



June 20 - 24, 2024
Kingsport Aquatic Center
Kingsport, TN USA

AT A GLANCE



The MATE ROV Competition uses underwater robotics (also known as remotely operated vehicles or ROVs) to inspire and challenge students to learn and creatively apply scientific, engineering, and technical skills to solving real-world problems. Working in partnership with the Marine Technology Society's ROV Committee, the competition was created as a way to:

- **Expose students to careers**
- **Provide access to materials and technical expertise that support student learning**
- **Strengthen students' critical thinking, collaboration, entrepreneurship, and innovation**
- **Develop the future ocean technical workforce**

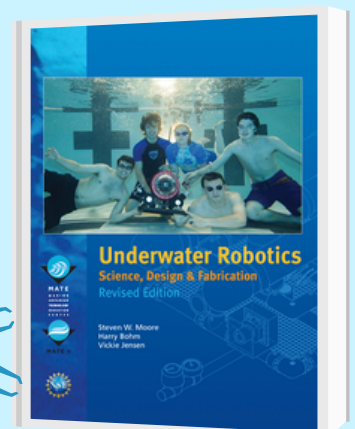
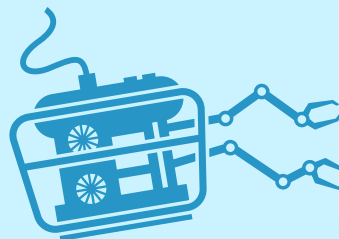
The MATE ROV Competition challenges K-12, community college, and university students from all over the world to tackle missions based on scenarios from the workplace. The competition's class structure of beginner, beginner-intermediate, intermediate-advanced, and advanced complements the educational pipeline by providing students with the opportunity to build upon their skills as they engineer increasingly more complex ROVs for increasingly more complex mission tasks.

The MATE ROV Competition requires students to think of themselves as entrepreneurs and transform their teams into companies that manufacture, market, and sell "products." In addition to engineering their ROVs, the students prepare technical reports, post displays, and presentations that are delivered to working professionals who serve as competition judges.

The MATE ROV Competition encourages students to work together, network, and learn from technical professionals and each other. MATE's philosophy is that collaborative learning experiences best simulate the real world and will serve student - and their future employers - well in the workplace.

OTHER MATE UNDERWATER ROBOTICS EDUCATIONAL PRODUCTS INCLUDE:

- Underwater Robotics: Science, Design and Fabrication [ISBN 978-0-9841737]
- Knowledge and Skill Guidelines for ROV professionals
- All levels of SeaMATE ROV starter kits and free open source plans
- Curriculum and videos
- Workshops for teachers and students
- Internships for college students
- Microcontrollers for thrusters and sensors



NETWORK



The MATE Competition Network began in 2001 and currently consists of 48 regional events that take place across the U.S. and around the world. Regional competitions serve as feeders into the annual MATE World Championship.

The Regional Competition Network represents partnerships with organizations such as professional societies, research institutions, state and government agencies, community colleges and universities, public aquaria and science museums, and non-profits.

- 1 ALABAMA - NORTHERN GULF COAST
- 2 AMERICAN SAMOA
- 3 ARIZONA
- 4 ASEAN - INDONESIA
- 5 BERMUDA
- 6 CALIFORNIA - MONTEREY BAY
- 7 CALIFORNIA - SAN FRANCISCO BAY
- 8 CALIFORNIA - SOUTHERN CALIFORNIA
- 9 CANADA - NEWFOUNDLAND & LABRADOR
- 10 CHINA ILUR - EXPLORER
- 11 CHINA ASDAN
- 12 CHINA IPERC
- 13 CHINA - SMARTSEA
- 14 COASTAL CAROLINA
- 15 COLORADO - ROCKY MOUNTAIN
- 16 EGYPT
- 17 FLORIDA
- 18 GEORGIA - ARTESIAN CITY
- 19 GRAY'S REEF SOUTHEAST
- 20 GREAT LAKES
- 21 GUAM
- 22 HAWAII - BIG ISLAND
- 23 HAWAII - OAHU
- 24 HONG KONG
- 25 INDIA
- 26 INDIANA
- 27 INDONESIA - ASEAN
- 28 MACAU
- 29 MID-ATLANTIC
- 30 MIDWEST
- 31 NEW ENGLAND
- 32 OHIO - BUCKEYE
- 33 OREGON
- 34 PENNSYLVANIA
- 35 RUSSIA - FAR EAST
- 36 SAUDI ARABIA - RED SEA
- 37 SOUTH KOREA
- 38 TENNESSEE - APPALACHIAN HIGHLANDS
- 39 TENNESSEE - CHATTANOOGA
- 40 TENNESSEE - MID SOUTH
- 41 TEXAS
- 42 TUNISIA
- 43 TURKEY
- 44 UNITED ARAB EMIRATES
- 45 U.K. - SCOTLAND
- 46 WASHINGTON - OLYMPIC COAST
- 47 WASHINGTON - PACIFIC NORTHWEST
- 48 WISCONSIN

REGIONAL



48

REGIONAL EVENTS
ACROSS THE
UNITED STATES & AROUND
THE WORLD

HISTORY



WHERE
IT ALL
BEGAN...



