

Experiment

Title of Report

ECEN 2011- Experimental Methods 1

Author Name:

Partner Name:

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Fall 2017

Introduction (5 Points)

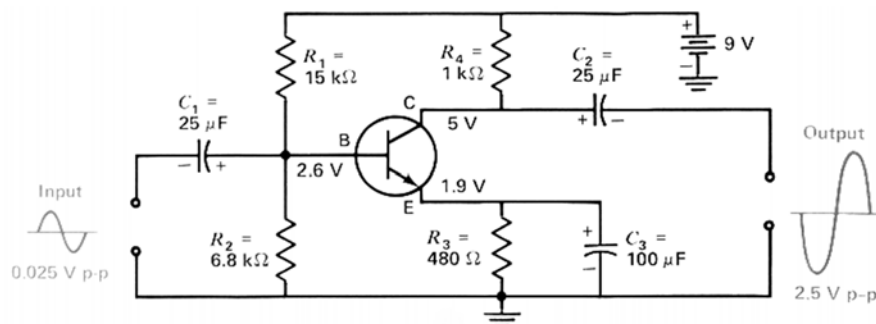
The introduction defines the subject of the report. It must show the scientific purpose(s) or objective(s) for the experiment performed and give the reader sufficient background to understand the rest of the report. This section should explain the outlines of the experiment, what results have been determined, and salient points about the experiment. It should be concise. Do not copy from the laboratory materials and create your own introduction.

Required Components

This section includes a list of all components/equipment used in the experiment.

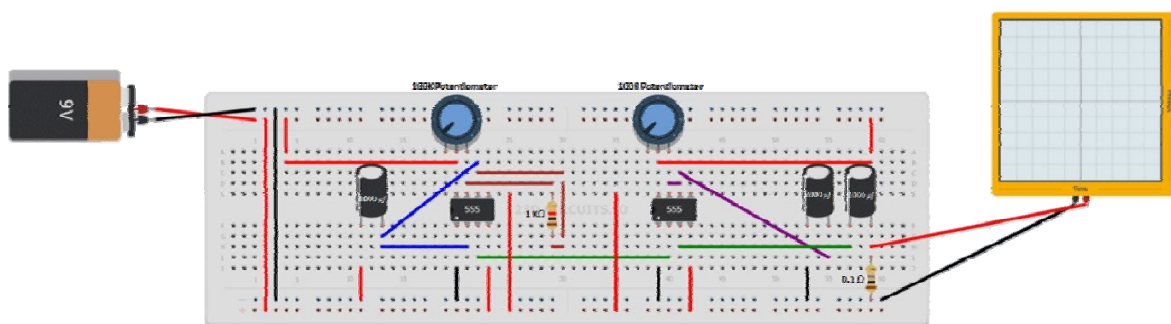
Schematic Design (15 Points)

This section includes graphical representation (circuit diagram) of the experiments circuits using electrical symbols. You can use *Microsoft Visio*, *PSpice*, *OrCad*, or online circuit simulators (*CircuitLab*, *PartSim*, *Scheme-it*, ...) to draw your circuit diagrams. All elements should be labeled appropriately.



Component Layout (20 Points)

This section shows the components and interconnections of the circuit using standardized symbolic representations. You can use online breadboard simulators (*123D Circuits*, *Breadboard Simulation*, *Virtual Breadboard*, ...) to draw your component layout. All components should be labeled appropriately.



Procedure (15 Points)

This section discusses how the experiment occurred. Documenting the procedures of your laboratory experiment is important not only so that others can repeat your results but also so that you can replicate the work later, if the need arises. Create a numbered list of the steps you followed throughout the lab experiment, so that anyone who reads your report could repeat it following the same exact steps.

Calculations (20 Points)

This section includes all formulas, equations and calculations. All calculations should be written by computer.

Experimental Results (10 Points)

The heart of a laboratory report is the presentation of the results and the discussion of those results. This section should include any data tables, observations, or additional notes you make during the lab. All tables, figures, images, graphs and charts should be labeled appropriately.

Discussion (5 Points)

This section should have a statement of your expected findings. This should include your hypothesis and a brief statement about why these types of results are expected. There should also be a comparison of how your actual results related to your expected findings. Here, you should state whether or not your results supported or didn't support your hypothesis.

Conclusion (10 Points)

This section includes a summary of the data to help the reader understand your results. You should summarize and reference KEY information. Synthesis of analysis with a description of the meaning or possible meaning of the results. List possible areas of future inquiry inspired by the lab; this could include how the lab might be expanded or refined to produce higher quality results.

References

Cite any references that you used to complete this lab experiment. You should have at least one reference cited for the background information included in the introduction.

Appendices

In a laboratory report, appendices often are included. One type of appendix that appears in laboratory reports presents information that is too detailed to be placed into the report's text. Another type of appendix that often appears in laboratory reports presents tangential information that does not directly concern the experiment's objectives.