TeamTime

Thursday, February 23, 2023| 12:00 Eastern Time (US & Canada)

GET STARTED

1. Edit your name to "Name | Team Name"
2. Let us know in the chat:
   - Are you bringing stickers/patches/pins to exchange?
   - Join the exchange with @sebas & @RoyalFox36!

Team Handbook Version 4 Released TODAY!

AGENDA

[12:00-12:05] Welcome & Announcements

[12:05-12:15] Venue Layout & On-Site Reminders

[12:15-12:25] Schedule Overview

[12:25-12:35] Scoring Overview

[12:45-13:00] Questions?

REC

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RoboBoat 2023

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March 22-28, 2023

27 Days Countdown

JOIN ROBONATION &
CONNELL D'SOUZA
FROM MATHWORKS

MATHWORKS
miniSERIES

MAR 2 @ 12pm ET

> REGISTER NOW

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robonation.org/community-hour

RoboBoat 2023

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LOGISTICS

Cheri Koch
Senior Events Manager

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Announcements

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ACCOMMODATIONS

Conference Hotel:
Hyatt Place Sarasota/Lakewood Ranch

6021 Exchange Way, Bradenton, Florida 34202

Hotel Block is FULL. Call hotel to see if they have any availability.

Reminder: Cancellations must be made by 3PM EST 48-hours prior to arrival to avoid a one-night room charge penalty. (edited)

Lodging Options:

- Airbnb.com or vrbo.com – local rentals
- EVEN Hotel Sarasota-Lakewood Ranch
- Comfort Inn & Suites Sarasota
- Hampton Inn & Suites Sarasota/Lakewood Ranch
- Courtyard by Marriott Sarasota University Park/Lakewood Ranch Area

Refer to Section 5.4.1 Travel + Lodging in the Team Handbook and the rb-logistics-forum (Accommodations) channel for information.

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Announcements

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SHIPPING REMINDERS

Conference Hotel:

Hyatt Place Sarasota/Lakewood Ranch

- **INBOUND - Arrive after March 20th**
- **OUTBOUND - Picked up by March 30th**

Local Options:

Fed Ex Office Print and Ship Center
8320 Lockwood Ridge Rd.
Sarasota, FL 34243
(941) 250-3142

Sarasota Pack Ship – USPS, UPS, Fed Ex, DHL
935 N. Beneva Rd. Suite 609
Sarasota, FL 34232
(941) 955-0098

The UPS Store
8374 Market Street
Bradenton, FL 34202
(941) 907-2227

HAZARDOUS SHIPPING: LIPO Batteries

FedEx Dangerous Goods
1-800-463-3339 x 81
E-mail: dghotline@fedex.com

FedEx Drop Off Location for Dangerous Goods
4605 18th Street E.
Bradenton, FL 34203
Note: There is no direct phone line – this is drop off/pick-up only.

