



# Competition Guidelines

## TSA VEX Challenge (VRC) National Championship



### THEME

Tower Takeover

### LEVEL

High School



### LOCATION

2020 National TSA Conference  
Nashville, TN

### OVERVIEW

Participants design and build a robot using the engineering design process that will best address the designated VEX game design for the VIQC Challenge. Teams compete in Robot Skills Challenges that showcase programming and robot operation prowess. Robots should be structurally efficient, capable of scoring in robot and programming modes of operation, and demonstrate real-time scoring ability in tournament matches.

### 2020 GAME DESCRIPTION

This VEX Robotics Competition Tower Takeover is played on a 12'x12' square field (see manual for specifics). Two (2) alliances (one [1] "red" and one [1] "blue") composed of two (2) teams each, compete in matches consisting of a fifteen (15) second autonomous period, followed by a one minute and forty-five second (1:45) driver controlled period.

The objective of the game is to attain a higher score than the opposing alliance by placing cubes in towers and scoring cubes in goal zones. Entries must be started and completed during the current school year.

### 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 VRC teams for the national TSA VEX 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 VRC inspection sheets.
  - Participants are required to be present for the robot inspection.
  - Robots must pass inspection in order to be eligible for competition.
  - Repairs and adjustments may be made by participants only 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.
- Sample Event Agenda** (Example only. Final agenda available with the release of the official event program):
  - Check-In:** 8:00 - 9:00 AM
  - Inspection:** 8:00 - 9:15 AM
  - Team Meeting:** 9:15 - 9:30 AM
  - Skills:** (3 max) 9:30 AM - 2:30 PM
  - Qualifying rounds:** (6 Matches on a schedule)
    - Qualifications: 9:30 AM - 12:00 PM
    - Lunch Break: 12:00 - 12:30 PM
    - Qualifications: 12:30 - 3:00 PM
    - Skills close: 2:30 PM
    - Alliance selection: 3:15 - 3:45 PM
    - Elimination rounds: Best of alliances
  - Awards:** 5:00 PM
- In order to participate, driving team members are required to remain at the event for the entire duration. For VIQC, two (2) are required.
- Participants may swap drivers as needed; however, at least two drivers must be present. Drivers from other teams may not be substituted. Refer to the regulations regarding the "Driver Controlled Period" in the event manual.

### OFFICIAL VEX GAME MANUAL

Tower Takeover: [bit.ly/TowerTakeoverManual](http://bit.ly/TowerTakeoverManual)

### REGISTRATION

[bit.ly/2020TSAVEX](http://bit.ly/2020TSAVEX)

*Fee waived for the 2020 TSA VEX National Championship.*