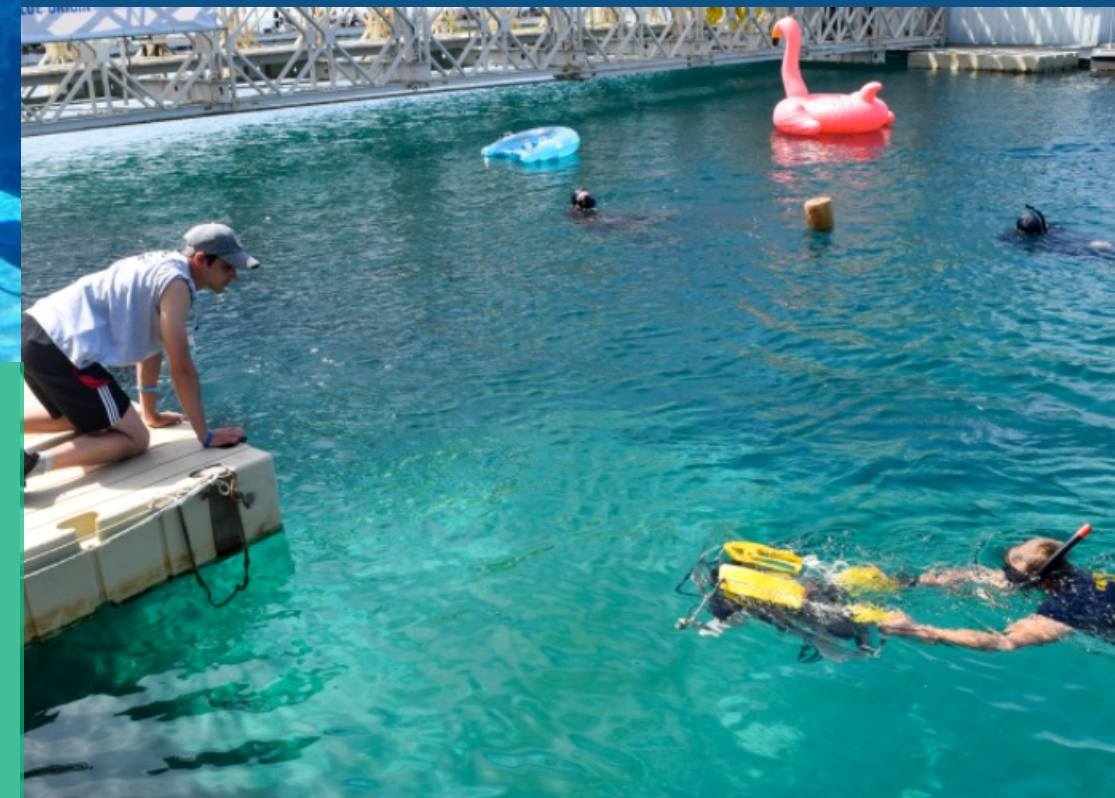
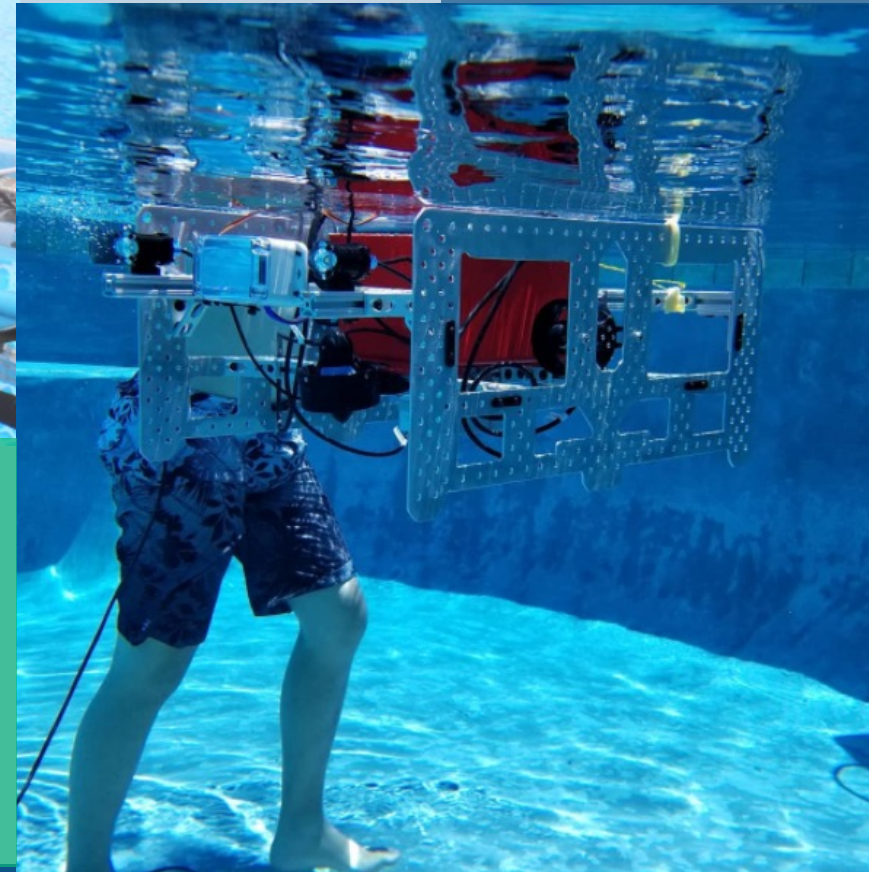
