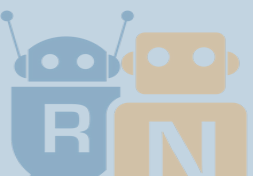




# ROBOBOAT TEAM TIME

*Friday, January 28, 2022 | 7:00 PM Eastern Standard Time*




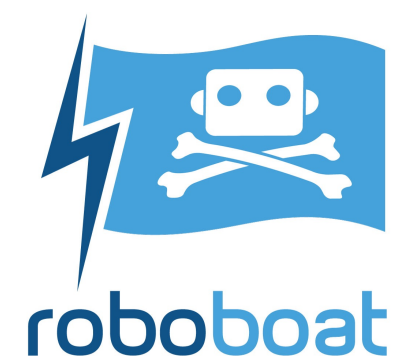


# Welcome 2022 RoboBoat Community!

GET  
STARTED



- 1 Edit your name to "Name | Team Name"
- 2 Let us know in the chat:  
 Where are you joining from and what time is it there?

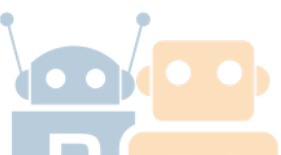


## ROBOBOAT TEAM TIME

### AGENDA

---

- [ 19 : 05 - 19 : 10 ] Welcome and Introductions
- [ 19 : 10 - 19 : 20 ] Participation Options
- [ 19 : 20 - 19 : 35 ] Tasks
- [ 19 : 35 - 19 : 40 ] Registration Walkthrough & Timeline
- [ 19 : 40 - 19 : 45 ] Data Sharing
- [ 19 : 45 - 20 : 00 ] Q&A / Wrap Up



•REC

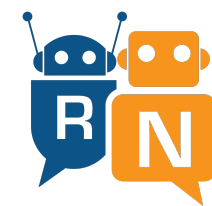
# Meet the Humans



Julianna Smith  
Program Manager



Laverne Imori  
Community Engagement Coordinator



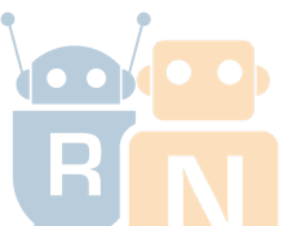
Lindsey Groark  
Program Director



Cheri Koch  
Senior Events Manager



Mr. Bill Porter  
Technical Director





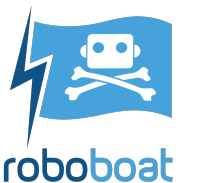
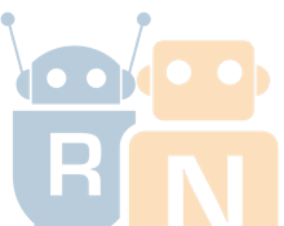
# 15th Annual RoboBoat 2022

## **A Day at the Carnival**



June 20-25, 2022

Nathan Benderson Park | Sarasota, FL



# Participation Options

## Goals:

- Reduce barriers to participation.
- Offer flexibility based on global pandemic impact.

## Solution:

- Teams choose to compete in-person or online during registration.



## Autonomy Challenge

Build an ASV to showcase autonomous performance.



Live Demonstration



Video Demonstration



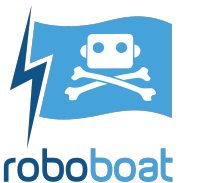
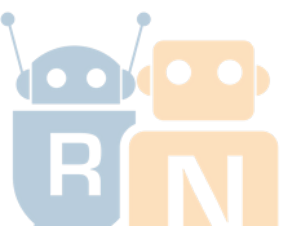
## Design Documentation

Prepare documentation showcasing ASV design and competition strategy.



Design Documentation

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



# Autonomy Challenge



## Live Demonstration

In-Person Teams

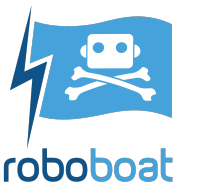
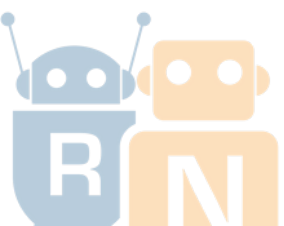
- Showcase vehicle performance through autonomous completion of **a range of tasks onsite at the competition site**
- Live judging/scoring
- Eligible for ranking and awards



## Video Demonstration

Online Teams

- Showcase vehicle performance through autonomous completion of **a range of behaviors through a video demonstration**
- Videos shared online with the community
- Not scored
- Eligible for special awards and recognition

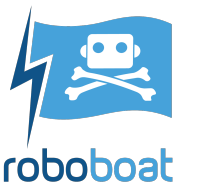
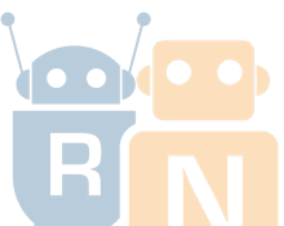




