

W13: CIM [VIDEO] RoboCell Activity A: Pick and Place (Record)

Video:

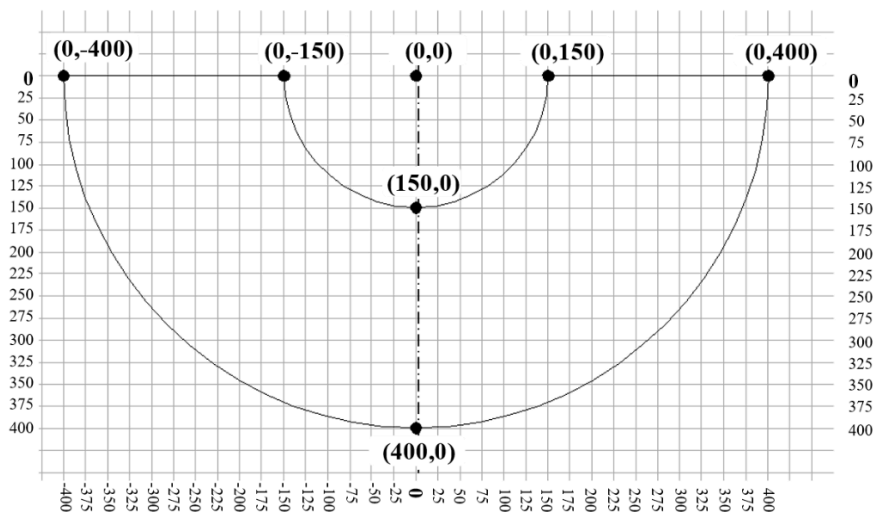
https://www.youtube.com/watch?v=uvReplp7EDo&t=1s&ab_channel=Chris%26JimCIM

Write the steps needed to do a Pick-and-Place routine. Plan out your movements on the documents provided in class.

PLTW Engineering

Computer Integrated Manufacturing

Activity 3.1.2e Work Envelope Paper



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Write code here.

Go to Home (Position 99) // Ensures the robot starts from a known, safe location.
 Open Gripper // Prepares the gripper to grab the object.
 Go to Above_Pick (Position 11) // Moves the arm directly over the object at a safe height.
 Go Linear to Pick (Position 1) // Moves straight down to the object. Using "Go Linear" (GL) is crucial for straight-line-down movements.
 Close Gripper // Grabs the object.

Go Linear to Above_Pick (Position 11) // Lifts the object straight up to the safe height. This prevents sliding it across the table.

Go to Above_Place (Position 12) // Moves the object (while at a safe height) to be directly above the new destination.

Go Linear to Place (Position 2) // Moves straight down to the drop-off location.

Open Gripper // Releases the object.

Go Linear to Above_Place (Position 12) // Moves straight up, clearing the object it just dropped.

Go to Home (Position 99) // Returns to the safe starting position to await the next cycle.