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ROBOBOAT

TeamTime #2

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Date

17-December-2025

Website

roboboat.org

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welcome to roboboat 2026

February 19-24, 2026

Nathan Benderson Park

Sarasota, Florida, USA

37 teams

24 returners

13 first-year teams

10 countries

6 tasks

AGENDA

Edit your name to “Name | Team Name“
For example: Jane | University of RoboNation

EVENT REMINDERS

Preliminary plans and reminders for the event.

DESIGN DOCUMENTATION

Overview of design documentation submissions and activities.

COURSE UPDATES

Updated plans across the course and tasks.

Questions? Submit on Discord.

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the teams

Bangladesh

- Calibrator-Z | Blueave 2.0
- Dreams of Bangladesh | DoB JolJan
- Polynomial Institute | TORONGO
- Tech Autocrats | BengalBoat

Canada

- Humber Polytechnic | Humber ASV
- MUN Icebrg ASV | Iceberg ASV
- aQuatonomous | aQuatonomous

Egypt

- Military Technical College | MW

Indonesia

- Institut Teknologi Sepuluh Nopember | Barunastra ITS
- Universitas Sebelas Maret | Bengawan UV

Japan

- OUXT Polaris | OUXT-Polaris

Mexico

- Tecnológico de Monterrey | VantTec

Norway

- Navier USN | Navier USN

Poland

- AGH University of Kraków | AGH Solar Boat
- Gdańsk University of Technology | Science Club SimLE

Turkey

- Adana Alparslan Türkeş Science and Technology University | KAAN technology Club
- Alanya Alaaddin Keykubat University | ZeroneTech Kılıç
- Konya Technical University | Kapsul Yazgit Pruva
- Konya Teknik Üniversitesi | Kapsül Yazgit Eternal
- Piri Reis University | PRU-İDA
- Turkish Naval Academy | BlueHomeland

United States

- Advancing Science Technology & Art | Team Inspiration
- Beaver Country Day | BeavrAUV
- Benedict College | B Sea Bots
- Cornell AutoBoat | Cornell Autoboat
- Embry-Roiddle Aeronautical University | Team Minion
- Florida Atlantic University | Owltonomous
- Florida State University, Panama City | NoleNavigators
- University of Central Florida & Hagerty High School | The Water Dogs
- Georgia Tech Marine Robotics Group | Marine Robotics Group
- Martin High School | MHS SEALs
- Lake Superior State University (LSSU) | Team AMORE
- Massachusetts Institute of Technology | MIT Arcturus
- University of Louisiana at Lafayette | Team Katrina
- University of Michigan | UM::Autonomy
- University of Pittsburgh | Pittsburgh Electric Propulsion
- University of Puerto Rico Mayagüez | Roboboat UPRM

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PRELIMINARY SCHEDULE

JAN 2026	FEB 19 THU	FEB 20 FRI	FEB 21 SAT	FEB 22 SUN	FEB 23 MON	FEB 24 TUE
Pre-Competition Submission Deadlines	Mandatory Team Orientation *(afternoon)*	Practice & Qualifications		Semi-Finals		Third-Chance & Finals
	Networking Social	Design Presentations / System Assessments				
	Overnight Pool Testing (@ Event Hotel)					Awards

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HOTEL

Magnolia Pointe
Sarasota Hotel & Suites

5965 Brookhill Blvd, Sarasota, FL 34232

Rate: $229/night + taxes & fees

Reservation Cut-off Date: January 21, 2026

Call: 941-500-4700 to reserve

- **Overnight Pool Testing:**

Hours: 10pm - 2am, starting February 19

⚠️ **Problems? Contact Cheri Koch** ⚠️

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SHIPPING

START PLANNING NOW!

- Packing List
- Crate Size/Composition
- Battery Shipping
- International Shipping - Carnet / Import Bond

FROM: School Name
Address
City, State, Zip
Country

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Ameniti Bay Sarasota Hotel & Suites
Attn: RoboBoat / School Name
5985 Brookhill Boulevard
Sarasota, Florida 34232

On-site Team POC Name: Phone:

Questions? Submit on Discord.