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Venue Layout

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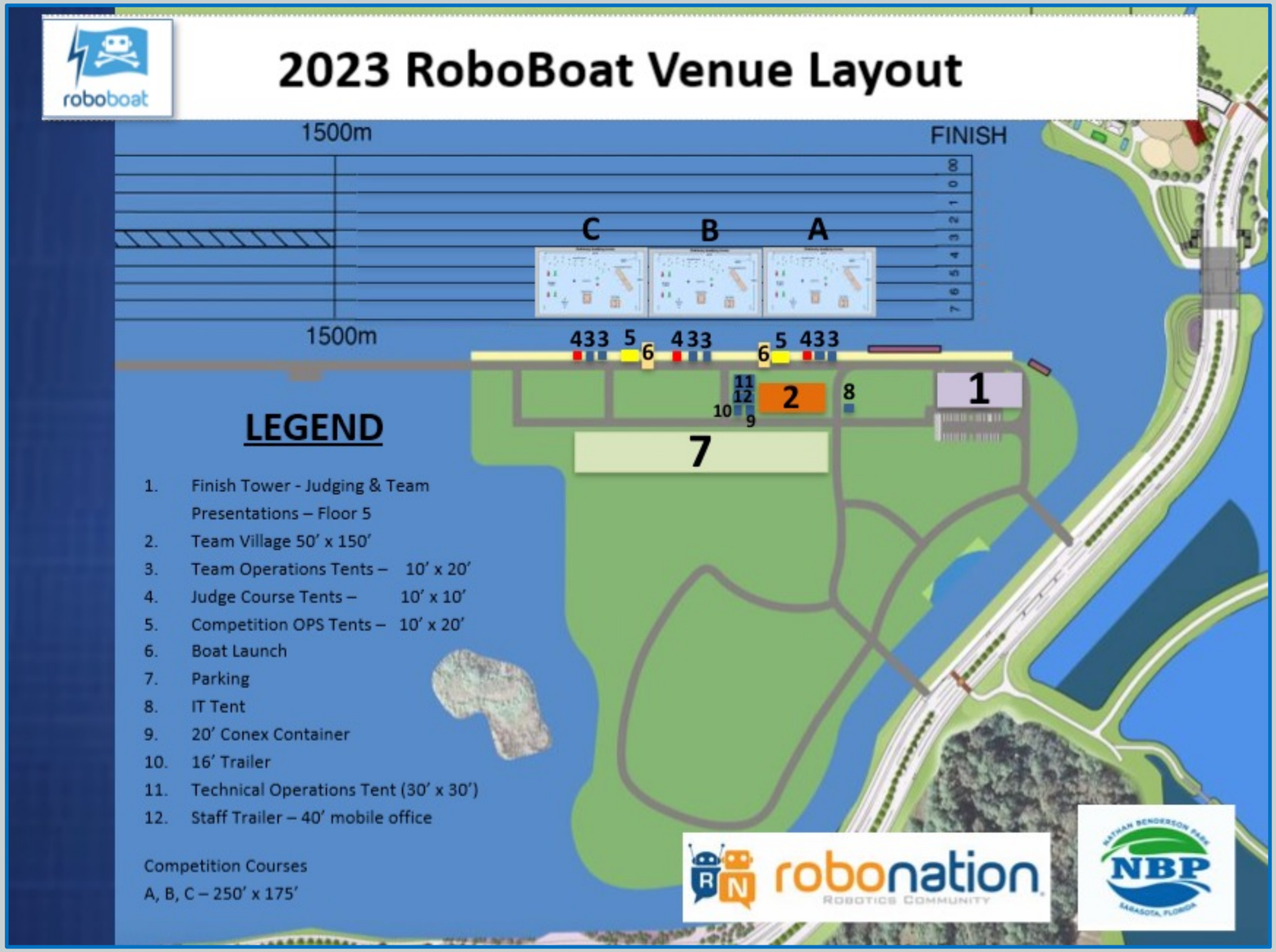

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On-Site Reminders

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ASV TRANSPORTATION at COMPETITION

Teams must provide a cart to move the vehicle around the competition site.

- Cart must be manually propelled on site, no motorized carts.
- Cart's handle must be solid, no rope or chain.
- Cart’s width must be less than thirty-six (36) inches.
- Carts are recommended to have six (6) inch (or more) diameter rubberized wheels.
- Carts may have to travel on concrete, dirt and grass surfaces and may also be submerged in water when you launch and recover your boat.

Figure 15: Example Vehicle Carts

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Schedule

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SCHEDULE OVERVIEW

- Refer to RoboBoat 2023 Team Handbook, Version 4, Appendix A, page 36.
- Any schedule changes will be announced at Daily Team Meetings and on Discord

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Schedule

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DAY 1 – MARCH 22, 2023

Nathan Benderson Park – Team Village

- 1:00 pm – 1:30 pm | Team Check-in
  - 1 team representative must be present
- 1:30 pm – 2:30 pm | Team Orientation
  - Entire team must be present
- 2:30 pm – 5:00 pm | Safety Inspections & Team Move-In
- 5:30 pm – 6:00 pm | Mandatory Team Meeting
  - 1 team representative must be present