15th Annual  
**RoboBoat 2022**  
**TASKS**



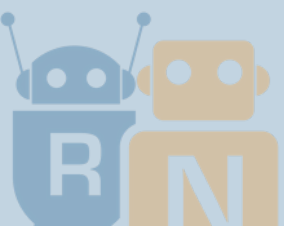
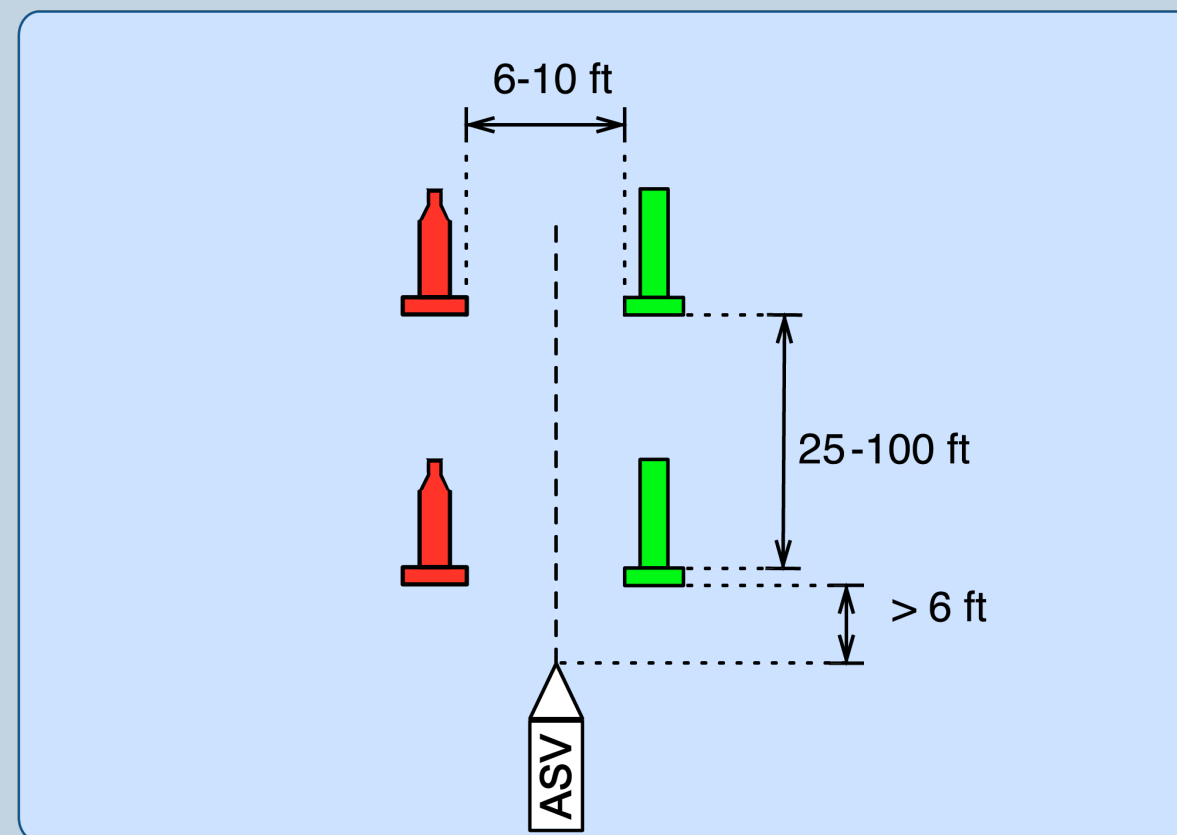
**A Day at the  
Carnival**





# Navigation Channel

- Mandatory before attempting other tasks.
- ASV passes through two sets of gates.
  - Gate: pair of red and green buoys
  - ASV starts autonomous navigation at a minimum of 6 ft. before the set of gates.

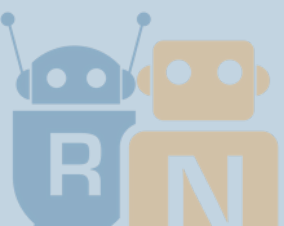
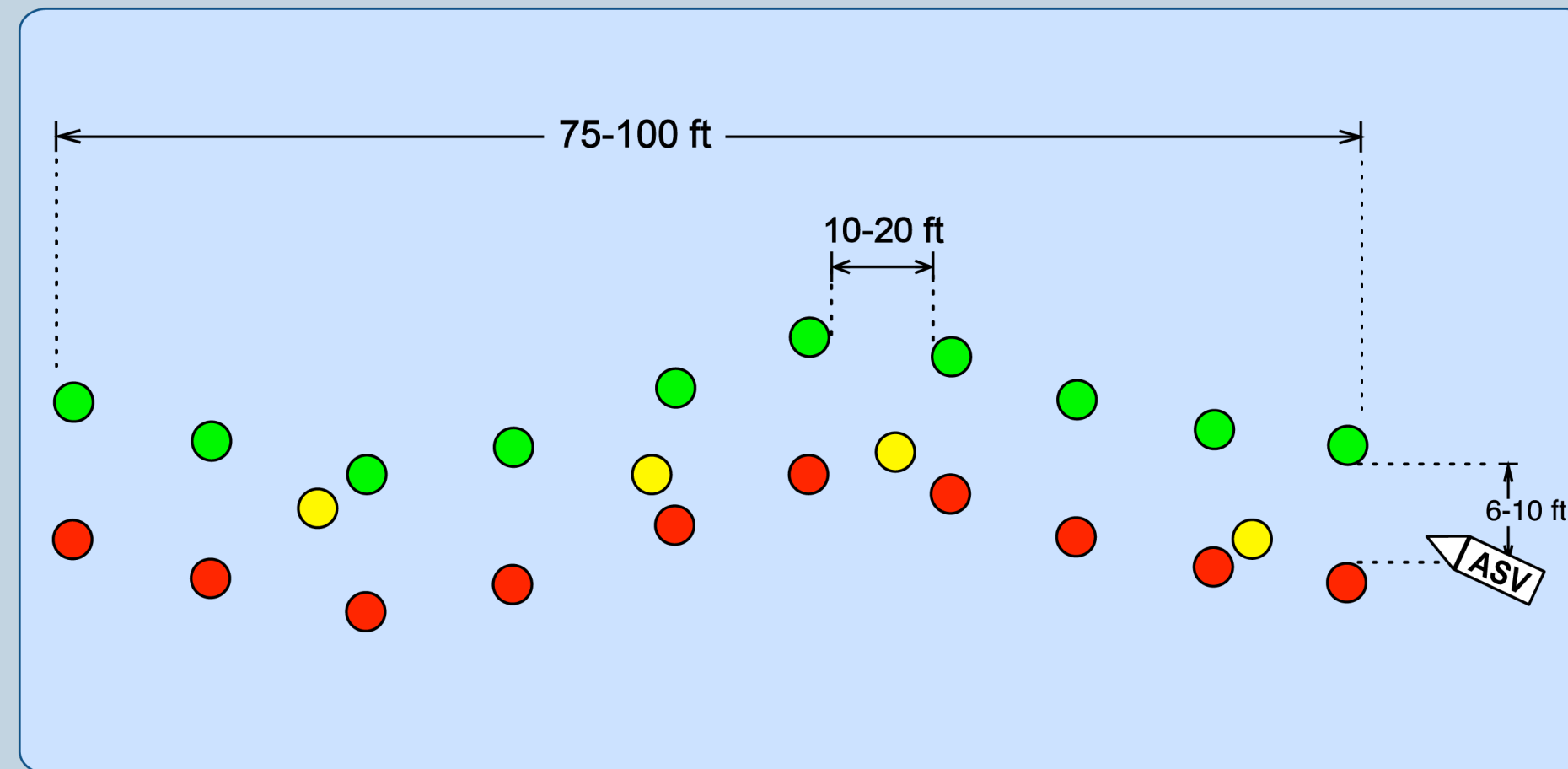






