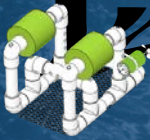


# seaperch CHALLENGE



**2023 INTERNATIONAL SEAPERCH CHALLENGE**  
MAY 13, 2023 | UNIVERSITY OF MARYLAND



## robonation



seaperch



seaglide



gosense



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IGVC



SUS



IARC





</Where tomorrow's innovators can start taking **risks**, making **breakthroughs**, & building **robots** today.>

**2,600+ TEAMS**  
**FROM 6 CONTINENTS**

</ACROSS 9+ PROGRAMS>

**250,000+**

**STUDENTS SERVED ANNUALLY**

</MIDDLE SCHOOL TO POSTGRADUATE SCHOOL>

**AERIAL**



**GROUND**



**MARITIME**



## OUR MISSION

RoboNation is a nonprofit organization whose mission is to provide a pathway of hands-on educational experiences that empower students to find innovative solutions to global challenges.

## OUR VISION

We envision a world where technology unites people to learn, share, and create.



## What does RoboNation Do?



**STEM  
KITS**



**AUTONOMY  
PROGRAMS**



**ROBOTICS  
COMPETITIONS**



**COMMUNITY  
OUTREACH**

## QUICK LINKS

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**60K ROBOTICS KITS PURCHASED  
& 26K ROBOTICS KITS  
DONATED**



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[robonation.org](http://robonation.org)





## THANK YOU SPONSORS & PARTNERS

The SeaPerch community does amazing work. But it wouldn't be possible without robust support through local and national partnerships. Partners play a critical role supporting SeaPerch, enhancing the experiences and resources available to students, teachers and the community.







Dear SeaPerchers,

I'd like to personally welcome you all to the 2023 International SeaPerch Challenge!

In the true spirit of SeaPerch, the 147 teams competing at this 12th annual International SeaPerch Challenge have navigated a lot of challenges to be here. As the top-performing teams in the 2022-2023 SeaPerch season, you should each be proud to represent your communities today at the University of Maryland.

I hope your participation inspires you to keep exploring the many opportunities that exist in the fields of Science, Technology, Engineering and Mathematics (STEM). The skills you are gaining through this experience will serve you well in any career path!

I would also like to recognize the committed champions - parents, teachers, administrators, coaches, mentors, volunteers, and SeaPerch regional advocates - who generously devote their time to supporting our amazing students as they "build a bot and change the world". The dedication, energy, and enthusiasm you freely give are the only way programs like SeaPerch can happen. Thank you!

I trust you will have a memorable time today and that you will learn from and with your peers as you encourage and motivate each other.

I wish you the best of luck today and in all your future endeavors. I know we will continue to hear great things about all of you!

Cheryl Hedeon  
Program Manager, SeaPerch & GoSense  
RoboNation Inc.







## Why SeaPerch?

SeaPerch is an engaging, hands-on introduction to basic marine engineering for young people. SeaPerch provides students with uncomplicated robot kits that they can easily build and customize without difficulty. Other robotics programs focus on ground and air robotic vehicles. SeaPerch extends students' experience into the fascinating underwater world.

Crucially, SeaPerch is much more than a simple robot kit. Over more than 20 years, this program has grown and evolved into a robust community that uses SeaPerch as an educational tool, teaches basic construction skills, organizes competitions such as the annual SeaPerch Challenge, hosts SeaPerch exhibitions by local advocates, and encourages other forms of related student participation, regional and global.

Today the SeaPerch community includes a wide range of students, teachers, mentors, and sponsors beginning at elementary school level and extending through working professionals in a variety of STEM fields. Through active participation across all these levels of the SeaPerch community, we constantly learn, create, compete, and grow, enhancing this program for our future participants. We enthusiastically encourage each of you to develop innovative SeaPerch designs and novel approaches associated with group learning, team organization, and individual participation. Please share your SeaPerch experiences with us.