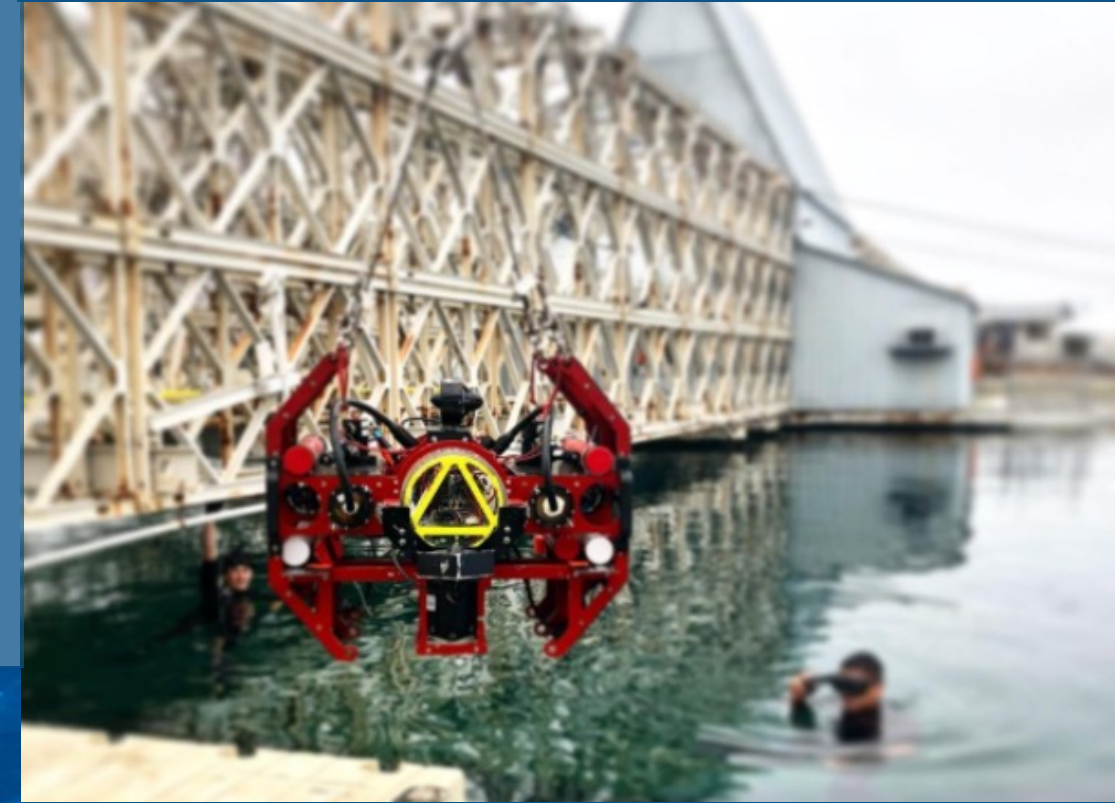