# Avoid the Crowds

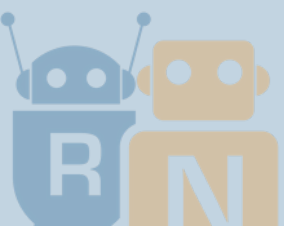
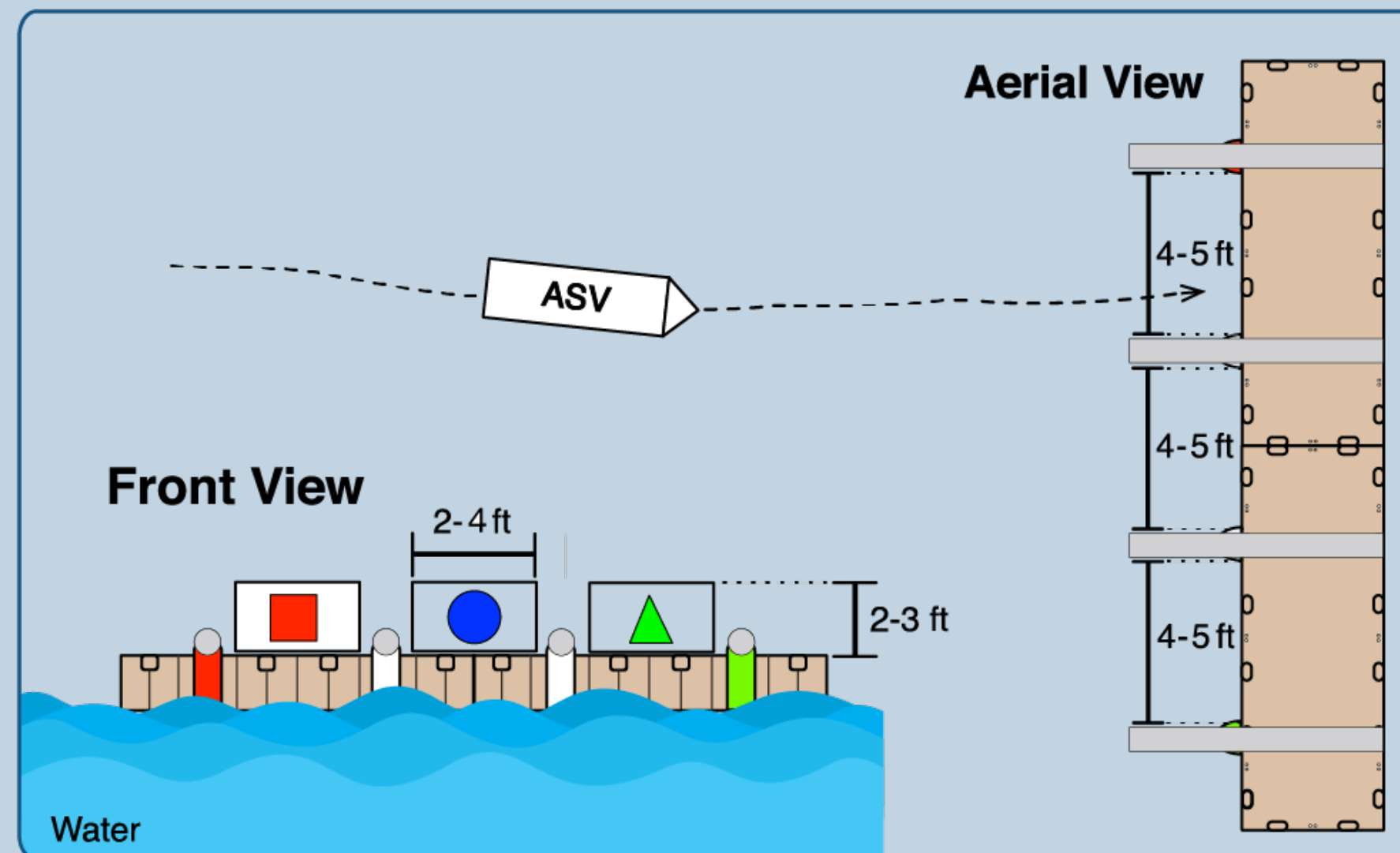
- ASV passes through between multiple sets of gates and avoids intermittent yellow buoys.
  - Gate: pair of red and green buoys





