



**COLLEGE OF ENGINEERING AND MINES
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING**

COURSE CODE	EE F102 F01 (CRN: 34544)
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COURSE NAME	INTRODUCTION TO ELECTRICAL AND COMPUTER ENGINEERING
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SEMESTER	SPRING	YEAR	2022
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LABORATORY LOCATION	ELIF 331 (ELECTRONICS LAB)
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LAB SESSION DATE AND TIME	xxxx xx xxx xxxx
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TYPE OF SUBMISSION	LABORATORY REPORT	NUMBER OF SUBMISSION	x
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TITLE OF SUBMISSION	xxx
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METHOD OF SUBMISSION	ONLINE TO: TBA
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DUE DATE OF SUBMISSION	xxxx xx xxx xxxx	DUE TIME OF SUBMISSION	xx:xx
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FIRST NAME		LAST NAME	
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MAKE THIS FORM A "COVER PAGE" FOR YOUR REPORT SUBMISSION.			
FOR THE TA USE ONLY			
REMARKS:			

Objective

Include a short paragraph about what the objective of the lab is and what you hope to learn from it. For example: “The purpose of lab 17 is to explore the correlation between shark attacks and number of ice creams purchased. I hope to gain a greater understanding of the dangers of eating ice cream in Hawaii”

Circuit Diagram

The circuit diagram section should include all the circuits used in lab procedure along with captions. Make sure to explain your figures before you show them. For example:

Figure 1 shows a DC resistive circuit. This circuit was used to gain a greater understanding of Kirkoff's Voltage Law.

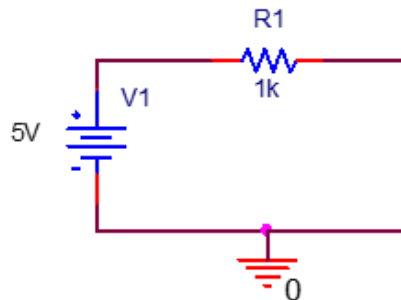


Figure 1. Sample Circuit

Observations and Results

This section is where most of the stuff that you did in your lab will go: tables, figures, equations, and calculations as well as discussions for each one. I have included an example of each below:

Table 1 shows the measured and calculated values for the resistor, capacitor, and voltage source along with the percent deference. The table shows consistency for the resistor and the voltage source, but not for the capacitor.

Table 1. Random sample components and made-up values

Component	Measured Value	Calculated Value	Percent Difference	Unit
Resistor	251.98	260	3%	Ω
Capacitor	0.008	0.01	20%	F
Voltage Source	4.7	5	6%	V

The slope of a line can be calculated by using equation 1 below. This equation was used to determine the slope of the line on a IV curve which yielded a value of 5 A/V.

$$y = mx + b \quad (1)$$

Figure 2 shows a random PSpice plot that was used to show students how to format graphs into their lab report. The red line shows some stuff. The green line shows some other stuff. They are related because of reasons.

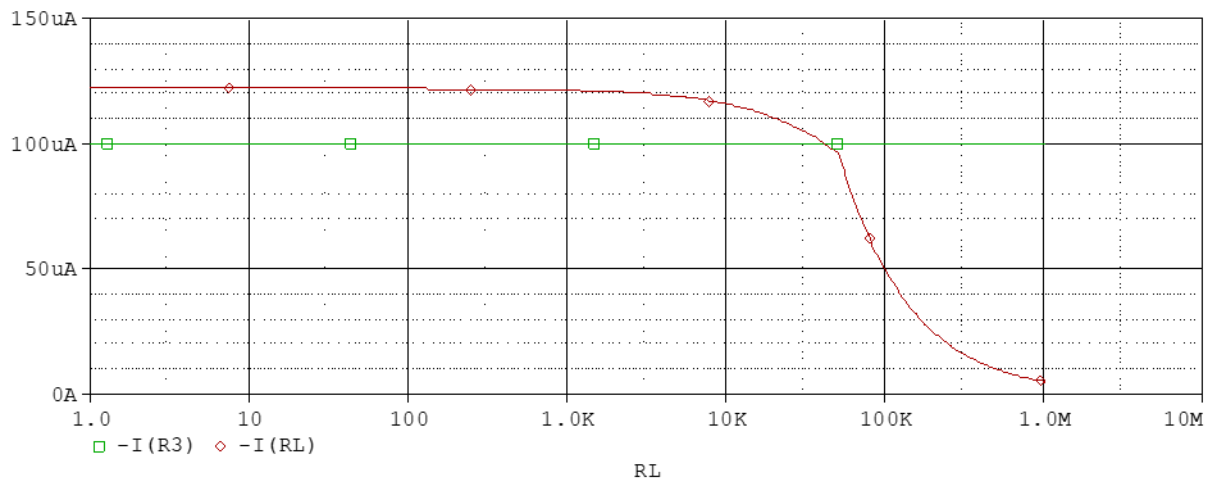


Figure 2. Random PSpice plot used to show students plot format

Equations 2, 3, and 4 show the calculations for determining something random in order to show students how to present calculations in their lab report. Equation 2 was used to determine something. Equation 3 was used determine something else. Equation 4 was used to determine other stuff.

$$A = \cos\left(\frac{\pi}{2} e^{-2\Delta t}\right) \quad (2)$$

$$B = \lim_{n \rightarrow \infty} \left(1 + \frac{1}{n}\right)^n \quad (3)$$

$$C = \frac{\partial y}{\partial x}(\ln x) \quad (4)$$

Conclusion

The conclusion should include a general discussion of the overall laboratory and a general comparison between calculations, simulations, and measurements. It should also contain any suggestions for improvement. For example:

“After conducting experiments on the relationship between number of shark attacks and ice creams purchased, I have discovered that they do not actually affect each other. The only correlation lies in that both increase in the summer months. My calculations agreed with my simulation, but my simulation did not agree with my measurements. This may be due to measurement errors on my part. This lab could be improved by researching something relating to electrical engineering instead of sharks and ice cream.”