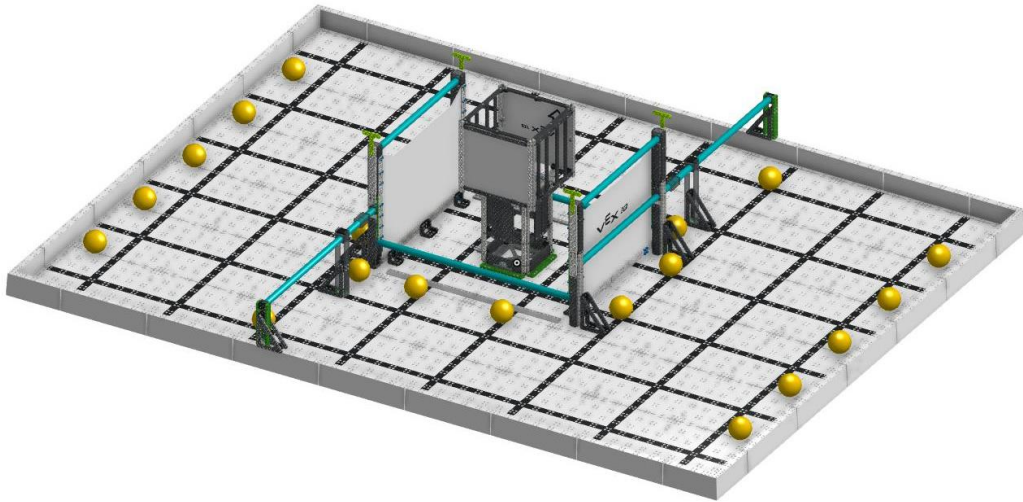# VEX IQ Challenge Pitching In

VEX IQ Challenge Pitching In is played on a 6' x 8' rectangular field, set up like the image above. Two robots join as an alliance in 60-second-long teamwork matches, working together to score points.

Scoring

Low Goal	High Goal	Low hang Not touching the ground	High hang 7.5" off the ground	Clear Corral No balls in the end(s) of the field
2 points per ball	6 points per ball	6 points per robot	10 points per robot	5 points per side
Max 22 balls total		Max 2 robots hanging		Max 2 sides

Game

- **Robots work on alliances of two robots to score points**. Both robots are on the same team and get the same score
- **Robot matches are 60 seconds long**. After 60 seconds, stop driving.
    - During this 60-second match, there must be two drivers.
    - Each driver has to drive for about 30 seconds (± 5 seconds)
- You can move, carry, or shoot the balls in any way that you want
- If your robot is "in trouble," you can set down your controller, take all of the balls out of the robot, but it back at the start, and begin driving again.
- The bar is just over 7.5" above the field
- Balls are about 3" in diameter, and are filled with teddy-bear stuffing, making them soft

Robot

- **Robots must start the match smaller than 11" x 19" x 15" tall**
    - After the match starts, they can expand to 11" x 19" x 19" tall
- The robot must be made only out of VEX IQ pieces
    - If you want to add non-VEX IQ decorations, that is okay
- **Robots can have up to 1 brain, 1 battery, and 6 motors** (including ones that are not hooked up)

Tournament

Matches

- **At a tournament, there will be a lot of teams** (20-40 usually, up to 60 at a big one)
- **You will be randomly selected to play matches on alliances with other teams**
  - You will get a match schedule on the day of the tournament
  - expect about 6-8 matches per tournament
- The scores from all of *your* matches will be added together to find your "ranking"
- **The teams with the highest "ranking" will move onto the finals**
- **The teams thar score the most points in finals will win the tournament!**

No-show

- If you don't show up for one of your matches, you will get a score of zero for that match
  - You get zero, even if the other robot scores points
- However, if you come to the match without robot and don't play, you still get points

Other options

There are three kinds of matches available at most tournaments. All matches are 60 seconds.

- **Teamwork/regular** (required) – Teams work in alliances of two to score points
- **Robot Skills** (optional) – Teams work to score as many points as they can on their own
  - The rules are the same as teamwork matches, but there is only one robot on the field
- **Programming skills** (optional) – Teams work to score points without drivers, only code
  - Robots must be controlled only by code
  - Sensors can be used to start the code (as buttons) or to sense things (like balls)
  - Teams can "restart" their robots as often as they want in programming matches by removing the balls and placing them back in a starting position

Starting Positions

For all matches, you can start your robot in any of these 10 positions: