

*Receiving a touchdown pass?
Making a great outfield save? Play
catch with KIBO in this open-
ended, gross-motor Free Throw
activity.*



Materials:

- KIBO-10 kit (or greater) per group, with wheels and motors inserted
- KIBO Free Throw Extension per group
 - Provide 2 rubber bands and one ball to each group
- Masking tape

Preparation:

- Designate an open area for the catch game. Ensure each group has enough separate space to avoid collisions.
- In each group's area, tape a line about five feet from where the students will sit.

Introduction:

- Demonstrate the operation of the Free Throw extension in a group setting. Review the options students can change to alter the throw.
- Remind students how to create a REPEAT loop. You may also want to remind them that they can scan the same block more than once to make KIBO travel farther.
- Connect the activity to sports or playground games the students know.

Activity:

Students will work together to program KIBO to move away, throw the ball back to them, and then return. They can experiment with changing the program and the settings to change the throw.

1. Each group creates and scans a program that will move KIBO from their starting point across the masking tape line.
2. Load the ball into the Free Throw and run the program.
3. When KIBO launches the ball, the students try to catch it!
4. Repeat from step 1, changing the options to vary the throw.

Standards Addressed:

CSTA K-12 Computer Science Standards	1A-AP-10 Develop programs with sequences and simple loops, to express ideas or address a problem. (P5.2) 1A-AP-11 Decompose (break down) the steps needed to solve a problem into a precise sequence of instructions. (P3.2)
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