Controls Subteam Meeting Notes

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1 Admin Updates

1. 2 people still need to complete Basic 2 and get access.
2. Attendance: 8

2 Subteam Updates

Vehicle Class Test Cases - Lixing and Ashish

1. What is your deliverable for this week?
   Make test case for the setGains and setSetpt functions.
2. Regarding that deliverable, what have you accomplished and how did you accomplish it?
   No. Still working on getting it to compile.
3. What are you stuck on?
   Vehicle default ctor doesn't exist.
4. What will you work on for the next week?
   Continuing with making it compile and run the simple tests.
5. What is the high-level design you are thinking of for next week's deliverable?
   Start using ekf scripts to generate answers to test cases.

EKF Class Test Cases - Nathan, Nick, Anthony

1. What is your deliverable for this week?
   Complete set of test cases for ekf.
2. Regarding that deliverable, what have you accomplished and how did you accomplish it?
   Parts are done. Modified Matlab script for generating test case answers and continuing to learn and understand the EKF math. Also learned boost unit test framework and working on setting up unit tests.
3. What are you stuck on?
   EKF math and theory.
4. What will you work on for the next week?
   Four compiled and running unit test cases.
5. What is the high-level design you are thinking of for next week's deliverable?
   Getting basic and some edge test cases designed.

EKF Simulation - Sasawat

1. What is your deliverable for this week?

   Visualize plots of C++ version of ekf running on log data.

2. Regarding that deliverable, what have you accomplished and how did you accomplish it?

   Made program that simulates calls to ekf algorithm running on log data.

3. What are you stuck on?

   Program shows output that is different from spKalman Matlab script.

4. What will you work on for the next week?

   Continuing the simulation and find the differnces between Matlab and C++ (flying on vehicle) versions of EKF.

5. What is the high-level design you are thinking of for next week's deliverable?

   N/A. Focussing on implementation details.

EKF Documentation - Steven

1. What is your deliverable for this week?

   Completed documentation.

2. Regarding that deliverable, what have you accomplished and how did you accomplish it?

   Part of it is done following guidelines in vehicle.tex.

3. What are you stuck on?

   Need guidance on how the math works.

4. What will you work on for the next week?

   Continuing to write up math in vehicle.tex.

5. What is the high-level design you are thinking of for next week's deliverable?

   Making clear English explanations about the math and algorithm.

Sensor Documentation - Sajan

1. What is your deliverable for this week?

   Finding the location of pre-existing sensor noise data and sensor datasheets.

2. Regarding that deliverable, what have you accomplished and how did you accomplish it?

   Found the redmine issues and emails that the data was saved in.

3. What are you stuck on?

   Nothing.

4. What will you work on for the next week?

   Moving pre-existing documentation on sensor noise to vehicle.tex in infra repo.

5. What is the high-level design you are thinking of for next week's deliverable?

   N/A. It's just documentation.