Project Proposal – Jacob Olson and Michael Farrell

We will be implementing SLAM with an RGBD camera on a multirotor. The goal is to fly the multirotor around the cave, mapping the room. If the motion capture system is functional in time, we can compare the localization of the copter with the motion capture data. We have broken down this project into the following milestones which start first in simulation before moving to hardware:

Milestones:

11/3 - Get Turtlebot Gazebo simulation working and understand background functionality

11/17 - Get RGBD SLAM on ROSflight sim

12/1 - RGBD SLAM on cart

12/18 - RGBD SLAM on hardware (likely copter w/ TX2)

Note: we will no longer be working with Vallan and Nathan.