# Find a Seat at the Show

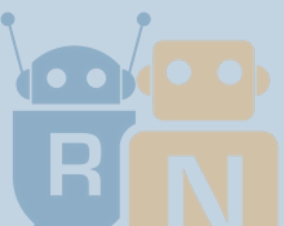
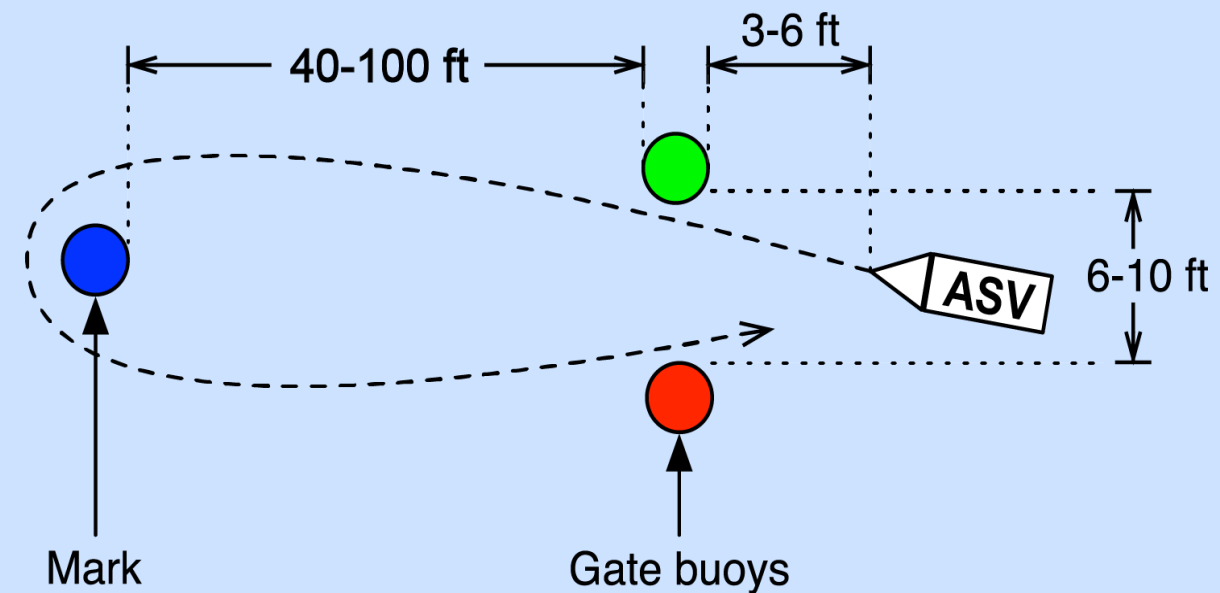
- Before the time slot starts, teams are given a “bay of the day” assignment to dock in.
- ASV detects and enters the docking bay corresponding the shape/color of the day.





# Snack Run!

- ASV enters the gate buoys, maneuvers around the mark buoy, and exits through the same gate buoys, as quickly as possible.
- The timer starts when the bow (front) crosses the gate buoys and stops when the stern (back) crosses the gate buoys.
  - Gate buoys: 6-10 ft apart
  - Mark buoy: 40-100 ft from gate buoys



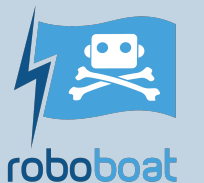
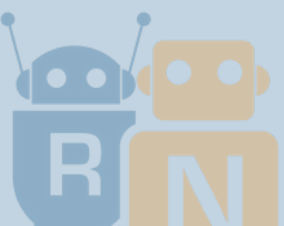
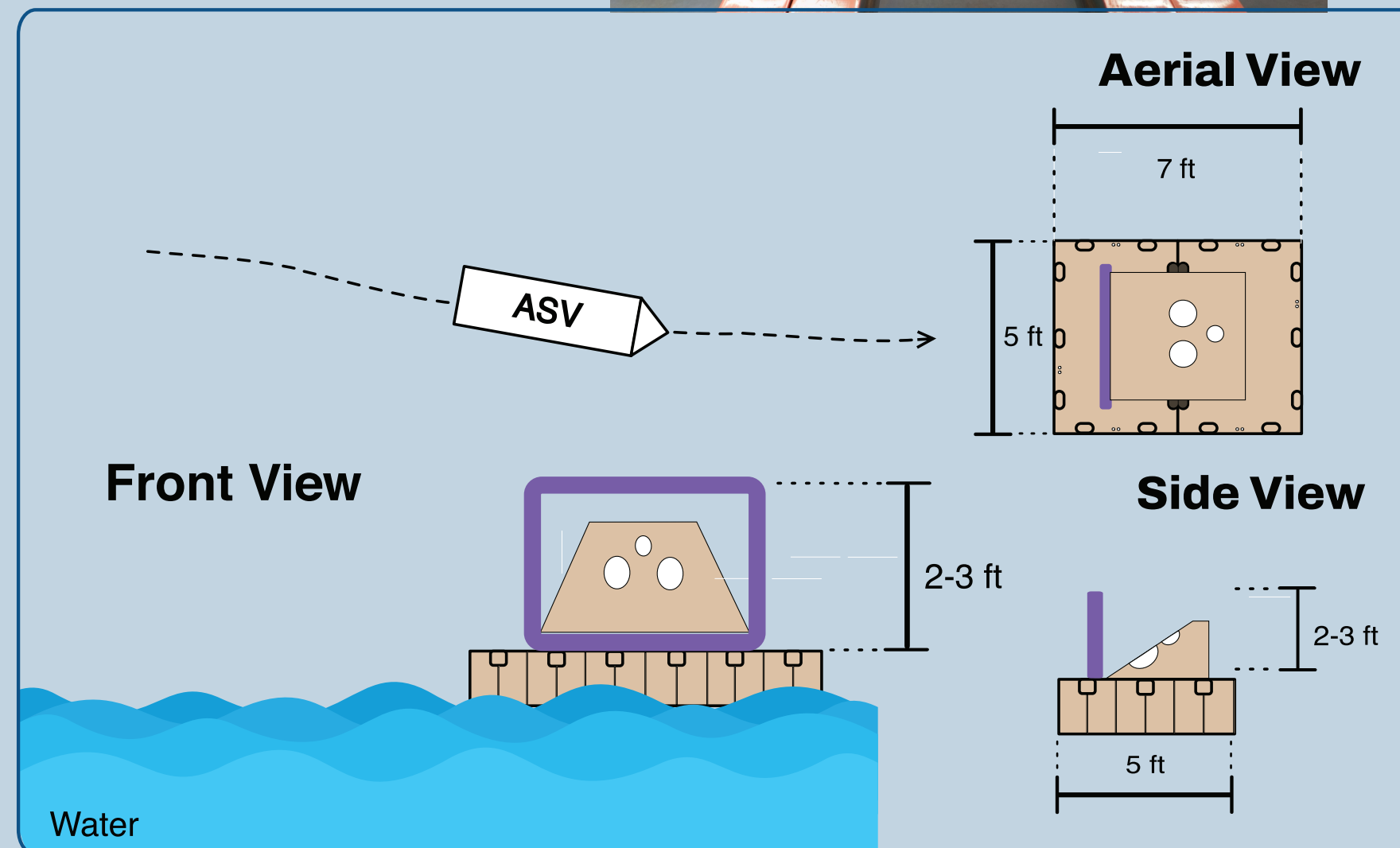


