WPI | Department of Physics

Worksheet for Lab 1: Safety

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Section: B22

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Date: 11/3/22

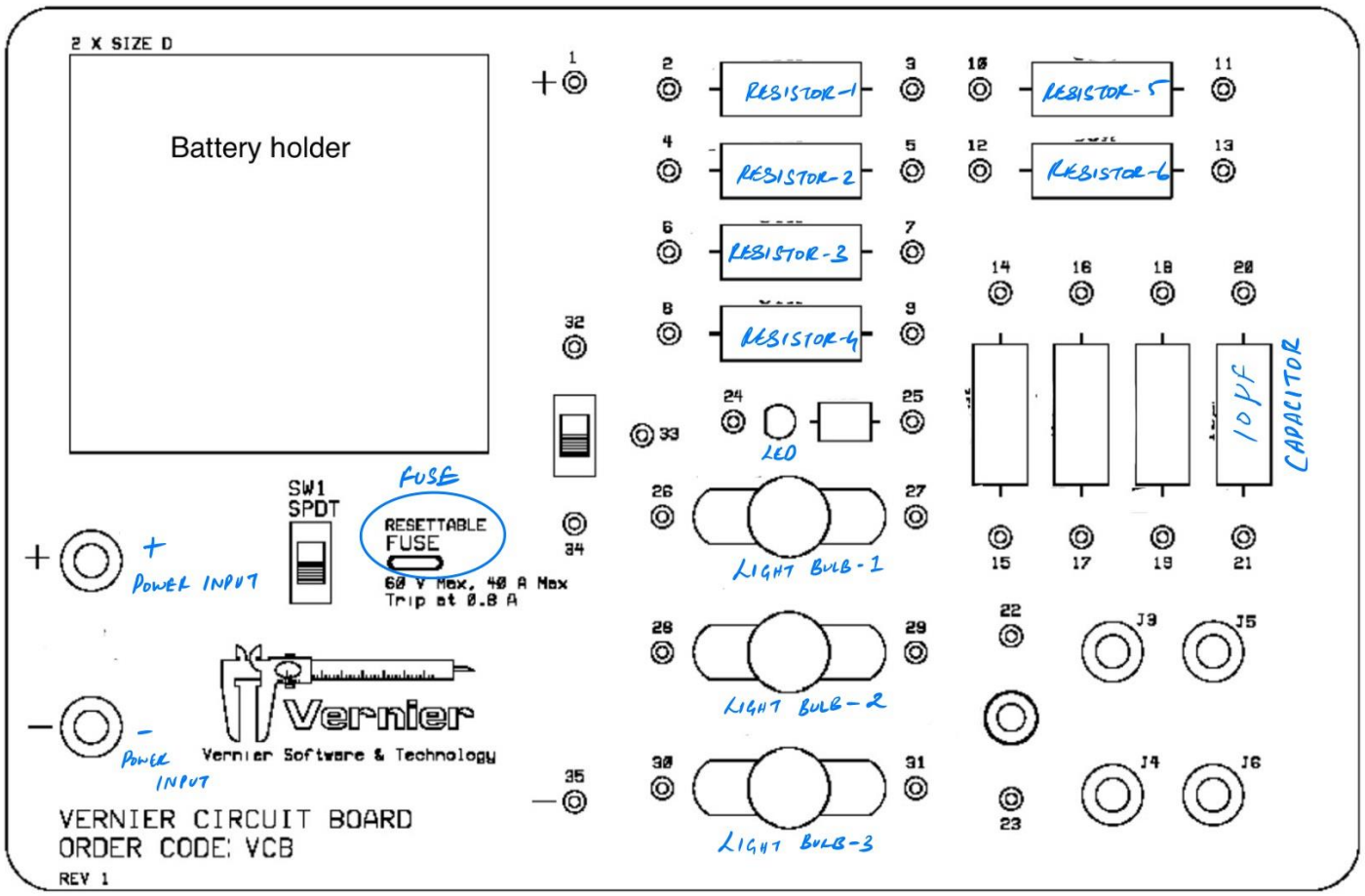
Use this sheet to enter and submit your answers to the questions asked in the gray boxes on the Lab Instructions document. When you have completed this worksheet, save this file as a .pdf and upload the pdf to the canvas assignment associated with this lab. If you have any trouble converting to a pdf, please be your Lab Instructor or Lab Assistant.

