**Points for this week:**

* Milestones for the semester
* Budget: What needs to be purchased (Quantity, lead time, cost, part number, description)
* List of requirements
* Decide on communication schemes (help with block diagram

Milestones for this Semester:

* Preliminary Design Review (Report): 11/7/2017
* Preliminary Design Review (Presentation): 11/9/2017
* Alpha Prototype Progress Review (Report): 12/12/2017
* Alpha Prototype Progress Review (Presentation): 12/14/2017

Budget:

* Immediately after our meeting on 10/19/2017 we set up an order for two Turtlebot 3 Waffles (third to come later)
* Budget in [Google Sheet](https://docs.google.com/a/stevens.edu/spreadsheets/d/1DOyLbUF2cxhLC8L-gFEX5437KoGfPg0OoMIhw8HfQWQ/edit?usp=sharing)

Requirements:

|  |  |  |
| --- | --- | --- |
|  | **Task** | **Expected Completion** |
| T1 | A single robot shall produce an accurate 2D map of an empty room | Semester I, Week 12 |
| T2 | A single robot shall produce an accurate 3D map of an empty room | Semester 1, Week 14 |
| T3 | A single robot shall produce an accurate 3D map of a similar room with few (2-4) obstacles | Semester II, Week 3 |
| T4 | A single robot shall produce an accurate 3D map of a similar room with several (6-8) obstacles | Semester II, Week 4 |
| T5 | A single robot shall produce an accurate 3D map of multiple rooms (3-4) sharing joining doorways | Semester II, Week 5 |
| T6 | All three robots shall produce an accurate 3D map of a single room through simultaneous operation | Semester II, Week 8 |
| T7 | All three robots shall produce an accurate 3D map of multiple rooms (3-4) sharing joining doorways | Semester II, Week 10 |

*\*NOTE: a) For evaluation, a single room is defined as a rectangular space with all entrances (doorways and otherwise) closed off and confined to a space of at least 5m in both horizontal directions. b) Obstacles are defined as items which can be bounded by a box at least 12” in all directions. c) Accuracy is acceptable with map deviations no more than 2” from the expected value*

Communication:

* For initial testing we will use Ethernet directly from computer to robot
* Later, a local WiFi network will be created, with each robot communicating with the others and with the Central Computer. Each robot will have a router with a static ip that will be used for communications.

Project Name:

* Prometheus