Lab 3 - Board Notes - Ohm's Law & Resistors

**Lab 3: Ohm's Law & Resistors**
- Current flows from lower potential to higher.

\[ V = IR \]

\[ R \text{ is Ohm's Law} \]
- Non-Ohmic

**Part I**
- Resistors - Series
  - Measure voltage in parallel to element.
  - \[ I = \text{same across all elements} \]

**Part II**
- Measure voltage in parallel to element.
  - \[ V = \text{sum} \]
  - \[ V = I \times R \]

\[ R_1 = \frac{1}{R_1 + \frac{1}{R_2 + \frac{1}{R_3}}} \]

**Experiment**
- **Part 1**
  - **Resistors**
    - \[ R_1 = 10 \Omega \] brown black black black
    - \[ R_2 = 100 \Omega \] brown black brown brown
    - \[ R_3 = 1000 \Omega \] brown black black red
  - **Setup**
    - **Power**
      - Triangle wave
      - 3V @ 60Hz
    - **Voltage Sensor**
      - 5000 Hz
    - **Scope**
      - Output current vs output voltage
      - Light bulb, triangle 2.5V, 50 Hz, 0.3 Hz

**Part 3**
- **Power**
  - DC 5V
- **Digits**
  - Voltage, Current
- **Sensors**
  - Default settings

**Report**
- Coversheet
- Questions
- Tables