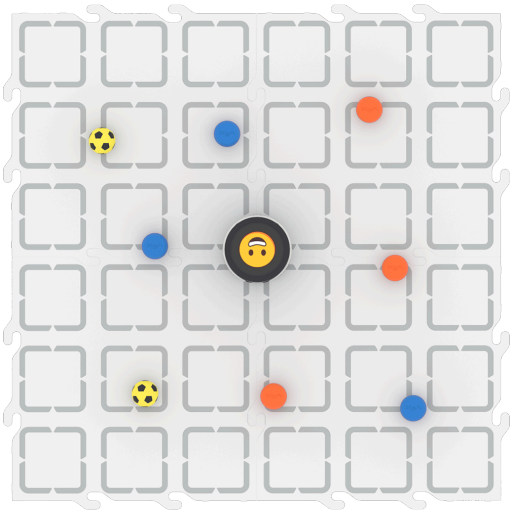
# VEX AIM Activity



## Cleaning Machine

Code the VEX AIM Coding Robot to push all the objects off the field to clean up your space!

## Step by Step

1. Set up the field as shown above**.**
    - Remove all wall pieces from the field.
    - Place all barrels and sports balls randomly on the field.
    - Place the robot in the center of the field, facing any direction.
2. Code the robot to clean the room! Move around to clear all of the objects off the field as quickly as possible.
    - Plan an efficient path to clean up the field to minimize the traveling distance and turns.
    - Monitor the robot's position to avoid falling off the edge.
3. Once you've completed the task, customize your code! Add LEDs, sounds, or emojis to indicate when an object is cleared, and when the whole area is clean.

## 'LEVEL UP'

- **Detecting with AI Vision -** Use AI Vision to find an object and then push the object off the field. Continually check for barrels and sports balls until they are all cleared.
- **Corner Clean -** Push all of the objects into one corner of the field to "put them away". How quickly can you clean the room?

## Pro Tips

**Use position data to stay on the field**

- Use the **forever** block and **position** blocks to monitor if the robot is close to the edge of the field.
- View the VEXcode API Reference to learn more about position commands.

**Standard:** CSTA 1B-AP-10: Create programs that include sequences, events, loops, and conditionals.

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