

Educating and Exciting Youth about Ocean Engineering

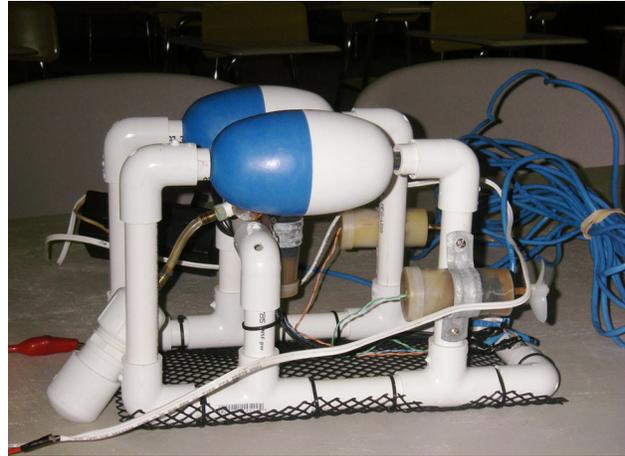
In 2009, New York Sea Grant (NYSG) partnered with the Massachusetts Institute of Technology (MIT) to create excitement about ocean engineering among young students on Long Island.

Engineering as a career seems to be waning among many students in the United States. Such a decline raises economic and security issues for the nation in that we will fall behind other countries in the development of technologies to build a new economy and security systems.

To address the issue, the MIT Sea Grant program began “Sea Perch,” a program designed to introduce young students to ocean engineering and to help them understand that engineering can be fun and exciting.

Sea Perch students learn basic engineering concepts to solve some basic engineering design issues. They build a submersible remotely-controlled water quality sensing device that photographs conditions under water, collects data about water quality, and transmits that data to a computer on land.

In 2009, in the spirit of the nationwide network of Sea Grant programs which work together to address national issues, New York Sea Grant invited MIT Sea Grant to come to Long Island to conduct a Sea Perch program with a group of 40 middle school students from Westhampton Beach Middle School. The program was supported in part by the Allan Overton Endowment at Cornell University, which supports Sea Grant’s youth education efforts on Long Island.



Students “engineered” and launched a “sea perch” that they operated remotely into a local bay. The sea perch sent back pictures from the bottom of the bay and collected several water quality parameters. Photo: Mark Cappellino, Cornell Cooperative Extension Suffolk County

After the event, the students wrote their thoughts about the program, some of which are highlighted here:

- *“Your program gave me a better outlook on the world of science, and it made me interested in pursuing a career in marine engineering.”*
- *“I found the topic very interesting and I am thinking about looking into marine science for future years. It was an honor to be taught by such accomplished people, and this experience sparked an interest in a topic that I have not seen before.”*
- *“I’ve always been interested in robotics. Now I’m thinking about a job that has do with remotely operated vehicles. So, thank you for the opportunity to explore more jobs in the science field.”*

This project meets the performance measures of Sea Grant’s Coastal Citizens’ Awareness & Understanding focus area. Sea Grant Extension administration is located at 112 Rice Hall, Cornell University, Ithaca, NY 14853. This project summary was written by Robert Kent, NYSG Interim Associate Director/Marine Program Coordinator,

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