The Strawfish Pirates

Mayport Coastal Sciences Middle School, Jacksonville, FL, USA

3 Years participating in SeaPerch
3 Times at the International SeaPerch Challenge

Our SeaPerch is unique because: (100 words MAX)

We 3-D printed our own frame, which has several parts which can be reconfigured for different tasks. The ROV also has a hook made of flattened PVC and coat hanger wire. This helped to save costs while allowing for it to pick up objects. Our ROV also has a hook on the bow modified for holding the 45-degree connector in place, making the task sufficiently easier. The ROV can also be reconfigured for both courses, along with a wiring system with the controller to allow for different voltage amounts for each course at the flick of a switch.

SeaPerch Design Overview: (100 words MAX)

Our ROV is designed to be versatile between both the challenge and obstacle course, being able to be reconfigured for both courses. Some of the wiring for the controller was modified to allow for either six or twelve volts of power for either course. Along with this, the ROV also has a hook composed of coat hanger wire tipped with orange duct tape. Another attachment procured keeps the 45-degree connector stable while the ROV has it annexed. The ROV also utilizes adjustable buoyancy which can be, along with a servo powered hook which can be used to secure objects.

Our biggest takeaway this season is: (100 words MAX)

The fourth motor, as it was a key part of our ROV for a significant part of the season until a decision was made to scrap it in favor of a standard 3 motor configuration, due to it leeching battery power and not providing enough of a performance boos to justify it's existence. We mainly had our fourth motor on the ROV to increase its vertical lift component to combat the weighted rocks on the challenge course. The fourth motor was also able to be utilized for the hoops course but was only useful for the vertical sections.