Extra Credit: Frequency Domain Analysis of Actual Roll / Pitch Dynamics

Due Jul 17 by 11:59pm **Points** 0 **Submitting** a file upload **File Types** pdf

To get three extra credit points, repeat the following assignments using real data from your glider:

1. Frequency Domain Analysis of Roll Dynamics
2. Frequency Domain Analysis of Pitch Dynamics

To collect the data, use your autonomous control strategy to fly the glider while writing the servo commands and sensor data to the SD card. Reformat the data to match the simulated data provided in the earlier assignments.

To get credit for this assignment, show your Bode plots and transfer functions to the instructor. These data can be extremely valuable to designing an effective controller for the final project. You may want to revisit the following assignments to understand how:

1. Selecting kp for roll control using the root locus method
2. Selecting PD gains for roll control
3. Successive loop closure for yaw control