

Inspiring technology literacy and creativity in youth through hands-on, mentor-based programs across New England in collaboration with the world's leading youth-serving nonprofit advancing STEM Education, FIRST®

High School Students in New England Make Waves with STEM as they Compete in an Ocean-Inspired Robotics Competition at the Eastern States Exposition

March 31, 2025

WEST SPRINGFIELD, MASS. – Thousands of students in grades 9–12 from Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont will compete at the NE *FIRST* District Championship, a *FIRST*<sup>©</sup> Robotics Competition regional championship, the weekend of April 3–5, 2025, at the Eastern States Exposition (The Big E). The event is free and open to the public.

FIRST Robotics Competition (FRC) combines the excitement of sport with the rigors of science and technology. With strict rules and limited resources, each team of high-school students is challenged to raise funds, hone teamwork skills, and build and program robots to perform prescribed tasks against a field of competitors. This year, the challenge is REEFSCAPE presented by Haas, an ocean-themed game played by two alliances of three robots each.

REEFSCAPE presented by Haas is part of the 2025 FIRST DIVE<sup>SM</sup> presented by Qualcomm season. In REEFSCAPE, competing teams will use their engineering skills to strengthen one of the ocean's most diverse habitats—making waves to build a better world. Project-based, hands-on FIRST programs introduce students to engineering and coding in an engaging, inclusive, and creative learning environment in schools and local communities. Participants work collaboratively to solve an annual, themed robotics challenge.

New England FRC teams each earned ranking points by competing at any two out of eleven local district events, with the hopes of qualifying to participate in the New England District Championship. Following all eleven of these qualifying events (hosted in all New England states throughout March 2025), 96 out of 191 New England District FRC teams have earned a spot at the NE *FIRST* District Championship and will compete for 30 spots at the international and cross-program *FIRST* Championship event in Houston, Texas, the weekend of April 16–19.

### **Contacts**

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For more information, visit <u>nefirst.org/nedcmp</u>



# **Event Agenda**

THURSDAY, APRIL 3

- Kickoff: 1 p.m.
- Qualification matches: 1–6:30 p.m.
- Event closes: 7 p.m.

FRIDAY, APRIL 4

- Event opens: 8 a.m.
- Opening ceremonies: 9 a.m.
- Qualification matches:
  9:30 a.m.-6:30 p.m. (each division takes a one hour lunch break)
- Event closes: 8:30 p.m.

SATURDAY, APRIL 5

- Event opens: 7 a.m.
- Opening ceremonies: 8 a.m.
- Teams form playoff alliances: 8:30 a.m.
- Divisional playoff matches and awards: 10 a.m.-1:30 p.m.
- Finale ceremonies, playoffs, and awards: 2:30–4:30 p.m.
- Event closes: 5 p.m.

# FIRST Robotics Competition Team List: New England District Championship:

https://frc-events.firstinspires.org/2025/NECMP Officially available on April 2, 2025

The 96 registered teams will compete in two divisions of 48 teams each throughout April 3–5. These divisions have been named *SOSIK presented by GE Aerospace* and *BALLARD presented by Altair* in honor of New England oceanographers and explorers.

Heidi Sosik is a Senior Scientist at the Woods Hole Oceanographic Institution, where she has been on the faculty and staff since 1994, and currently holds Stanley W. Watson Chair for Excellence in Oceanography. A biological oceanographer and inventor, Sosik and her co-workers have developed automated underwater analyzers that dramatically enhance scientists' and resource managers' ability to study microscopic organisms that fuel ocean food chains, interact with Earth's climate, and sometimes produce harmful algal blooms that threaten ecosystem and human health. Sosik serves as Director of WHOI's Center for Ocean, Marine, and Seafloor Observing Systems, Chief Scientist of the Martha's Vineyard Coastal Observatory, and lead investigator for the Northeast US Shelf Long Term Ecological Research program. She is active in many national and international roles including associate editor for leading journals, service on strategic planning and scientific steering committees, and elected officer of the American Geophysical Union.

Robert Ballard is an American oceanographer and marine geologist whose pioneering use of deep-diving submersibles laid the foundations for deep-sea archaeology. He is best known for discovering the wreck of the *Titanic* in 1985. In 1977 and 1979 he was part of an expedition that uncovered thermal vents in the Galapagos Rift. The presence of plant and animal life within these deep-sea warm springs led to the discovery of chemosynthesis, the chemical synthesis of food energy. To advance deep-sea exploration, Ballard designed a series of vessels, most notably the *Argo*, a 16-foot (5-metre) submersible sled equipped with a remote-controlled camera that could transmit live images to a monitor. In 1989, Ballard established the JASON project, an educational program that used video and audio satellite feeds and later the Internet to allow students to



follow various expeditions. In 1997, Ballard, then a commander in the navy, left Woods Hole to head the Institute for Exploration in Mystic, Connecticut, a centre for deep-sea archaeology that he founded. In 2002, he joined the faculty of the University of Rhode Island's Graduate School of Oceanography.