...TO TODAY

22 YEARS OF
INSPIRING AND
CHALLENGING
STUDENTS

WORLD CHAMPIONSHIPS

- 2002 - Rime of the Ancient Buccaneer, NASA Kennedy Space Center
- 2003 - Lost on the Titanic, Massachusetts Institute of Technology
- 2004 - NOAA's National Marine Sanctuaries, University of California Santa Barbara
- 2005 - From the Depths of the Far Teaches of Space, NASA Johnson Space Center - NBL
- 2006 - Ocean Observing Systems, NASA Johnson Space Center - NBL
- 2007 - Science & Technology Under the Ice, Memorial University & Institute for Ocean Technology
- 2008 - Uncovering the Mysteries of Mid-Ocean Ridges, Scripps Institution of Oceanography
- 2009 - The Next Generation of Submarine Rescue Vehicles, Massachusetts Maritime Academy
- 2010 - Science Erupts on Loihi, Hawaii's Undersea Volcano, University of Hawaii Hilo
- 2011 - ROVs & the Offshore Oil & Gas Industry, NASA Johnson Space Center - NBL
- 2012 - The Role of ROVs in Exploring WWII Shipwrecks, Orlando YMCA Aquatic & Family Center
- 2013 - Launching a New Era of Ocean Science & Discovery, King County Aquatic Center
- 2014 - Shipwrecks, Sinkholes, and Conservation, Thunder Bay National Marine Sanctuary
- 2015 - ROVs in Extreme Environments, Memorial University & the Institute of Ocean Technology
- 2016 - ROVs Encounters in Inner and Outer Space, NASA Johnson Space Center - NBL
- 2017 - Port Cities of the Future, Long Beach City College
- 2018 - Aircraft, Earthquakes and Energy, King County Aquatic Center
- 2019 - ROV Operations in Rivers, Lakes, and Dams, Kingsport Aquatic Center
- 2020 - Cancelled due to COVID-19 Pandemic
- 2021 - MATE World Championship - VR World, East Tennessee State University
- 2022 - MATE 20th World Championship, Long Beach City College
- 2023 - MATE World Championship, St. Vrain Valley School District
- 2024 - MATE World Championship, Kingsport Aquatic Center

CONTRIBUTE



**YOUR CONTRIBUTIONS TO MATE HELP TO BUILD
A FUTURE SKILLED STEM WORKFORCE
AND ENSURE THAT ALL STUDENTS HAVE ACCESS TO THIS
UNIQUE LEARNING OPPORTUNITY**

FINANCIAL AND TECHNICAL SUPPORT

Funds cover student travel stipends and meals, while contributions of materials, equipment, mentoring time, and technical expertise support ROV building, promote skills development, and expose students to careers.

EQUIPMENT SUPPORT AND RECOGNITION

Award trophies, plaques, certificates of participation, event t-shirts and patches, gift certificates, and donations of equipment such as cameras, thrusters, and other hardware are ways to highlight both the winning teams and the sponsoring organizations.

NETWORKING OPPORTUNITIES

Funds cover the World Championship's opening and closing ceremonies, receptions, and social activities - events that provide opportunities to build peer and professional networks.

SPONSORS ALSO PROFIT BY:

- Increasing visibility through the MATE ROV Competition website and conference presentations.
- Displaying logos on the competition materials, including banners at the events.
- Posting and circulating job announcements.
- Using the competition's Exhibit Hall to increase exposure & recruit students for technical programs or job openings.
- Gaining access to a larger pool of talented students (an potential future employees!).
- The Marine Technology Society (MTS) is tax exempt under Internal Revenue Code 501(c)(3). Tax I.D.: 52-0805471.



THANK YOU 2023 SPONSORS



FOUNDING SPONSORS



DIAMOND SPONSORS



PLATINUM SPONSOR

GOLD SPONSORS



SILVER SPONSORS



BRONZE SPONSORS



OTHER SUPPORTERS



Harry Bohm

WE THANK YOU
FOR YOUR CONTINUED SUPPORT IN THE
MATE ROV COMPETITION