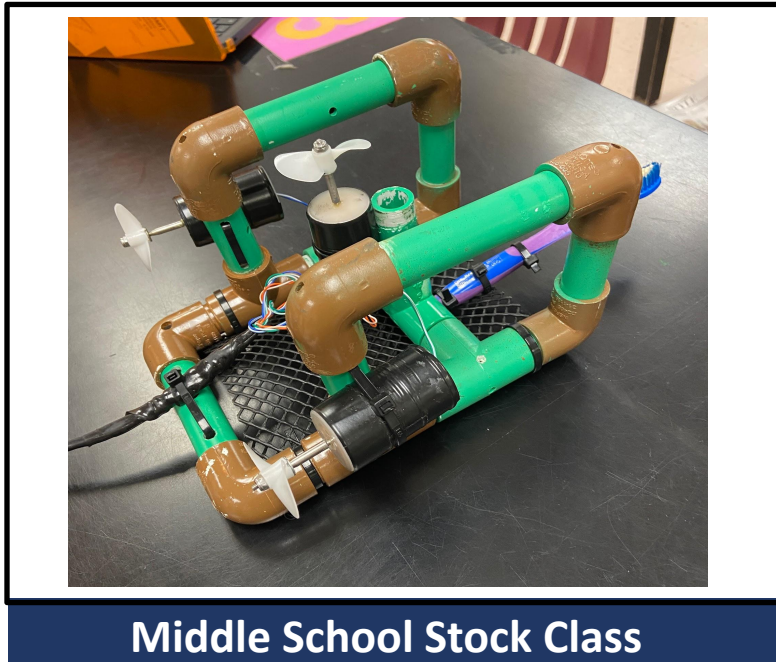


Nativity Stars - Team C

Nativity Catholic School, Burke, VA, USA



- 2 Years participating in SeaPerch
- 1 Times at the International SeaPerch

Challenge Our SeaPerch is unique because: (100 words MAX)

We really applied the culmination of what we learned last year and this year into one successful design. With its small size, intuitive hook, and bright colors, the Kiwi ROV has been a stepping stone on our journey to Internationals. While it is an inanimate object, it feels like part of our fruit family. Our last year's ROV was called the Watermelon, and we feel the same way about it as our Kiwi. The Kiwi has had its shining moments and occasional rough spots, but it has guided us on our Seaperch journey.

SeaPerch Design Overview: (100 words MAX)

Our goals were to create a more maneuverable, faster, and lighter ROV. We approached these objectives by creating a smaller ROV than our previous design. Our original design was 660 grams, so we shrunk it down to be $\frac{2}{3}$ the size (440 grams). This was to ensure that the new design could navigate quickly and smoothly through the obstacles and Mission Course. This choice also made our ROV quite a bit faster than our previous design. These modifications allowed us to advance through the regional competition into the international competition.

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

Probably the biggest takeaway from our season was the discovering how mass and stability were inversely related. We found that when we removed too much mass to increase speed of our ROV, the result would be faster but would also cause a significant decrease in stability. We had to carefully add back mass to the design to increase stability so that it would not cause a too much of a decrease in speed. Problems like these were our opportunity to learn and practice the engineering process.