

Overview

Learn how to operate a gripper tool to harvest objects.

Materials Needed

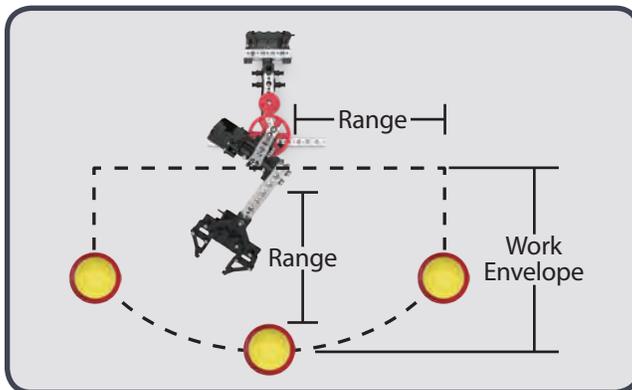
- TETRIX PRIME building system
- R/C Components Set
- “Get a Grip” student page
- “Work Envelope” resource page
- Small cups (from sets)
- Practice golf ball
- Tape measure

Vocabulary

- degrees of freedom
- horizontal
- vertical
- work envelope

Procedure

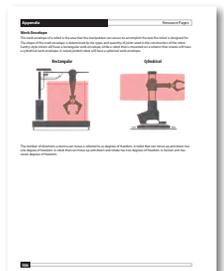
1. Assemble the Pickee Bot from the instructions.
2. After you have successfully assembled your robot, connect the servos to the receiver. If the servo motors do not move the robot in the same direction as the joystick movement, use the NOR/REV switches to change the direction of rotation.



3. Review the “Work Envelope” resource page for additional information.
4. Explore the work envelope of the Pickee Bot.
5. Use a tape measure to carefully measure the distance from the base of the robot to the highest point it can reach. Record this information on the “Get a Grip” student page.
6. Use a tape measure to carefully measure the distance from the center of the robot base to the farthest point to the left and right the robot is able to reach. Record this information on the “Get a Grip” student page.
7. Arrange cups within the gripper’s work envelope. Place a ball in one of the cups and move this “hazardous material” to another one of the cups.
8. Complete the “Get a Grip” student page.
9. Ask your teacher if you should disassemble your robot and return the set to storage.



“Get a Grip” student page



“Work Envelope” resource page



Cups



Practice golf ball



Tape measure