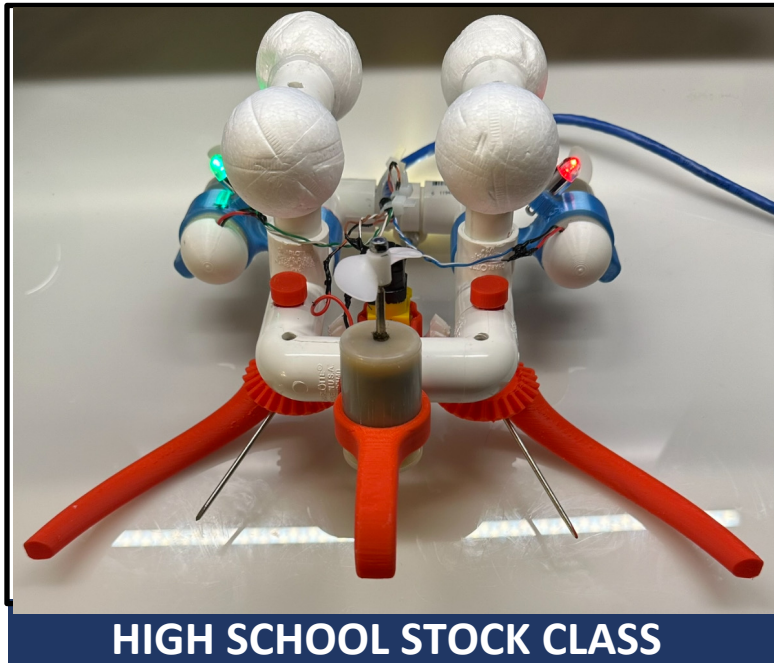


## Chesapeake Crew

Patriot High School, Nokesville VA, USA



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

### **Our SeaPerch is unique because:** (100 words MAX)

Our SeaPerch is unique because of our gripper on the front of the ROV. Our claw has two red rotating arms that are directly attached to the PVC frame. It is made of 3D-printed components and metal pins. The pins are from when our team captain broke his arm. The claw is very effective for picking up game pieces, especially the rock sample without a rope. It can rotate back to be out of the way for the obstacle course. The vertical thruster on the front of the ROV makes controlling the claw and picking up objects easier.

### **SeaPerch Design Overview:** (100 words MAX)

Our frame is small and lightweight. This makes our ROV fast with the trade-off of control. However, we make up for that with our high buoyancy and low ballast to increase stability. Our buoyancy is four Styrofoam spheres, and our ballast is our thrusters. Speaking of, our vertical thruster is up at the front of the ROV to help our perch pick up heavy objects with the claw, which we go over in the section above. We also have navigation lights for increased visibility in the water.

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

Over the course of our Seaperch journey, we have learned a lot about teamwork, engineering design, skill building, and managing our time with projects. It has been great to see how far we have come from humble beginnings to breathtaking accomplishments. We've made meaningful relationships and are excited to participate in the Seaperch challenge once more. The sky's the limit, yet there's also an endless sea of discovery and exploration.