EECS376/476 PS3 Report

This assignment finished in two ways: lazy one and simple one

The lazy one only edits the path_client, commanding robot using a series of phase command due to the reason that the service will receive the phase message (Quaternion) and move in that direction for 1 m. So in this way of solving the problem set, all I did is to keep pushing robot orientations.

This is very crude and lazy. Problem set finished with 32 poses (thats too much!)

Video link:
https://www.youtube.com/watch?v=Gny7uJFUdw0&index=3&list=PL1WxStBxgFL-uERja547HstCQPLWaUIl2

Git hub link:
https://github.com/chenhuiyang1994/EECS376_ps3/blob/master/lazy_version/path_client.cpp

The simple one fixed the get_yaw_and_pos function inside the service, so the service can now receive and understand position commands. Since it is a 2D move problem set and the robot only has 1 DOF of moving, the phase control is done by calculated the desired travel distance using sqrt(dx^2+dy^2) and the desired phase using atan2(dy,dx).

Then using ps1 solution as cheat sheet and hand typing the (x,y) travel path for the robot.

It is simple now. (Only acquire 14 poses)

Video link:
https://www.youtube.com/watch?v=PpEZvZok0sk&list=PL1WxStBxgFL-uERja547HstCQPLWaUIl2&index=4

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But the client is not simple enough (typing lines of poses is exhausting). Will develop a simpler client which reads the path using a text reader.