

Lab 28-2: Resistance of Wires

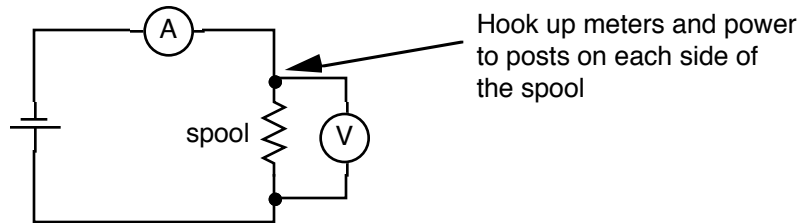
- Purpose:**
1. To determine the resistance in five different wires using Ohm's Law.
 2. To determine the effect of length, diameter and material on the resistance of a wire.

Materials:

1 power supply	1 ammeter	1 voltmeter
5 connecting wires	2 alligator clips	1 spool board

Procedure:

1. Set up the power supply, meters and spools as shown.



2. For each spool, apply a voltage, and record the resulting current.
3. On the back of the spool thing, there is a description of each spool. Record each spool's description. (Note that the numbers for the diameter of the spool are the gauge number of the wire. Larger numbers mean thinner wire.)
4. Calculate the resistance of each spool of wire.

Data:

Spool	Voltage	Current	Resistance	Description of spool
A				
B				
C				
D				
E				

Questions:

1. Describe the effect of length, thickness, and material on the resistance of a wire.