Angry Ducks (HS-334)

Describe how your team is giving back to the community and why do you think it is important?

As a team, we are grateful to the many people who have helped us in our SeaPerch journey and enabled our success and growth as a team and as future engineers. For this reason, we felt compelled to give back to the SeaPerch community through a variety of avenues, helping other teams participate in the same meaningful and educational experience that we had, as well as volunteering to protect the environment for posterity. Throughout our entire SeaPerch season, Computational Fluid Dynamics and



similar digital programs were essential to our engineering design process. In the early stages of our design process, finding clear, concise videos to learn CFD was a significant hurdle in applying it to our testing process. However, once we got past the initially difficult learning curve, CFD contributed significantly to elevating our design and understanding of fluid dynamics. Since CFD was very important for progressing our design in SeaPerch and the difficulty we had finding tutorials, we reached out to RoboNation earlier this year and are thrilled to be working with them to co-brand CFD tutorial videos for their Youtube channel to help other teams and individuals learn and use the software for improving their own ROVs or for the many other possible engineering applications. In this way, we hope to support current future teams in the SeaPerch community through a field of engineering we found to be beneficial to us.

In addition, Xavier has taken the effort to create videos on both Youtube and Tiktok to share our experience and help guide other teams with various robotics skills. His tik tok page is growing and has accumulated 35,000 likes. SeaPerch seemed daunting when we first joined, but through each season we resolved to improve and innovate. We found



806 Following 209 Followers 35.2K Likes SeaPerch Competitor 2021

Videos	☐ Liked

that the experience and the many skills we have learned, from teamwork to CAD to technical writing, have been invaluable to us and inextricable from our high school journeys. For this reason, we are compelled to reach out and share our experiences with others with similar interests, encouraging them to persevere and learn from our challenges and successes. Furthermore, we believe that the real-world environmental issues that the mission courses are inspired by are significant issues that will affect the global population, particularly those who are already disadvantaged. We hope to apply our engineering skills in the future to help solve some of the local and global environmental problems. Currently, Megan has received certification as and continues to volunteer as a Virginia Master Naturalist, which is a state-sponsored volunteer organization that seeks to protect our state's natural resources and areas through work in stewardship, citizen science, and education and outreach.

