

HW 3 (due June 20 at etl.snu.ac.kr)

1. Consider four identical vehicles departing at the corners of the following 20×10 2-dim environment, each of which follows a simple Dubins car model. Each arrow represents the initial heading of each vehicle, whose goal pose is the diagonally opposite position with the same heading as the initial value. Use *any* method to compute collision-avoiding trajectories that minimize the time of arrival until all the vehicles arrive. For collision avoidance, the inter-vehicle Euclidean distance should be kept larger than 1.

Please describe the setup of your approach and the details of your optimization, and include the graphs confirming collision avoidance and arrival at the goal.

