

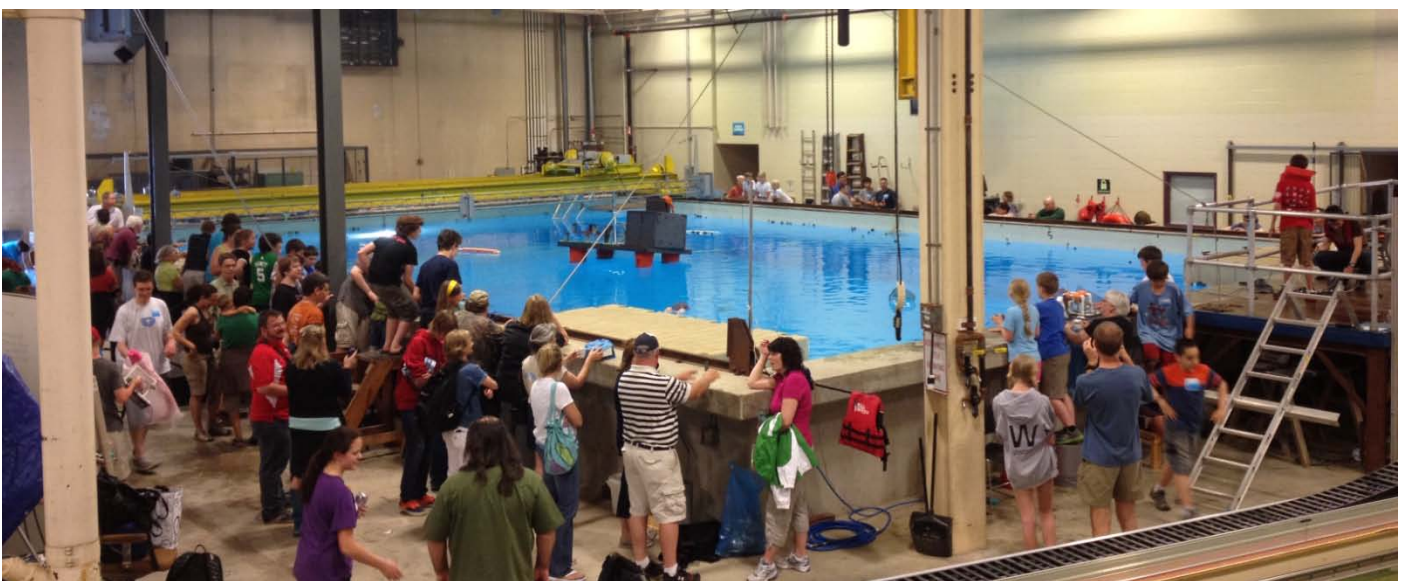
Seacoast Students Compete in the 2nd Annual SeaPerch Competition

The second annual UNH SeaPerch Competition was held Saturday, May 11th, 2013 on the University of New Hampshire (UNH) campus. 17 teams from New Hampshire and Maine schools and community groups competed in this ROV (Remotely Operated Vehicle) challenge, using ROVs that they built themselves. There were two events in the morning competition, an obstacle course and a salvage operation, and then all teams participated in an afternoon engineering challenge which involved cleaning up an oil spill from an exploding oil rig.

In the timed obstacle course event, teams had to maneuver their ROV through a series of underwater hoops, and then trace their steps back. In the salvage operation, teams had to remove "debris" in the form of weighted buckets from the bottom of the pool, and then retrieve them.

After the students completed the competition, they went over to the Chase Ocean Engineering Laboratory where they were treated to a demonstration by the UNH ROV team, a group of UNH Undergraduate students who have built an ROV to compete in the 12th annual MATE (Marine Advanced Technical Education) International ROV competition in Seattle in June. Following the demonstration the students were presented with an engineering challenge provided by the MIT Sea Grant team of Kathryn Shroyer & Mike Soroka, who set up a simulated oil rig in the engineering tank. The students had to hack their SeaPerch ROVs, and a host of random household and construction materials to mitigate an oil spill of ping pong balls that surfaced in the tank when the oil rig exploded. "I loved seeing my students follow some sort of procedure today," said Shawn Gygax, a teacher from Barrington Middle School. "I was most impressed that my Middle School students started by drawing up a plan, they brainstormed, drew a solution up and then found the parts to modify their SeaPerch. It was the best part of the whole day."

By having the students tackle an engineering challenge like the oil spill, it brought some real world relevance to the day. "These teams face the same types of challenges as ROV operators the world over—visibility, tether management, vehicle power and maneuverability." said Rick Cecchetti, the PNS SeaPerch coordinator. "While building and testing the SeaPerch ROV, students learn and apply basic engineering principles and science concepts with a marine engineering theme. Our mission is to inspire the next generation of scientists, engineers and technologists."



The UNH Seacoast SeaPerch Competition is an educational outreach event organized by the Center for Coastal and Ocean Mapping (CCOM) at UNH, Portsmouth Naval Shipyard (PNS) and UNH Cooperative Extension /New Hampshire 4H. All of the schools or community groups involved in this regional event participated in either an ROV build or an educator workshop funded through the Shipyard's National Defense Education Program (NDEP). The SeaPerch program at the Shipyard is part of the National STEM Outreach Program to encourage students to pursue careers in Science, Technology, Engineering and Math. This year the Shipyard Team has built vehicles with more than 700 local middle school students at 12 separate events.



The regional competition was funded through CCOM/UNH and PNS, as well as through generous donations from the New Hampshire Sea Grant Office and UNH Cooperative Extension/ NH-4H. Volunteer judges and crew from CCOM, PNS, and the UNH Cooperative Extension Office all helped the day run smoothly.

For more information about the Seacoast SeaPerch program, please see

<http://ccom.unh.edu/seaperch>

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