

## Physics 523

Fall 2023 project progress reports

Due date: Tuesday, November 14, 2023

For each group: please create a half-hour PowerPoint presentation and written project report. You will deliver an electronic version of your project report to each of the Physics 523 staff by the beginning of class on the due date, and present to the class your PowerPoint talk on the due date.

### *About the PowerPoint presentation*

- It should be given by all the members of your group, standing in front of the class. You should arrange who will deliver which parts as suits your inclination, but everyone needs to speak.
- Consider your audience to be the students and instructors of Physics 523, who will know a great deal about Arduinos and other project-related matters.
- You should include the following in your (half-hour, ~30 slide) talk:
  - Title slide (1 slide, of course)
  - Description of the problem or issue that your project is addressing (2-4 slides)
  - Description of the device(s) that your group is building (~2 slides)
  - For *each* group member: a brief bio sketch; a description of the part(s) of the project that the group member is taking on (2 slides)
  - Detailed description of your prototype: hardware, DAQ (data acquisition) software, offline analysis software; how you plan to calibrate it (~12 slides)
  - Data! Show us some plots and histograms (4 slides)
  - Mechanical stuff: 3D printed enclosures, mounting it on the whatever, etc. (2-3 slides)
  - Goals for the end of the fall semester (3 slides)
  - Possible problems on the horizon (2 slides)
  - Conclusions (1-2 slides)

Include LOTS of photos please!

### *About the paper*

This is a somewhat more formal document. Please use Microsoft Word or some other text processing system to produce a PDF version for us.

Consider your audience to be first-year graduate students in our PhD program, who are interested in but unfamiliar with the technical details and goals of your project.

The paper should cover the same topics, more or less, as your PowerPoint talk, and be ten to twenty pages in length.