TRAVEL CONSIDERATIONS

VISA Process

- Apply now!
- Explore the different types of visas: travel.state.gov.

Invitation Letter

- Teams may request invitations letters when officially registered and registration fee is paid.
- During Team Member Registration, each team member may request an invitation.

TIMELINE REMINDERS

January 14: Event Submission Deadline

- Team Member Registration
- Team Demographics
- Merchandise Order
- Vehicle Information
- On-Site Requirements (Battery Safety Requirements & Shipping Plan)

January 14: Design Documentation Deadline

- Technical Design Report
- Website
- Team Introduction Video
- Community & Outreach (Optional)

February 19-24: RoboBoat 2026

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EVENT SUBMISSIONS

Past Examples
roboboat.org/past-programs

Technical Design Report

Write a report describing the team's design principles and competition priorities.

Max: 6 pages

Team Website

Website documents your team, system design, and competition approach, evaluated on (1) Content and (2) Quality.

Team Video

Prepare a video that is a creative showcase highlighting the team's personality, mission and culture.

Max: 3 minutes

Submit in registration portal:
robonation.smapply.org/acc/l/

Questions? Submit on Discord.

TIP: Review your submission from the perspective of a judge.

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IN-PERSON DELIVERABLES

Delivered in-person during the competition: February 20-21

Design Strategy Presentation

Prepare a presentation with a concise description of your team's strategic vision, and how the vehicle design compliments your goals.

Time: 15 min.

System Assessment

Prepare your ASV to be inspected by judges to assess technical design, technical innovation, and craftsmanship of the design.

Time: 15 min.

TIP: Define your team's competition strategy and how that influenced your design choices, testing, and overall approach.

Questions? Submit on Discord.

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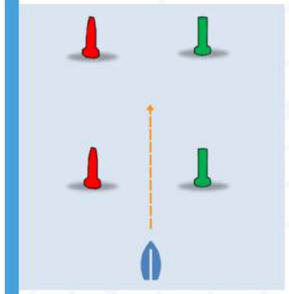
Task Overview

Communications & Reporting

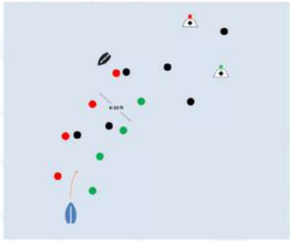
ASV reports on any given task: time stamp, lat/long locations, number or color of object.

Task 1: Evacuation Route



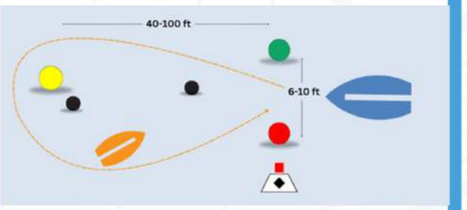
ASV safely transits through entrance and exit gates at start/end of run.

Task 2: Debris Clearance



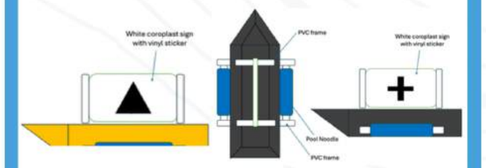
ASV navigates through channel to debris field, and scans for floating hazards.

Task 3: Emergency Response Sprint



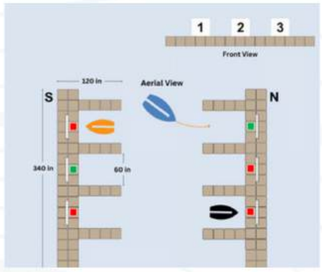
ASV sprints to the distress zone, circles the yellow buoy correctly, and exits back through the buoys.

Task 4: Supply Drop



ASV delivers water and racquetball supplies to stationary vessels throughout course.

Task 5: Navigate the Marina



ASV enters marina and docks in an unoccupied slip.

Task 6: Harbor Alert

ASV responds to emergency audio signal.

Questions? Submit on Discord.

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COMMUNICATIONS PROTOCOL

ASV reports status from the Operator Control Station (OCS) to RoboNation's RoboCommand system during runs.

