

Reeths-Puffer Robotics (HS)

Reeths-Puffer High School, Muskegon, Michigan, USA



HIGH SCHOOL STOCK CLASS

SeaPerch Design Overview: (100 words MAX)

To overview our design this season, we wanted to focus on both parts of the SeaPerch mission. We wanted a lightweight and fast ROV, that would traverse the obstacle course as fast as possible; but big enough to be able to manipulate missions course elements. We wanted to push ourselves, but using materials, tools, and processes that we struggled with last season, trying new things, and perfecting and overcoming our struggles of the past. We learned a lot this season, not only about build ROVs, but also about communication and working together through various conflicts of ideas.



- 5 Years participating in SeaPerch
- 4 Times at the International SeaPerch Challenge

Our SeaPerch is unique because: (100 words MAX)

During this season, we chose to use CPVC versus PVC. This made our ROV smaller and faster. We also started working with potentiometers, in order to control our speed during the mission course. In addition, we worked with deep pour epoxy resin to fully encapsulate our motors, to ensure that we would not get water penetration. Lastly, we used our 3D printing skills to print custom motor holders, ensuring that we can easily attend to any issues that might arise. We also made a custom hook for manipulating mission course elements.

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

Our biggest takeaway this season is that we started early enough to get everything basically complete, prior to the deadline. We are typically stressed and working on 'something' right up to the deadline. We also had a good season of working together without having major conflicts of ideas. This was a really good build season for us.