Objective

This laboratory project is to introduce you to more authentic experiences in science with a focus on physics. By choosing and designing your own experiment you will take ownership of the project. I will provide you with an example project, data, and 3' x 4' poster (Microsoft Publisher can create such a poster and you do not have to print it off), and we will take a couple of classes to learn how to use a video analysis software called Tracker.

This project can be alone or a group of at most two (partners can change within the first week or for the second project). The mark on the written report and poster will be the same for a group, however, there will be peer and self-assessments for each project at three week intervals. These projects account for 20% of your grade (5% for the weakest project and 15% for the strongest).

There will be some class time dedicated for the project, but you will still need to work outside of class. Efficient time management will be very important. I suggest you set a schedule (even if you are working individually) and adhere to it. Proper experiment planning will save you a lot of time and frustration (I speak from experience). Communication with your partner, friends and/or myself should happen often. Feel free to set a time with me (a day's heads up would be ideal). I am usually at school by 7:45, here at lunch, and I usually hang around until at least 4pm. Contact me via email or twitter if you need to arrange a time if you'd rather not track me down at school.

Type up a summary of what you want to study for your project.

- Do you have a hypothesis or are you performing a study of an object?
- What are your independent and dependent variables?
- What question are you testing?
- Write a summary of what you want to do or show with this project.
- How will you collect your data? (be as specific as you can)
- Outline where and when you want to collect your data (really important, I need dates!).
- How will you communicate your data – what will be important?
- What equipment do you require? (include everything, even if the school may not own it)

1st project plan sheet is due Monday, September 28th with a period given September 25th to finish it.

1st written report and poster: Monday, November 9th.

2nd project plan sheet is due Thursday, November 19th.

2nd written report and poster: Monday, January 18th 2016.

Physics 122 students are expected to produce a project with more depth and at a higher level of physics concepts.