



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

Our SeaPerch is unique because: (100 words MAX)

Our SeaPerch is unique because it combines innovative design with easy maneuverability. Echo 4.0 was developed through extensive experimentation, making it adaptable for both obstacle and mission courses. The ROV is made of CPVC pipes, making it lightweight. To distribute the weight and achieve neutral buoyancy, we positioned the motors at the rear, which also facilitates shifting the center of gravity when lifting heavy objects. Additionally, the front section simulates an oval shape to optimize naval hydrodynamics and create a better interaction with the water pressure. This design enhances the efficiency and responsiveness of the ROV during tasks.

SeaPerch Design Overview: (100 words MAX)

Echo 4.0, Watatsumi's ROV is swift, steady, and easy to maneuver. Its stability is ensured by a balanced weight distribution and center of gravity, resulting in a efficient ROV capable of achieving faster times (37.7s). Through experimentation, we achieved a slightly positive buoyancy for rapid ascension, aiding in faster completion of both mission and obstacle courses. The rotatable hook prevents it from getting caught on obstacles. The team identified and refined the necessary elements of efficiently complete tasks at a fast pace.

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

Our biggest takeaway this season is the undeniable power of teamwork. Through every setback and obstacle, we've emerged stronger and more determined than ever before by creating the best ROV to complete underwater tasks. We developed skills of leadership, effective communication, critical thinking and respect. As our second chance participating in the International SeaPerch challenge, we improved upon our past experiences with a renewed focus on innovation and excellence. This year we carry with us not just an ROV, but the collective spirit of determination that defines Watatsumi team.