# Worcester Polytechnic Institute Autonomous Underwater Vehicle Club

2025-2026 Sponsorship Information

# Who Are We?

Established in January 2025, **SEAGOAT AUV** is a multidisciplinary team of passionate students from a wide range of academic backgrounds at Worcester Polytechnic Institute, united by a shared commitment to exploring autonomous underwater vehicle technology. Our team aims to design, code, and fabricate AUVs to compete in the international Robosub Competition facilitated by the RoboNation organization. We are excited to tackle this challenge and would love your help building the foundation of our team!

# Our Mission

As a team, our mission is to help students develop into creative and compassionate engineers. Our team takes pride in our interdisciplinary collaboration and the communication skills we are developing while working together. We make it a priority to build a space where students are not afraid to ask questions, experiment, and step outside of their comfort zones. SEAGOAT AUV gives our students the opportunity to apply the concepts they've learned in the classroom to the dynamic field of ocean technology.

# The RoboSub Competition

The Robosub competition is hosted annually by RoboNation in California and challenges educational institutions all over the world to put their engineering and innovation skills to the test. The competition consists of two parts, the Autonomy challenge and the Design challenge.

| Autonomy Challenge | Design Documentation Challenge |
| --- | --- |
| Design and fabricate an autonomous vehicle (AUV) that is capable of localization and completing challenges including navigating through underwater gates and manipulating small objects. | Document our mechanical, electrical, and software design rationale in the form of an academic paper as well as produce a team video, website, and in-person presentation showcasing the development of the robot. |

To approach the challenges posed by the competition requires teamwork from a large group of students, interdisciplinary work and communication. Our team offers opportunities for practical skill development in **mechanical engineering**, **electrical engineering,** & **software engineering**, as well as **project management** and **leadership.**

# Where We're At

Since being founded this past year, out team has been hard at work researching, designing, and preparing to create our very own AUV from scratch! To tackle this multidisciplinary challenge, we've divided into three subteams that meet to work each week.

## Software

*The software team is responsible for:*

- Autonomous navigation and control
- Sensor integration and data processing
- Computer vision & machine learning
- System simulation

*Over the last few months...*
The software team has worked on developing a ROS 2 framework for the AUV system to enable efficient autonomy and allow for modular system development

## Electrical

*The electrical team is responsible for:*

- Power distribution and management
- PCB design and fabrication
- Embedded systems

*Over the last few months...*
The electrical team has been designing the system architecture to support data collection, computation, and propulsion control. Based on this design, the team is beginning the early stages of designing custom PCBs

## Mechanical

*The mechanical team is responsible for:*

- Vehicle structure and propulsiondesign
- Hydrodynamic analysis
- Waterproofing and pressure housings
- Thermal management

*Over the last few months...*
The mechanical team has evaluated system requirements and designed the AUV in CAD as well as ordered parts to begin fabrication.

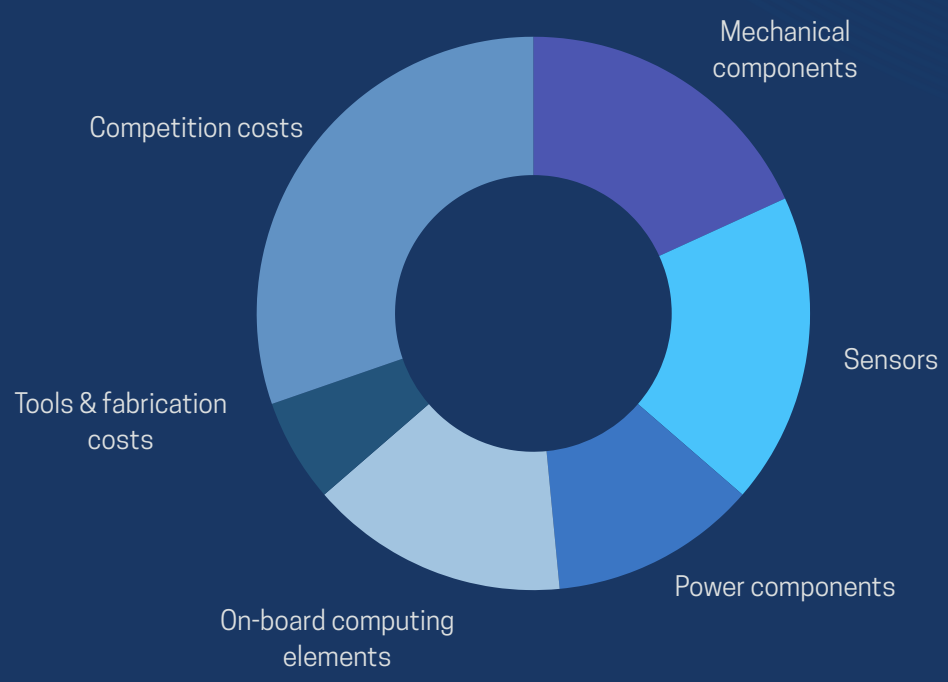
# Our Goal

Our team's goal is to compete in the **2026 Robosub Competition** in California! Over the next academic year we plan to assemble, code, and test our very own AUV so that we can be prepared to 'make a splash' in August!


# Expected Costs

Based on our research of competition requirements and initial system designs we anticipate the cost for our team to fabricate an AUV and bring it to competition in the upcoming year to be around $16.5k

| | |
|---|---|
| Mechanical Components | $3,000 |
| Power Components | $3,000 |
| On-Board Computing Elements | $2,000 |
| Sensors | $2,500 |
| Tools & Fabrication Costs | $1,000 |
| Competition Costs | $5,000 |
| Total Costs | $16,500 |




# We need YOUR help!

SEAGOAT AUV needs assistance from organizations like yours to continue our project and ensure that our members have the opportunity to learn and grow.

# Sponsorship Information

As we begin our journey as a new university AUV team, we are looking for support from organizations like yours to help us grow. Contributions can be monetary or non-monetary, and every form of support makes a meaningful impact. We would love to partner with your organization and are grateful for any way you are able to help

**To our corporate partners, we offer a variety of sponsorship tiers and benefits including:**

- Team merch
- Monthly Newsletter with team updates
- Logo featured on SEAGOAT AUV website. team technical paper, apparel, & robot
- Member resume book
- In-Person or on ZOOM technical presentation/demonstrations

| | Team Stickers | Monthly Newsletter | Logo Featured on Team website & technical paper | Logo on team apparel | Logo on Robot | Resume Book | Tech Talk |
|---|---|---|---|---|---|---|---|
| **Sand Dollar Sponsor** $500+ | X | X | | | | | |
| **Sunlight Zone Sponsor** $1,000+ | X | X | X | | | | |
| **Twilight Zone Sponsor** $2,000+ | X | X | X | X | X | | |
| **Midnight Zone Sponsor** $3,000+ | X | X | X | X | X | X | X |

SEAGOAT AUV is classified as a 501(c)(3) organization, so all contributions are tax deductible.

# Get in Touch With Us!

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**Donation Page:**
https://www.givecampus.com/campaigns/40435/donations/new?designation=autonomousunderwatervehicleclubauv&?a=8898889

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