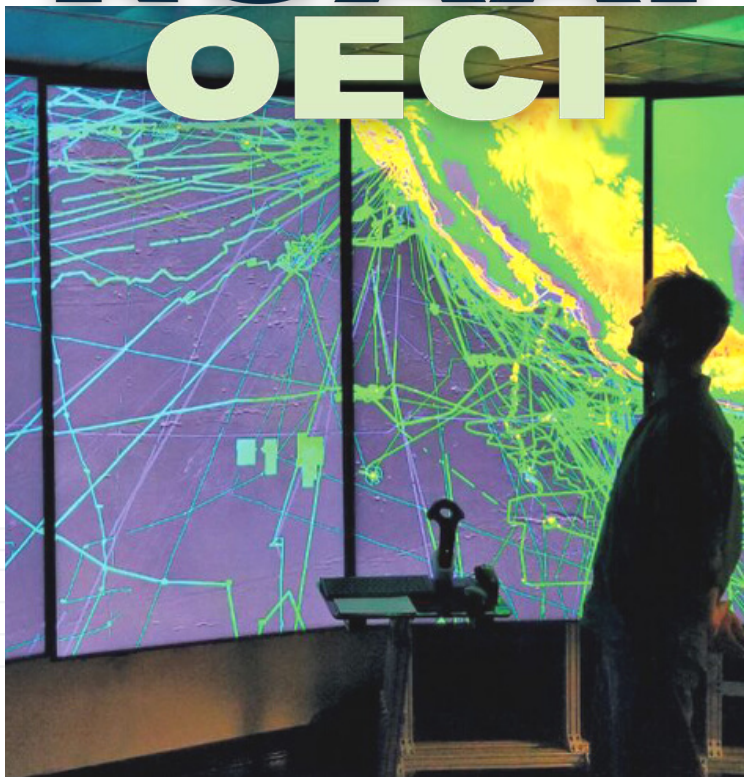
The challenges and opportunities that await our SeaPerch students in their future careers are ever-evolving and many are completely unknown to us now. But certainly, these future dilemmas will require professionals with the knowledge, skills, and creativity to develop unique solutions. Your participation in SeaPerch gives you an interesting introduction to some of the skills you will need to navigate your future successfully. We are delighted you have joined the SeaPerch community. Your contributions will strengthen us. Most importantly, the things you learn, the skills you develop, the relationships you build through SeaPerch will serve you well, far into your exciting future.

Kelly Cooper  
Program Officer  
Office of Naval Research





# NOAA: OECI



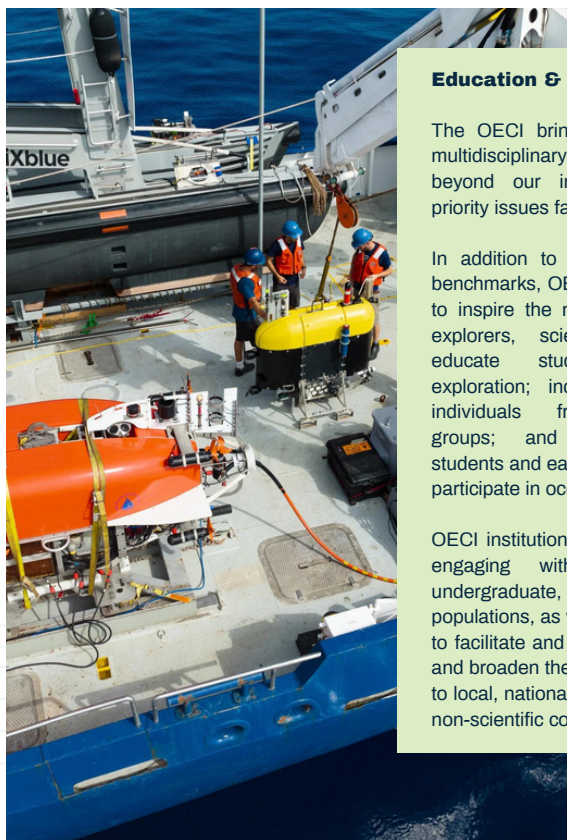
The Ocean Exploration Cooperative Institute (OECI) is a unique consortium of top oceanographic institutions—several graduate degree-granting institutions, an ocean exploration non-profit, and task-specific affiliates. They work as one to advance the core priorities of NOAA Ocean Exploration. Put simply, the OECI is uncovering the potential benefits our ocean has to offer.

The OECI's mission is to explore, map, and characterize the nation's vast ocean territory, to develop and implement new technologies, and to engage future generations of ocean scientists, engineers, and stakeholders.





# SIGNATURE SPONSOR



## Education & Outreach

The OECI brings together high-caliber, multidisciplinary expertise to engage beyond our individual institutions on priority issues facing our ocean.

