

## DSG – EIC DIRC Meeting

**Date: March 11, 2024**

**Time: 1:30 PM – 2:00 PM**

*Attendees: Peter Bonneau, Aaron Brown, Brian Eng, Greg Kalicy, Tyler Lemon, and Marc McMullen*

### **1. Test plan for barbox shipping crate suspension**

1. USB accelerometer locations:
  - Four on interior basket of crate
  - Six on barbox mock-up
2. On March 12, 2024:
  - Load crate on to flat-bed truck and drive crate around
  - Pull accelerometer logs and plot data
  - Adjust system and repeat, if necessary

### **2. Accelerometer system for shipment to and from SLAC**

1. Ideally, each truck should have one crate's suspension system monitored by accelerometers throughout the four-day trip
2. The 10 USB accelerometers on hand have a battery life of only six hours and were also discontinued in 2022 due to chip shortage
3. New accelerometer system under development for each truck:
  - One Arduino controller with SD card peripheral
    - Accelerometer data will be logged to SD card
    - SD card can be read using USB connection to controller
  - Ten accelerometers
  - One I<sup>2</sup>C multiplexer
  - Design in progress of 3D-printed boxes to hold accelerometers and controller