MEAM5200 - Final Project - Individual Report

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1 Peer Evaluation

The team came together and collaborated on the project. We explored several approaches in the beginning and went with the one that consistently gave good results on the simulation as well asthe hardware.

Several debugging sessions, meetings, and discussions transformed the tasks into a successful code.

1.1 Contribution: Shreyas Raorane (self-evaluation) — 5/5

The highlight of my work lies in structuring the code and developing the algorithm for the pick and place tasks.

In addition, I led the code joining efforts for the teammates and came up with the final code for the hardware testing sessions.

The approach I worked on along with Kabir was the Inverse Kinematics Approach.

1.2 Contribution: Kabir Puri — 5/5

Kabir worked arduously on coming up with the calculations regarding the transformation matrices along with major code contributions for the Inverse Kinematics Approach.

He also came up with several ideas regarding every aspect of the code, quite a few of which were implemented in the code.

2 Contribution: Dhyey Shah — 5/5

Dhyey's contribution lies in strengthening the code and the process, from figuring out how to align the end effector perfectly, to making the detections better using complementary filters.

Additionally Dhyey also worked on the RRT approach while exploring and came up with a code for the same.

3 Contribution: Chris Spletzer — 5/5

Chris explored an alternative approach to the problem and participated in the coming up with a few ideas.

These ideas helped shape our approach and the code in general.