Once each division has completed playoffs, the two divisional champion alliances will compete in a best two out of three finals competition to determine the 2025 New England District Champions.. These final matches will be played on INGENUITY Field in honor of our 501(c)(3) not-for-profit public charity, named IngenuityNE.

All teams competing at the NE *FIRST* District Championship will earn additional ranking points, and the top 30 in the New England District will qualify to compete at the *FIRST* Championship event against *FIRST* Robotics Competition teams from all over the world.

Additional New England FRC Event Results: https://www.nefirst.org/district-events

#### **Available Activities**

The NE *FIRST* District Championship will feature not only the culmination of the *FIRST* Robotics Competition season in New England, but also feature all *FIRST* programs, including a brand new *FIRST* Tech Challenge New England Premier Event, a *FIRST* LEGO League Challenge Scrimmage and *FIRST* LEGO League Explore Expo. The NE *FIRST* Expo Experience will feature experiential Robotics (XRP), the 501st New England Garrison, create-your-own artwork with Positive Street Art, interactive demo exhibits focused on robotics and STEM, and community service opportunities.

### **Event Sponsors**

The 2025 NE *FIRST* season is made possible thanks to generous contributions by BAE Systems, RTX, Medtronic, Mathworks, GE Aerospace, Altair, Boston Scientific, Carrier, the United States Space Force, PTC, ARM, Teradyne, Tokyo Electron, OTIS and Brooks Automation. Learn more at <a href="https://www.nefirst.org/sponsor">https://www.nefirst.org/sponsor</a>.

### **About NE FIRST**

New England *FIRST* supports the global mission of *FIRST*® in all six New England states: Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont. Founded in 2014, NE *FIRST* delivers the <u>District Model</u> for *FIRST* in New England. NE *FIRST* provides accessible, innovative robotics programs that motivate young people to pursue education and career opportunities in science, technology, engineering, and math, while building self-confidence, knowledge, and life skills. NE *FIRST* is supported by ingenuityNE, a 501(c)(3) not-for-profit public charity incorporated in the State of Connecticut. Learn more at <u>nefirst.org</u>.



#### About FIRST®

FIRST® is a robotics community that prepares young people for the future through a suite of inclusive, team-based robotics programs for ages 4-18 (PreK-12) that can be facilitated in school or in structured afterschool programs. Boosted by a global support system of volunteers, educators, and sponsors that include over 200 of the Fortune 500 companies, teams operate under a signature set of FIRST Core Values to conduct research, fundraise, design, build, and showcase their achievements during annual challenges. An international not-for-profit organization founded by accomplished inventor Dean Kamen in 1989, FIRST has a proven impact on STEM learning, interest, and skill-building well beyond high school. Alumni of FIRST programs gain access to exclusive scholarships, internships, and other opportunities that create connections and open pathways to a wide variety of careers. Learn more at firstinspires.org.

## **About FIRST Robotics Competition**

FIRST Robotics Competition (FRC) is an international high school robotics competition. Each year, teams of high school students, coaches, and mentors work from January through March to build robots capable of competing in that year's game that weigh up to 115 pounds. Robots complete tasks that may include scoring balls into goals, placing inner tubes onto racks, hanging on bars, balancing robots on balance beams: the game, along with the required set of tasks, changes annually. While teams are given a kit of a standard set of parts during the annual Kickoff, they are also allowed and encouraged to buy or fabricate specialized parts. FIRST Robotics Competition is one of five robotics competition programs organized by FIRST, the other four being FIRST LEGO League Discover, FIRST LEGO League Explore, FIRST LEGO League Challenge, and FIRST Tech Challenge.

# **About REEFSCAPE<sup>SM</sup> presented by Haas**

In <u>REEFSCAPE<sup>SM</sup> presented by Haas</u>, two competing alliances are invited to score coral, harvest algae, and attach to the barge before time runs out! Alliances earn additional rewards for meeting specific scoring thresholds and for cooperating with their opponents.

During the first 15 seconds of the match, robots are autonomous. Without guidance from their drivers, robots leave their starting zone, score coral on the reef, harvest algae from the reef, and collect and score additional coral.

During the remaining 2 minutes and 15 seconds, drivers control their robots. Robots collect coral from human players at their coral station and score them on the reef. To unlock all scoring locations on the reef, robots must dislodge algae from the reef and either score it in the barge or deliver it to the human player through the processor.

A human player can then deliver the algae to the barge. If at least two algae are scored in the processor by each alliance, both alliances earn a Coopertition Point (which influences their rank in the tournament) and lowers the requirements for a ranking point.

As time runs out, robots prepare to return to the surface with their algae by grabbing onto their cages and parking under the barge. The alliance that earns the most points wins the match!

