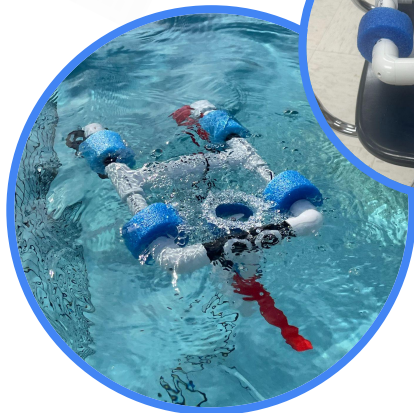
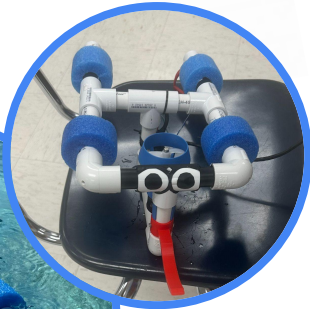


Barnacle Boys AHSP-STEM

Meet the ROV



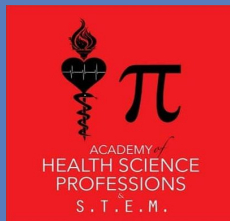
✦✦ The Botnacle ✦✦



Academy of Health Science Professions & STEM

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Barnacle Boys AHSP-STEM

Team Bio

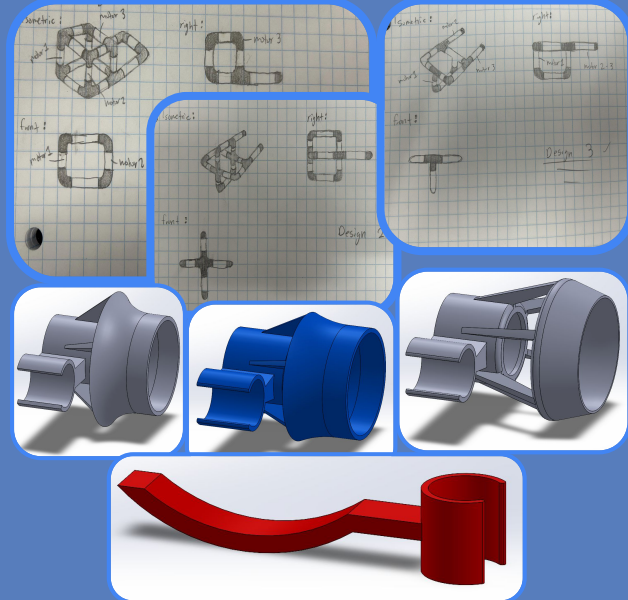
As a team competing in this year's regional Seaperch competition, we wish to impress and perform to the best of our ability (while also having fun). Our mission is to cultivate a culture of collaboration and innovation within our team. We work closely with our mentors and educators to create a supportive environment that fosters continuous learning and growth, promotes the exchange of knowledge, and pushes the boundaries of innovation. Our commitment to growth extends beyond SeaPerch—from mastering 3D modeling to honing soldering skills, problem-solving, and nurturing leadership qualities.

Overview of The Design

Design Requirements:

- Hydrodynamic design
- 1-2 collection mechanisms
- PVC frame
- Auxiliary additions for control/speed
- Auxiliary addition price of less than \$10

Designing:



Meet the Team

Landon Figueroa

Team Coordinator

Diego Vasquez

Research and Design Engineer

Jenna Zamora

Electrical Engineer

Alann Nunez

Assembly Technician

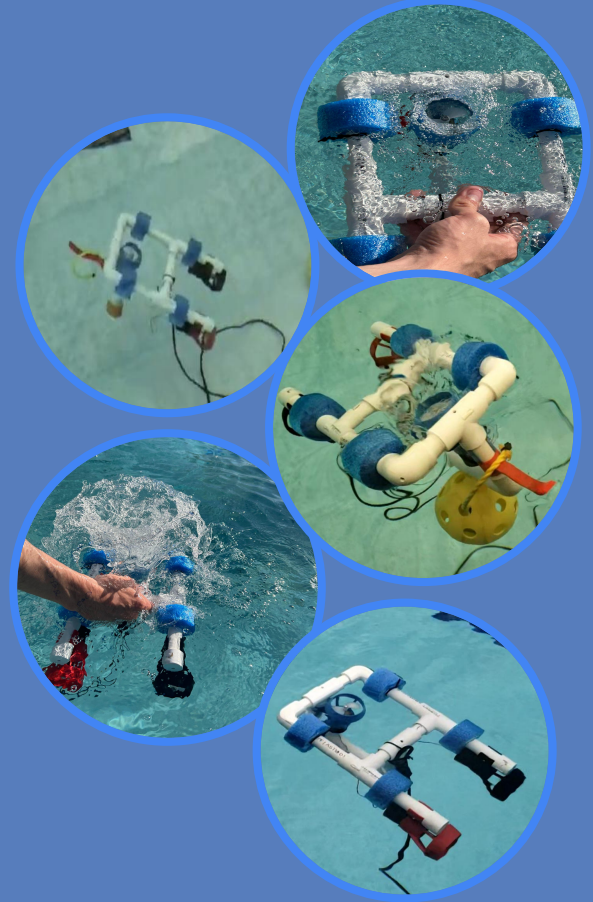
Competition Class- Highschool stock class

Years of participation- The members of this team have competed for 3 years

Years at international competition-

However, this is our first time competing internationally

The Botnacle in Action



Overview of The Design

The Botnacle, our ROV, has a streamlined, pointed structure that ensures hydrodynamic efficiency, a slim, bright red 3-D printed hook that effortlessly slides into items and acts as a spearhead. In addition, the ROV sports 3 Kort nozzle add-ons that control water flow for powerful bursts of speed while protecting the propellers from possible harmful forces. The ROV's color palette serves as an aesthetic appeal and an eye-grabber for operators of the ROV as the bot is maneuvered underwater. This allows for our team to see the bot's actions from anywhere in the water. All parts of the ROV are secured tightly, including the extruded 3D-printed hook, ensuring that any tough conditions it may face are no problem.

Our Seaperch is unique because

Our team is unique in due to several innovative design choices and the way that our team have progressively expanded our experience on SeaPerch collaboratively. Over the years, we have collected more data and knowledge that helped us succeed in placing first at this years regional competition. Coming from essentially nothing in the beginning to winning first place and being able to compete internationally not only sets high standard for upcoming teams in our region, but shows our commitment as a team.

Our team's takeaway this season

Our team's takeaway from this season is to never stop believing in yourself. It takes time and effort to make something work and we should never rely on results being perfect the first time. Going through the harsh journey of trial and error is needed to fully accomplish your goals in what you want.