Proposal Guidelines

On February 16 you will be required to submit a 7 to 10 page (maximum) proposal for your proposed project. This must contain more definitive information, such as requests for specific existing apparatus, estimated costs for any new equipment or supplies, and a 10-week timetable showing major milestones for the project, and when they will be completed.

This process of proposal submission is how it is done in the real world; proposals must be submitted to a funding agency, the management of a company, or to a national laboratory, and then a panel (usually of peers who are supposedly experts) makes a final decision as to the practicality of the project, and as to whether it should be funded. It is very common for this panel to request further work toward a final proposal, in order to clarify any uncertainties in the proposed approach. This will be the case here!

Your proposal must contain the following sections:

- **Abstract**: Briefly describe what you will measure and how and why it is interesting to you to measure.
- **Introduction**: Explain in more detail your project including things like what has been done in the past by others and why you are interested in doing.
- **Theory**: Cover relevant equations of the phenomena you will observe and measure and describe what kind of measurements they predict. This could be a part of Intro.
- **Apparatus / Data Acquisition Technique and Method**: Make a diagram(s) of your experimental setup. Describe all the relevant equipment and how will each piece needs to perform to reach your goals. Explain how you figured out what the final errors on your measurements will be. Note that this may depend on the error on the raw data and level of noise in your signal.
- **Feasibility**: How feasible is your proposal, *i.e.*, has it been done before? What is the most serious obstacle(s) to your goals?
- **Timeline**: Present a brief timeline on how you expect to conduct your experiment in the 10 weeks allotted.
- **Budget**: What material will have to be bought and where can it be bought. Do you have a rough price estimate?
- **Relevant References**