

It's easy for students to go their entire academic careers without engaging in ocean engineering, not because of a lack of interest, but a lack of exposure. A very rewarding aspect of Arcturus membership is the unique position we're in to provide students with opportunities to participate in the field we love so much, and we host various outreach events every year to ensure that we're giving back as much as possible.

In addition to making connections with schools in the greater Boston area, transporting our boat, Fish n' Ships, over to them to give talks on our team and what we build or inviting them over to our lab, we constantly strive to strengthen the vast outreach network that already exists within MIT. We have a recurring exhibit at the MIT Museum containing various educational materials for visitors to read, our boat, and members from each technical subteams eager to answer questions. The main focus of the exhibit, however, is an exercise designed to walk learners of all ages through our design process; participants use 3D-printed boat parts and a tub of water to build and test boats, optimizing for capacity, stability, speed, and, finally, all three at once.

In all our outreach efforts, we try to give students the opportunity to not only learn about robotics but also think like ocean engineers, and realize that they are more capable of doing so than they may have otherwise thought. Our MIT Museum exhibit is one of our proudest examples of this, as is the class we ran during MIT's Splash spring and fall events. At Splash, middle and high schoolers spend a weekend at MIT attending student-run classes of their choice. In our class, student teams built an ROV; then, teams competed bracket style in Arcturus' testing pool, gaining points by keeping different floating and sunken objects in and out of their "endzone." Multiple students in our class participated in it multiple years in a row, and we feel lucky to provide students with the same kinds of immersive and fun experiences that inspired many of our team members to join Arcturus. We've also run a similar version of this game for students from schools in the Greater Boston Area and incoming freshmen during MIT's Campus Preview Weekend.

Finally, we strive to maintain the relationships we create via outreach; we do this by participating in the Cambridge Science Festival, a free science showcase drawing in hundreds of local community members, every year. This year, we showed and answered questions about our boat to the festivalgoers and taught young learners basic engineering principles; they built a boat out of basic household items, learning about the basic principles of boat stability as they figured out how to design their hull and orient a weighted popsicle stick to allow their boat to float.

We're infinitely grateful for the opportunity to help students take their first steps into the world of ocean engineering and can't wait to see where outreach takes us next!