ROBOSUB TEAM TIME

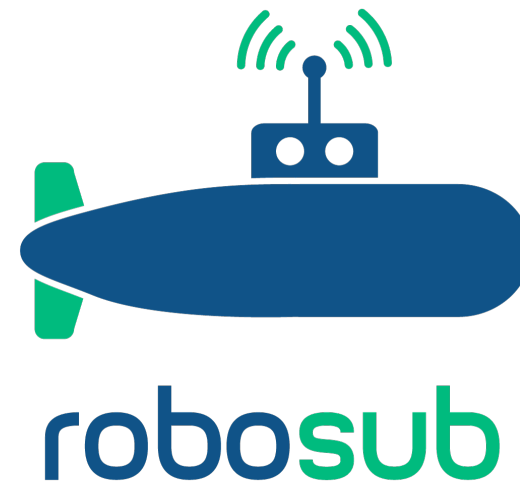
Friday, April 8, 2022 | 7:00 PM Eastern Standard Time



Welcome 2022 RoboSub Community!

GET
STARTED 

- 1 Edit your name to "Name | Team Name"
- 2 Put your answer in Chat:
 -  Which school/team did THE DAVEMAN compete with?
 -  How far is UMD College Park from Washington, DC?



RoboSub TeamTime

AGENDA

- [19:05-19:10] Welcome
- [19:10-19:15] Participation Options
- [19:15-19:35] Pool & Course Layout
- [19:35-19:45] Housing & Schedule
- [19:45-20:00] Questions



Venue & Dates

NEW VENUE! SAME CHALLENGE!

*University of Maryland
Eppley Recreation Center
College Park, Maryland, USA
July 27 – August 2, 2022*

We're looking forward to seeing you again ***in person*** to celebrate 25 years of RoboSub!



The Competition

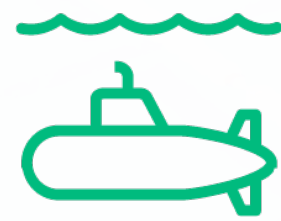
How to Participate

Goals:

- Reduce barriers to participation.
 - Even if you can't travel, you can compete – in person or online!
- Offer flexibility based on global pandemic impact.

Solution:

- Teams choose to compete in-person or online during registration.
- Registration deadline extended to Sunday, 17 April.



Autonomy Challenge

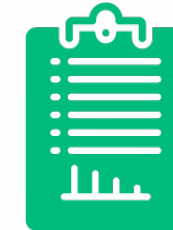
Build an AUV to showcase autonomous performance.



Live Demonstration
Optional Pre-Qualifying Maneuver



Video Demonstration



Design Documentation

Prepare documentation showcasing AUV design and competition strategy.



Design Documentation

- *Team Website*
- *Technical Design Report*
- *Competition Strategy Video*
- *Design Presentation*



Tasks Overview

IN-PERSON TEAMS

ONLINE TEAMS

**With Moxy |
Coin Flip**



- Attitude Control

**Choose Your Side |
Gate**



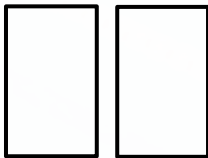
- Maintain Heading+Depth
- Navigation

Path



- Navigation

**Make the Grade |
Buoys**



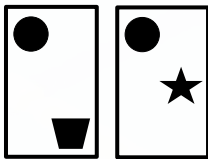
- Navigation

**Collecting |
Bins**



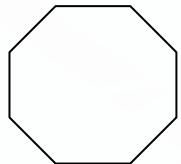
- Navigation
- Markers/Torpedoes
- Two-Step Behavior

