**Group Progress Report**

**Group**: Drew Levy, Sam Fox, Harvey Shi

**Project**: Limb Loading Monitor

**Date:** December 3, 2017

**Goals for the past week** (copied from last progress report)

1. Finish finger tremor device and prepare demo to Mark.
2. For the code that tests the Velostat pressure membrane, finish building time dependence feature and allow it all to be graphed and stored for analysis.
3. Gather lots of Velostat loading data (with consistent loading patterns over extended time periods) and characterize the sensor drift.
4. Try to develop a calibration solution that overcomes sensor drift (that works long enough for our client).

**For each goal above, comment on your progress**:

1. Completed and demoed with Mark.
2. We finished the Wii Board-based testing platform, which integrates Bluetooth data from the board, and serial information from the Arduino (connected to Velostat). The result is a .csv file containing time-series data of the two datasets, which we can use to diagnose and improve the device.
3. We have gathered a few datasets so far using the new testing platform, but have yet to thoroughly analyze the results.
4. We will need to look at the data first to see how bad the drift is. We also need to know what kind of factors affect drift, such as time, temperature, weight applied, etc.

We have also worked on getting an LCD shield interface for our prototype, as well as creating an insole-shaped version of our Velostat sensor.

**Goals for this week**:

1. Prepare and present our prototype device.
2. Continue testing the device and collecting data.
3. Analyze the data for drift patterns and other anomalies.

**Are there any difficulties with which you need assistance?**

Not at this point, but if it becomes clear that the Velostat will not be adequate for this project, we will need to reevaluate several of our design decisions up to this point.

**Other comments:**

None.