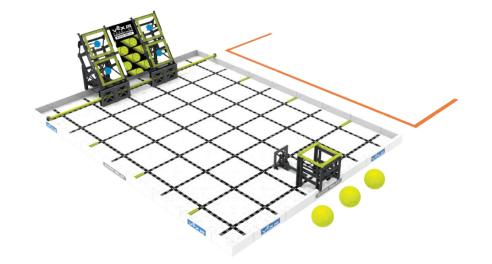




Rules of VEX IQ Competition RAPID RELAY



- Robots must pass inspection. The <u>Team's Robot</u> must pass inspection before being allowed to participate in any <u>Matches</u>. Noncompliance with any <u>Robot</u> design or construction rule will result in removal from <u>Matches</u> or <u>Disqualification</u> of the <u>Robot</u> at an event until the <u>Robot</u> is brought back into compliance, as described in the following subclauses.
- 1. Significant changes to a Robot, such as a partial or full swap of Subsystem 3, must be re-inspected before the Robot may compete again.
- 2.All possible functional Robot configurations must be inspected before being used in competition.
- 3. <u>Teams</u> may be asked to submit to spot inspections by <u>Head Referees</u>. Refusal to submit will result in <u>Disqualification</u>.

4.If a <u>Robot</u> is determined to not be legal before a <u>Match</u> begins, the <u>Robot</u> will be removed from the <u>Field</u>. A <u>Driver</u> may remain so that the <u>Team</u> does not get assessed a "no-show" (per <T5>).

15"

- Officially registered Team numbers must be displayed on Robot License Plates. To
 participate in an official VEX IQ Robotics Competition Event, a <u>Team</u> must first register on
 robotevents.com and receive a VEX IQ Robotics Competition <u>Team</u> Number.
- This <u>Team</u> number must be legibly displayed on at least two (2) VEX IQ Robotics Competition <u>License Plates</u> on opposing sides of the <u>Robot</u>. <u>Teams</u> may choose to use the official VEX IQ Robotics Competition <u>License Plate</u> (VEX Part Number 228-7401), or may create their own custom <u>License Plates</u>.
- 1. License Plates must fulfill all inspection rules.
- 2. <u>License Plates</u> must be clearly visible at all times. For example, <u>License Plates</u> must not be in a position that would be easily obstructed by a <u>Robot</u> mechanism during standard <u>Match</u> play.
- 3. Any custom-made <u>License Plates</u> used must be the same length and height as the official <u>License Plate</u> (3.5" x 1.5" [88.9mm x 38.1mm]). They must not exceed the width of the official <u>License Plate</u> (0.25" [6.35mm]).



- Modifications of parts. Parts may NOT be modified unless specifically listed as an exception in this rule. Examples of modifications include, but are not limited to, bending, cutting, sanding, gluing, or melting. The following exceptions are legal:
- 1. Cutting metal VEX IQ or VEX V5 shafts to custom lengths.
- 2.Bending parts which are intended to be flexible, such as string, rubber bands, or thin plastic sheets.
- 3. Cutting VEX IQ pneumatic tubing to custom lengths.

- Starting configuration. At the start of each Match, the Robot must be able to satisfy the following constraints:
- 1.Only be contacting the Floor and the inside face of the Field Perimeter.
- 2. Fit within the volume of a Starting Zone.
- 3.Be no taller than 15" (i.e., roughly the height of the yellow VEX IQ beams above the bottom two <u>Targets</u>).
- 4. The starting configuration of the <u>Robot</u> at the beginning of a <u>Match</u> must be the same as a <u>Robot</u> configuration inspected for compliance.
 - 1. <u>Teams</u> using more than one possible <u>Robot</u> configuration at the beginning of <u>Matches</u> must tell the Inspector(s) and have the <u>Robot</u> inspected in all configurations. Rule <R3c> will apply if a <u>Robot</u> is placed in an uninspected configuration (i.e., will not be permitted to play until re-inspected, but will not be considered a "no-show").

- The Drive Team Members are permitted to immediately appeal the Head Referee's ruling. If <u>Drive Team Members</u> wish to dispute a score or ruling, they must stay in the <u>Driver Station</u> until the <u>Head Referee</u> talks with them. The <u>Head Referee</u> may choose to meet with the <u>Drive Team Members</u> at another location and/or at a later time so that the <u>Head Referee</u> has time to reference materials or resources to help with the decision. Once the <u>Head Referee</u> announces that their decision has been made final, the issue is over and no more appeals may be made (see rule <<u>T1></u>).
- Be at your match on time. If no member of a Team is present in the Driver Station at the start of a Match, that Team is considered a "no show" and will receive zero (0) points. The other Team in the Alliance will still play and receive points for the Match.

