ROV Seahawk
Cabrillo Robotics Club

Company Specs

Company Member | Role(s)
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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 Ellifson* | 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

ROV Specs

$5,007.82
Total Cost
1,100
Build Hours

12.2
kg
66 x 36.5 x 32.5
cm

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.

Company MATE Competition History
Second year returning

College Levels Represented
Freshman to sophomore

1,618 km
To competition from Aptos, CA