Hyatt Place Sarasota/Lakewood Ranch

- 10:00 pm – 2:00 am | Overnight Pool Testing

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Schedule

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DESIGN PRESENTATION SCHEDULE

Friday, March 24 – Sunday, March 26

Teams are assigned a 30-minute presentation time slot. The presentation will include:

1. Team Introduction Video (3 minutes)
2. Presentation (15 minutes)
3. Judge Question & Answer (5 minutes)
4. Team & Judge Dialogue (7 minutes)

Time	Day 1 | Friday, 24 May	Day 2 | Saturday, 25 May	Day 3 | Sunday, 26 May
8:00 AM	Judges Start Time		
8:30 AM	Bannari Amman Inst of Tech	Universitas Sebelas Maret	Politeknik Negeri Batam
9:00 AM	Embry-Riddle Aeronautical University	Instituto de Monterrey VantTec	University of Science & Tech in Cracow
9:30 AM	Florida Atlantic University	Cornell University	University of Puerto Rico Mayaguez
10:00 AM	Break		
10:30 AM	Institut Teknologi Sepuluh Barunastra	Arab Academy STMT Abydos	Arab Academy STMT Hapi
11:00 AM	Hagerty High School	Georgia Institute of Technology	University of Michigan
11:30 AM	Lunch		
1:00 PM	Massachusetts Institute of Technology	Memorial University of Newfoundland	Judges' Debrief
1:30 PM	Lake Superior State University	Gdańsk University of Technology	
2:00 PM	Break		
2:30 PM	James Martin High School	Tel Aviv University	
3:00 PM	South Dakota Mines	Military Technical College	
3:30 PM	U.S. Coast Guard Academy	Karadeniz Technical University	
4:00 PM	Judges' Debrief		Last Updated: 23 February 2023

Schedule is subject to change.

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Schedule

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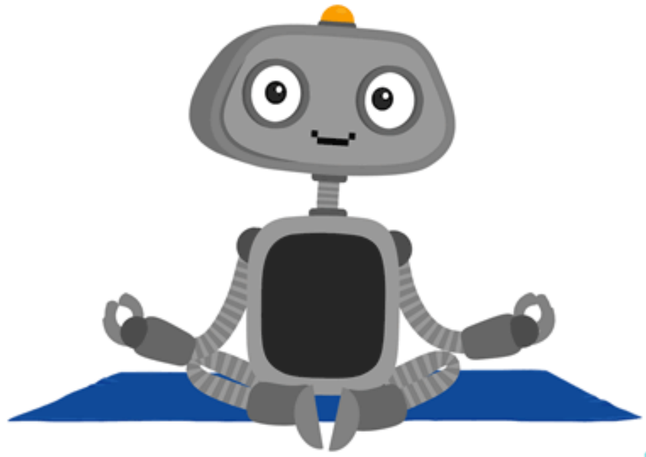
YOGA @ RoboBoat

- **When:** March 23 (Thu) + 25 (Sat) // 8:00-9:00 pm
- **Where:** Hyatt Place Meeting Room
- Bring your own mat / towel
- Open to all experience levels



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AUTONOMY CHALLENGE

Bill Porter
Technical Director

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Autonomy Challenge

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OVERVIEW

Refer to RoboBoat 2023 Team Handbook, Version 4, Sections 2.5-2.6 (Page 19).

Qualifying Round

The Qualifying Round and task completion requirements is at the judges' discretion on-site at the competition.