Remember to use complete sentences and that these text boxes will increase in size as you add more content.

Based on the data that you took today, write and answer the questions in the following sections. **Remember that even though you will have the same data as your partner, the writing in these sections should be done individually.**

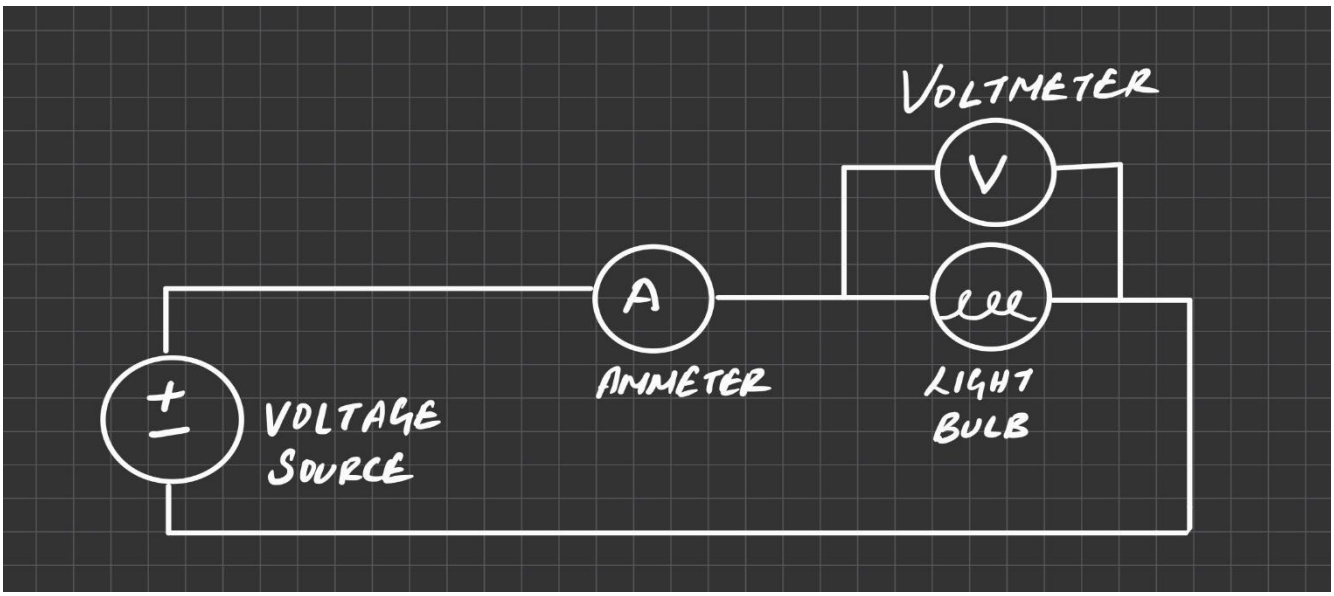
1. Getting Used to the Vernier Circuit Board

Label the empty circuit board below. Please use words, not the numbers on the assignment.



2. Drawing Circuits

Please include your circuit drawing below. You can do it by hand and take a picture of that drawing, but please make sure your picture is high enough quality for your Lab Instructor to read.



5. Tables

Create 1 table for your data for the lightbulb. Please using all proper caption rules.

