

Evan Desmond		Louis Laurita	
Date	Work Done and Time Spent	Date	Work Done and Time Spent
11/26/2023	Researched A* and Dijkstra algorithms. Decided RRT would be better for our project purposes. Time: 1 hr	11.26.23	Reviewed Midterm1 code and indentified mistakes with previous implementation. Wrote program to visualize RRT path using randomly initialized goal and object orientations. Compared RRT algorithm with implementation given in https://cdn.techscience.cn/ueditor/files/cmc/TSP_CMC-72-3/TSP_CMC_28165/TSP_CMC_28165.pdf to asses feasibility of incorporating dynamic objects into existing code. Time: 2 hrs
11/27/2023	Researched RRT* and LQR path planning algorithms. Set up github repository. Started integrating Louis's previous midterm work with RRT* and LQR. Decided best step would be to get normal RRT working first then try the more complex alorithm. Time: 3.5 hrs	11/27/2023	Started to integrate RRT* and LQR path planning into existing test function. Looked into quaternion representation given by aruco messages, determined that initial code for jetbot state, action and transition spaces would not incorporate coordinate transforms. Created new ArucoSubscriberUpdated.py to reflect how the incoming aruco messges would be handled. Time: 3 hrs
11/28/2023	Worked on setting up jetbot to properly perform aruco marker detection. Was not successful. Wrote progress report 2. Started working on writing to code for controlling the jetbot. Time: 3 hr	11/28/2023	Reassessed how state space, action space and transition function should handle and compute jetbot movement. Identified more mistakes with Midterm1 code and updated them in ArucoSubscriberUpdated . Started writing new test program to more closely approximate how the jetbot will inform its movements through the transition function, although currently only partially working. Time: 4.5 hrs