12/5/19 - Data Analysis

- https://www.digikey.com/en/articles/techzone/2011/may/using-an-accelerometer-for-inclination-sensing

timestamp	mode	X	Y	Calc Value	X/Y	Y/X
1574866057.4651971	RX	0.0322344	1.07643	climb	0.029946	33.39383
1574866058.6057501	RX	0.0517704	0.663248	flat	0.078056	12.81134
1574866059.713793	RX	0.104518	0.589988	flat	0.177153	5.644846
1574866060.856318	RX	0.0361416	0.0918193	decent	0.393617	2.540543
1574866061.936372	RX	0.0517704	0.369231	flat	0.140211	7.132087
1574866063.0459499	RX	-0.105494	0.454212	flat	-0.23226	-4.30557
1574866064.186259	RX	0.0888889	0.519658	flat	0.171053	5.846152
1574866065.2963419	RX	-0.02442	0.560683	flat	-0.04355	-22.96
1574866066.4060578	RX	0.263736	0.635897	flat	0.414746	2.411112
1574866067.5162458	RX	0.0039072	0.472772	flat	0.008264	121.0002
1574866068.6560512	RX	0.0556776	0.544078	flat	0.102334	9.771937
1574866069.7662911	RX	-0.0126984	0.194383	flat	-0.06533	-15.3077
1574866070.876447	RX	-0.058608	0.638828	flat	-0.09174	-10.9
1574866071.986408	RX	-0.0537241	0.359463	flat	-0.14946	-6.69091
1574866073.0962939	RX	-0.0703297	0.187546	flat	-0.375	-2.66667
1574866074.236073	RX	0.120146	0.31453	flat	0.381986	2.617898
1574866075.376142	RX	0.07326	0.748229	flat	0.097911	10.21334
1574866076.486028	RX	0.214896	0.493284	flat	0.435644	2.295455
1574866077.656208	RX	-0.186569	0.644688	flat	-0.28939	-3.45549
1574866078.70609	RX	0.0078144	0.337973	flat	0.023121	43.25003
1574866079.816355	RX	0.0507936	0.587057	flat	0.086522	11.5577
1574866080.9265862	RX	-0.0908425	0.575336	flat	-0.15789	-6.33334
1574866082.0361249	RX	0.0380952	0.43663	flat	0.087248	11.46155
1574866083.1463361	RX	0.034188	0.899633	climb	0.038002	26.31429
1574866084.2862449	RX	-0.0468864	0.536263	flat	-0.08743	-11.4375

NEXT STEPS:

- Add Z-Access
- Reduce input to 3 decimal points
- Correlate time above to GPS analysis
- Build new test unit
    - Add Ball Tilt Sensor to unit
    - Add New Accelerometer
- Add Threshold UI to unit
- Add Algorithm UI to unit
- STRETCH: Add New GPS Unit
- STRETCH: Add New Accelerometer