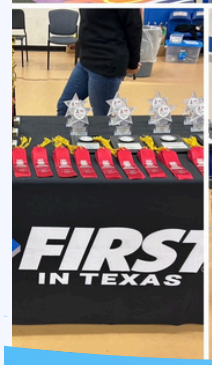
FIRST ROBOTICS COMPETITION

Grades 7-12

Starting with a Kit of Parts, teams of high school students design, program, and build industrial-sized robots to play an action-packed game, released in January. They compete on a themed field as part of a three-team alliance in the spirit of Coopertition. In 360-degree learning guided by adult mentors, each FIRST Robotics Competition team also creates a team identity, raises funds to meet its goals, and advances appreciation for STEM in its community.

CS4Dallas

#CSTechQuity



About Us

The Computer Science & Technology Department supports over 300 elementary, middle, and high school robotics teams with equipment, team registrations, and transportation across various robotics leagues.

Contact Information

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Discover Competitive Robotics in Dallas ISD

COMPUTER SCIENCE & TECHNOLOGY

VEX IQ Robotics Competition

Grades 3-8

The VEX IQ Robotics Competition provides students with exciting, open-ended robotics challenges that enhance their science, technology, engineering, and mathematics (STEM) skills through hands-on, student-centered learning. The VEX IQ Robotics Competition fosters student development of the teamwork, critical thinking, project management, and communication skills required to prepare them to become the next generation of innovators and problem solvers.

Aerial Drone Competition

Grades 6-12

An Aerial Drone Competition is a hands-on STEM program where students program and fly drones to complete various missions. Teams compete individually and in alliances, participating in challenges like autonomous flight, piloted obstacle courses, and timed team-based games, while also documenting their process in a competition logbook and being interviewed by judges. The competition develops critical skills in problem-solving, teamwork, programming, and communication, preparing students for careers in drone technology and related fields.

FIRST LEGO League Explore

Grades K-3

In Explore, teams of students focus on the fundamentals of engineering as they explore real-world problems, learn to design, code, and create unique solutions with LEGO bricks, powered by LEGO Education Spike Essentials.

FIRST LEGO League Challenge

Grades 4-8

Friendly competition is at the heart of Challenge, as teams of students engage in research, problem-solving, coding, and engineering – building and programming a LEGO robot that navigates the missions of a robot game. As part of the Challenge, teams also participate in a research project to identify and solve a relevant real-world problem.

VEX Robotics Competition

Grades 3-8

In the VEX V5 Robotics Competition (V5RC), students work as part of a team towards the goal of building a robot to compete in the current year's challenge game. Guided by adult coaches and mentors, they strategically design, build, and program VEX V5 robots to compete as an alliance in the game. Along the way, they develop teamwork, problem-solving, and communication skills.

FIRST Tech Challenge

Grades 7-12

FIRST® Tech Challenge students work together with their mentors to design and build robots to compete in a dynamic and exciting challenge released every September. Teams program classroom-scale robots to follow autonomous commands before student drivers take control in two-on-two matches. On and off the field, students develop STEM skills, engage in community outreach, practice engineering innovation, and build confidence to help them succeed.