Robot Programming Lab #9 Loops and Jumps JD Jones and John Nelson

Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Point Value = \_\_\_\_\_\_\_\_\_/50 points

In this lab you will be learning how to make the robot loop and repeat the program. Use your program for lab 8.

Lets understand the Label and Jump command.

Simple terms a LABEL [LBL] is a location in a program. This is on a command line and simply gives a place for the robot to go back to.

The JUMP LABEL [JMP LBL] command is telling the robot where to jump to.

Enter the following program. Name it Loops.

1: Lbl [1: start of program]

2: J P[1] 100% fine

3: J P[2] 100% fine

4: L P[3] 250mm/sec cnt 50

5: J P[4] 100% fine

6: Jmp lbl [1]

This program will never stop once it is started. It will move to positions 1-4 and then jump back to line 1 and do it all over again.

After you have entered and ran the above program now take your lab 8 program and save it as lab 9. Then change the program to run the pick and place portion then at the end have it clap for itself for EVER! Hint: Don’t put in a bunch of lines and lines of open and close gripper. You will lose points. You will not be allowed to have any move commands inside the loop in order to make it clap.

Be ready to demonstrate the following to the instructor.

Points for

A) Describing the LBL in the program. 10 pts

B) Placement of the LBL and JMP LBL commands 10 pts

C) Having it clap! 10 pts

D) Did you need help on why it didn’t physically open and close the gripper? 10 pts

E) Saving your program onto a jump drive and printing the program. 10 pts

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