea Lab's website: http://www.disl.org/rov MATE regional competition website: http://dauphinisland.marinetech2.org or email: rovcompetition@disl.org.

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