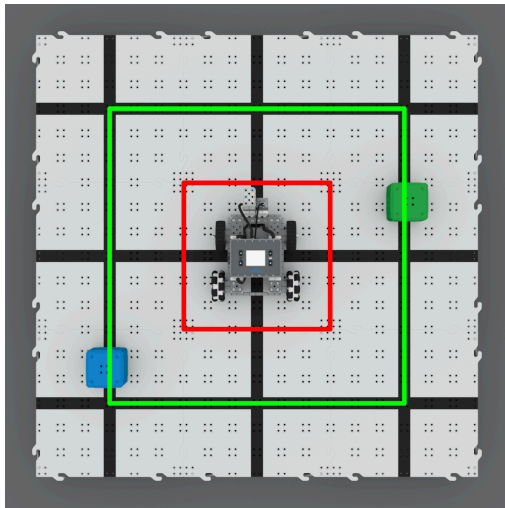


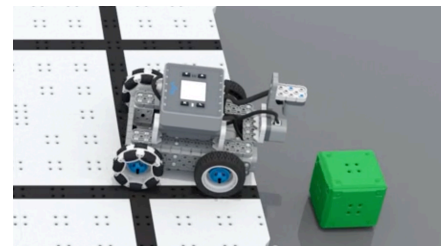


Robot Sweep

Code your robot to autonomously locate the cubes and push them off the Field!

How to Practice

1. Set up a 3' x 3' Field with your BaseBot in the center of the raised Field as shown above.
2. Place the robot in the center of the Field. Also, place two cubes anywhere along the lines that create a square around the center of the Field, as shown above.
3. Open the BaseBot (Drivetrain 2-motor) template, and create a VEXcode IQ project to have the robot autonomously locate each of the cubes and push them off the side of the Field, without the robot falling off the Field.
 - Create a plan for how the robot will move, and document it in your engineering notebook.
4. Build and test your VEXcode IQ project.
 - Document the results in your engineering notebook. Did the robot locate both of the cubes and successfully push them off the field without falling off?
5. Place the robot back into the starting square, and place both of the cubes at a different location along the green square shown in the image above. Will your project still work?
 - Iterate on your VEXcode IQ project to ensure that your robot will remove the cubes, even if the location of the cubes change.
 - Document the results in your engineering notebook.
6. Continue iterating on your VEXcode IQ project and documenting the results until your robot is able to successfully find and remove the cubes from the Field — no matter where they are placed along the square!



Pro Tip

- Edit the build or the placement of the sensors so your robot can better detect and push cubes off of the Field!