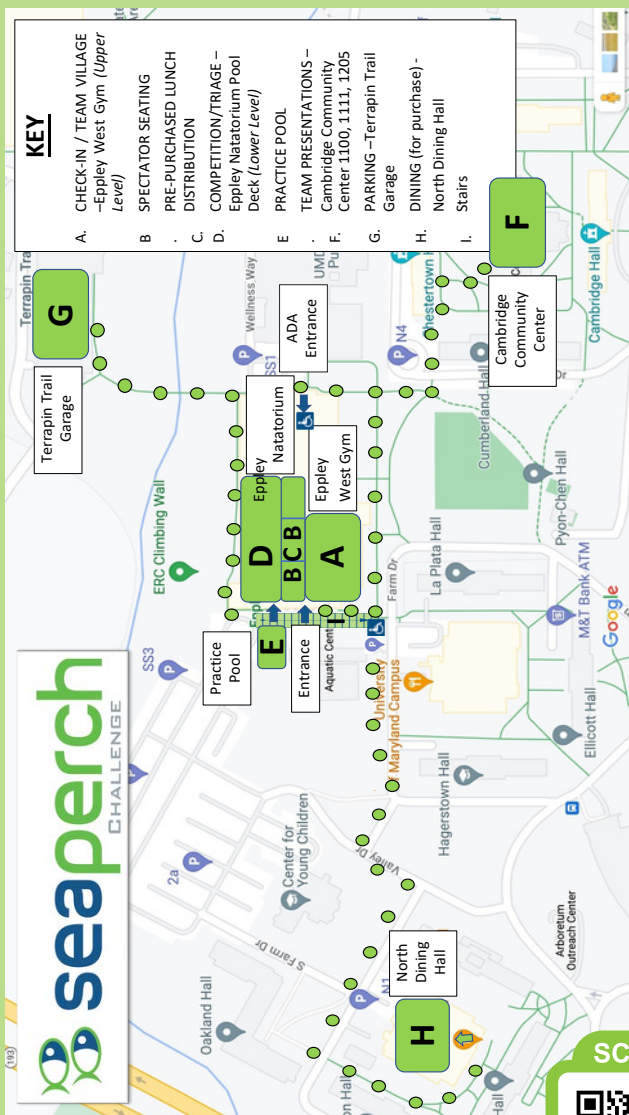
In addition to meeting key exploration benchmarks, OECI activities are intended to inspire the next generation of ocean explorers, scientists and engineers; educate students about ocean exploration; increase opportunities for individuals from under-represented groups; and encourage university students and early career professionals to participate in ocean exploration activities.

OECI institutions place a high priority on engaging with the public, K-12, undergraduate, and graduate student populations, as well as other stakeholders to facilitate and augment research efforts and broaden the reach of research results to local, national, and global scientific and non-scientific communities.





