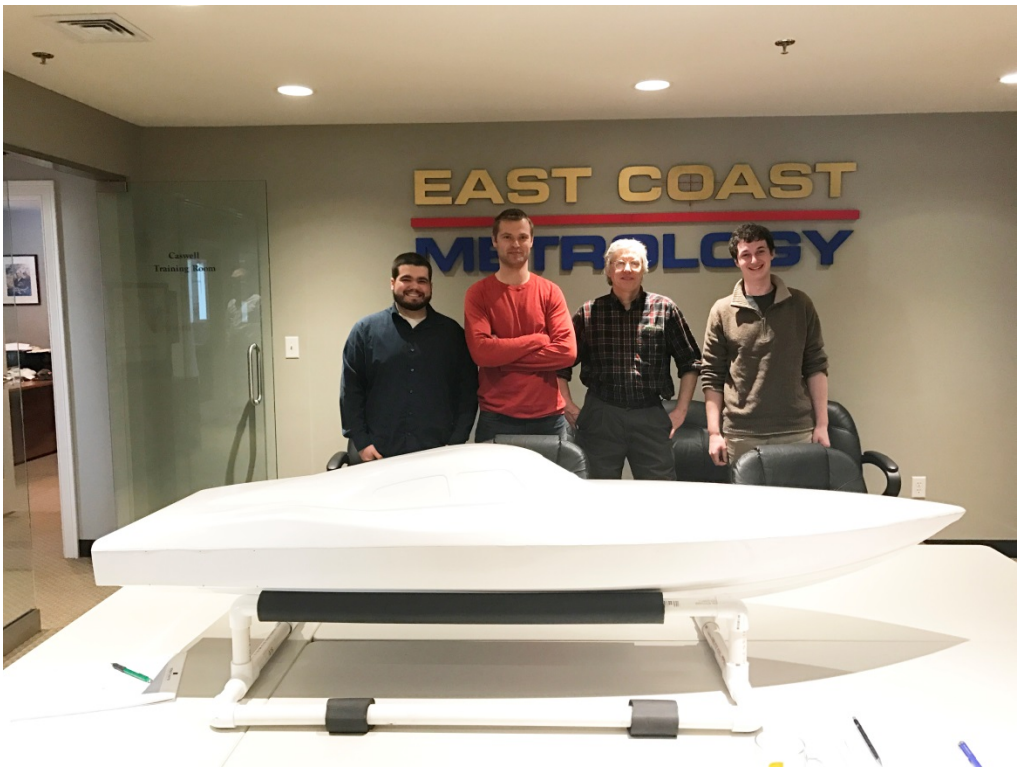
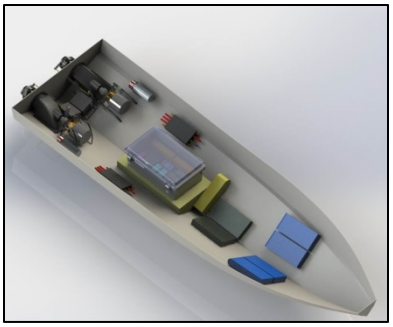
ECM ASSISTS NORTHEASTERN UNIVERSITY STUDENTS WITH SENIOR PROJECT USING LASER SCANNING TECHNOLOGY



ECM recently had the opportunity to work with a group of students from Northeastern University on a project for their senior class. The objective of the project was to design an unmanned surface vehicle that was able to travel through the oceanic surf zone while carrying instrumentation for sonar measurements. The parameters called for the vehicle to be used as a stable and maneuverable platform to survey bodies of water that would otherwise be difficult to access using bathymetric surveys within the surf zone.

The project would be successful if the vessel could operate in the surf zone environment, overcoming 1-3 foot waves in shallow water. The vehicle needed to be easily operated using simple user controls with the required ability to be launched from the shore by 1-2 operators. And finally, it had to have the capability to run an autonomous survey mission for roughly an hour at speeds between 7 and 11 miles per hour.



Prior to contacting ECM, the Northeastern team had purchased a stock radio controlled model boat hull. The hull manufacturer wouldn't provide design information for the hull shape. The students needed to

reverse engineer the hull so that they could use CAD to design brackets and position components inside the hull envelope.

With the use of FARO laser scanning technology and the engineering expertise of ECM, the students were able to create a CAD model using SolidWorks to quickly and accurately construct the hull for the vessel which contributed greatly to the success of the project. “With the help of East Coast Metrology, our team was able to reach our goal of developing an autonomous surface research vessel for our senior design project. With training from ECM's staff, we were able to laser line scan the exterior of our hull, and create an accurate CAD model of our complex boat hull much faster and more precisely than any model we could have created by hand. The rapid modeling of this hull allowed our team to spec out components and create a balanced and efficient internal layout early in our design process,” stated Peter Veneto - Engineering student at NEU. The students presented the completed vessel to the Northeastern University Mechanical Engineering Department and won one of the top three awards offered for the project.

It is our passion at ECM - Global Measurement Solutions to participate in events or projects, which introduces students and our future workforce to opportunities in the fields of science, technology, engineering, and math (STEM). These range from Cub Scout engineering badge events to guest lectures at local colleges and universities. Educating the next generation is extremely important to ECM, so whether it is training, or simply showing a group of young eager minds what we do in our everyday job as 3D metrologists, we jump at each opportunity. We were certainly thrilled to be a part of this project and offer our congratulations to the students of Northeastern University in the successful completion of their senior project.