

PHY 202/182 Lab Instructor notes
Lab 8: AC Circuits: Resonance
Spring 2004

- This lab is really short.
- This lab uses capacitors on both circuit boards (they only need the 1 nF capacitor on the newer board).
- Explain about hooking up wires so that it is easy to switch capacitors.
- Use a weight and spring to demonstrate the driven harmonic oscillator effects. (Both the impulse and the sinusoidal driving force.) Discuss what happens to kinetic and potential energy of the harmonic oscillator as a function of time.
- Use some mechanical demo, such as a cylinder of oil, to demonstrate about decay of the ball and spring. Discuss both weakly damped and strongly damped cases.
- Please unhook all of the cables at the end of the lab.