

Reflection Note Workshop 2

During this second workshop, we explored the tools used in an actual autonomous system. We looked at presentations of different navigation and mapping tools, like using a lidar to detect obstacles and using A* or Dijkstra to find best path. Then we got a brief introduction to using Scratch to program a drone. Finally, we explored the programming of a rover running ROS by remotely accessing the rovers two computers and getting sensor data to use for controlling movement.

The main project during the workshop for me was the programming of a rover to gather “GPS” data and use this to move from a random spot to a predefined spot, wait for another rover to interact with it, and then move to a finale predefined spot. The hardest part here was accessing the gps data, which required a bit of tinkering and testing to figure out. Then, a considerable problem was met in the usefulness of the data acquired. The beacon registering the data didn’t really update with accurate data until four to five seconds after any movement. This would have been fixed with the implementation of a filter, like an Extended Kalman Filter, but there was no time left to do this.