**Survive the Shootout |
Torpedoes**



- Navigation
- Markers/Torpedoes
- Two-Step Behavior

**Cash or Smash |
Octagon**

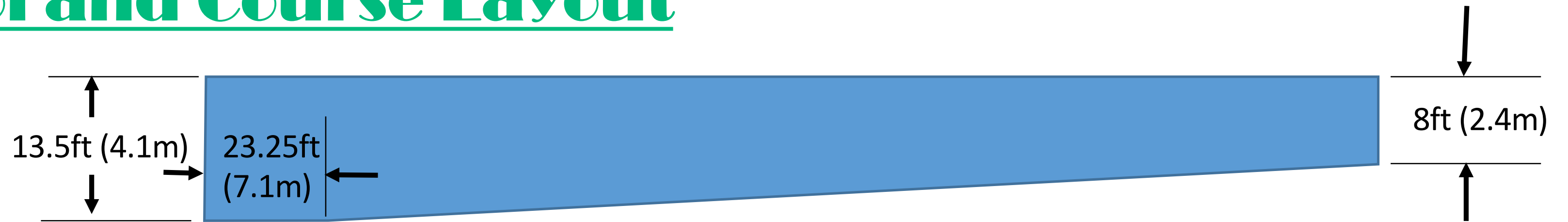


- Navigation
- Two-Step Behavior

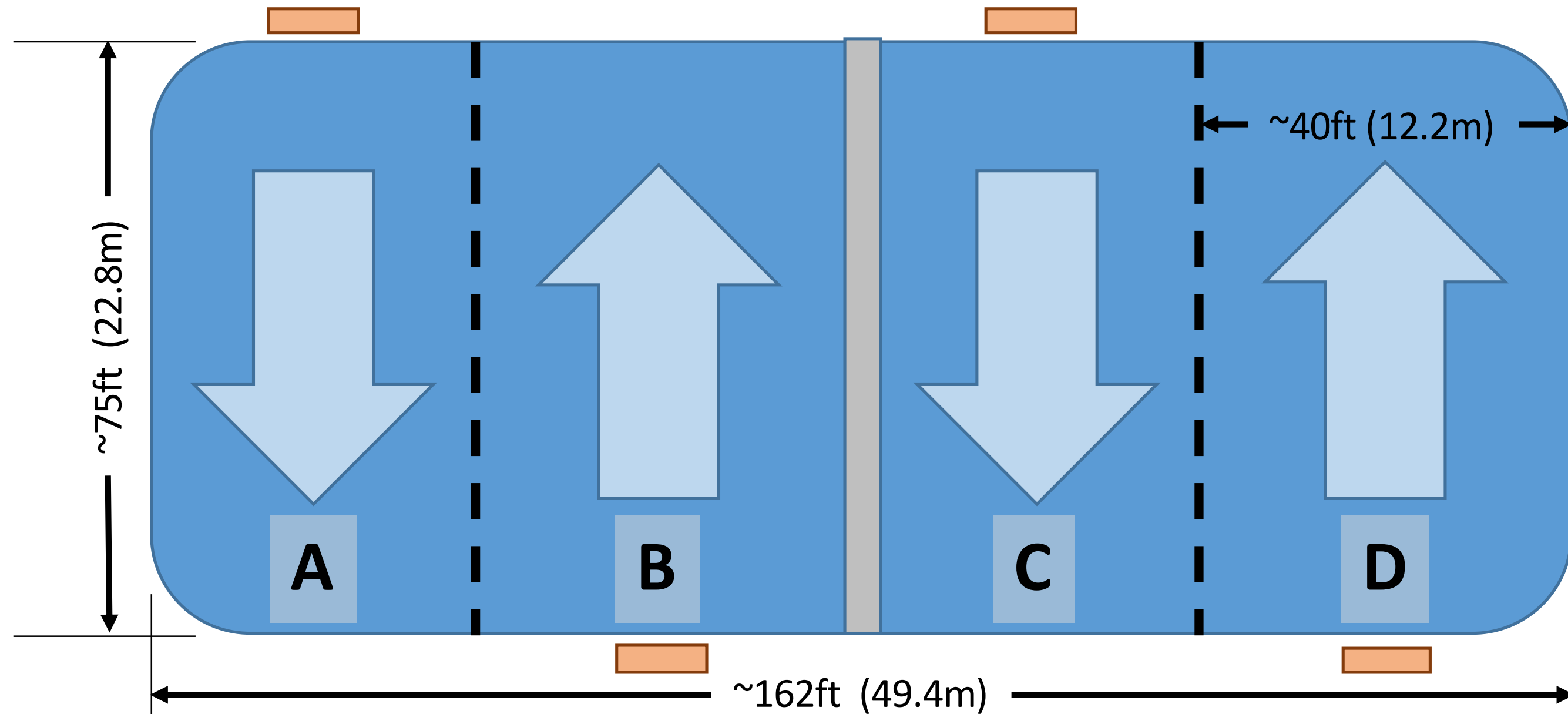


Pool and Course Layout

Side View



Top View



Things to Think About

Pool rebar

Messes with compass

Pinger reflections

Bulkhead

Sides of pool

Pool floor

Criss cross pattern

Messes with downward tasks

Collecting (Bins)

Cash or Smash (Octagon)