# Skeeeball Game

- ASV detects shooting gate.
- Line up and deliver/shoot three balls.
- More points if sunk in smaller hole in back.
- Some points for just making ball on deck.



– Shooting Gate: purple frame





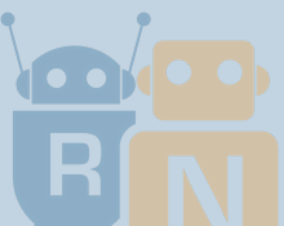
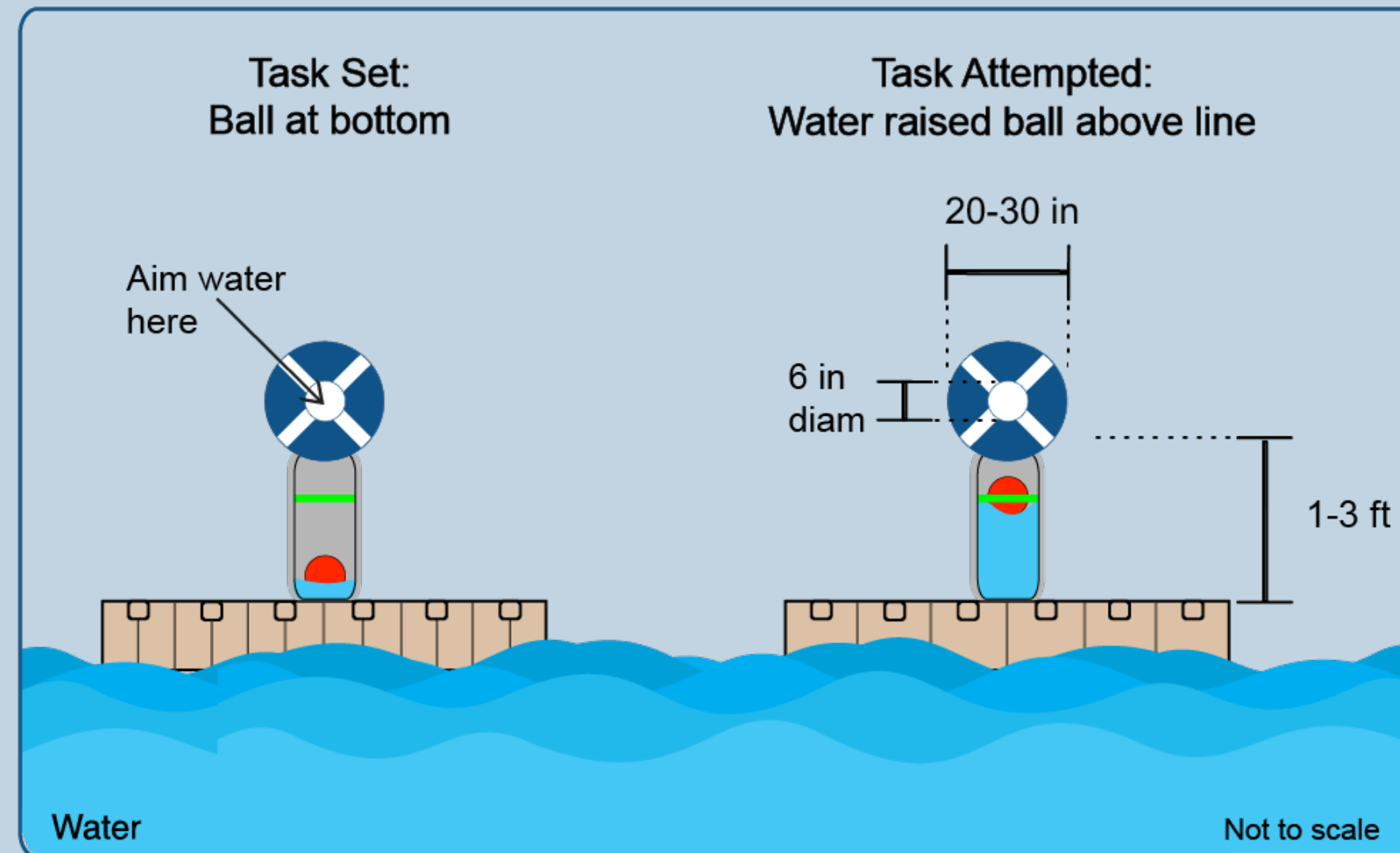


# Water Blast

- ASV detects target face.
- Shoot water through the target, raising the ball in the pipe.
  - Goal: shoot enough water in the target to raise the ball above the green line.

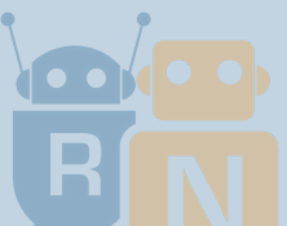
– Target: 1-3 feet  
above the surface of  
the dock

– Target face:  
blue/white striped



# Return to Home

- ASV returns to dock in autonomous mode and avoids all obstacles and task elements on the way back.
- ASV comes to a full stop within six feet of the dock.



