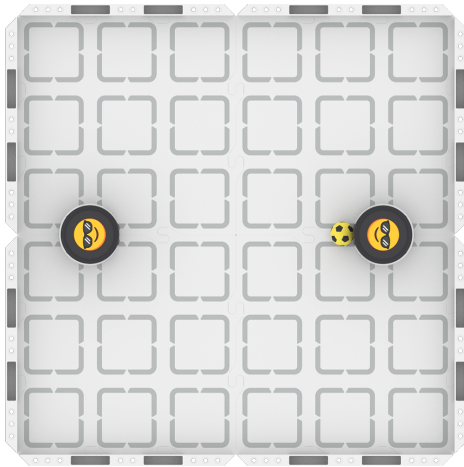




Soccer Practice

Work collaboratively with another group to code two linked VEX AIM Coding Robots to kick a sports ball back and forth.

Step by Step

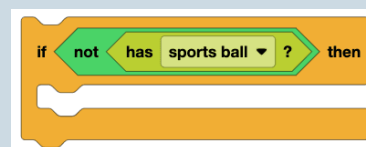
1. Set up your field as shown in the image above. Place the two robots facing each other, on opposite sides of the field. Attach a sports ball to one robot to begin.
2. Plan and create a project that uses messaging to kick the sports ball back and forth repeatedly.
 - When a robot **does not** have a sports ball, it should message the other that it is ready to receive the ball.
 - When a robot **does** have a sports ball, it should check for a message that the other robot is ready to receive the ball.
3. Link both robots before starting the projects. [Follow the steps in this article to link your robots.](#)
4. Download and start the project on both robots. The robots should kick the sports ball back and forth to each other repeatedly.
 - Does the project work as intended? Continue to iterate on your project until the robots can reliably kick the sports ball back and forth to each other.

'LEVEL UP'

- **Show the Status** - Add on to your project to use emojis or print words on the screen of the robot to show if it has the sports ball, or is waiting for the ball.
- **Out of Bounds** - Add on to your project to have the robots pause their game of catch when the sports ball is not caught. Have one robot collect the ball, then resume passing.

Pro Tips

- View the Message section of the VEXcode API Reference to learn more about how [messaging blocks](#) or [Python commands](#) can be used in a project.
- Use the **not** operator with the **has object** command to check if the robot does not have the sports ball.



Standard: CSTA 2-CS-02: Design projects that combine hardware and software components to collect and exchange data.