- Message Format: Protocol Buffers (Protobuf)
- Teams are provided with a hard-wired connection (RJ-45) to RoboCommand
- Teams required to transmit successful heartbeat message to qualify
- Summary of task reportings available in Team Handbook

Required Rules & Timing:

- **Format:** Protocol Buffers
- **Timestamp:** Every message must include a timestamp
- **Clock sync:** Teams will be provided with a Network Time Protocol (NTP) source for system clock synchronization so timestamps align with field logs.
- **NTP Server:** 10.10.10.1
- **Protocol/Port:** NTP (UDP 123)
- **Heartbeat message:** Teams send a heartbeat message at 1 Hz.
- **Rate limit: ≤ 5 Hz** (no more than five messages per second per ASV/report stream) unless otherwise specified. This rate is subject to change.

Information on the protocol, task reporting, and schema is available in Team Handbook.

Questions? Submit on Discord.

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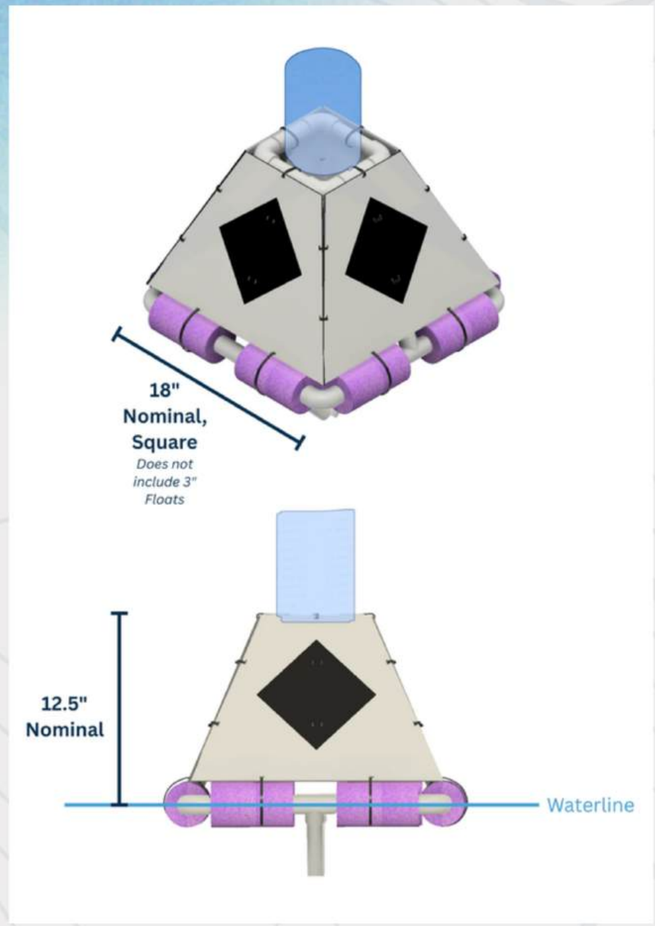
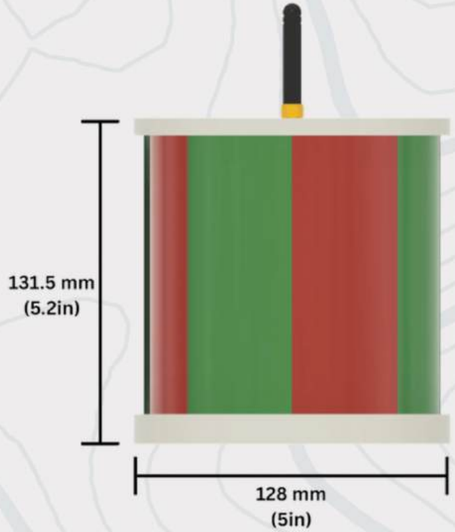
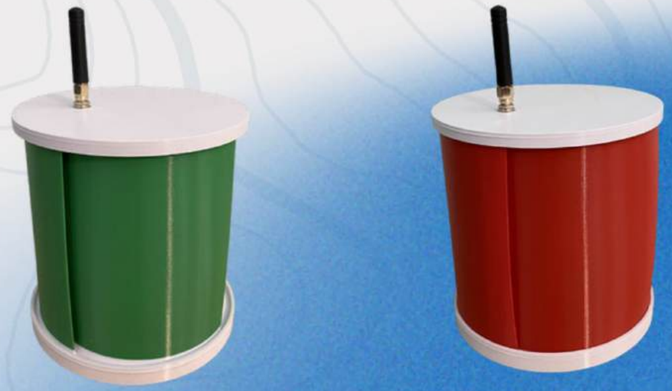
UPDATE: COLOR INDICATORS



Rendering of Color Indicator on the buoy
(color will be red OR green)



Color Indicator that changes from
green to red using a servo



CAD Files available in
Data Sharing.

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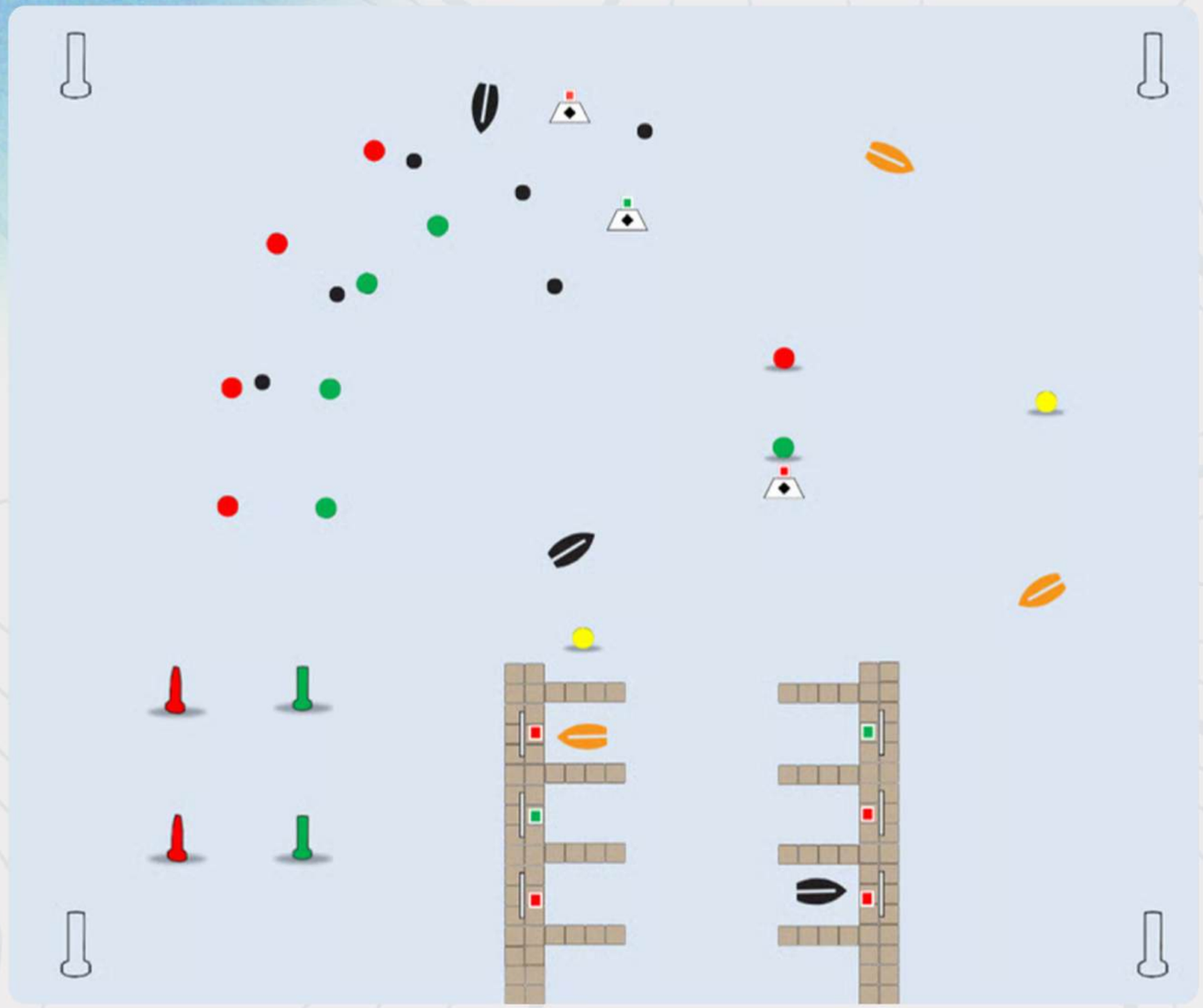
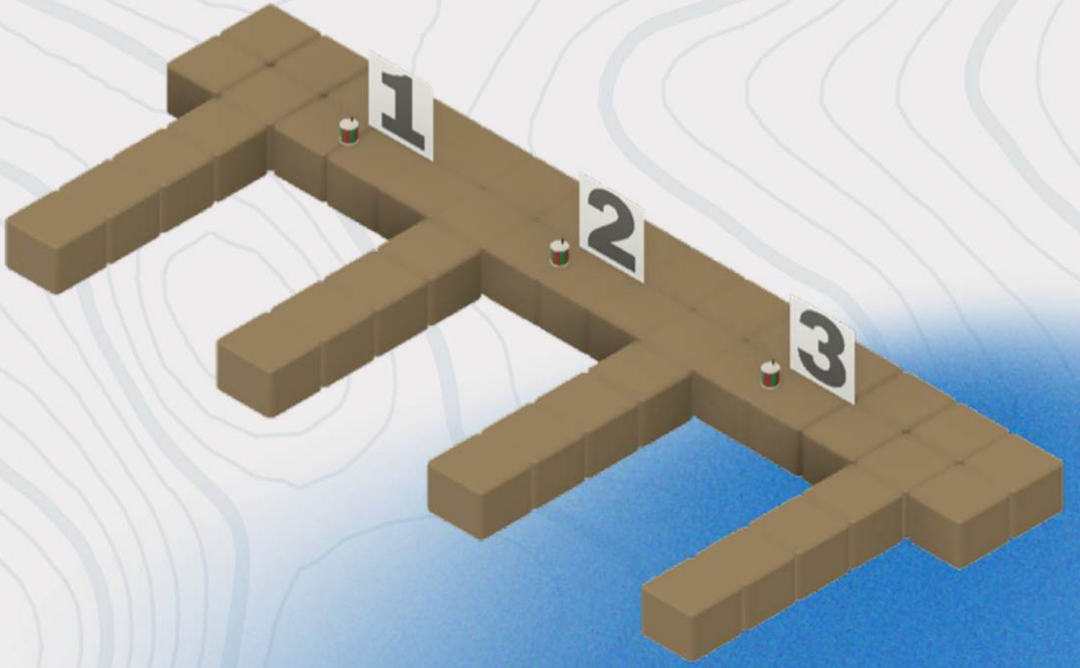
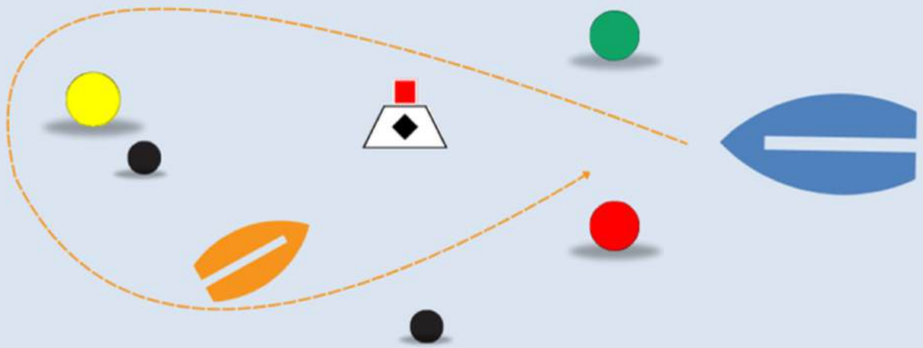
UPDATE: COLOR INDICATORS