Bulkhead

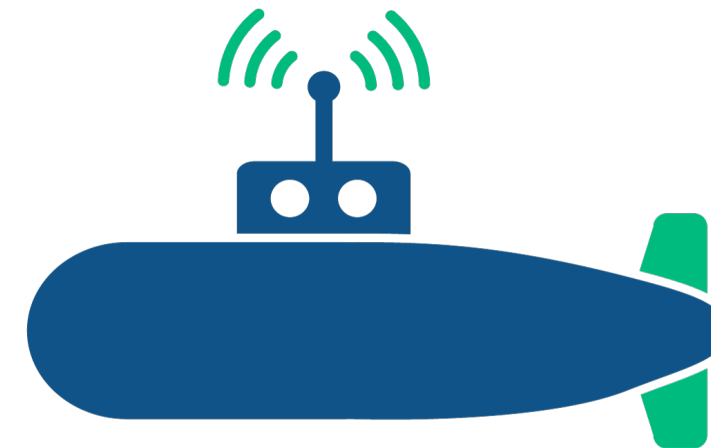
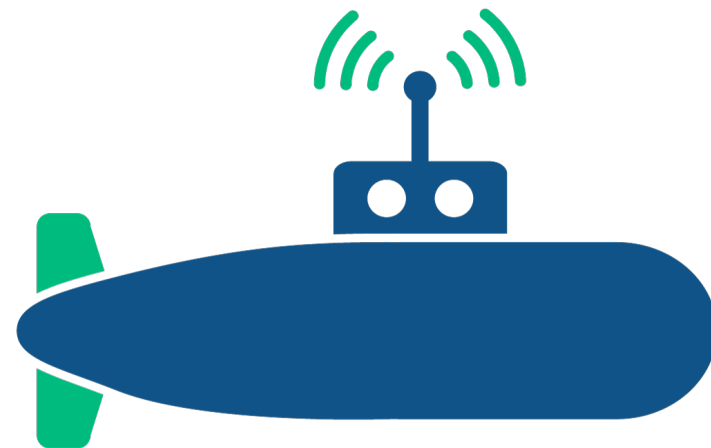


More than one Sub

 Would you like to field two subs?

Great!

Answer the questions on the forum by **Friday, April 15.**



HOUSING / PARKING OVERNIGHT POOL USE

HOUSING – UMD Dorm Housing – Register by June 12

- *7-Day Dorm – Check-in: July 27 / Aug 3 (Single/Double Occupancy)(with or without breakfast)*
- *9-Day Dorm – Check-in: July 26 / Check-out: Aug 4 (Single/Double Occupancy)(with or without breakfast)*
- *Lunch Package – Dining Hall All-You-Can-Eat lunches – 6 lunches - July 28, 29, 30, 31, 01, 02*
- *Cancellations - Before July 12 = 100% refund / After July 12 = No refund*

PARKING – On-Campus Parking - \$18 per day per vehicle (exempt on Saturday and Sunday)

OVERNIGHT POOL TESTING – RoboNation will provide overnight pool testing in the natatorium.

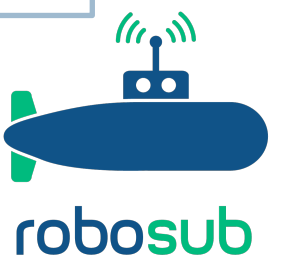
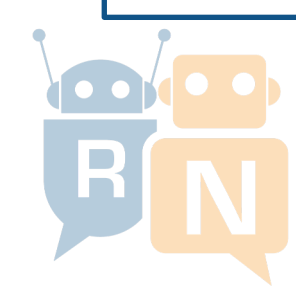
Testing times are still TBD.



Competition Schedule

July 27– August 2, 2022

JUNE - JULY	Wednesday July 27	Thursday July 28	Friday July 29	Saturday July 30	Sunday July 31	Monday August 1	Tuesday August 2
<div>Deadline: June 5<ul style="list-style-type: none">Team InformationMerchandise Order</div> <div>Deadline: June 12<p>All Teams</p><ul style="list-style-type: none">Technical Design ReportCompetition Strategy VideoTeam WebsiteOptional Community & Outreach<p>In-Person Teams</p><ul style="list-style-type: none">Optional Vehicle Prequal VideoOnsite Requirements: Shipping, COVID-19 & Battery Safety Plans<p>Online Teams</p><ul style="list-style-type: none">Video Demonstration</div> <div>Cancellation Deadlines<ul style="list-style-type: none">June 12: 100% refundJuly 25: 50% refund</div>	<ul style="list-style-type: none">Team OrientationVehicle Assembly	<ul style="list-style-type: none">Vehicle Assembly & Safety InspectionsQualifying & Practice Course Open			<ul style="list-style-type: none">Semi-Finals RoundDesign Presentations		<ul style="list-style-type: none">Finals RoundAwards



Latest on the Forum



Torpedo launcher proximity to game piece target

#1

04-05-2022, 10:59 PM

Are there any rules/requirements on how far our torpedo launcher needs to be from the torpedo game piece target? Can part of the launcher be inside the opening where the torpedo is supposed to go through before we launch the torpedo?



