Formal Report

Your formal report should include the following elements:

Title:	The name of your project
Abstract:	A brief summary of the most important features of your project including the result and conclusions.
Introduction:	The motivation and purpose of the project, placed in the context of previous work.
Theory:	A presentation of the theoretical background necessary to understand your project. Not every project will need a theory section, but most will. Here you would describe the physics of how sensors you use work (eg how does accelerometer measure acceleration, or how does a capacitive touch sensor work), or how an electrical interface to a device works.
Apparatus:	Description of the project including diagrams of electrical and mechanical aspects. Depending on the complexity of the circuitry, a separate block diagram that shows functional blocks might be beneficial in addition to complete electrical schematics. The text should provide details on how the apparatus works. This section should also include a description of how your project is used.
Results	How did the device perform? Did it work according to the expectations? Comparison of theory to results obtained (as quantitative as possible). Problems encountered, graph(s) of data obtained, if appropriate, accuracy of the device (if it is a measuring instrument).
Discussion:	Discuss what went well, and what could have been better, possible improvements to the device.
Conclusions:	Was it worth constructing? What did you learn?
References	Sources other than the course lab manual or lab web page should be referenced. Especially if your code is based on code you found on the web or elsewhere, you should make sure that the body of your report contains a clear citation to the source you used, and a corresponding reference here in the references section. In the body of the report, you should also explain clearly what differentiates your code from the source you used.

Appendix:	Any additional material that should be included in the report, but not necessary for the main body can be included as appendices. You should definitely include (well-annotated) program listings and all used libraries.
Length:	Up to 20 pages not counting appendices. Double-spaced, 12pt font.

Your report should be prepared using a word processor and have professional-looking computer-generated figures.