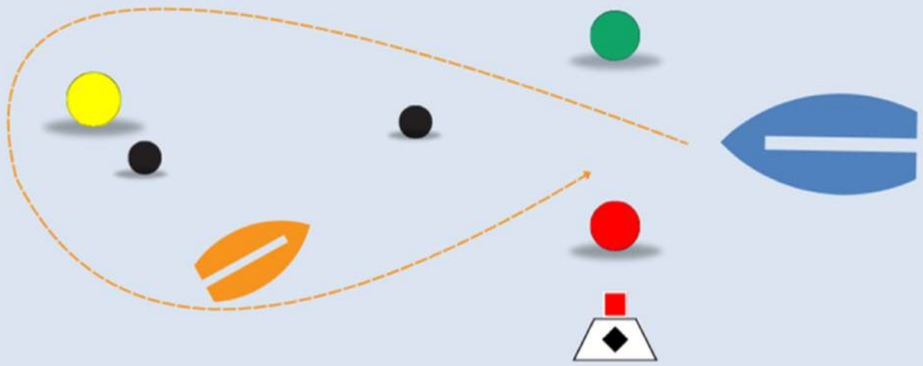


VOTE: SPEED CHALLENGE

Poll to select the positioning of color indicator.



Option 1: Between gate buoys



Option 2: Beside gate buoys

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QUALIFICATION CRITERIA

To qualify for Semi-Finals, the ASV must complete:

Send Heartbeat Message

ASV successfully transmits ***heartbeat message*** to RoboCommand.

Core Capabilities (2 tasks)

ASV successfully demonstrates ***core capabilities*** of ***two different tasks***.

Advanced Capabilities (2 tasks)

ASV successfully demonstrates ***advanced capabilities*** of ***two different tasks***.

In Sequence (2 tasks)

ASV successfully demonstrates ***two tasks in sequence*** autonomously.

Example Scenario

1. ASV transmits heartbeat message
2. ASV navigates through entry/exit gates (task 1, core) and continues to transit channel, enter debris field, avoid debris, and return through channel (task 2, core)
3. ASV docks in slip with green color indicator (task 5, adv)
4. ASV circles yellow buoy in correct direction (task 3, adv)

Example Scenario

1. ASV transmits heartbeat message
2. ASV docks in an unoccupied bay (task 5, core) and continues to deliver water to a yellow stationary vessel (task 4, core)
3. ASV circles yellow buoy in correct direction (task 3, adv)
4. ASV navigates through entry/exit gates (task 1 core)
5. ASV delivers ball to a black stationary vessel (task 4, adv)

Questions? Submit on Discord.

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Stay Updated

ALL THINGS ROBOBOAT

For all the latest information and updates for the competitions season, visit the RoboBoat website!

roboboat.org

DISCORD

Stay connected and updated with the RoboBoat Discord. Scan the QR code to get started!

JOIN TODAY!

- Scan the QR code
- Select the RoboBoat role
- Turn on notifications!

robonation.org/discord

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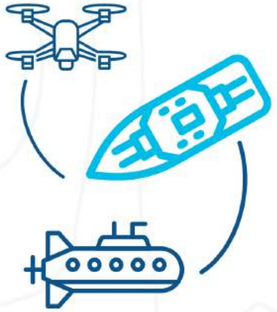
RobotX 2026 | Singapore | Early November



- Develop a System of Systems: USV + UAV and/or UUV
- Opportunity to apply for a granted BlueBoat or BlueROV
- More information: robotx.org/2026

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QUESTIONS?

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Submitted Questions

- For docking, are the sign numbers guaranteed to be single digits? What is the range of possible numbers?
  - **Answer:** The sign numbers will be 1, 2, 3.
- Are beacons stand-alone or are they associated with buoys? If associated with buoys, where are they located in relation to the buoy?
  - **Answer:** The color indicators (previously beacons) will be mounted on the top of a custom buoy.

Questions? Submit on Discord.

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 competitions@robonation.org