

Unit 7: Newtonian Mechanics – Oscillations

LAB: Simple Harmonic Motion

Objectives:

- In reference to a spring-mass system that oscillates vertically: Either...
 - Determine the spring constant using graphical methods, or
 - Prove¹ that displacement does not affect period.

Hypothesis: State your hypothesis.

Safety: Take care that the cars stay on the tracks.

Background: On what principles did you base your hypothesis and your procedure?

Equipment:

- Springs of a variety of lengths and gauges, hanging masses, motion sensor, force sensor, meterstick, or other

¹ You get to use standard deviation for this one, so this would be a nice opportunity to practice that skill.

