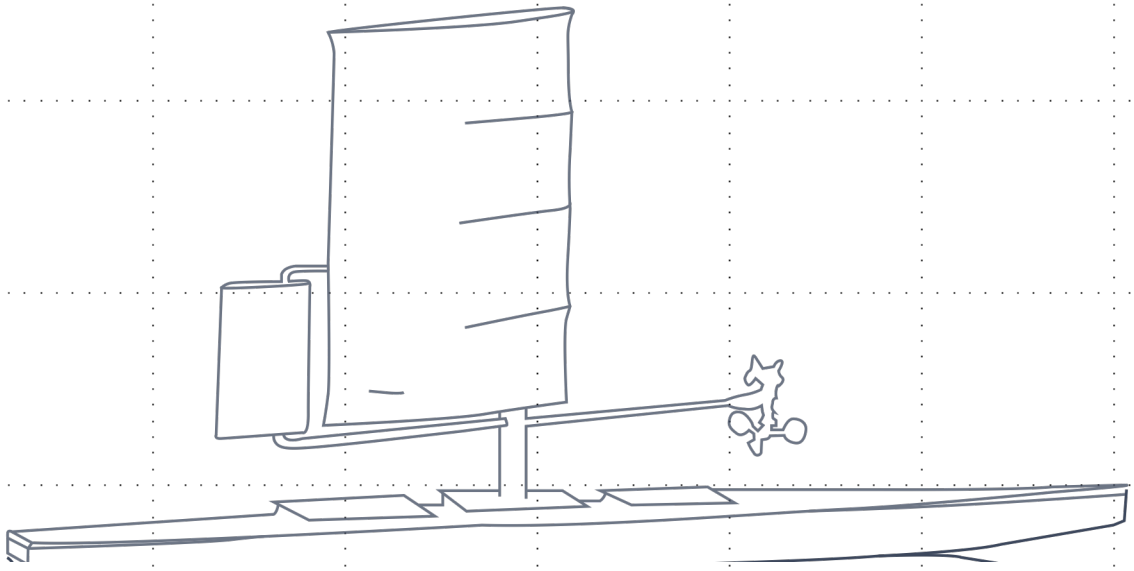


CUSAT

Cornell Autonomous Sailboat Team
Sponsorship Packet 2025-2026

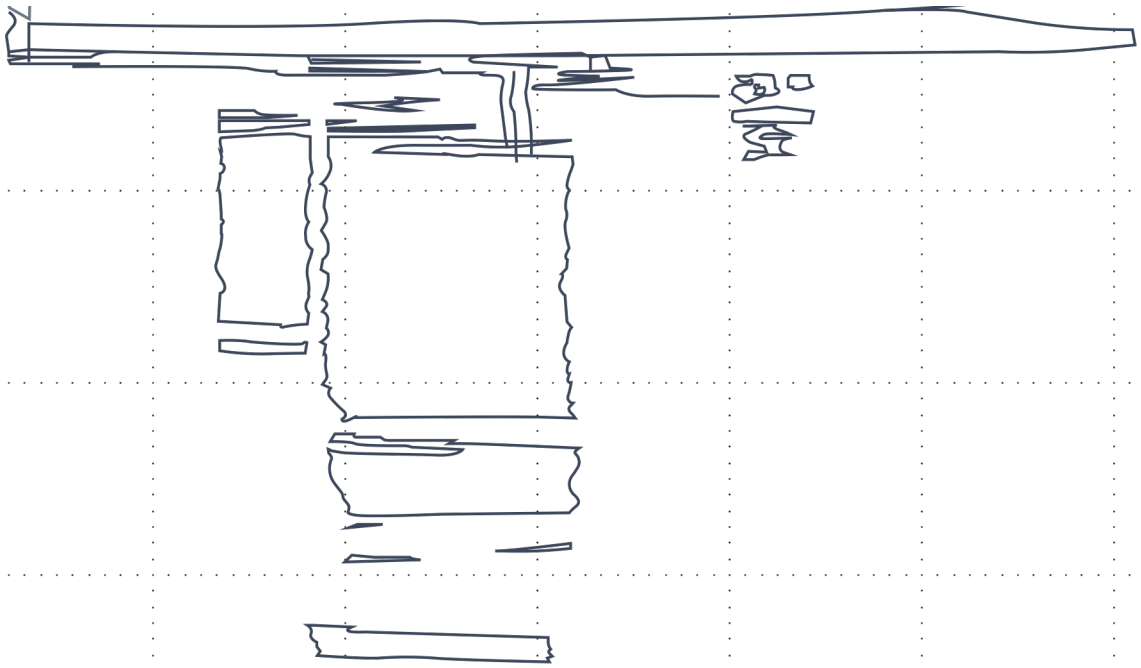


TABLE OF CONTENTS

About the Team	03	Mechanical Design	09
The Competition	04	Business Subteam	10
Long-Term Goals	05	Sponsorship	11
Navigation Subteam	06	Donation Form	12
Navigation Design	07	Contact Us	13
Mechanical Subteam	08		

ABOUT THE TEAM

Starting as a research group led by Professor Andy Ruina in 2014, CUSail has grown into a student-led project team that is over 20 members strong.