# Autonomy Challenge



**Navigation  
Channel**



**Avoid the  
Crowds**

(Obstacle  
Channel)



**Find a Seat  
for the Show**

(Docking)



**Snack Run!**

(Speed Gate)



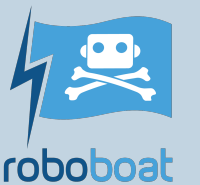
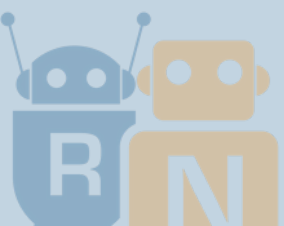
**Skeeball**



**Bottle  
Knockdown**



**Return to  
Dock**



# Registration Walkthrough

 [roboboat.org/2022](https://roboboat.org/2022)

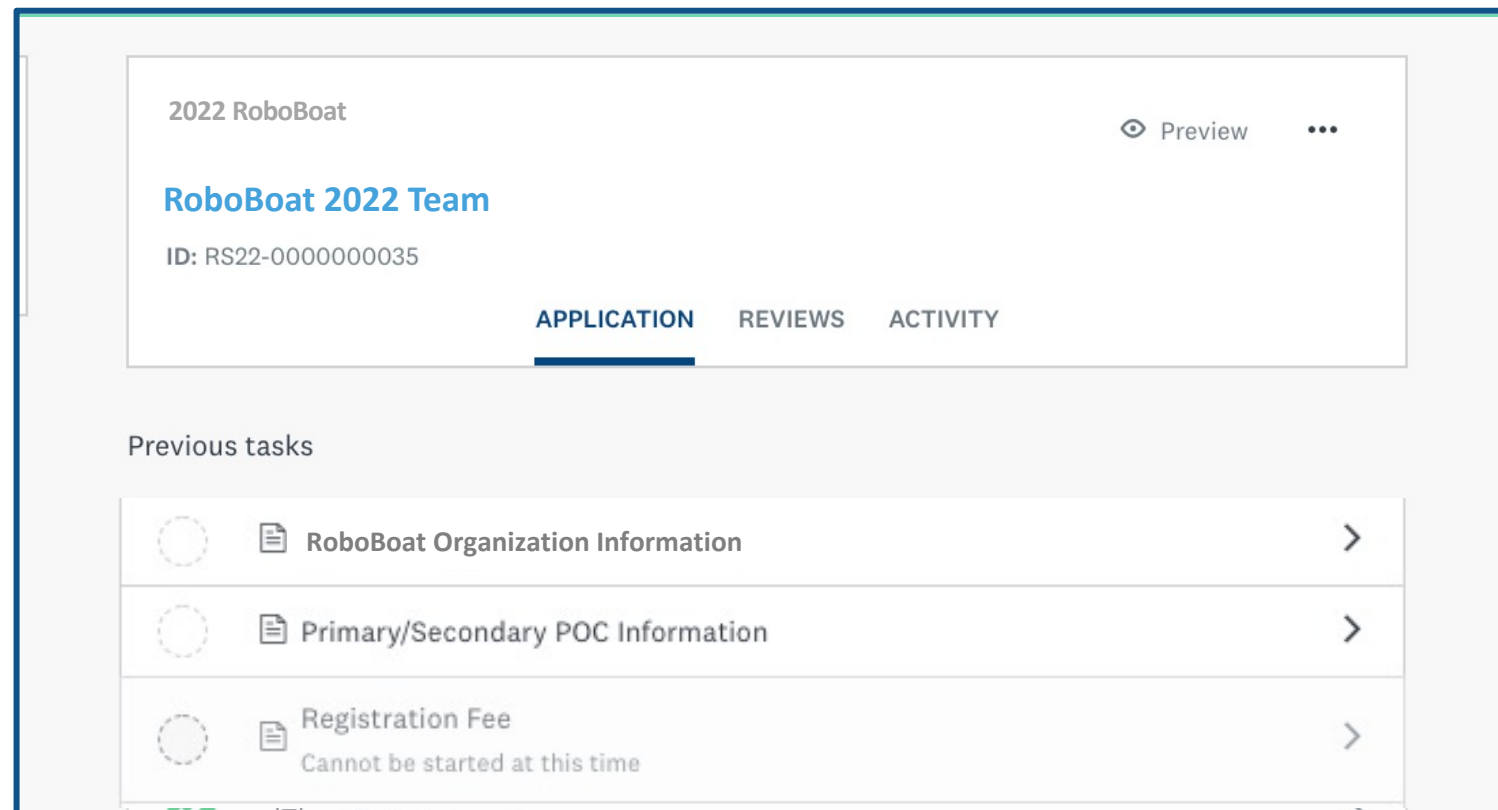
## Registration Open!

Complete first three tasks by March 31:

Organization Information

Point of Contact Information

Registration Fee + Payment (credit card + bank transfers available)