Collecting - bins task

#1

03-26-2022, 03:35 PM

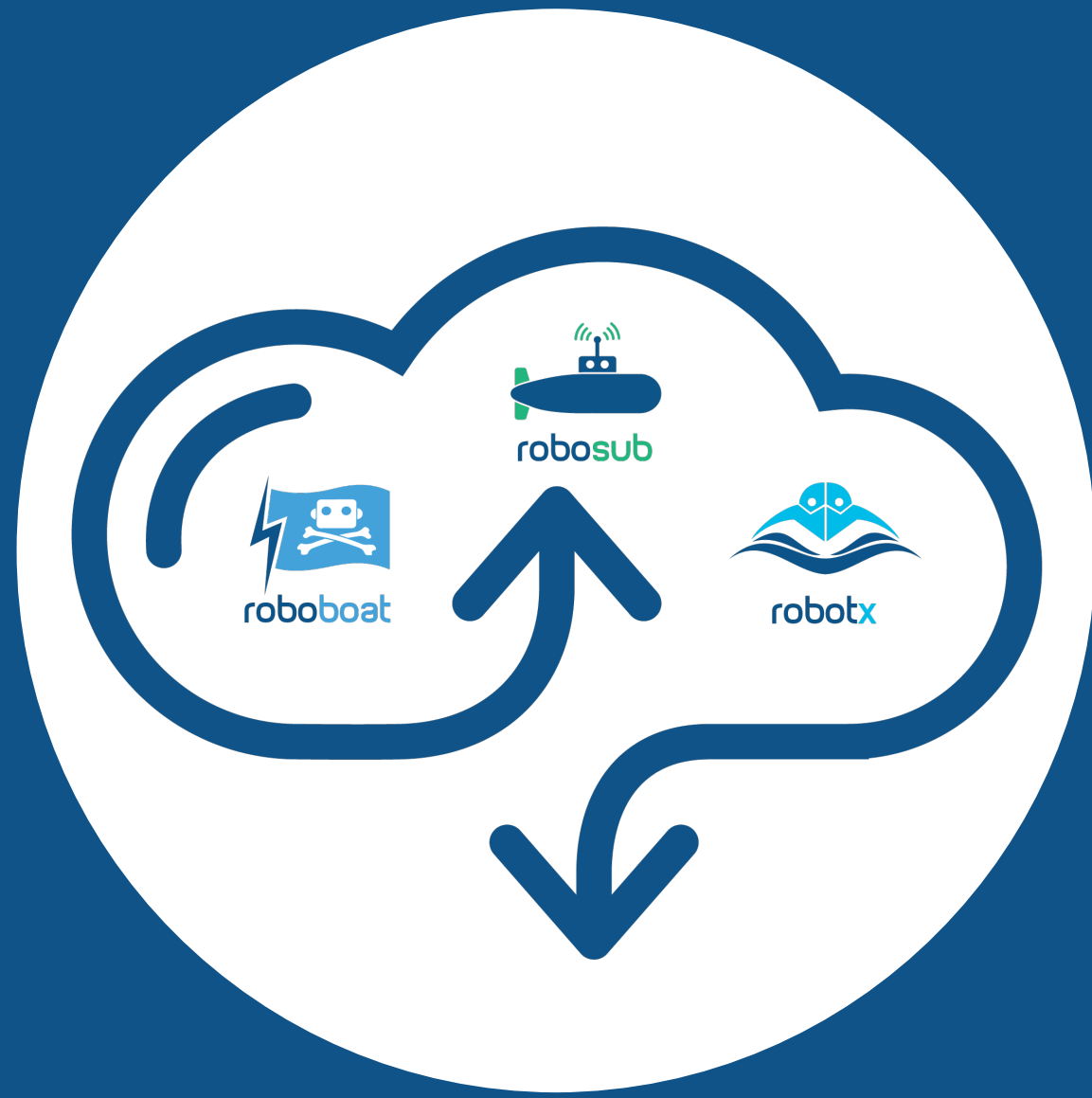
Hi!