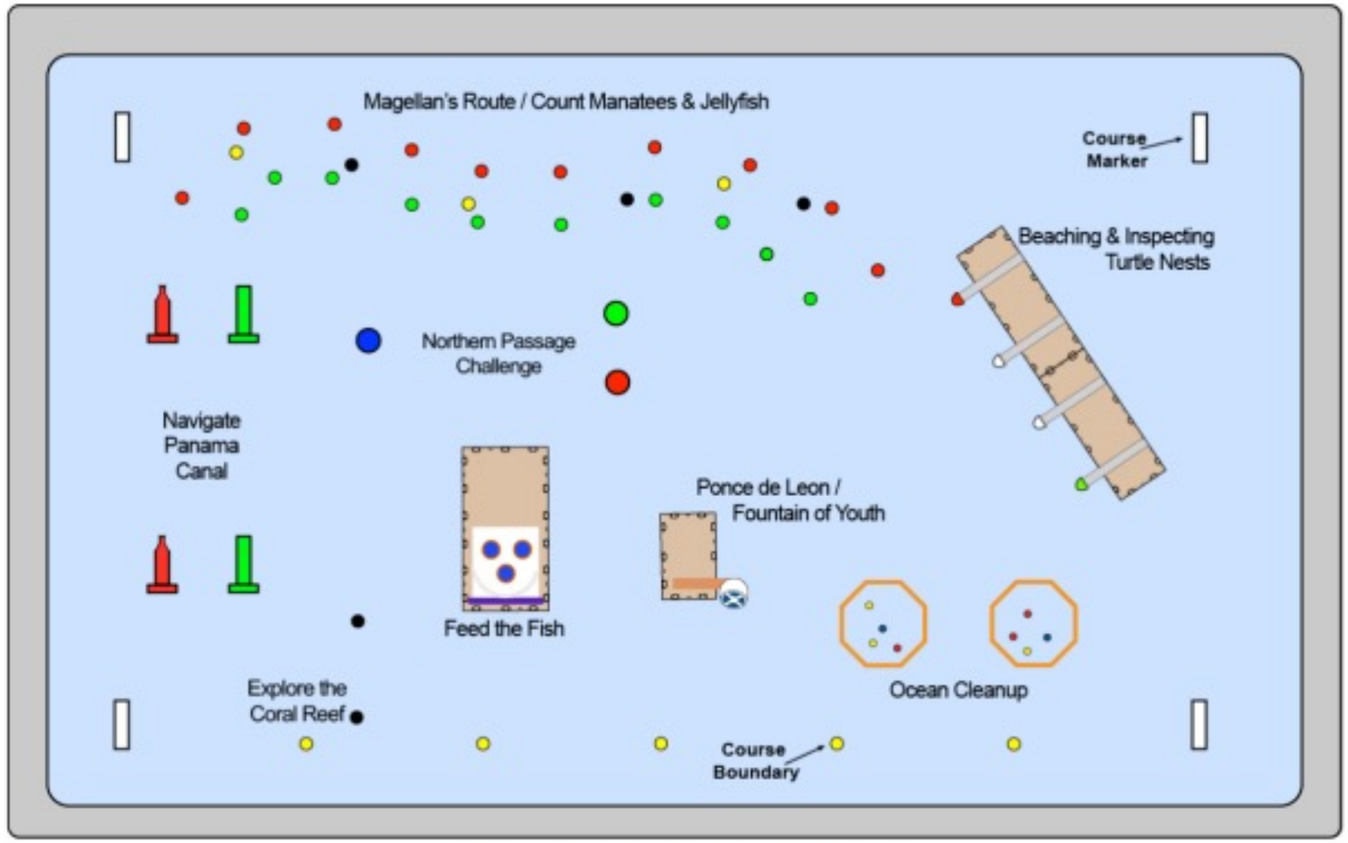

Figure 10: Preliminary Qualifying Course

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Autonomy Challenge

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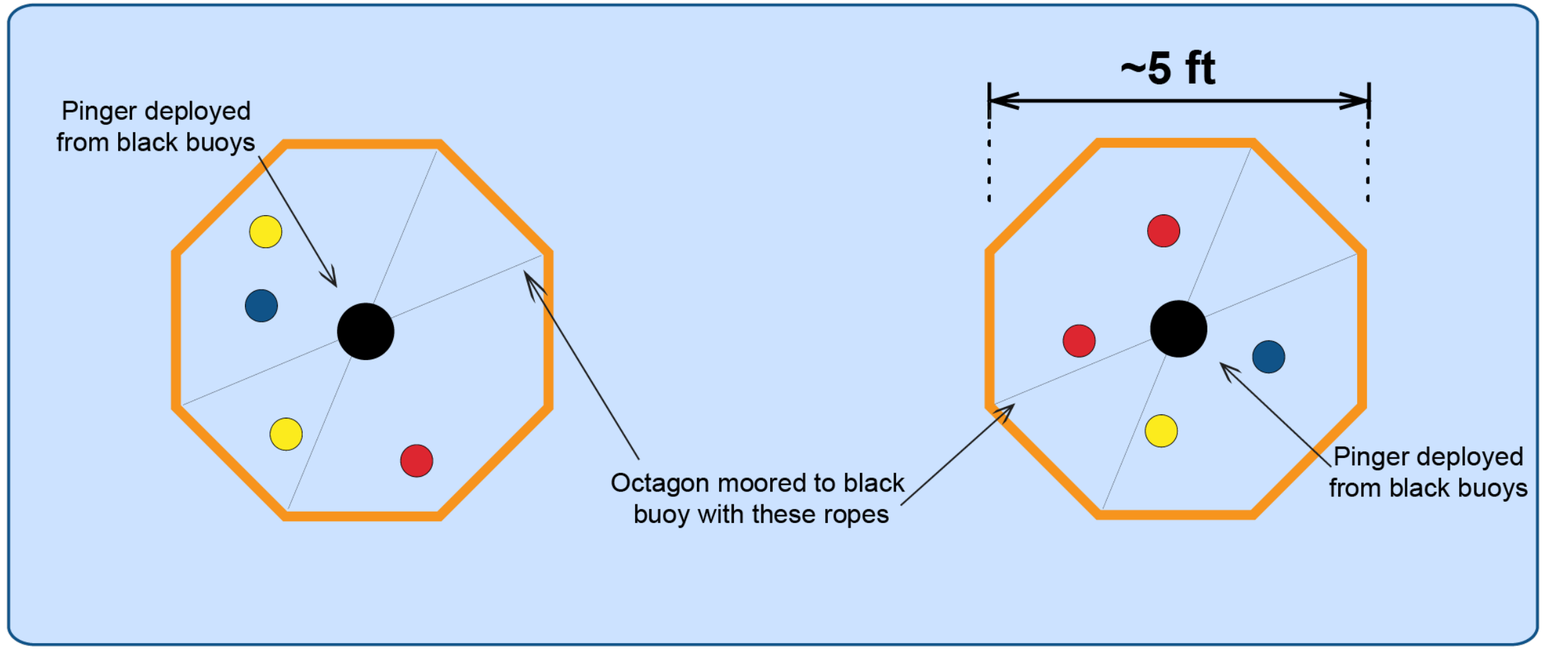
TASK 5: Ocean Cleanup

ASV detects underwater pinger designating the correct area to collect racquetballs. The collected racquetballs can be used in Task 6 - Feed the Fish.



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OVERVIEW

Refer to RoboBoat 2023 Team Handbook, Version 4, Sections 2.6 (Page 20)

Semi-Finals / Finals Round

Teams that qualify will have access to the Semi-Finals / Finals Course. These courses consist of eight (8) tasks: the mandatory navigation channel and tasks 2-8. Only one team may be on a Semi-Finals / Finals Course at a time.

During a scored run the ASV must:

- operate autonomously throughout the entire run;
- enter the course through the gates in Navigate the Panama Canal task;
- attempt the remaining Tasks 2-7 of their choice, in any order; and
- return to home (Task 8) at the end of the run.

Task Name	Potential Pts
Navigate Panama Canal	200
Magellan's Route	500
Beaching & Inspecting Turtle Nests	450
Northern Passage Challenge	500
Ocean Cleanup	600
Feed the Fish	500+
Ponce de Leon / Fountain of Youth	550
Explore the Coral Reef	2000

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Autonomy Challenge

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SCORING OVERVIEW

Refer to RoboBoat 2023 Team Handbook, Version 4, Sections 3.1 (Page 21-22).

