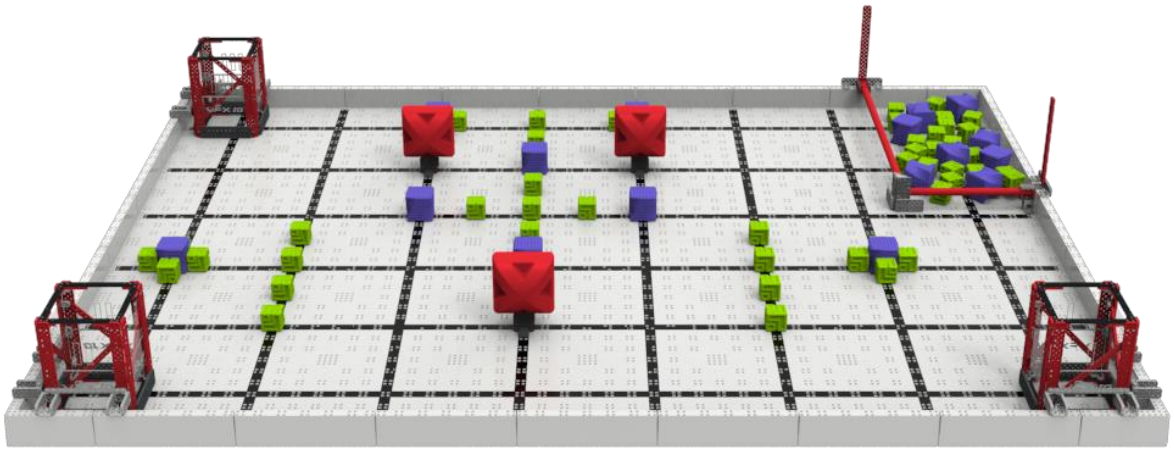
TSA VEX IQ Robotics Competition National Championship at the 2024 National TSA Conference
TSA VEX IQ Robotics Competition (TVIQRC) Competition Guidelines

Overview

The VEX IQ Robotics Competition (VIQRC) is the largest and fastest growing middle school robotics programs globally. Each year, an exciting engineering challenge is presented in the form of a game. TSA VEX IQ Robotics Competition (TVIQRC) teams, with guidance from their teachers and mentors, build innovative robots and may compete year-round in a variety of matches, including a State Competition and the TSA VEX IQ Robotics Competition National Championship event held at the annual TSA National Conference.



Competition

For the 2023-2024 season, the VIQRC game is 'Full Volume'. Entries must be started and completed during the current school year. VEX IQ Robotics Competition Full Volume is played on a 6' x 8' rectangular field configured as seen above. Teams compete in the Robot Skills Challenge, where one robot takes the field to score as many points as possible in 60 second Matches. These matches consist of Driving Skills Matches, which will be entirely driver controlled, and Autonomous Coding Skills Matches, which will be autonomous with limited human interaction. After Robot Skills Challenges are complete, the top teams will be paired up into alliances. These two-team alliances will work together to maximize their scores in 60 second, driver-controlled Teamwork Matches.

The scoring objects in VEX IQ Robotics Competition Full Volume various sized Blocks. There are a total of (73) Blocks on the field. 42 Blocks begin on the field in predetermined locations. The remaining 31 Blocks begin in the Supply Zone, where they will be randomly placed before each Match. Red Blocks begin on top of Starting Pegs. The object of the game is to score as many points as possible by placing Blocks in Goals. Based on the contents of the Goals at the end of the Match, teams can also receive a Uniform Bonus and/or Height Bonus. At the end of the Match, Robots can attempt to Park in the Supply Zone for additional points.

For more detailed information and specifications, please refer to the VIQRC Game Manual. The format described above will be used at the National Conference, but State and local events may use different formats. Please contact your State Advisors for more information.

At the National Conference, Engineering Notebooks will be submitted digitally. For instructions on how to do this, please visit the REC Library. The submission deadline is June 20, 2024.

Eligibility

- All TVIQRC team members must be affiliated with the same TSA chapter for the current school year.
- Teams must affiliate with TSA for the current school year.
- Teams must register as a TVIQRC team, via RobotEvents.com by March 1, 2024 to be eligible to participate in the 2024 TSA VEX National Championship. Note: Registration on Robot Events is free.
- Participants are limited to two (2) teams per chapter, with a minimum of two (2) and a maximum of six (6) participants per team.

Attire

Competition attire, as described in the National TSA Dress Code, is required for the duration of the event. Teams will be subject to a 20-point deduction in their final Excellence Award Score for any violation.

Procedure

- TSA event registration: TSA state advisors approve and submit eligible TVIQRC teams for the TSA VEX IQ Robotics National Championship event based on advancement guidelines. Additional teams may be waitlisted by TSA state advisors.
- Check-in: Participants check in their robots at the time and place stated in the TSA conference program.
- Inspection: Robots are inspected using official VIQRC inspection sheets. Students are present for the robot inspection. Robots must pass inspection in order to be eligible for competition. Repairs and adjustments may be made by students only, as required, in order for robots to pass inspection. Inspection must be completed within the designated timeframe and before a team competes in any component of the competition. Re-inspection of a

robot may be ordered at any time throughout the competition by a referee to verify that a robot meets inspection requirements.

- Excellence Award: Judges review the team's Robot Skills score and the score of the team's submitted Engineering Notebook to determine the best overall TVIQRC team. Competition attire and team conduct throughout the event will be factors in the Excellence Award.

Additional Information

- To register a TVIQRC Team, visit: www.RobotEvents.com
- To learn more about the VIQRC game, 'Full Volume', visit the REC Library