CUSail offers students across many disciplines the opportunity to apply what they have been learning in the classroom to real world engineering problems of tomorrow. Using cutting-edge technology and advanced mechanical design, our team is exploring the uncharted waters that is the field of autonomous sailboats.

THE COMPETITION

Our boat will compete at the SailBot International Robotic Sailboat Regatta at home in Ithaca NY, in the spring of 2026. The competition is comprised of seven challenges over five days against American and international collegiate teams.

THE EVENTS

NAVIGATION TEST	Navigate around a series of buoys
FLEET RACE	Manual-control regatta race
DISTANCE RACE	6 hours of navigating a square course
STATION KEEPING	Hold a GPS position on the water
COLLISION AVOIDANCE	React quickly to avoid new obstacles
PAYLOAD	Navigate with a 2 kg weight
SEARCH	Find an object within a 100m radius

LONG-TERM GOALS

SAIL THE LENGTH OF CAYUGA LAKE

The first goal in our series of long-term goals is to sail from the southern end of Cayuga Lake in Ithaca, NY to the northern end in Cayuga, NY. Cayuga Lake is just under 40 miles long, and we would be able to test our navigation algorithm and sailing endurance on a larger scale.

GLOBAL FLEET OF AUTONOMOUS SAILBOATS

CUSail's ultimate goal is to create a fleet of autonomous sailboats. We want to perfect our mechanical design so that we can easily build many sailboats at a low cost. The boats could monitor weather trends in different parts of the world or track whale migration patterns.

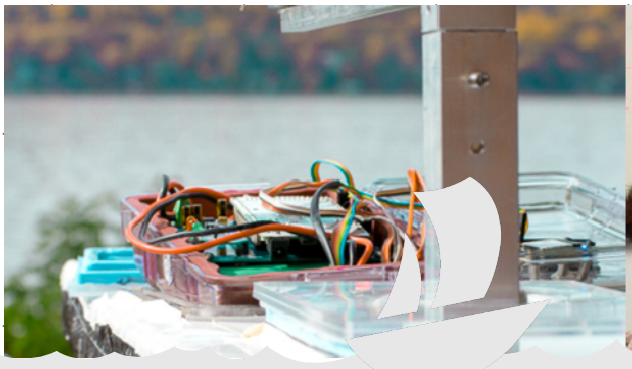
CROSS THE ATLANTIC OCEAN

We want to sail across the Atlantic Ocean from New York to Portugal to demonstrate that our boat is robust enough to survive ocean and weather conditions and prove that our navigation algorithm can successfully navigate with such a long-planned route.

NAVIGATION SUBTEAM

***Emith Uyanwatte, Nicole Luo**, Nikil Shyamsunder Albert Sun, Sean Zhan, Maisie Yan, Wang Mak, Linnea Furlan, Eric Cai, Liya Mei, Jonah Conolly, Kai Nizhner, Fiona Lin, Colin Park, Nicole Zhou, Angie Zhang*

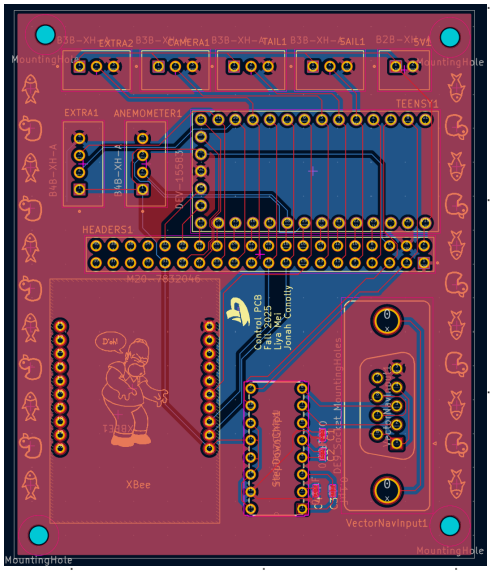
The Navigation subteam works with all electronics and software on our boat. Our boat's autonomous capabilities rest on two major pillars: gathering data from its environment and executing calculated decisions. An array of sensors allows detection of global position, wind direction, and boat direction. The Navigation subteam uses data from these sensors to devise an algorithm, allowing our boat to navigate. The subteam also designs sub-systems for land communication with our boat, data logging, and efficient power distribution.