# UMD CAMPUS MAP



SCAN ME





# EPPLEY NATATORIUM



Eppley Natatorium Layout

SCAN ME







## FRIDAY MAY 12, 2023

• ALL DAY

**WELCOME VIDEO**  
SEAPERCH.ORG

• 2:00 PM - 4:00 PM

**TEAM CHECK IN/ COMPLIANCE CHECKS**  
EPPLEY REC CENTER - WEST GYM

• 7:05 PM

**TEAM SOCIAL-MLB GAME**  
WASHINGTON NATIONALS  
BASEBALL PARK\*

\*MUST PRE-PURCHASE TICKETS

## SATURDAY MAY 13, 2023

• 6:30 AM - 9:00 AM

**VOLUNTEER / JUDGE ARRIVAL**  
EPPLEY REC CENTER - WEST GYM

• 6:30 AM - 9:30 AM

**VOLUNTEER BREAKFAST**  
EPPLEY REC CENTER - HOSPITALITY ROOM

• 7:00 AM

**POOL VOLUNTEERS MEETING**  
EPPLEY REC CENTER - HOSPITALITY ROOM

• 7:30 AM - 8:30 AM

**TEAM CHECK-IN**  
**TEAM VILLAGE OPENS**  
EPPLEY REC CENTER - WEST GYM

• 8:00 AM

**POOL CHECK-IN | GROUP 1**  
EPPLEY REC CENTER - POOL ENTRANCE  
(COMPETITION START TIME APPROX. - 8:30 AM)

• 9:00 AM

**POOL CHECK-IN | GROUP 2**  
EPPLEY REC CENTER - POOL ENTRANCE  
(COMPETITION START TIME APPROX. - 10:10 AM)

• 10:00 AM - 10:40 AM

**TEAM PRESENTATIONS | SESSION 1**  
CAMBRIDGE COMMUNITY CENTER  
(CLASSROOMS 1100, 1111, 1205)

• 10:15 AM

**POOL CHECK-IN | GROUP 3**  
EPPLEY REC CENTER - POOL ENTRANCE  
(COMPETITION START TIME APPROX. - 11:50 AM)

• 11:00 AM - 11:40 AM

**TEAM PRESENTATIONS | SESSION 2**  
CAMBRIDGE COMMUNITY CENTER  
(CLASSROOMS 1100, 1111, 1205)

• 11:30 AM - 1:30 PM

**VOLUNTEER LUNCH**  
EPPLEY REC CENTER - HOSPITALITY ROOM



robonation





# SATURDAY MAY 13, 2023

- **12:30 PM**  
**POOL CHECK-IN | GROUP 4**  
EPPLEY REC CENTER - POOL ENTRANCE  
(COMPETITION START TIME APPROX. - 1:00 PM)
- **1:00 PM**  
**POOL CHECK-IN | GROUP 5**  
EPPLEY REC CENTER - POOL ENTRANCE  
(COMPETITION START TIME APPROX. - 1:40 PM)
- **1:00 PM**  
**UMD ROBOTICS CENTER TOUR\***  
UMD ROBOTICS LAB  
(PRE-REGISTRATION REQUIRED)
- **1:30 PM - 2:10 PM**  
**TEAM PRESENTATIONS | SESSION 3**  
CAMBRIDGE COMMUNITY CENTER  
(CLASSROOMS 1100, 1111, 1205)
- **1:30 PM**  
**UMD ROBOTICS CENTER TOUR\***  
UMD ROBOTICS LAB  
(PRE-REGISTRATION REQUIRED)
- **1:45 PM**  
**POOL CHECK-IN | GROUP 6**  
EPPLEY REC CENTER - POOL ENTRANCE  
(COMPETITION START TIME APPROX. - 2:30 PM)
- **2:00 PM**  
**UMD ROBOTICS CENTER TOUR\***  
UMD ROBOTICS LAB  
(PRE-REGISTRATION REQUIRED)
- **2:30 PM - 3:10 PM**  
**TEAM PRESENTATIONS | SESSION 4**  
CAMBRIDGE COMMUNITY CENTER  
(CLASSROOMS 1100, 1111, 1205)
- **2:30 PM**  
**UMD ROBOTICS CENTER TOUR\***  
UMD ROBOTICS LAB  
(PRE-REGISTRATION REQUIRED)
- **2:45 PM**  
**POOL CHECK-IN | GROUP 7**  
EPPLEY REC CENTER - POOL ENTRANCE  
(COMPETITION START TIME APPROX. - 3:20 PM)
- **3:30 PM - 4:10 PM**  
**TEAM PRESENTATIONS | SESSION 5**  
CAMBRIDGE COMMUNITY CENTER  
(CLASSROOMS 1100, 1111, 1205)
- **3:30 PM**  
**POOL CHECK-IN | GROUP 8**  
EPPLEY REC CENTER - POOL ENTRANCE  
(COMPETITION START TIME APPROX. - 4:10 PM)
- **7:00 PM**  
**AWARDS CEREMONY**  
EPPLEY REC CENTER - NATATORIUM

\*BRIN FAMILY AERIAL ROBOTICS LAB, E.A. FERNANDEZ IDEA FACTORY,  
NEUTRAL BUOYANCY RESEARCH FACILITY



## robonation



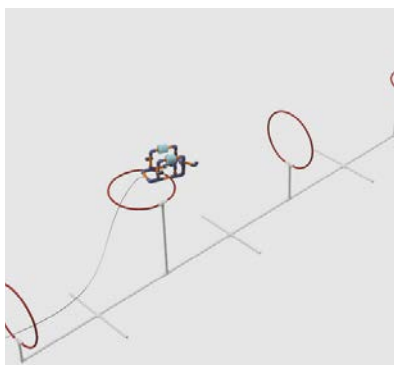
# Pool Competition

## OCEAN EXPLORATION

### Welcome to Ocean Exploration!

Ocean explorers use innovative technologies to fill gaps in our basic understanding of how we impact the ocean and how the ocean impacts us. This knowledge helps us to protect ocean health, sustainably manage our marine resources, accelerate our national economy, better understand our changing environment, and enhance appreciation of the importance of the ocean in our everyday lives. The 2023 International SeaPerch Challenge is inspired by these technologies.

We are pleased to announce an exciting partnership with NOAA Ocean Exploration and the Ocean Exploration Cooperative Institute (OECI) for the 2023 season theme of ocean exploration.

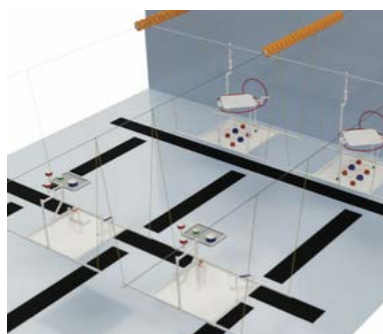


### Obstacle Course:

An underwater remotely operated vehicle (ROV) must be able to maneuver successfully and perform its task. The submerged obstacle course involves large rings oriented at various angles, through which the ROVs must travel. Teams must navigate their ROV through the obstacle course, surface, then re-submerge and return through the course to the end. Scores for this round will be based on the fastest time for successfully navigating the obstacle course.

