Robot Programming Lab #7 Create a Pick and Place program JD Jones and John Nelson

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Point Value = 100 points

In this lab you will be creating pick and place program. YOU WILL NEED TO CREATE A BRAND NEW PROGRAM. DO NOT COPY FROM PREVIOUS!!! Move one item from location A to B and back to A. The process should be similar to this.

P[1] Move to a HOME position. This will be high and in the middle.

P[2] Move to approach A

P[3] Move down to A

Close gripper

P [2] Move to approach A

P [4] Move to approach B

P [5] Move down to B

Open gripper

P [4] Move to approach B

P [5] Move down to B

Close gripper

P [4] Move to approach B

P [2] Move to approach A

P [3] Move down to A

Open gripper

P [2] Move to approach A

End

Please only move one item to 2 different locations.

**ITEMS that MUST be included in your program!**

· Setting the frames and frame values.

· Opening the gripper prior to starting any movements.

· Setting the speed of the robot. Don’t make it 50 or 100%.

· Position descriptions.

· Basic program descriptions such as, ”pick up part” or “place part”.

· **There will only be 5 positions in your program.** You can repeat the same position by teaching a point and going into the P [**X**] and changing the number.

· The approaches only move in the Z axis. Straight above the pick up or place point.



After you have written your program you will need to save your file. Follow these instructions.

1) How to save programs.

a. To place the files on the files on the root directory of the jump drive.

b. Insert the jump drive in the teach pendants USB port.

c. Select button

i. Save As

1. Make sure the screen says “TO USB on TP (UT1:)

a. Save your file

3) Now you will need to **print** your programs. Here is how to print.

a. Press Select

i. Next

1. Print F5

i. Wait 5 seconds and remove your jump drive.

4) Place jump drive into a computer.

a. Open MS Word

i. Open all file types \*.\*

1. Open your file.

a. Print your program.

Be ready to demonstrate the following to the instructor.

Points for

A) Setting and remarks for Frames. 10 pts

B) Frame values in the remarks. 10 pts

C) Remarks for positions. 10 pts

D) Remarks for program info. Pick up part, drop off part etc. 10 pts

E) Override command 10 pts

F) Approaches only move in the Z axis. 10 pts

G) Only having 5 position numbers. 15 pts

H) Saving your program onto a jump drive. 10 pts

I) Printing your program. 15 pts

INSTRUCTOR’S INITIAL\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_