**Experiment 07**: Battery Characteristics

(Edit this document as needed)

Partner 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Partner 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Part A*

Provide a brief description of how you determined the battery voltage and resistance. You should include any important equations in your discussion. (This should be less than a half page.)

Experimentally measured load voltage with different load resistors. There are extra rows in the column, if you used more than two different load resistors

|  |  |
| --- | --- |
| Load Resistance | Load Voltage |
| [Ω] | [V] |
| [Ω] | [V] |
| [Ω] | [V] |
| [Ω] | [V] |

Estimated values of the internal voltage and resistance for the battery.

|  |  |
| --- | --- |
| Battery Resistance | Battery Voltage |
| [Ω] | [V] |

*Part B*

Experimentally measured load voltage when the load resistors are very small or very large.

|  |  |
| --- | --- |
| Load Resistance | Load Voltage |
| 106[Ω] | [V] |
| 1.1[Ω] | [V] |

Estimated battery resistance using the above load voltage results.

|  |  |
| --- | --- |
| Load Resistance | Battery Resistance |
| 106[Ω] | [Ω] |
| 1.1[Ω] | [Ω] |

Due: February. 14th, 2022 at 11:59 pm eastern on Gradescope

One student submits on Gradescope and adds their partner using “add group members” option on Gradescope.