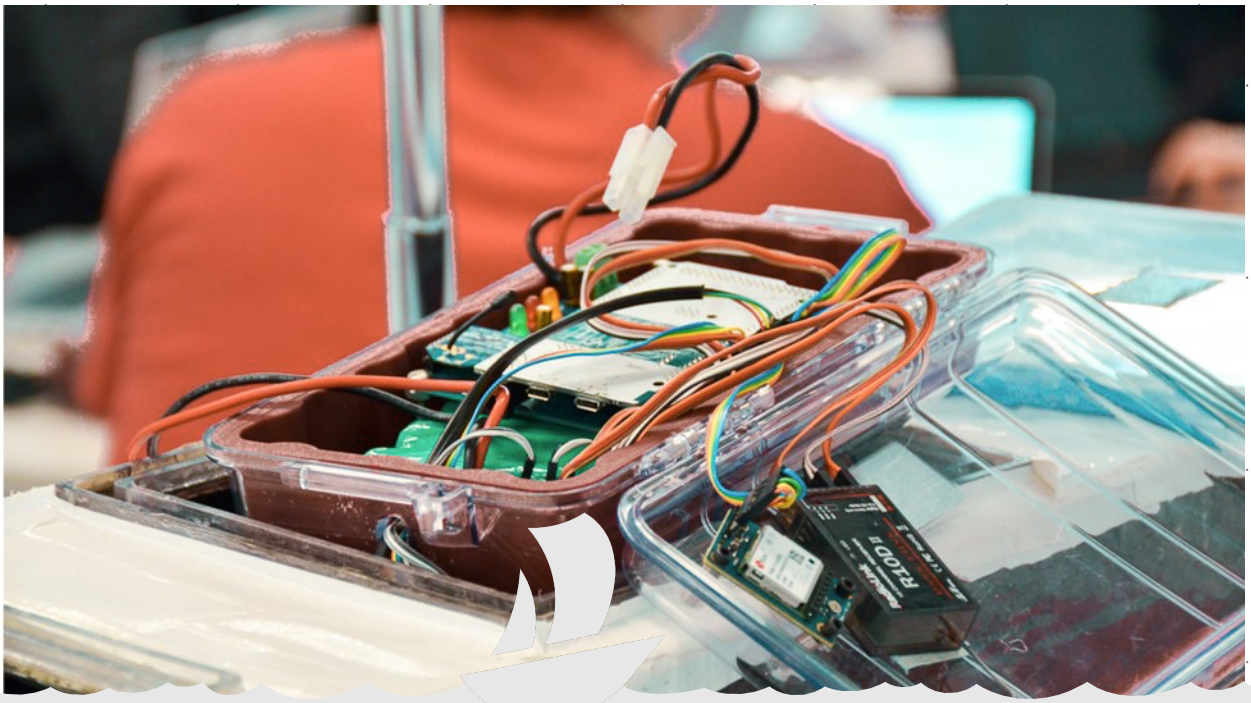


NAVIGATION DESIGN

2025-2026

- Nvidia Jetson Orin Super Nano Development Kit
- VectorNav VN-300 DUAL GNSS/INS
- Teensy 4.1 Microcontroller with ARM Cortex-M7
- Intel D435 RealSense Depth Camera
- ROS2-based Software Stack

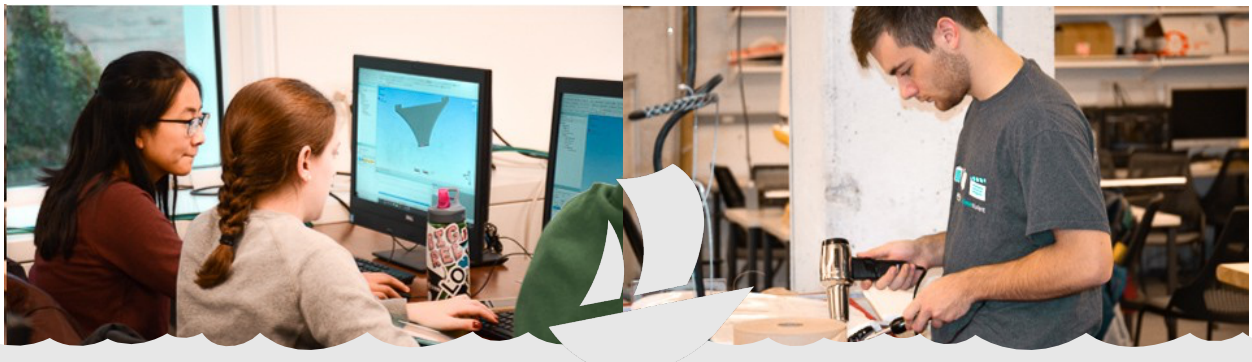




MECHANICAL SUBTEAM

__Aidan Mulvey__, April Wang, Audrey Bucak, __Emma Moore__, Flavia Capet, Gary Chau, Ian Chen, Iksha Goswami, Jason Yang, Joseph Kunken, Joshua Tchou, Megan Wu, Nicole Kim, Nina Drummond, Prajwal Reddy, Sara Babigian, __Skyler Walcoff__

The Mechanical subteam is responsible for designing and manufacturing all of the mechanical components of the boat. The team members work on tasks like redesigning the deck and hull to increase waterproofing reliability and gain skills such as rapid prototyping, machining, and composite and mold making. Working on the mechanical team involves constant problem solving and hands-on skills as well as an advanced technical understanding of the boat.