2022 RoboBoat Preview ...

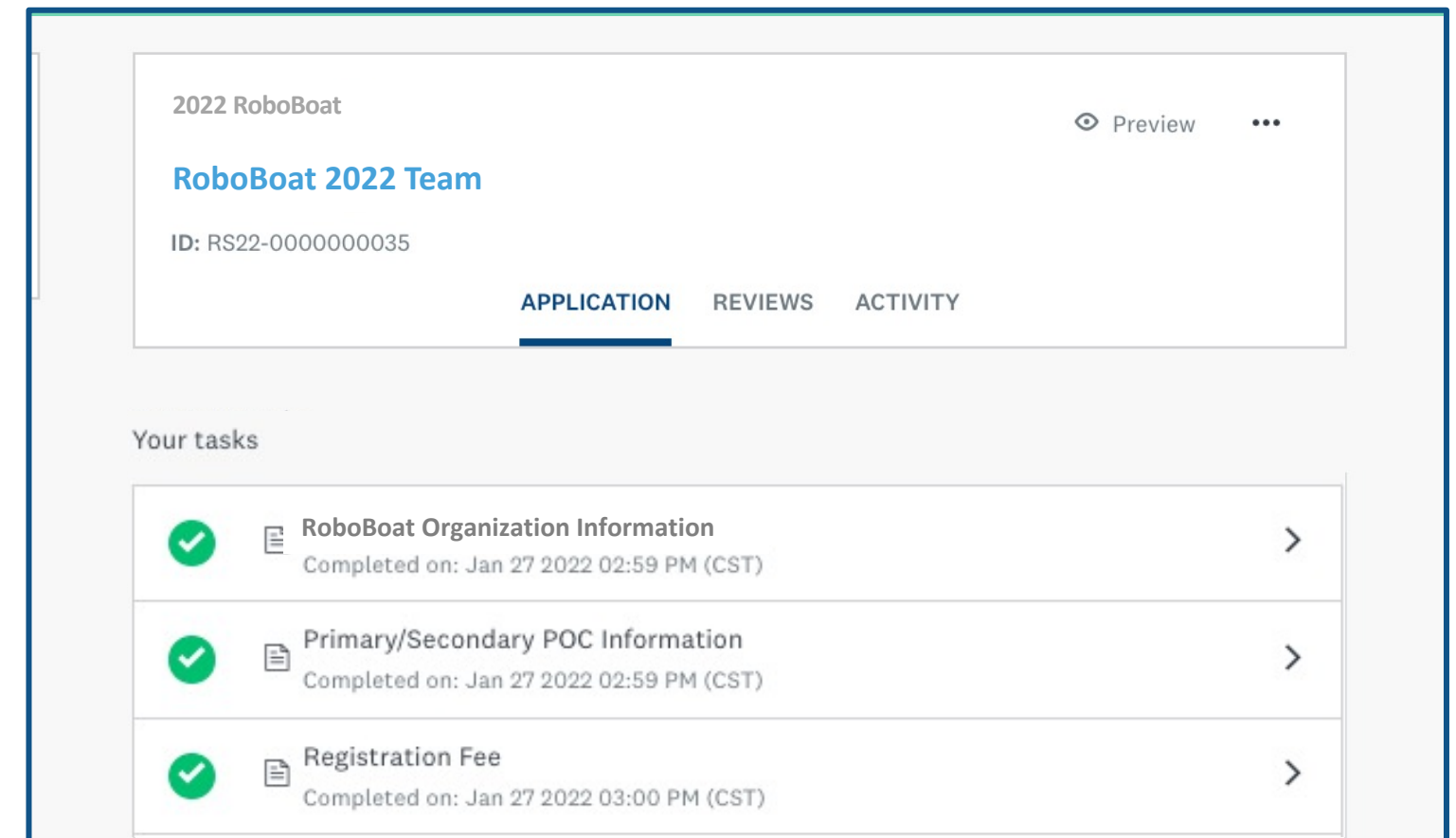
**RoboBoat 2022 Team**

ID: RS22-0000000035

**APPLICATION** **REVIEWS** **ACTIVITY**

Previous tasks

	RoboBoat Organization Information	>
	Primary/Secondary POC Information	>
	Registration Fee Cannot be started at this time	>






2022 RoboBoat Preview ...

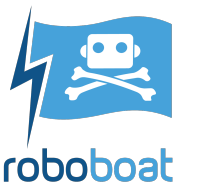
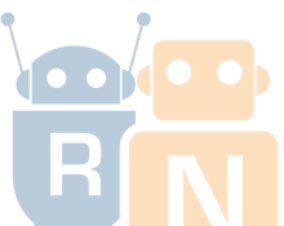
**RoboBoat 2022 Team**

ID: RS22-0000000035

**APPLICATION** **REVIEWS** **ACTIVITY**

Your tasks


	RoboBoat Organization Information Completed on: Jan 27 2022 02:59 PM (CST)	>
	Primary/Secondary POC Information Completed on: Jan 27 2022 02:59 PM (CST)	>
	Registration Fee Completed on: Jan 27 2022 03:00 PM (CST)	>





# Submission Walkthrough

 [roboboat.org/2022](https://roboboat.org/2022)

 Submitted  
Submitted on: Jan 22 2022 04:28 PM (PST)





























2022 RoboBoat

RoboBoat 2022 Team

ID: RS22-0000000035

APPLICATION REVIEWS ACTIVITY

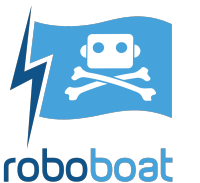
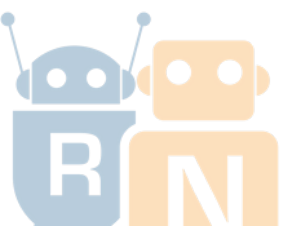
Previous tasks

	 RoboBoat Organization Information Completed on: Jan 22 2022 04:10 PM (PST)	>
	 Primary/Secondary POC Information Completed on: Jan 22 2022 04:12 PM (PST)	>
	 Registration Fee Completed on: Jan 22 2022 04:15 PM (PST)	>
	 Invitation Letter Information (optional) Completed on: Jan 22 2022 04:17 PM (PST)	>
	 Team Demographics Completed on: Jan 22 2022 04:19 PM (PST)	>
	 Team Information Completed on: Jan 22 2022 04:22 PM (PST)	>
	 Merchandise Order Completed on: Jan 22 2022 04:28 PM (PST)	>
	 On-Site Requirements Completed on: Jan 22 2022 04:24 PM (PST)	>
	 Website Submission Completed on: Jan 22 2022 04:24 PM (PST)	>
	 Technical Design Report Submission Completed on: Jan 22 2022 04:25 PM (PST)	>
	 Competition Strategy Video Submission Completed on: Jan 22 2022 04:27 PM (PST)	>
	 Vehicle Pre-Qualification Submission (optional) Completed on: Jan 22 2022 04:28 PM (PST)	>
	 Community & Outreach Submission (optional) Completed on: Jan 22 2022 04:26 PM (PST)	>
	 Complete RoboSub Submission Completed on: Jan 22 2022 04:26 PM (PST)	>

