

Exercises to do at home

Using the VISIR, prepare an experiment that will prove the Ohm's law.

By way of a suggestion (although each student may create their own experiment), the experiment could consist of a circuit with a resistance (1 K) in which the student provides values for the input voltage (0 V, 1 V, 2 V...6V) and measures the current that flows through it. Once the chart will be obtained, the student will be able to draw graph $V-I$ using Excel. The student will observe a straight line (linear relationship). The gradient/slop is approximately equal to the circuit resistor (1 K). Student will understand that an experiment always includes some error.

This assignment can be repeated for different values of R (series-parallel connections can be made) and with different scenarios. Students can also work in groups and share their results via Google Docs or other Collaboration tools.