

FR 600 STUDENTS

54

TEAMS

COUNTRIES

📣 MathWorks

SIEMENS

NORTHROP GRUMMAN

📀 NVIDIA

BlueRobotics

brain©

ABOUT ROBOSUB

• RoboSub is an international competition designed to advance the development of Autonomous Underwater Vehicles (AUVs) and develop relationships between young engineers and the organizations developing and using unmanned and autonomous technologies.

• The RoboSub Competition launched in 1997. RoboSub is celebrating 22 years.

• Student teams are competing for \$20,000 USD in prizes.

• RoboSub Student eligibility: High School, Undergraduate and Graduate students.

• Hands-on STEM exhibit open to the public; includes SeaPerch, SeaGlide and SeaSense demonstrations.

Organized by RoboNation

MISSION TASKS

JOURNEY TO THE UNDEAD REALM

Teams may request a coin flip (for additional points) to determine orientation of their Autonomous Underwater Vehicle (AUV). Those that do not exercise this option can point their vehicle in the direction of Task 2 (Gate).



ENTER THE UNDEAD REALM (GATE)

The AUV must navigate through the gate (upside down U) which is comprised of two sections. Teams may choose a side to navigate through to receive additional points.



The AUV must touch a buoy to earn points. Touching multiple buoys in a particular sequence, earns more points.



The AUV may follow the orange path markers and navigate to the next task.

DROP GARLIC (BINS)

The AUV must drop a marker (custom or the "garlic" picked up along the way) in the open bin to earn points. Additional points may be awarded for uncovering the closed bin and dropping a marker.



STAKE THROUGH HEART (TORPEDOES)

THANK YOU TO THE 2019 SPONSORS

<u>(</u>SAU VSI

🔼 AUTODESK

BLUE ORIGIN

SolidWORKS

The AUV may manuever to this task using one of the acoustic pingers. AUV must fire a torpedo through the open oval. Additional points may be awarded for firing a torpedo through the open oval and the heart. Maximum points may be awarded when AUV uncovers the closed oval, fires a torpedo through it and then fires the second torpedo through the heart.



EXPOSE TO SUNLIGHT

Velodyne Lidar

TELEDYNE

MECHATRONICS

MARINE Everywherevoulook

IERAL ATO

The AUV may maneuver to this task using one of the acoustic pingers. Vehicle may pick up crucifix (up to two) and drop in the coffin. Additional points may be awarded when AUV opens coffin, grabs Dracula and surfaces in the octagon.





RoboNation

@auvsifoundation
@robonation

www.robosub.org

MISSION

The RoboSub Competition is designed to encourage interest in the field of Autonomous Underwater Vehicles (AUVs) by challenging a new generation of engineers to perform complex missions in an underwater environment. This event also serves to develop relationships between young engineers and the organizations developing and using unmanned and autonomous technologies.

ABOUT ROBONATION

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

www.robonation.org