### Mission Tasks:

The Mission Course incorporates a mission that teams must complete with their SeaPerch ROV related to Ocean Exploration. The Ocean Exploration Mission is a simulation of the tasks and environment that an ROV might encounter while operating as a part of a multi-vehicle team with an Autonomous Surface Vehicle (ASV). Tasks include: [Mapping the Seafloor](#), [Marine Live Interaction](#), and [Target & Water Sample](#). Scan the codes below to watch each task in action.





# The Engineering Process

## PRESENTATIONS

The Engineering Design Process (EDP) is a cycle of steps that are used in engineering projects. Documenting and clearly communicating the EDP used during the SeaPerch build provides insight into why and how the final ROV design was developed. Recording this iterative design process and the data collected along the way results in a better ROV design.

This year, teams were required to submit a Technical Design Report to succinctly synthesize and communicate the EDP and their unique SeaPerch ROV.

Teams have been invited to present their processes in open presentation sessions to share their SeaPerch experience while practicing their academic presentation skills. Presentations will be facilitated by a volunteer who will ask questions and moderate discussions and will be open to attendance by teams, mentors, and spectators (virtually and in-person).

Networking and open dialogue to share perspective and ask other teams questions during the discussion period in each session is strongly encouraged.

Join the discussion at the Engineering Process Presentations at the Cambridge Community Center!





# 2023 AWARDS

Team will be competing for the following awards:

## Middle School Class

- Class Champion
- Obstacle Course (1st, 2nd, 3rd)
- Mission Course (1st, 2nd, 3rd)
- Technical Design Report (1st, 2nd, 3rd)
- Team Video (1st, 2nd, 3rd)

## Open Class

- Class Champion
- Obstacle Course (1st, 2nd, 3rd)
- Mission Course (1st, 2nd, 3rd)
- Technical Design Report (1st, 2nd, 3rd)
- Team Video (1st, 2nd, 3rd)

## High School Class

- Class Champion
- Obstacle Course (1st, 2nd, 3rd)
- Mission Course (1st, 2nd, 3rd)
- Technical Design Report (1st, 2nd, 3rd)
- Team Video (1st, 2nd, 3rd)

## Special Awards

- Community & Outreach
- Sportsmanship
- Resiliency & Grit
- Spirit of SeaPerch
- Real-World Innovation (1st, 2nd, 3rd)
- Fan Favorite - Real World Innovation
  - (Middle School)
  - (High School)

Check [seaperch.org](https://seaperch.org) after the competition for the final results!







# 2023 REGIONAL COMPETITIONS



The 2023 International SeaPerch Challenge would not have been possible without support from the broader SeaPerch Community including regional coordinators, local advocates, parents, and educators, onsite volunteers, virtual volunteers, sponsors and partners.



- Sugar Land, Texas, USA
- Riyadh, Saudi Arabia
- Jenks, Oklahoma, USA
- Sharjah, United Arab Emirates
- Charlotte, North Carolina, USA
- Boca Raton, Florida, USA
- Boca Raton, Florida, USA
- Ogden, Utah, USA
- Kanagawa, Japan
- Brunswick, Maine, USA
- Davie, Florida, USA
- Davie, Florida, USA
- Chipley, Florida, USA
- Riverside, California, USA
- New Bern, North Carolina, USA
- Orlando, Florida, USA
- Fullerton, California, USA
- San Diego, California, USA
- Temecula, California, USA
- Riverside, California, USA
- Normal, Illinois, USA
- Pittsburgh, Pennsylvania, USA
- Jacksonville, Florida, USA
- Simsbury, Connecticut, USA
- Green Bay, Wisconsin, USA
- Manassas, Virginia, USA
- Manassas, Virginia, USA
- Orlando, Florida, USA
- Cambridge, MA, USA
- Waterford, CT, USA
- Neptune City, NJ, USA
- Little Rock, AR, USA
- Viola, WI, USA
- San Diego, CA, USA
- Idaho Falls, ID, USA
- Colorado Springs, CO, USA
- Manvel, TX, USA
- Waldorf, MD, USA
- Annapolis, MD, USA
- Biloxi, MS, USA
- King George, VA, USA
- North Charleston, SC, USA
- Wilmington, NC, USA
- São Paulo, Brazil
- Alexandria, Egypt
- Georgetown, TX, USA
- Cheney, WA, USA
- Saint Francis, WI, US
- Mobile, AL, USA
- Mission, TX, USA
- Ann Arbor, MI, USA
- Cathlamet, WA, USA
- Denver, CO, USA
- Fullerton, CA, USA
- Newnan, GA, USA
- Schenectady, NY, USA
- Durham, NH, USA
- Philadelphia, PA, USA
- Philadelphia, PA, USA
- Lake Forest, IL, USA
- Houston, TX, USA
- Beijing, China
- DeKalb, GA, USA
- Honolulu, HI, USA
- Albuquerque, NM, USA
- Rotorua, New Zealand
- Whangārei, New Zealand
- Auckland, New Zealand
- Colorado Springs, CO, USA
- Lake Arrowhead, CA, USA
- San Diego, CA, USA
- Temecula, CA, USA
- Galveston, TX, USA
- Jacksonville, FL, USA
- Boca Raton, FL, USA
- Villalba, Puerto Rico





