Quadrotor landing on a moving platform

Stan Brown Chris Choi

April 4, 2016

Presentation Outline

- Project Overview and Goals
- Hardware used in the project
- System overview
- Approaches used to simplify the problem
- Milestones and Progress through the term

Project Overview and Goals

The goal of this work was to design and implement a set of methods that could be used to land a quadrotor on a moving platform. In our approach we broke the problem down in to a series of steps and goals along with the requirements for each step.

- Develop a way to land on a stationary location on the ground
- Expand the methods employed in the first step to work on a moving platform operating in a planar, disturbance free environment
- Further expand the methods to be able to account for wind, non planar motion of the platform (ie identify and handle cases were the landing pad is located on a sloped surface).

Hardware

The hardware used in this project was selected from a set of parts that we had laying around the WAVELAB.

- Develop a way to land on a stationary location on the ground
- Expand the methods employed in the first step to work on a moving platform operating in a planar, disturbance free environment
- Further expand the methods to be able to account for wind, non planar motion of the platform (ie identify and handle cases were the landing pad is located on a sloped surface).