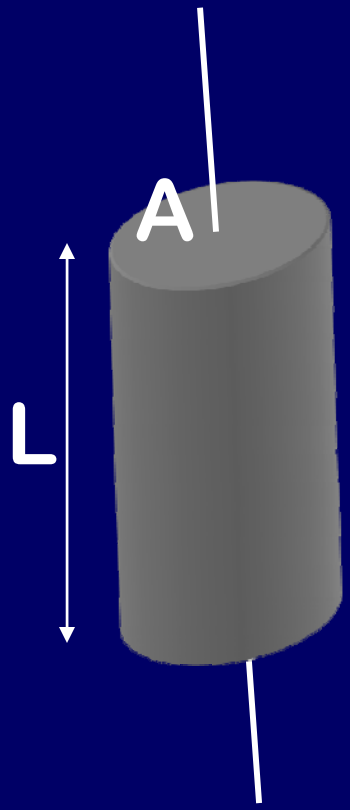
Physical Resistor

- Resistance: Traveling through a resistor, electrons bump into things which slows them down.

  $R = \rho L / A$

  - ρ: Resistivity: Density of bumps
  - L: Length of resistor
  - A: Cross sectional area of resistor



- Ohms Law $I = V/R$
  - Cause and effect (sort of like a=F/m)
    - potential difference cause current to flow
    - resistance regulate the amount of flow
  - Double potential difference $\Rightarrow$ double current
  - $I = (VA)/(\rho L)$