# 2023 TEAMS



- Graded - American School of Sao Paulo (Sao Paulo, Sao Paulo, Brazil)
- RE. Marine 1 (Suez, Suez, Egypt)
- Titans (Alexandria, Alexandria, Egypt)
- flying fish (Beijing, Beijing, China)
- Double Hill (Beijing, Beijing, China)
- Grand Caynon (Beijing, Beijing, China)
- The Floating Toasters (Whangarei, Northland, New Zealand)
- Devil Marines (Rotorua, New Zealand)
- SeaDragons (Washington, District of Columbia, United States)
- ECH Science (Asotin, Washington, United States)
- Gaithersburg High School NJROTC (Gaithersburg, Maryland, United States)
- Fantastic Four (San Juan, Puerto Rico)
- Watatsumi (Villalba, Puerto Rico, Puerto Rico)
- Hammerheads (San Juan, Puerto Rico)
- Blue Tech YPA (OC) (Kuwait City, AlQusoor, Al-Ahmadi, Kuwait)
- ABS Tech Team (Kuwait, Al Farwaniyah, Abraq Khaitan, Kuwait)
- Team Tikiob (Lewes, Delaware, United States)
- ARC Aqua (Las Vegas, Nevada, United States)
- Lucky Goldfish (Franklinton, Louisiana, United States)
- Pennsbury Sea Falcons (Fairless Hills, Pennsylvania, United States)
- AtlanticWarriors (Hattiesburg, Mississippi, United States)
- Golden Bears (Robertsdale, Alabama, United States)
- Axolotl (Menifee, California, United States)
- Sustainable Cyclones (Miami, Florida, United States)
- Under the Sea Science Girls (Citizen Science Lab (1) (Pittsburgh, Pennsylvania, United States)
- Water Cubed (Manassas, Virginia, United States)
- Sea Pearls (Manassas, Virginia, United States)
- Castaways (The Citizen Science Lab 2) (Pittsburgh, Pennsylvania, United States)
- Mt. Ararat Serpents (Topsham, Maine, United States)
- Team Voyager (Franklin, Massachusetts, United States)
- Silversides (Simsbury, Connecticut, United States)
- Mud Minnows (Simsbury, Connecticut, United States)
- Team Cousteau (Franklin, Massachusetts, United States)
- Orcas (Andover, Massachusetts, United States)
- Narwhals (Farmington, New Hampshire, United States)
- Underwater Fighters (Sulphur, Oklahoma, United States)
- Deaf Robot PR (San Juan, Puerto Rico)
- Riptides (Pittsburgh, Pennsylvania, United States)
- Hydro Dynamics (Monroeville, Pennsylvania, United States)
- The Chipettes (West Mifflin, Pennsylvania, United States)
- Shore Bots2 (Manchester, New Jersey, United States)
- Wall-E Underwater (Lanoka Harbor, New Jersey, United States)
- No Direction (Lanoka Harbor, New Jersey, United States)
- Seastar Robotics Inc. (Danville, Pennsylvania, United States)
- The Owl's Council (Bensalem, Pennsylvania, United States)





