

## Lab 5: Resistivity

### Challenge

Find the resistivity of the slide wire resistor. Estimate the power per unit length used to heat the slide wire resistor at different currents. Determine the resistivity of two other wires.

### Available Materials

Slide wire resistor  
ammeter  
voltmeter

Calipers  
Power source  
Wires

### Lab report considerations

In addition to other graphs and charts, you must have these two plots:  $V$  vs  $I$  and  $V/I$  vs length. These graphs will greatly help your analysis of resistivity. **Remember to use error propagation for your value of resistivity.** Compare your numbers to published resistivity values.

### Teacher signatures

Please get your instructor or TA to sign off on your experimental plan, the pre-lab equipment practice, and the completion of the lab. These signatures will help to promote a successful experience.