- Robots at the field must be ready to play. If a <u>Team</u> brings their <u>Robot</u> to the <u>Field</u>, it must be prepared to play (i.e., batteries charged, sized within the starting size constraint, etc.)
- 1. Robots must be placed on the field promptly. Repeated failure to do so could result in a Violation of <G1> and/or removal of the Robot from the current Match at the Head Referee's discretion.
- 2.If a Robot is not placed on the Field prior to the start of a Match, it cannot be placed on the Field during that Match.
- Match Replays are allowed, but rare. Match replays (i.e., playing a Match over again from its start) are at the discretion of the Event Partner and Head Referee, and will only be issued in the most extreme circumstances. Some examples that may warrant a Match replay are as follows:
- 1. Score Affecting "Field fault" issues.
 - 1. <u>Switches</u> not being reset before the <u>Match</u> starts.
 - 2. <u>Field Elements</u> detaching or moving beyond normal tolerances, not as a result of <u>Robot</u> interactions.
- 2. Score Affecting game rule issues.
 - 1. A <u>Field</u> is reset before the score is determined.

•Setup: <SG1> <R4>

 <u>Robots</u> must start the <u>Match</u> touching the wall and fully inside of one of the <u>Starting Zones</u>.

• Only one Robot per Starting Zone.

• Each <u>Robot</u> can start with one <u>Ball</u> pre-loaded into their Robot.

During <u>Robot Skills Matches</u> <<u>RSC3></u>

<u>Robot</u> must start in <u>Starting Zone</u> 2

 A second <u>Ball</u> can be placed anywhere in <u>Starting Zone</u> 1

Loading Balls: <SG4>

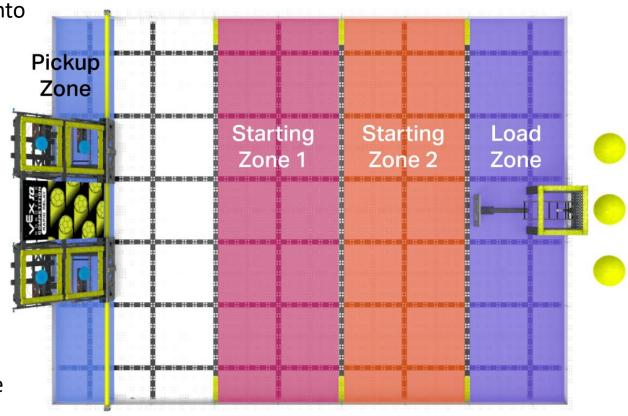
<u>Balls</u> are put into the <u>Field</u> by the <u>Loader</u>

• Only two <u>Balls</u> can be on the <u>Field</u> at a time.

 All <u>Balls</u> must be Loaded at the <u>Loading</u> <u>Station</u> (unless it's a Rapid Load).

 No <u>Robots</u> may be in the <u>Load Zone</u> at the same time that a <u>Ball</u> is released by the <u>Loader</u>.

• The <u>Loader</u> may not reach into the <u>Load Zone</u> when loading a <u>Ball</u>.



•Pickup Zone: Loaders can pick up Balls from the Pickup Zone. <SG6>

Rapid Load: <u>Balls</u> can be loaded quickly depending on how much time is left in a <u>Match</u>. See the table below for times. <u><SG5></u>

- Rapid Load <u>Balls</u> must go onto the <u>Floor</u> of the <u>Starting Zone</u> before being touched by a <u>Robot</u>.
- Rapid Load <u>Balls</u> do not get points for <u>Passes</u>.
- The human <u>Loader</u> may not touch the <u>Floor</u> while placing the Rapid Load (example: cannot step into or place a hand on the <u>Floor</u> to reach the center of the <u>Field</u>).

Rapid Load Times: <SG5> <RSC4>

	Teamwork Challenge Match	Autonomous Coding Skills Match	Driving Skills Match
Rapid Load Start Time	Last 15 seonds of the Match	Entire <u>Match</u> (1 minute)	After <u>Driver</u> Switch
Rapid Load Zones	Both <u>Starting Zone</u>	Starting Zone 2 Only	Starting Zone 2 Only