

AP PHYSICS TOPIC: DC CIRCUITS (LAB # 14)

In this lab you will create various electrical circuits using the simulation. Take measurements of current and voltage drops across resistors in your circuits.

In this lab you will go to: <http://phet.colorado.edu/en/simulation/circuit-construction-kit-dc>

Your mission is to use the simulation to determine the relationship between current through a resistor and the voltage across the resistor.

Your write-up should include:

- ↗ **Objective:** What was being investigated? What were you trying to find?
- ↗ **Theory:** What's going on? Include here the equations you will be using and any needed manipulations of them. They should be clearly explained, with connections to physical laws and diagrams where appropriate.
- ↗ **Method:** Description of the procedure you used, including materials and diagrams where necessary.
- ↗ **Data:** Observations from doing the experiment; graph(s) of data.
- ↗ **Analysis:** Analyze data. Final experimentally determined equation.
- ↗ **Discussion:** Discuss the experiment. Draw conclusions from data; suggest ways to improve the experiment and/or further investigations.