Task/Measurement	Performance Measures	Points	Potential Points
Weight measurement	Weight (W)	See Table 3	Vehicle Dependent
Thrust measurement	Generate pounds of thrust (in lbs) (Th)	100*(Th / W)	
Task 1 – Navigate the Panama Canal	ASV navigates through both gates		0,200
Task 2 – Magellan's Route	ASV maneuvers through gates (G), without striking buoys (S) (maximum buoy strikes: 3)	25*G – 25*S	0-250
	ASV maneuvers through gates, in one sequence	25*G	0-250
Task 3 – Beaching & Inspecting Turtle Nests	ASV enters any docking bay (points awarded once)		0,50
	ASV enters correct docking bay on first attempt		0,400
Task 4 – Northern Passage	ASV navigates through gate, without touching buoy		0,50
	ASV circles blue buoy, without touching buoy		0,100
	ASV exits through gate, without touching buoy		0,100
	Task completion time (T)	250-T	0-250
Task 5 – Ocean Cleanup *Teams are encouraged to collect as many balls as they can to use in Task 6.*	ASV makes contact with ball(s) (B),up to two	50*B	0,50,100
	ASV collects ball(s) (B) and drops, up to two	50*B	0,50,100
	ASV collects ball(s) (B) and stores, up to two	100*B	0,100,200
	ASV detects active pinger on first attempt		0,200
Task 6 – Feed the Fish	ASV launches ball		0,50
	ASV launches ball(s) (B) through frame	50*B	No limit
	ASV launches ball(s) (B) and successfully lands in any hole	100*B	
Task 7 – Ponce de Leon / Fountain of Youth	ASV shoots water near task platform		0,100
	ASV delivers water into target/bottle		0,150
	ASV delivers water into target/bottle, raising the ball to the green line		0,300
Task 8 – Explore the Coral Reef	Return to home after attempting tasks (#t)	100*#t	0-700
	Bonus for attempting all tasks and returning to home		0,100
	Seconds left on the clock (T)	1200-T	0-1200

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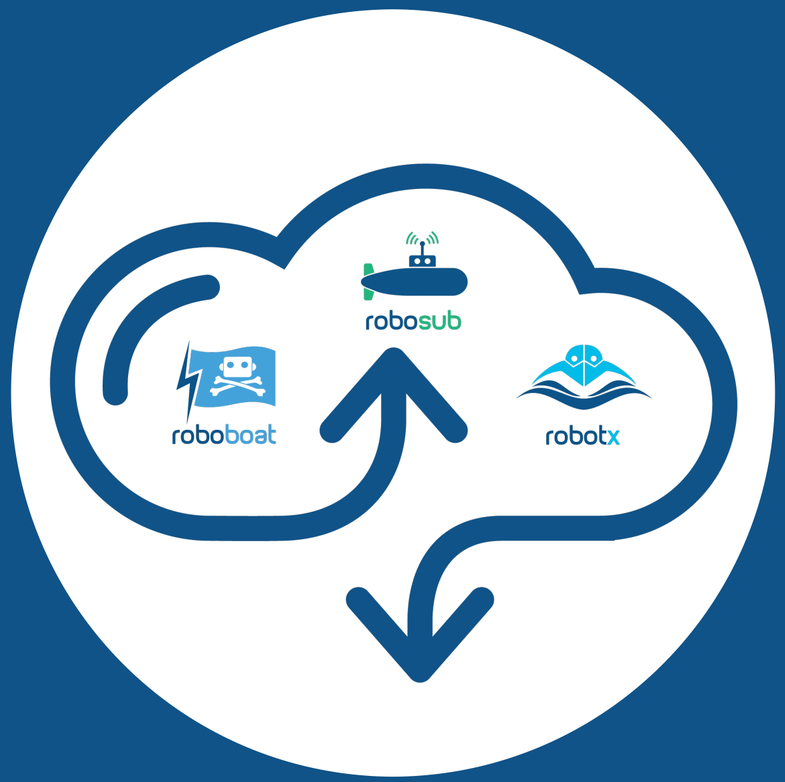

Data Sharing

roboboat.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

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RoboBoat 2023

Community Engagement

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Discord

Replacing BAND. All on-site communications will be posted on Discord.

