

PHYSICS 208 Lab 3

The purpose of this lab study simple time independent circuits with resistors and capacitors. The students should know how to use the power supply in a simple circuit and know how to measure voltage differences and currents using the meter from the first lab.

A circuit board will be supplied which contains resistors and capacitors. These should be combined so that the student can verify the rules for adding resistors or capacitors as well as demonstrating to themselves that in the steady state no current flows through the capacitor. Notice that because the capacitors are so small, the voltage across the capacitor can only be measured directly for the largest capacitor so that the loop law will be needed to determine the voltage across a capacitor.

Each team of students should turn in a few sheets of paper at the end showing the circuits they built, the analysis of the circuits and the results of the experiments.