**Directions for Data Gathering:**

Plug the accelerometer into channel 1. We will divide the list of data requests in to 4 parts. The second crew will take over at 11:30. Note that each request is numbered 1-4, and the students have specified Radial (+ away from your chest), Lateral (+ to the right) or Vertical (+ is up) You have two LabQuests in case you run out of either memory (not likely) or batteries (more).

For each request:

1. Turn the LabQuest on by pressing the power button on the upper left.
2. File > Open > 01-300s-50.cmbl (300 seconds, 50 readings/sec – the others are extra copies in case you save without changing the filename)
3. If you have the B accelerometer, look at the directions below to set up the sensor.
4. Press the “▶” button to start data collection.
5. Press the “▶” button again (above the other buttons on the front) or the “◼” on the screen to stop data collection
6. File > Save > click on the file name “untitled” with the stylus, and name the file in this way:

13-1-scrambler-l

Where:

“13” is the year

“1” is the number of the request (1-4)

“scrambler” is the ride

“l” means lateral (Otherwise “a” for axial, “v” for vertical)

1. When the file is done saving (wait) you can turn the power off to save batteries.

When you are done, stash everything in the “Tualatin” box where all our stuff is and go play. If you start feeling sick, recruit another student to take over and you two could share credit for the assignment.

(The B Accelerometer seems to automatically detect the sensor now??)

Directions for the B accelerometer (That might not auto detect). After opening the file, you might need to:

1. Sensors > Sensor Setup (wait) > “CH 1” pull down to > “Accelerometer” pull down to > “Low-g Accelerometer”
2. Click “OK”
3. Check to see that the sensor works. (It should read about 9.8 sitting upright, and about -9,8 upside down)

What to do if the accelerometer does not read more or less 9.8 m/s/s when sitting upright: (How to calibrate an accelerometer)

1. Open one of the empty experiment files (File > Open > 01-300s-50.cmbl) (This might fix it)
2. Sensors > Calibrate > Low g accelerometer > Calibrate now
3. Place the accelerometer on a level non vibrating surface with the arrow pointing up. Click into the “Reading 1” box, and type “9.81” and then click “Keep”
4. Turn the accelerometer over, and type “-9.81” into the “Reading 2” box. Click “Keep”, and then click “OK” down below. You should be set.
5. Save the current file over the blank experiment files on the device and they will all be calibrated. (File > Save > click on the filename > Save > Overwrite)