Electronics Project Rubric: Physics 230

Section	Poor (0-35%)	Good (35%- 65%)	Excellent (65% - 100%)
Abstract & Description (10 %)	An abstract is missing or lacks substantial merit. The basic idea of the project is not clearly stated. The result of the project is not stated or is stated unclearly. The Description is missing or doesn't give a clear idea of the significance of the project.	An abstract is present and has some merit. The basic idea of the project is stated. The result of the project is stated. The Description is present and gives some idea of the significance of the project.	An abstract is present and is absolutely clear and concise. The result of the project is stated clearly as well as some indication of its precision. The Description is present and gives a clear idea of the significance of the project.
Circuit Schematic, Background and Discussion (20 %)	Important details of the circuit used are missing, or incorrect. For open-ended projects: This project has little originality or interest.	The most important details of the circuit are described and, for the most part, are presented clearly and correctly. For open-ended projects: This project is fairly original, and has at least some interest.	All of the important details of the circuit are described and the presentation is perfectly clear and completely correct. For open-ended projects: This project is completely new and original. It's very rich and interesting in its own right.
Circuit Function (40 %)	Either the Circuit is not constructed or is not functional. Nothing is done to **demonstrate** that the circuit is operating correctly.	The circuit is all there, and functions almost perfectly. The schematic and associated software/code It is fairly easy to read and understand. There is some documentation embedded in the schematic/code in addition to the explanation in the report. At least some attempt is made to **validate** the correct operation of the circuit using direct measurements and statistical analysis.	The circuit is all there and functions flawlessly. The schematic and code are a work of art. They are easy to read and understand. There is sufficient documentation embedded in the code to understand what the code is trying to do in each step of the process. The function of the circuit correctness is **validated** using direct measurements and statistical analysis.
Results (20 %) (including stats exercises)	The results are missing or are seriously incomplete. No interpretation is given, or the interpretation is not valid. Even though graphical representation is possible it is either missing completely or unclear or indecipherable. Units are incorrect or missing entirely. No formulas are provided where they should be or are incorrect. **Few or none** of the statistical exercises are present or correct.	The results are present and mostly complete. Units are clearly given and are correct. A reasonable interpretation is given that shows at least some significant understanding of both the physical system being studied as well as the techniques applied to the calculation. If a graphical representation is possible it is fairly clear and mostly understandable. Units are given with clear axis labels. **Most** of the statistical exercises are correct.	The results are present and complete. Units are clearly given and are correct. A reasonable interpretation is given that shows a perfect understanding of both the physical system being studied as well as the techniques applied to the calculation. If a graphical representation is possible it is clear and understandable. Units are given with clear axis labels and formulas where appropriate. **All** of the statistical exercises are present and correct.
Conclusion (10 %)	The conclusion is missing or seriously incomplete.	The conclusion is present and reasonably complete. A final result is stated clearly.	The conclusion is present and complete. A final result is stated clearly along with some estimates of the **uncertainty** of the result.