# 2023 TEAMS



- Haddonfield Aquabotics (Haddonfield, New Jersey, United States)
- Sycamore Squad (Chester Springs, Pennsylvania, United States)
- Aquanauts (Oakboro, North Carolina, United States)
- Kriegsmarine (Fort Mill, South Carolina, United States)
- Tarheels (New Bern, North Carolina, United States)
- The Octobots (Dumfries, Virginia, United States)
- Hooked (Nokesville, Virginia, United States)
- Angry Crabs (Nokesville, Virginia, United States)
- OctoPirates (Nokesville, Virginia, United States)
- Pufferfish (Nokesville, Virginia, United States)
- Tsunamis (Nokesville, Virginia, United States)
- Diggs Extraordinary Axolotls (Waldorf, Maryland, United States)
- Enforcers (Egg Harbor Township, New Jersey, United States)
- Captain's Crew (Leesburg, Virginia, United States)
- Team Dumbo (Edgewater, Maryland, United States)
- King George High School (King George, Virginia, United States)
- Twisted Waters (Fredericksburg, Virginia, United States)
- Shoebill Storks (Clinton, North Carolina, United States)
- Storm Surge (Wilmington, North Carolina, United States)
- Kahoks (Collinsville, Illinois, United States)
- Team Flounder (Washington Island, Wisconsin, United States)
- Sea Angels (Washington Island, Wisconsin, United States)
- GB1 (Verona, Wisconsin, United States)
- Sharkbait (Union Grove, Wisconsin, United States)
- Unsinkables (Union Grove, Wisconsin, United States)
- The A-Team (Union Grove, Wisconsin, United States)
- OceanPerch (Clinton, Michigan, United States)
- Dandruff (Clinton, Michigan, United States)
- Reeths-Puffer Robotics (MS) (Muskegon, Michigan, United States)
- Phoenix (Cicero, Illinois, United States)
- Aqua Engineers (Chicago, Illinois, United States)
- The Cowboys (Chicago, Illinois, United States)
- Lunaverde (Davie, Florida, United States)
- Swimmer Uppers (Davie, Florida, United States)
- Rovercats (Boca Raton, Florida, United States)
- The Mariana's (Hollywood, Florida, United States)
- Apollo Riptides (Hollywood, Florida, United States)
- PBHS Team 1 (Pompano Beach, Florida, United States)
- The Oceaneers (Navarre, Florida, United States)
- Team Burrfish (Navarre Beach, Florida, United States)
- Aquarius (Jacksonville, Florida, United States)
- Sea Bois 2 Electric Boogaloo (Dunedin, Florida, United States)
- Team Viper (Slidell, Louisiana, United States)
- Dredge Treasure (Covington, Louisiana, United States)
- Torpedo Trio (Myrtle Beach, South Carolina, United States)





# 2023 TEAMS



- Raptors Varsity (North Charleston, South Carolina, United States)
- Team Thetis (Mobile, Alabama, United States)
- Team Caa (Montgomery, Alabama, United States)
- The Octonauts (Jacksonville, Florida, United States)
- The Rubber Duckies (Jacksonville, Florida, United States)
- Stingrays (Atlantic Beach, Florida, United States)
- Blackdragons (Atlantic Beach, Florida, United States)
- Lily Pads (Jacksonville, Florida, United States)
- Tactical Turtles (Deerfield Beach, Florida, United States)
- SeaOwls Ocean Dwellers (Boca Raton, Florida, United States)
- Sea Owls - Ir8e Pir8tes (Boca Raton, Florida, United States)
- SeaOwls SunRays (Boca Raton, Florida, United States)
- Turbo Flare 2.0 (Sheridan, Arkansas, United States)
- Shockwaves (Nashville, Arkansas, United States)
- Mighty Ducks (Sheridan, Arkansas, United States)
- Fact Architects (Stone Mountain, Georgia, United States)
- Yikes! (Mt Pleasant, South Carolina, United States)
- Falcon Robotics (Sugar Land, Texas, United States)
- RAD-ITECH (Sugar Land, Texas, United States)
- Astatine (Houston, Texas, United States)
- Circuit Breakers 1 (Tulsa, Oklahoma, United States)
- Circuit Breakers 2 (Tulsa, Oklahoma, United States)
- Liopleurodons (Pearland, Texas, United States)
- Lochness (Bryan, Texas, United States)
- Ducks of the Carrebean (Georgetown, Texas, United States)
- Captain Slow (Georgetown, Texas, United States)
- Falcons (Los Fresnos, Texas, United States)
- Knights (Alamo, Texas, United States)
- Hydronauts (Katy, Texas, United States)
- Stonefish (Atlantic Beach, Florida, United States)
- Odyssey Olympians (Galveston, Texas, United States)
- Wavez (San Juan, Puerto Rico)
- Sea Puppies (Albuquerque, New Mexico, United States)
- Messinators (Ogden, Utah, United States)
- Scrappy (Plain City, Utah, United States)
- Creative Birds (Idaho Falls, Idaho, United States)
- Floating Rubber Ducky's (Colorado Springs, Colorado, United States)
- Sparta Robotica (Denver, Colorado, United States)
- Thunder Ducks (Previously Eat My Bubbles) (Colorado Springs, Colorado, United States)
- G.S.P. (El Monte, California, United States)
- F.R.O.G.S. (Easvale, California, United States)
- Omega (Temecula, California, United States)
- USNSCC team 1 Decline To Quote (San Diego, California, United States)
- USNSCC team 3 Dire Wolves (San Diego, California, United States)
- Octonautes (SD, California, United States)
- Bee's Knees (SD, California)



# SEAPERCH Bingo

Get to know your fellow SeaPerch teams by playing bingo! Visit [other teams](#) and find somebody who can do or has any of the following things. Have the team sign their [team name](#) on the square corresponding to the prompt. You can use the same team for a maximum of 2 prompts. **The first team to get a bingo wins a special prize!**

Team:

## FIND SOMEONE WHO...

Can play a musical instrument

Has eaten french fries in the last 24 hours

Likes to read

Likes video games

Has a collection of something

Knows how to skate board

Is the driver of their team's ROV

Is afraid of spiders

Is from another country than your own.

