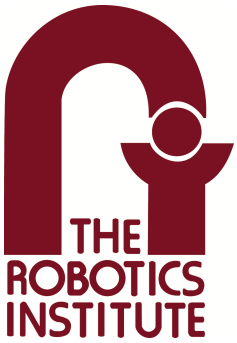


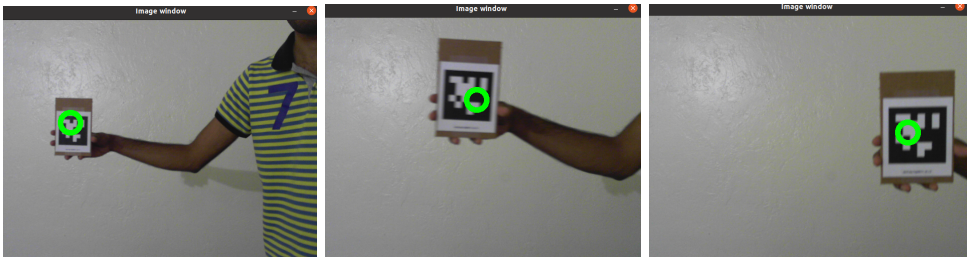
Carnegie Mellon University
The Robotics Institute, School of Computer Science

ROS Familiarization Part 2

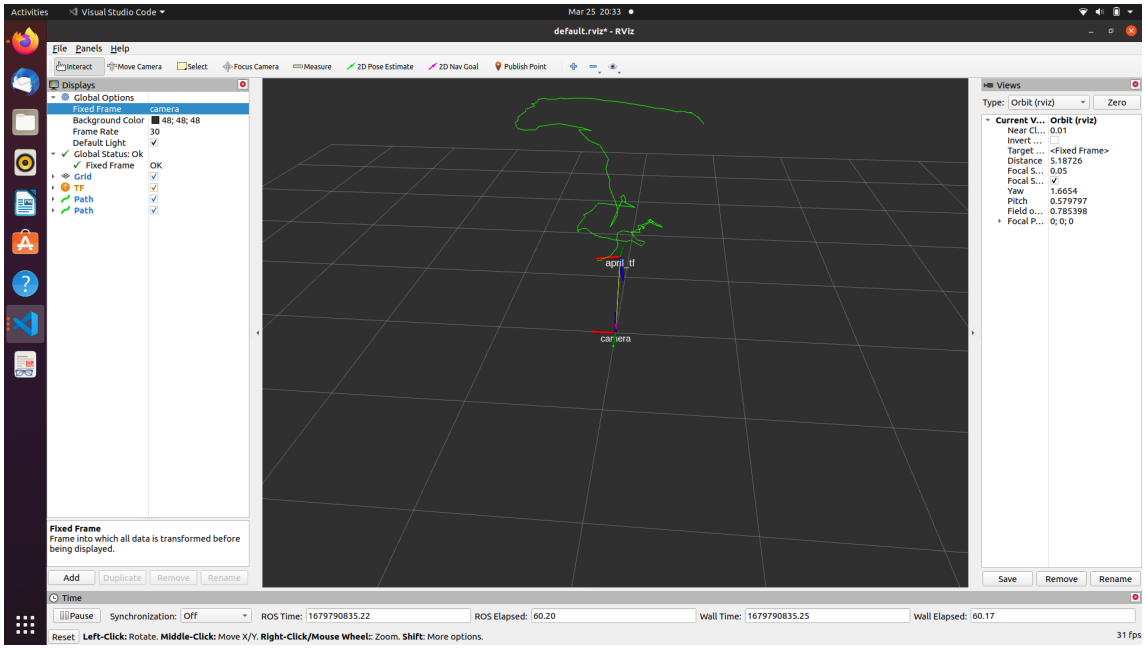
Shri Ishwaryaa S V

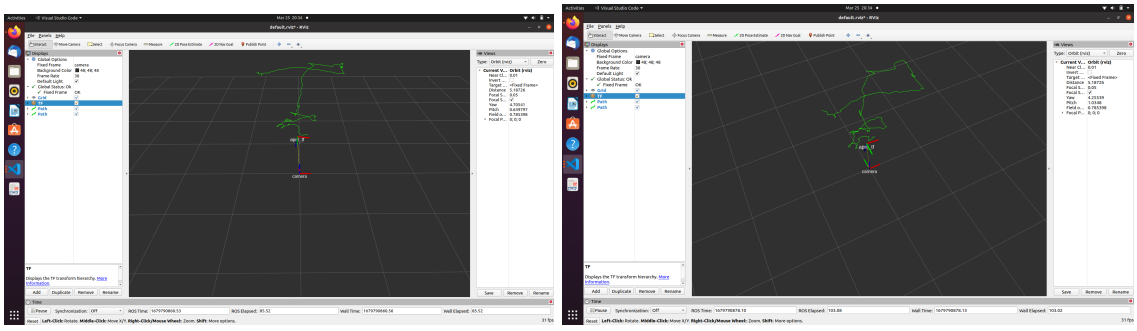
MRSD Project Course I

Screenshots

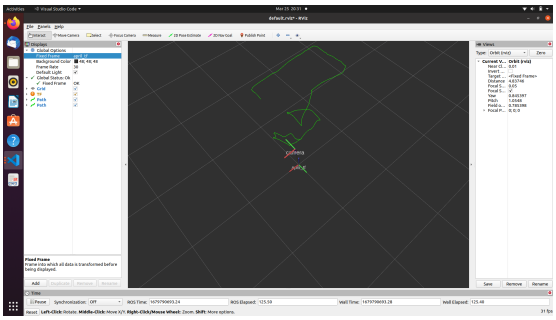


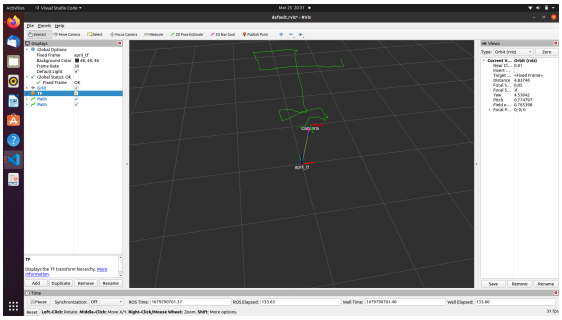
Green circles on the april tag

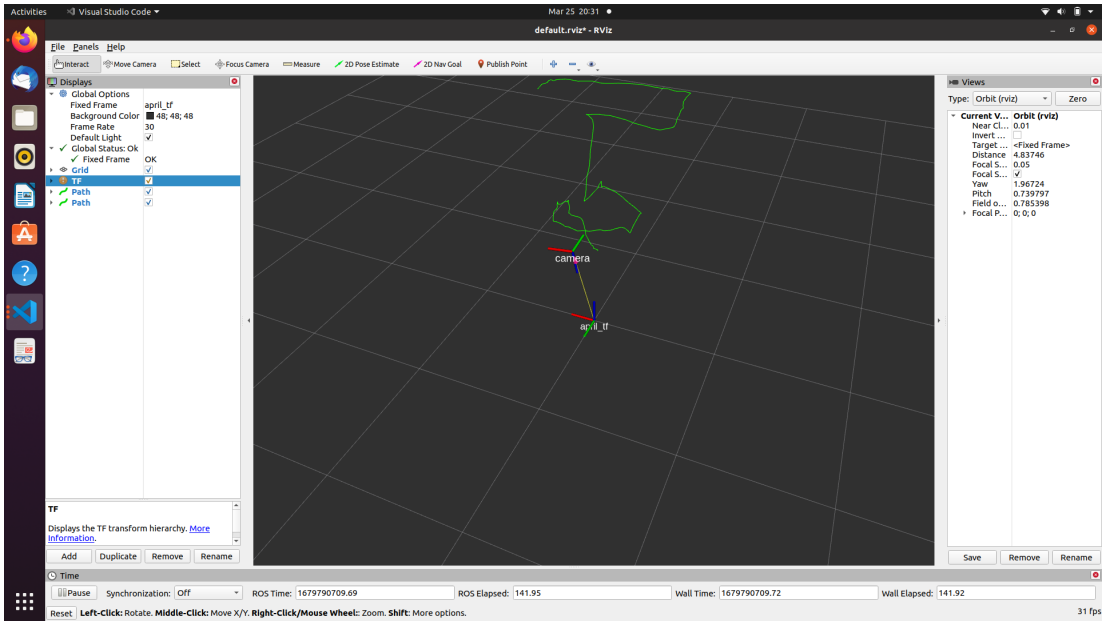




Trajectory of the april tag







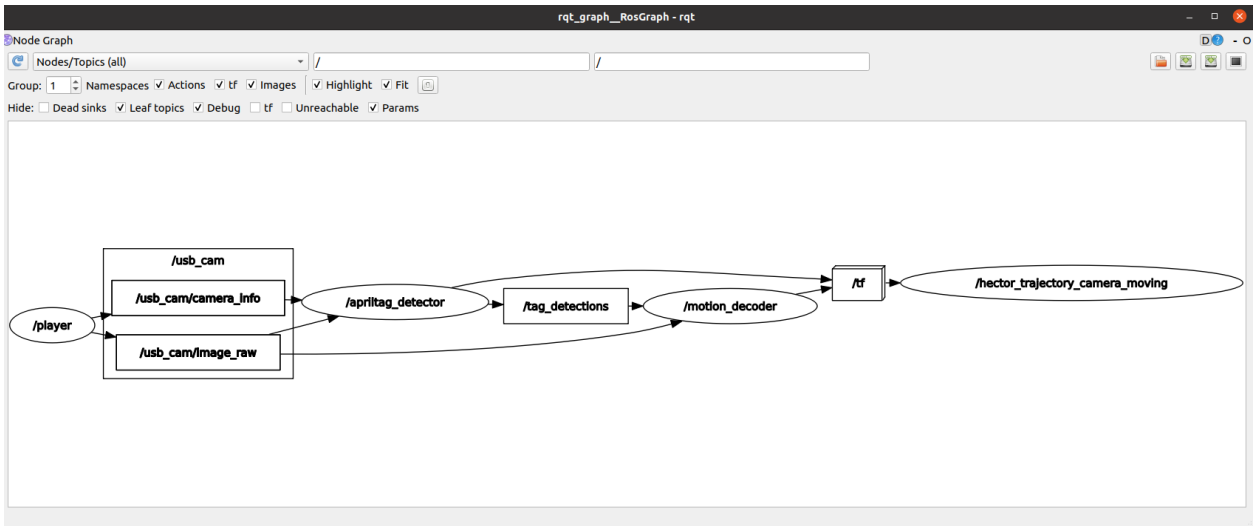
