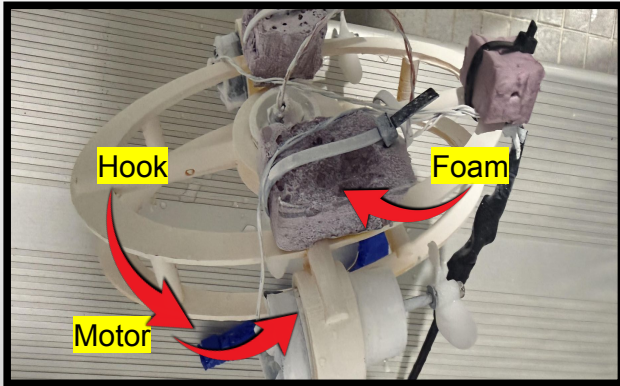


HMS SeaBots: Salvataras

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- 2 years participating in SeaPerch
- 1 time at the International SeaPerch Challenge

Design Novelty

Team Salvataras' ROV has many novel elements to differentiate themselves from the rest of the competition. Firstly, the design is open and hydrodynamic allowing the ROV's weight to decrease. Also, the team decided to hot glue our motors rather than waxing them as the wax is too heavy. The skeleton hook is one of the King Crab's novel features as the X pattern increases stability while also keeping the inside hollow, making it lighter than a traditional hook.

Participating in Open Class

SeaPerch Design Overview

Team Salvataras designed the King Crab ROV by implementing the EDP (Engineering Design Process), focusing on agility, hydrodynamics, and buoyancy to perform better in both the mission and obstacle course. The final version consists of a fully 3D printed dual circular plate frame with vertical supports throughout, creating a lightweight structure ensuring high velocity. The ROV uses three thrusters for steady movement and maneuverability. Additionally, the hook was positioned at the ROV's center of mass so picking up items would be easier and more controllable.

Our biggest takeaway this season is:

Team Salvataras' biggest takeaway this year was learning how to tackle a problem systematically. In the past, all the members of the team would dive straight into the problem with no plan or strategy. This year, the team focused on using the EDP process as a tool in order to take things step-by-step instead of working haphazardly. Over time, the team got used to the system and the steps became a subconscious routine. Without this valuable tool, the team wouldn't have been able to succeed.