JOIN TODAY!

- Click this link to join: *https://discord.gg/nP9PYcGK*
- Select the RoboBoat23 role
- Turn on notifications

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QUESTIONS?

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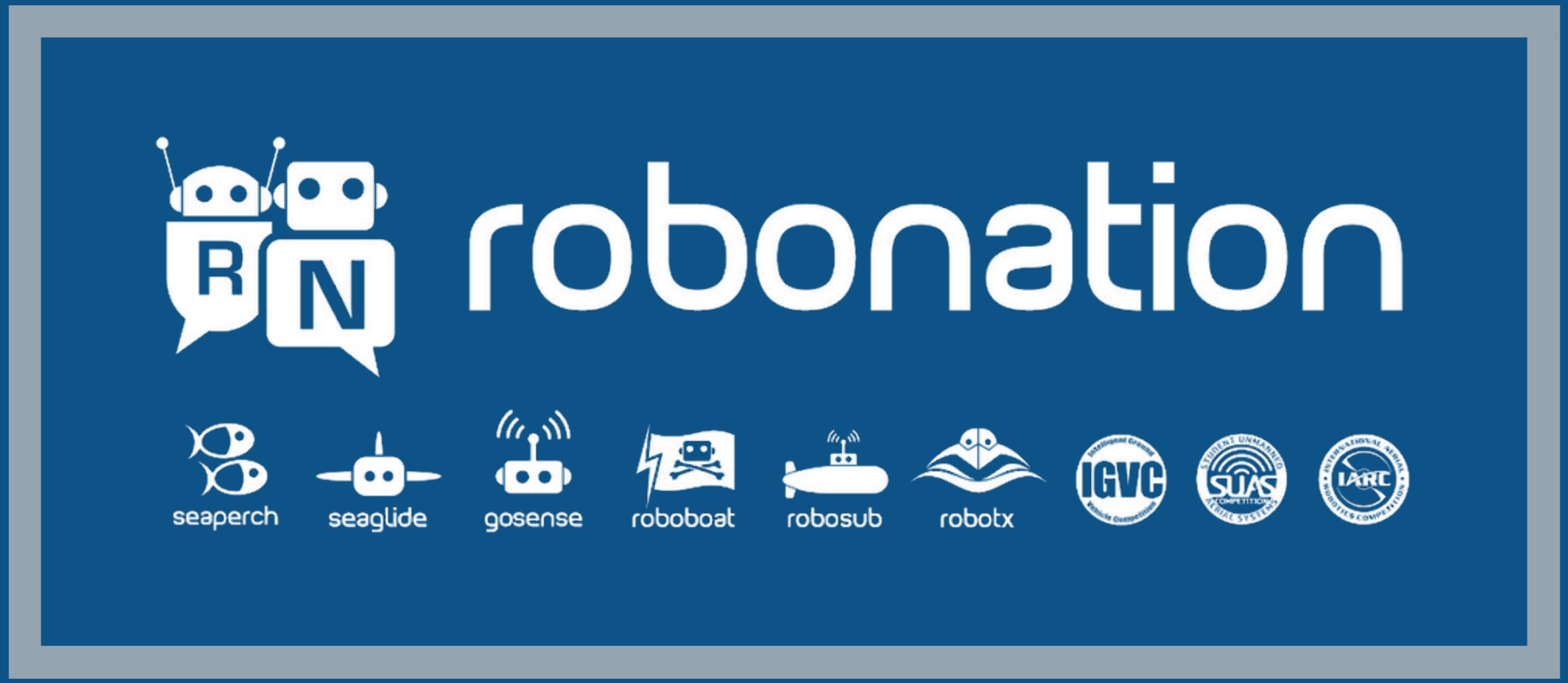

RoboNation is a 501c3 nonprofit organization whose mission is to provide a pathway of hands-on educational experiences that empower students to find innovative solutions to global challenges. Working together with the industry, research and educators, we have grown to include over nine student competitions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

For more information contact university-competitions@robonation.org