Trajectory of the camera

Video Clip

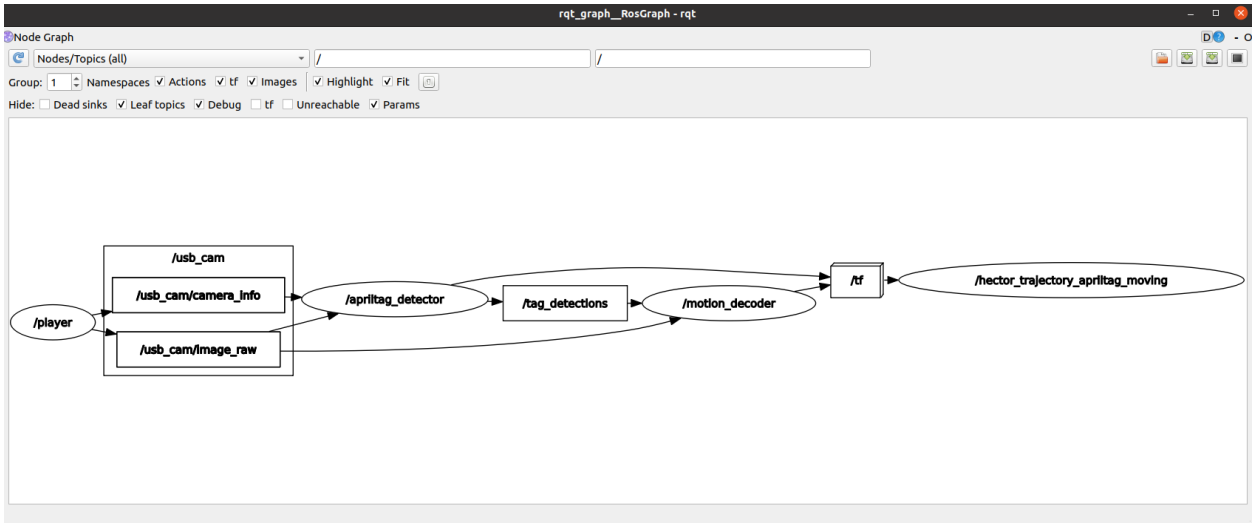
https://drive.google.com/file/d/1l8-mRrDHXXSTfAtOIHQsEI33m6LgXNWZ/view?usp=sharing

Part 4

1. Rosgraph for Motion_decoder_camera_moving



Rosgraph for Motion_decoder_apriltag_moving



2. If these packages need to be used in my project, we can assume that the April tags are on the peppers. The camera can then accurately calculate the pepper's pose. The motion decoder can pass this pose information to the manipulator arm which can then be actuated. We can also store the transforms between the peppers and the camera and visualize the path as we did in the assignment.

3. I think that the assignment was fun to implement. Being able to see the results after writing all the code was satisfying. As I knew nothing about using existing ROS packages before doing the assignment, I feel that I learned something new. In addition, I learned to read documentation, access topics and their information using the command line, and use RViz. The assignment was a little difficult but I could successfully implement it with my classmates' guidance.