Is attending the International SeaPerch Challenge for the 1st time

Is graduating this year

Traveled more than 50 miles to get here



FREE SPACE

Has the letter "S" in their name

Plays a team sport

Likes broccoli

Speaks more than one language

Has been on a ship or boat

Likes dancing

Has a birthday this month

Is left-handed

Likes DC more than Marvel

Likes sushi

Has a pet (cat, dog, horse, lizard, etc)

Has or had braces



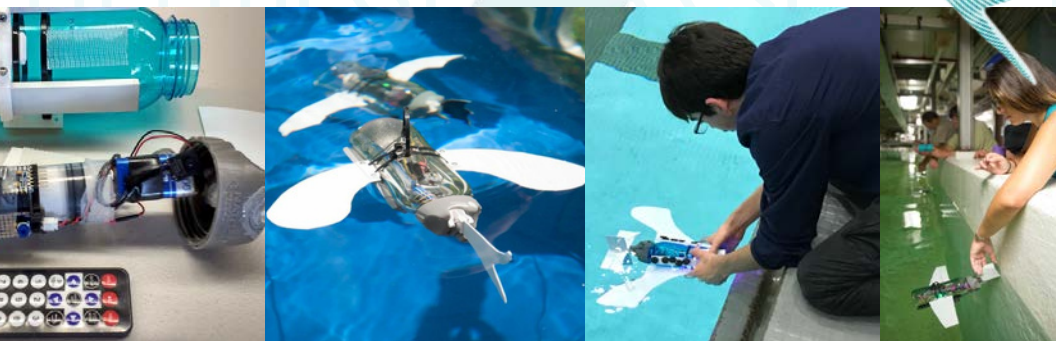
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PROGRAM FOR OUR  
SEAPERCH COMMUNITY**

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# ROBONATION PROGRAMS



## SeaPerch

Underwater ROV robotics program and competition aimed at K-12 students.



## SeaGlide

Lorem Ipsum is simply dummy text of the printing and typesetting



## RoboSub

Autonomous Underwater Vehicle (AUV) competition for high school and university students.



## RoboBoat

Autonomous Surface Vehicle (ASV) competition for high school and university students.



## RobotX

International competition for Autonomous Surface Vehicles promoting ocean exploration.



## IGVC

Autonomous ground vehicle competition for university teams.



## SUAS

Autonomous drone competition for university students.



## IARC

Autonomous aerial mission based robotic competition for university students.



## Virtual RobotX (VRX)

Autonomous marine robotics competition for university students using virtual simulations.



## VPerch

Virtual robotics program building on tools and skills from SeaPerch.



## GoSense

Sensor Kit program under development for the K-12 Community.

UNDERWATER

SURFACE  
MARITIME

GROUND

AERIAL

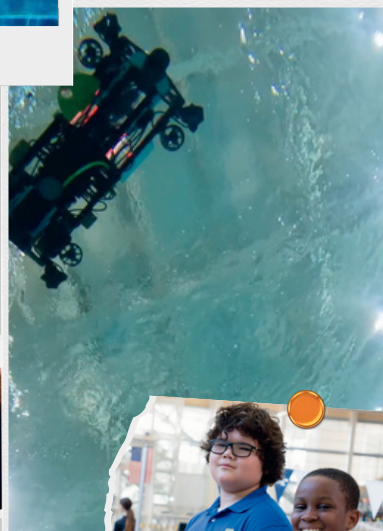
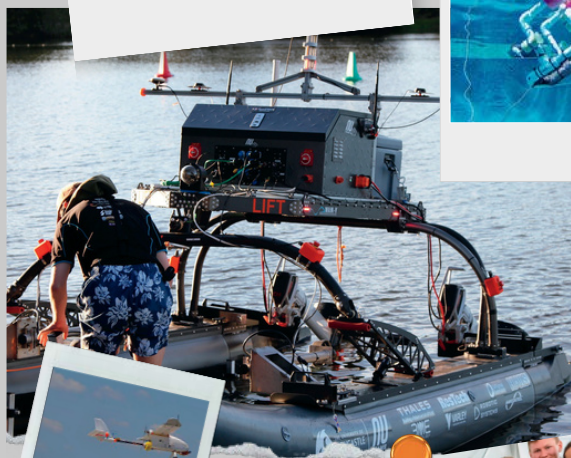
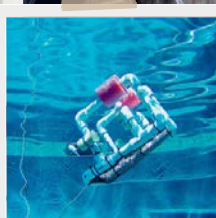
VIRTUAL

SENSING



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