

Things we should know how to do by this point:

- **Math.**
 - **Algebra:** Solve for unknown quantities (symbolically, units).
 - **Trigonometry:** sin, cos, tan, Pythagorean theorem.
- **Create Data Tables and Graphs.**
- **Read and Interpret Graphs** (linear, proportional, etc.).
- **Model Experimental Data** (modwrk.xls).
- **Determine average, standard deviation, SDM for a data set.**
- **Report best estimate \pm uncertainty** (sig. figs.).
- **Understand meaning of standard deviation and SDM.**
- **Understand difference between accuracy and precision.**
- **Determine sources of uncertainty and systematic error.**

Unit 3

We will be learning 4 methods to describe motion:

- **Graphs** (3.1 – 3.6)
- **Graphics (vectors)** (3.3, 3.5)
- **Motion diagrams** (3.5)
- **Equations** (3.7 – 3.11)

Each method should give the same result, either qualitatively or quantitatively.

Use the following files in LoggerPro:

- [Activity 3.2.2: Motion Detector-Position](#)
- [Activity 3.2.3: Position Match](#)
- [Activity 3.3.2: Motion Detector-Velocity](#)
- [Activity 3.3.5: Velocity Match](#)