ROS, LAB EXERCISE 2

(1) Write a Python script called "*turn_and_turn.py*" which publishes on the topic **/cmd_vel** instructions for going forward at 0.5 and turning at 0.5. Next create package ROS package called "*turn_forever*" launching a node called "*turnstyle*" which publishes the messages from the "*turn_and_turn.py*" script. Show that your package works on the simulated robot.

(2) Modify the *get_laser.py* script to allow the user to obtain and then print the distances measured by the laser in four directions: front, right, back and left. Demonstrate that your script works properly on the simulated robot in the ROS world.

(3) Modify the *move_to_stop.py* script so that the robot moves forward, but then stops if the distance to an object is less than 0.3 in any direction. Demonstrate that your script works properly on the simulated robot in the ROS world.

(4) Use the code from *piecewise_move.py* and *subclass_control.py* to assemble a script which will move the simulated robot from its staring position in ROS world to a position in the top left part of the world while zigzgging between the columns. When you accomplish this, you will adapt the script to drive the physical robot on an obstacle course in the Lab.