Please tell, if I understand correctly. Contrary to the RoboSub with vampires theme, there will be no markers around to gather, the only markers which could be placed inside bins are the ones that the AUV will bring on its own from the start or am I wrong?

Another question - would it be scored differently, if our AUV put the markers inside first and then lifted the cover than first lifted the cover and then dropped markers?

The last one: are the bins are going to be placed on the pool bottom next to each other close enough so a camera with a decent FOV could see both of them at the same time?





Data Sharing

 robosub.org/data-sharing

What is Data Sharing?



Centralized Repository



Community Driven



Competition
focused

Vision
Acoustics
Mechanical Designs
Electrical Designs



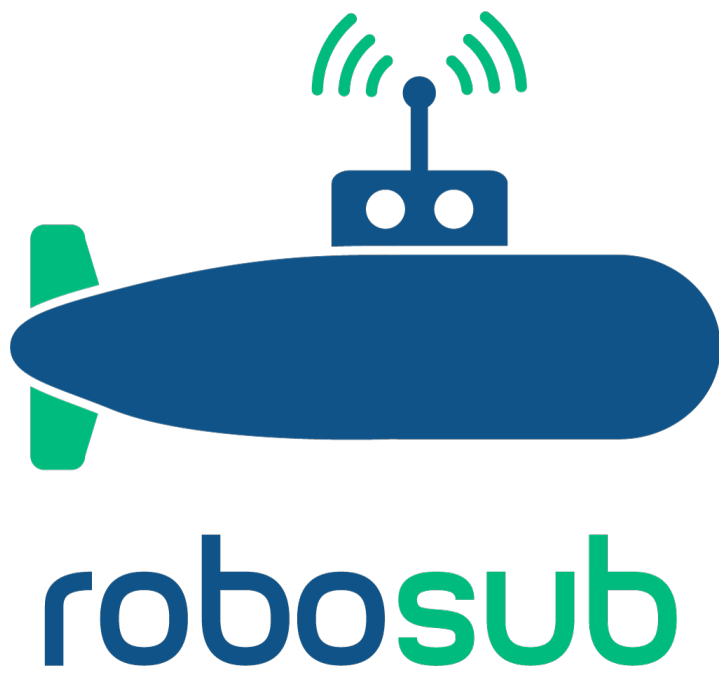
DATA FOR ALL
TEAMS



LARGE DOMAIN
OF DATASETS



BETTER PLATFORM
FOR NEW TEAMS



RoboSub 2022

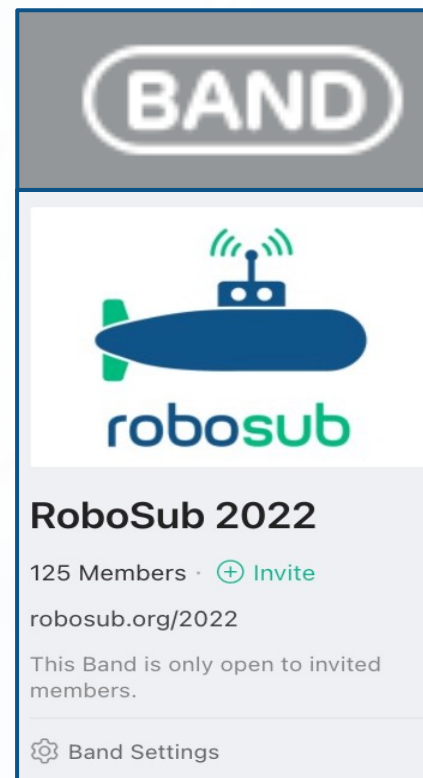
 robosub.org/2022

RoboSub TeamTime Meetings

Fridays @ 7PM ET

- 13 May
- 10 June
- 15 July

Sign up for the Band App



Hop on the RoboSub Band(wagon)!