MECHANICAL DESIGN 2025-2026

MAIN SAIL

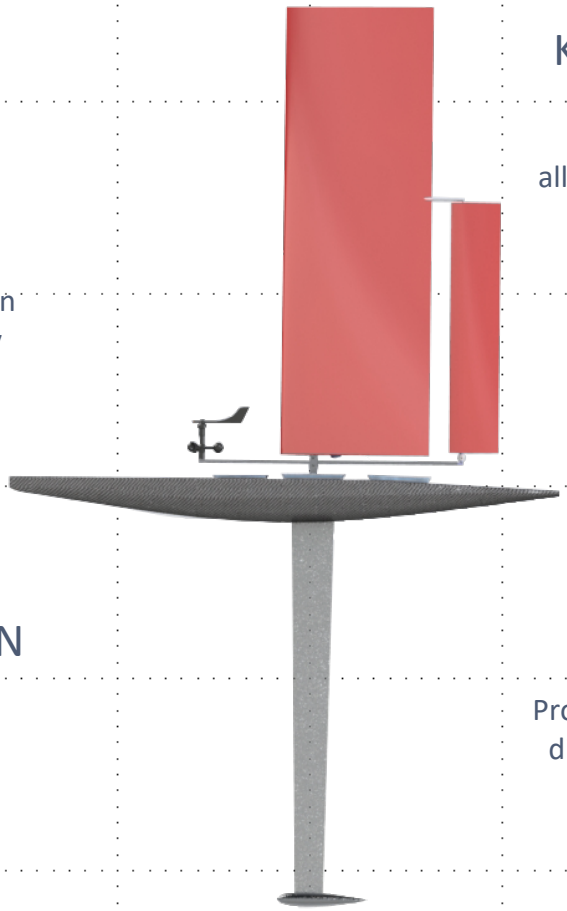
Generates the power for the boat

CAMERA

Used for artificial vision and rotates separately from the boat for enhanced precision

COMPOSITE CONSTRUCTION

The use of composite materials to reduce weight



KEEL AND BALLAST

Stabilizes the boat and reduces sideways drift allowing the boat to steer up the wing

RUTTER

Steers the boat

ANMOMETER AND WINDVANE

Provides crucial data on wind direction, and speed to NAV

BUSINESS SUBTEAM

Katherine Wei, ***Tiffany Li, Linda Chen****, Mini Ge, Gabrielle Reed, Ellen Zhen*

The Business subteam is a multi-disciplinary team that manages funding and operations for the team. We create the team's budget and manage team finances. The Business subteam also works to obtain all sponsorships from corporations and individuals. We design the team website, brand, and merchandise in addition to being responsible for team photo and video documentation and administrative tasks.

SPONSORSHIP

CONTRIBUTOR LEVELS

DINGHY
$100+
- Personal thank you note
- Logo on website

MOTORBOAT
$500+
- All above benefits
- Small logo sticker on sail

YACHT
$1000+
- All above benefits
- Medium logo sticker on sail
- Team Resume booklet

AIRCRAFT CARRIER
$5000+
- All above benefits
- Large logo sticker on sail
- CUSail sponsored information session on campus

CONTRIBUTIONS ARE TAX DEDUCTIBLE!

DONATION FORM

Donor Information

Name / Organization: _____

Organization Address: _____

_____

_____

Telephone Number: _____

E-Mail Address: _____

Organization Website: _____

If you have any questions, please contact:

Nikil Shyamsunder
Full Team Lead
nvs26@cornell.edu
Katherine Wei
Full Team Lead
kzw9@cornell.edu

Donation Information

Monetary Donation Amount: $_____

Fair Market Value of Gift in Kind: $_____

**Donations to CUSail are tax-deductible.*

Do you require a charitable donation receipt?

[ ] Yes [ ] No

Signature: _____ Date: _____

For Gifts in Kind: If your donation is a gift in kind, please estimate the value of the gift and enclose **documentation of donation** (receipt, coupon, or other document listing the details of the donation) and mail to the below-listed address.

THANK YOU

FOR YOUR SUPPORT!

2025-2026 SPONSORS

CONTACT US

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cusail.engineering.cornell.edu