Arm Control: Fruit Picker Challenge

Fruit Picker Challenge

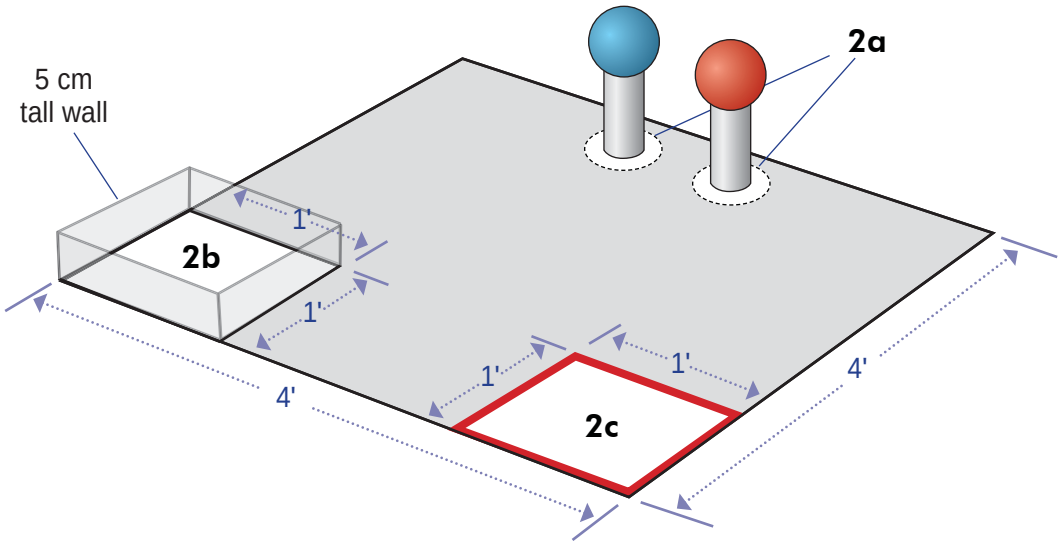
In this challenge, you must pick two pieces of simulated fruit and deliver them safely to a basket.

Materials

- 4'x4' smooth playing surface (hard floor OR panel cut to appropriate dimensions)
- Shallow basket (approx. 1'x1' floor area, walls less than 5 cm tall)
  OR Wooden boards to form a 1'x1' box with walls ~5 cm tall
- 2x toilet paper tubes (3" long, 1" diameter)
  OR 2x 1" diameter PVC pipes cut to 3" long
- Red and Blue plastic balls from 9797 NXT Set
- Removable tape to mark locations on playing surface

Playing Field Setup

1. Use a standard 4'x4' gameboard or floor space
2. Using the board diagram below:
   a. **Trees:** Mark two spots in the approximate locations indicated for the two "trees"
   b. **Basket:** Place the basket here or build a 5 cm tall wall around a 1'x1' "basket" area
   c. **Start:** Designate a 1'x1' starting area in this corner with colored tape
3. Place one tree (toilet paper tube or pipe) upright on each of the two marked spots
4. Place one ball on each stem – it is not important which color goes on which stem
5. Complete the challenge as described in the Rules and Procedure section on the next page!



NOTE: diagrams not drawn to scale

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Rules and Procedure

1. Start the robot inside the start area (no parts overhanging)
2. The robot must transport the two pieces of fruit from the trees to the basket
   - You may not touch the fruit by hand once the round has started
   - You may make more than one trip
   - There is no penalty for accidentally knocking over the tree at any point during the round
   - The fruit must come to rest inside the walls of the basket in order to count as delivered
3. Beat the challenge by successfully picking and delivering both pieces of fruit!