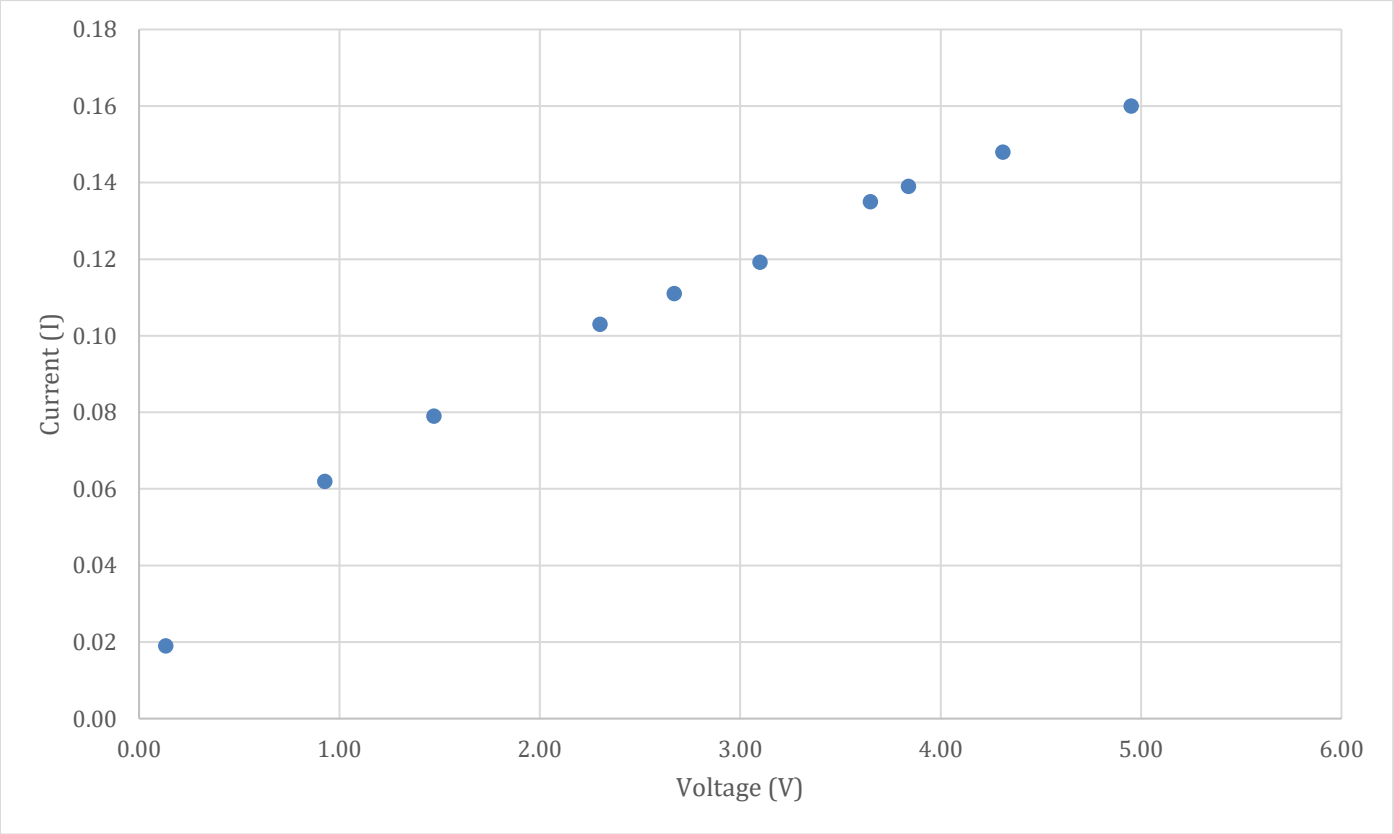
Lightbulb

Sample	Voltage (V)	Voltage Standard Deviation	Voltage uncertainty	Current	Current Standard Deviation	Current Uncertainties
1	3.10	0.01	0.0013	0.12	0.00162	0.0001616
2	0.13	0.01	0.0014	0.02	0.00136	0.0001359
3	0.93	0.01	0.0014	0.06	0.00132	0.000132
4	1.47	0.02	0.0015	0.08	0.00139	0.000139
5	2.30	0.01	0.0015	0.10	0.00135	0.000135
6	2.67	0.02	0.0016	0.11	0.00151	0.000151
7	3.65	0.01	0.0014	0.14	0.00138	0.000138
8	3.84	0.02	0.0016	0.14	0.00139	0.000139
9	4.31	0.02	0.0016	0.15	0.00132	0.000132
10	4.95	0.02	0.0016	0.16	0.00154	0.000154

Data Visualization and Analysis

Graph the tables you made, above, using all proper figure and caption rules.

Graph:



7. Conclusion

3-4 sentences

The take of this assignment was to understand how parallel and series circuit work, understand the basics of graphing in excel, collect data through Logger Pro, and understand the Vermeer Circuit Board. When tried graphing, the error bars were too small to show; we tried the same data in Logger Pro as well, but we ended up getting the same results where the error bars were too small that were not visible to the naked eye unless they are completely zoomed in.

Extra Credit

Please include extra credit below, if you choose to do the extra credit safety meme assignment.