# INSTRUCTIONS FOR RUNNING THE CODE

1. The package for running the simulation is named **velocity_publisher.**
2. Please run the below command to launch the turtlebot3 in the gazebo environment:

   **roslaunch velocity_publisher velocity_publisher.launch**
3. After launching the above file, please run the below command to make the robot go to the goal position:

   **rosrun velocity_publisher robot_control**

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4. If you want to run for a different test case run the following command:

   **rosrun velocity_publisher A_star**

   It will generate a **shortest_path.txt** file with the waypoint nodes for the robot to follow.
5. Then you can follow steps 2 and 3 again to simulate that path (Note: Please change the robot spawning position (x, y, yaw) in the **bringup.launch** file according to the ROS envt. coordinates).
6. External Dependencies required for the ROS **robot_control** node:
   a. rospy
   b. rospkg
   c. tf
   d. geometry_msgs
   e. sensor_msgs

PS: Feel free to contact me if you have any difficulties in running the code. Thank you.