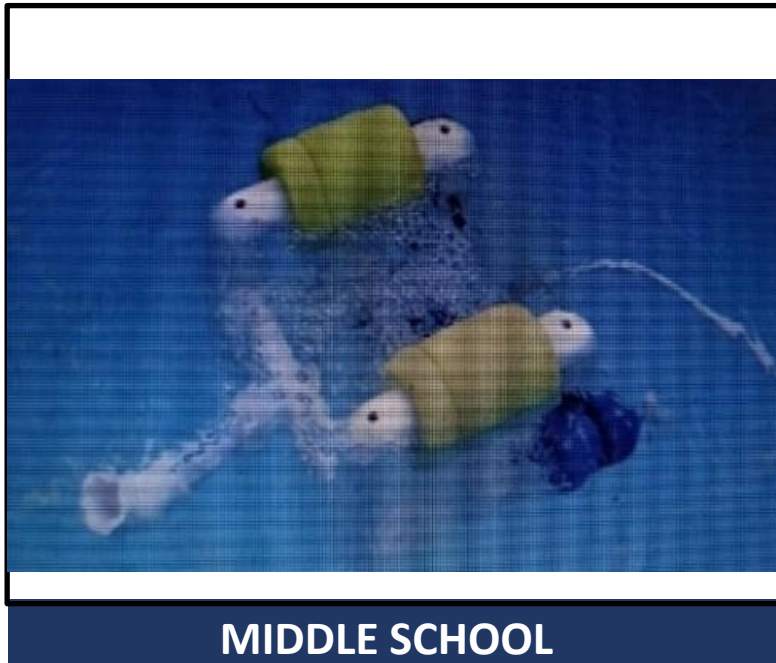


RE.Marine 3

IEEE Suez Region E, Suez, Egypt.



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

Our SeaPerch is unique because: (100 words MAX)

After conducting numerous experiments and iterations, we developed a design that amalgamates the strengths of previous designs while mitigating the weaknesses that led to failures. The resulting robot exhibited outstanding buoyancy in water, enabling seamless movement with optimal density for effortless floating and diving. Notably, it showcased impressive speed, swiftly accomplishing tasks and navigating through rings. Its moderate size facilitated smooth passage through obstacles. Additionally, the robot featured an articulated arm capable of transporting rocks and samples, ensuring precise task execution for maximizing points in competitions.

SeaPerch Design Overview: (100 words MAX)

Our Seaperch consists of the body, hook, thrusters, and controller. We have designed the body on Vperch and the hook on TinkerCAD software. Our strategy in designing the hook was to have it thin in the middle and tall so that it could lift the rocks and objects. Next, we calculated the design density and tested the robot's speed on Vperch and found some problems regarding the balance. Therefore, we thought about improving the design to reach the best balance and density.

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

The most significant benefit for us in this competition was learning how to use motors, insulate them, and integrate them into the robot. Additionally, we gained insights into adjusting the robot's buoyancy underwater and using software like VPerch, PowerPoint, TinkerCAD, and Word. On a personal level, we learned how to work in a team, coordinate time, solve problems, and apply these skills to our specific task during the competition by following the steps of the engineering design process, which greatly assisted us in designing the robot.