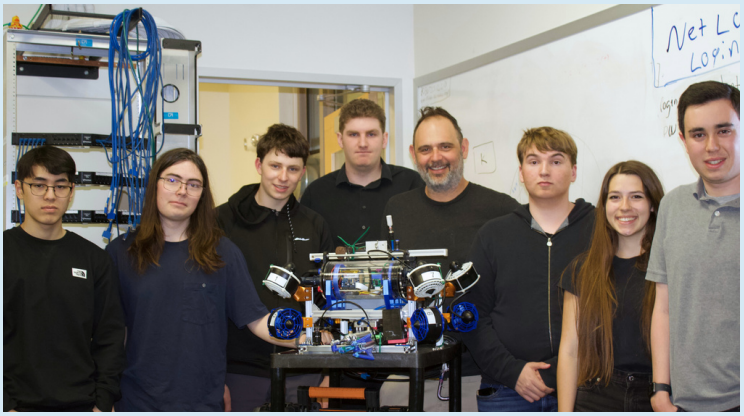
ROV Seahawk

Cabrillo Robotics Club

Company Specs



Company Member	Role(s)
Ciaran Farley	CEO, software and electrical engineer
Emma Barger* **	Software and mechanical engineer
Isaac Eda*	Electrical and mechanical engineer
Isaac Wax	CFO, electrical and mechanical engineer
Kai Peters*	Meeting administrator, pilot
Orion Ellefson*	Integrated software engineer
Michael Vollmer	Software engineer
Ramon Sanchez* **	Mechanical engineer
Spencer Koontz**	Mechanical engineer
Stephanie L'Heureux	Software engineer, graphic designer
Mentors	Mike Matera, Darren Churchill, John Greene

* New members, ** Not pictured

Company MATE Competition History

Second year returning

College Levels Represented

Freshman to sophomore

1,618 km

To competition from Aptos, CA

ROV Specs

Special Features

ROV Seahawk is optimized to perform tasks that revitalize ocean health. Its high-resolution cameras, eight thrusters which allow for six degrees of freedom, and robust ROS software ensure dependable and efficient operation. The specialized fish release mechanism provides safe and reliable transportation of species. The pneumatic claw utilizes rubber to enhance gripping abilities. One hundred feet of tether enables remote operation of the ROV Seahawk.

Safety Features

Cabrillo Robotics Club prioritizes safety and incorporated several features into ROV Seahawk to safeguard the vehicle, operators, and aquatic life. The robot is equipped with humidity and temperature sensors that monitor its condition, and the software promptly notifies the pilot of any anomalies. To prevent electronic damage, a strain relief system is in place in case the tether undergoes stress. Additionally, custom 3D printed motor shrouds are used to protect sea creatures from the fast-spinning propellers of Blue Robotics T200 propulsion thrusters. Furthermore, a fuse and software prevent the robot from drawing excessive power.

$5,007.82

Total Cost

1,100

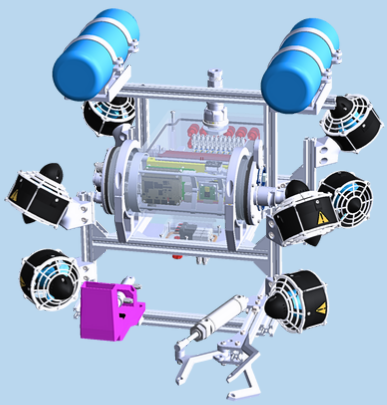
Build Hours

12.2

kg

66 x 36.5 x 32.5

cm



Cabrillo College