



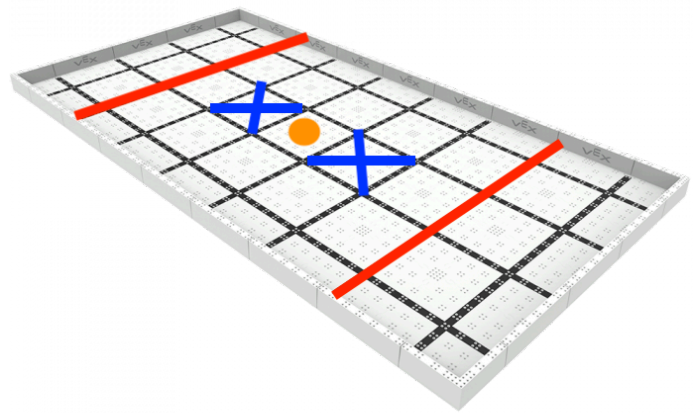
Robot Soccer

**Play soccer with your
VEX IQ Robot!**

How to Play Robot Soccer

1. Set up your soccer field:

- Use a 4' by 8' or 6' by 8' VEX IQ Field.
- Set up your field as shown in the image to the right. The red line indicates the goal line, and the blue 'X' indicates the starting position of the robots. The orange circle indicates the starting position of the ball.
- Mark the goal line with standoffs where the line meets the walls of the field.
- Use a small, lightweight ball (i.e. tennis ball, stress ball).

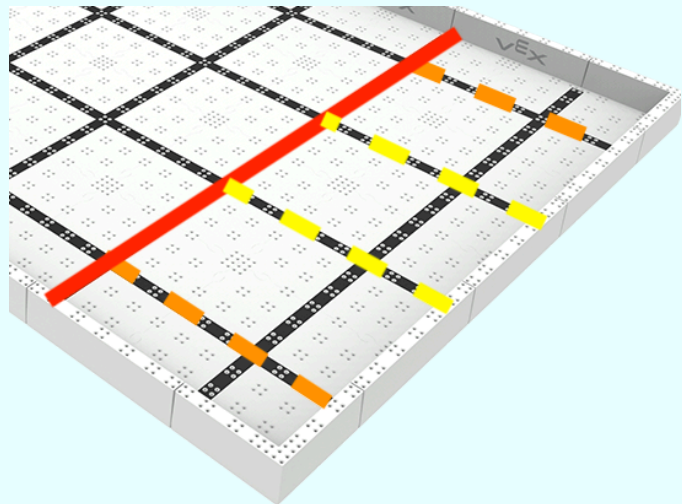


2. Robot Soccer Rules:

- If the ball goes out of bounds or a team scores a goal, reset the ball and robots to their starting positions.
- Players must stand behind their own goal throughout the duration of the match. Players must keep their hands and bodies out of the field at all times during gameplay.
- Each game is 2 minutes long. Drivers must switch the controller after one minute, so there are multiple drivers in each game.
 - At the beginning of each match, set a timer for 2 minutes. One person, not a driver, will be responsible for keeping time and announcing when drivers need to switch after one minute.
 - After a goal is scored, or if the ball goes out of bounds, pause the timer. Start the timer again once play has resumed.
- Goals are scored by knocking a ball into the other team's goal. The team with the most goals at the end of the match wins!
- If the match is tied, the game goes into overtime! The first team to score a goal in overtime wins.
- Robots must fit inside of one square on the VEX IQ Field.

Level Up

- **Create an attachment!** Design an attachment for your robot using additional VEX IQ pieces. When designing your robot attachment, remember that the robot must fit inside of one square on the VEX IQ Field. What can you add to your robot to make it a better soccer player?
 - When designing your attachment, talk to your teammates about your strategy for the robot soccer match. Will your robot be focused on scoring goals or protecting your goal?
- **Pair up!** Team up with another VEX IQ robot to play a game of 2-on-2 robot soccer. Extend the length of each match to 5 minutes.
 - Throughout the match, one robot on each team must play offense while the other plays defense. Switch at the halfway point of each match.
- **Improve your aim!** For an additional challenge, move the standoffs marking your goal closer together to create a smaller goal area. The ball must enter through the center of the goal to be counted!
 - Move the goal inwards by one black line on the field, from the left and right side of the goal each time you want to shrink the goal size.
 - In the image to the right, the orange dotted line shows the goal one size smaller. The yellow dotted line shows the goal two sizes smaller.



Standard: ISTE (1) Empowered Learner - 1c: Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways.