

Resistance Lab

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1. Purpose

For part 1, the goal was to examine how material, cross-sectional area, and length impact resistance. For each coil of wire, resistance was determined in three ways: based on measurements of voltage and current; based on the resistance reading from the multimeter; and based on the dimensions of the wires and the resistivity of the material. In addition, the results of the three methods of determining resistance were compared.

2. Results

3. Uncertainty

4. Conclusion

5. Citations

- [1] Karen Schnurbusch, *Physics 4B Lab Book*, Mt. San Antonio College, 2023, pp. 65-70.
- [2] Karen Schnurbusch, *Physics 4B Equations*, Mt. San Antonio College, 2023, pp. 4, 10.