Lab 4 - Board Notes - Acceleration of a Cart (Uniform Acceleration in 1D)

Thursday, July 31, 2014  2:10 PM

\[ \alpha = g \sin \theta \]

\[ \theta = 10^\circ \]

**Experiment**
- Motion sensor @ 20Hz
- Ch 1 & 2
- Hardware

**Graph**
- Position vs. time
- Velocity vs. time
- Acceleration vs. time

**Lab Report**
1) Cover Page
2) Analysis Q&A
3) Attachments (x3)
   - Position vs line
   - Quadratic fit
   - \[ a = \frac{A}{t^2} \]
   - \[ b = \frac{B}{t} \]
   - \[ c = x_0 \]

**Compare Accel from**
- U vs. t
- \( \alpha \) vs. t

- Velocity vs Time
- Linear fit
- Acceleration vs Time
- \( a \)

- \( \alpha \)

Change mean using statistics tool