## Once Registered...

Complete remaining task list with varying deadlines.  
Task list includes:

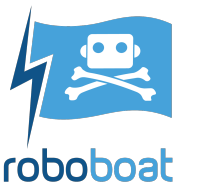
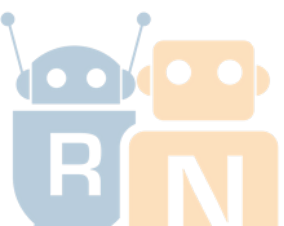
- *Invitation Letter Request*
- *Team Information (Roster + Liability Waivers)*
- *T-Shirt Orders*
- *Design Documentation submissions*
- *& more!*

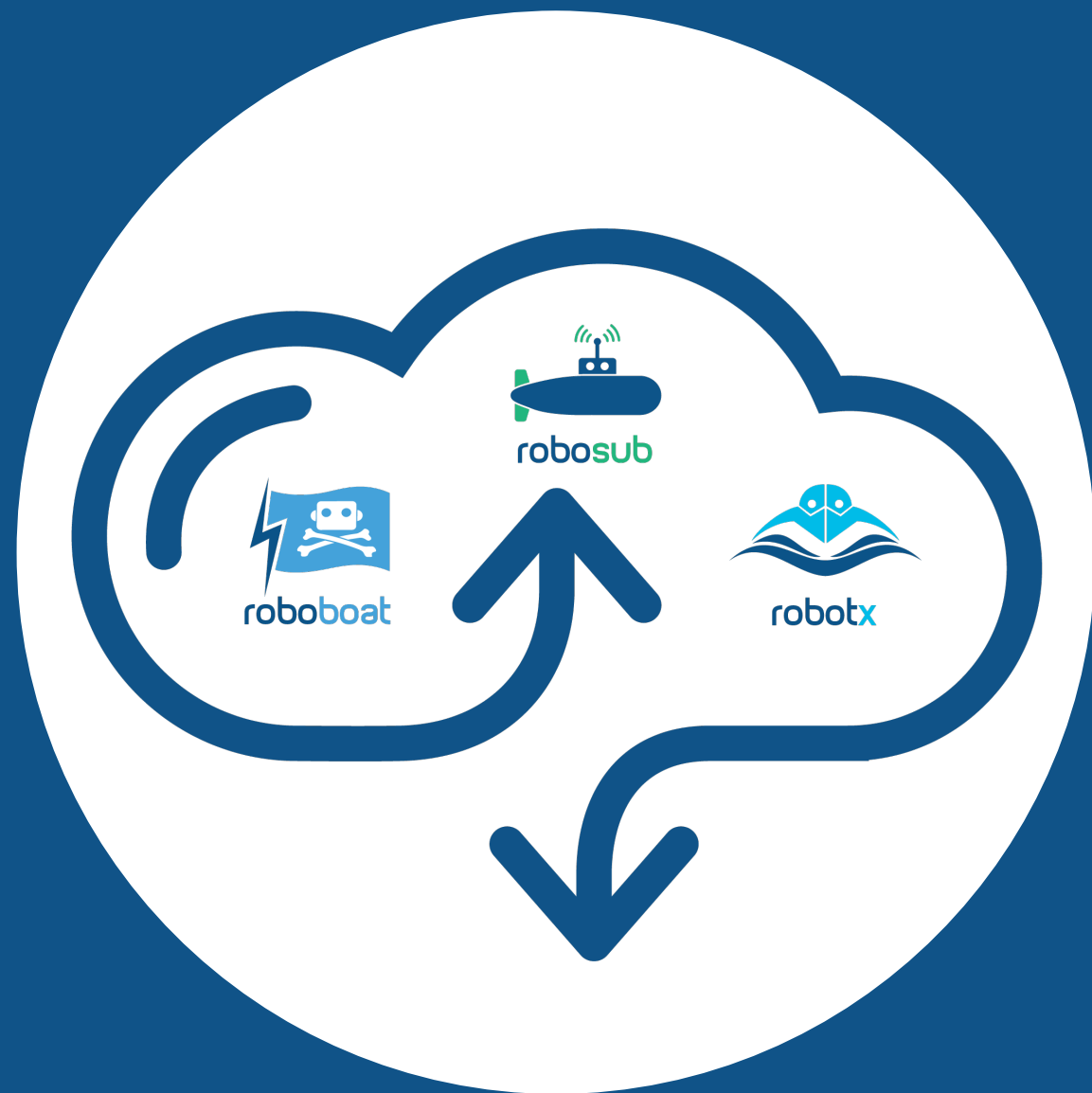


# Competition Timeline

 [roboboat.org/2022](https://roboboat.org/2022)

- Registration | January 27 – March 31
  - *Early Bird Registration | \$650 USD | February 13*
  - *Full Registration | \$750 USD | March 31*
- Team Time Meetings | January - May
- Pre-Competition Deadlines
  - *April 24 Deadline*
  - *May 15 Deadline*
- Cancellation Deadlines
  - *May 15 | 100% refund*
  - *June 20 | 50% refund*
- RoboBoat 2022 | June 20 - 25





# Data Sharing

 [roboboast.org/data-sharing](https://roboboast.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

15th Annual  
RoboBoat 2022

# Got Questions?



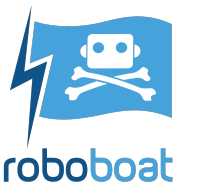
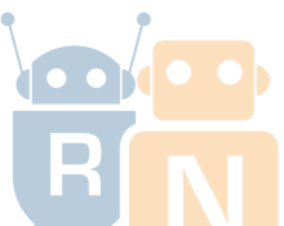
Email

[autonomy@robonation.org](mailto:autonomy@robonation.org)



Discussion Forum

[robonationforum.vbulletin.net](http://robonationforum.vbulletin.net)





15th Annual  
RoboBoat 2022

**Thank You!**  
**See you again soon!**