 robosub.org/2022/band

MATHWORKS

mini SERIES

March 24th

April 14th

May 19th

@ 7:00 PM EDT



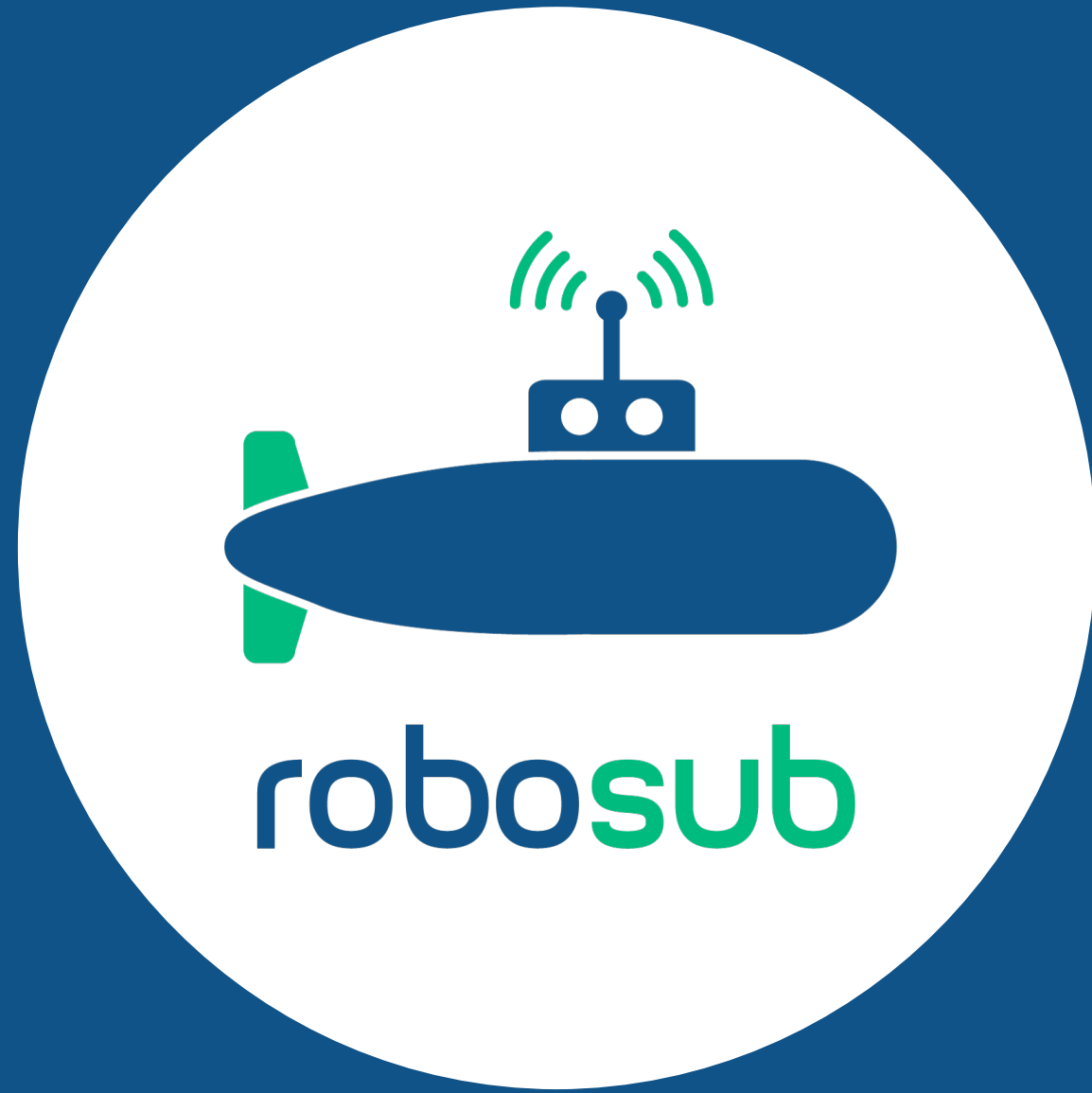
Sign up & watch recordings

 robonation.org/community-hour

March 24:
Working with MATLAB, Simulink, and ROS

April 14:
Modelling and Simulation of an AUV

May 19:
System Identification of Blue Robotics Thrusters



RoboSub 2022

 robosub.org/2022

Got Questions?



Email
autonomy@robonation.org



Discussion Forum
robonationforum.vbulletin.net



robonation



seaperch



seaglide



gosense



roboboat



robosub



robotx



RoboNation is a 501c3 nonprofit organization whose mission is to provide a pathway of hands-on educational experiences that empower students to find innovative solutions to global challenges. Working together with the industry, research and educators, we have grown to include over nine student competitions and programs and engage more than 250,000 students per year.

For more information contact university-competitions@robonation.org