

Massachusetts Institute of Technology
Department of Aeronautics and Astronautics
16.06 Principles of Automatic Control
Fall 2003

Notes on writing a lab report

Basic report outline:

1. Abstract
2. Introduction
3. Apparatus/Procedure
4. Results & Discussion
5. Conclusion
6. Appendix & References

Abstract

Write the abstract last. Someone should be able to read the abstract and tell what the whole report is about. Be sure to state the important points of the report, including the purpose of the experiment, hypothesis, and major findings and conclusions.

Introduction

The purpose of the introduction is to explain why the lab was carried out. It should state a hypothesis and should also include any background information or scientific theory upon which the experiment is based.

Apparatus and Experimental Procedure

Explain how you performed the experiment. For the purposes of 16.06, you do not need to write this section. You should include the section heading and the sentence “Refer to laboratory instruction sheet in Appendix A.” Include the instruction sheet in an appendix.

Results

Present the results of your experiment. Tables, graphs and drawings should be included when appropriate. Raw data should only be displayed if it helps to express the results. Be sure that every figure and table is labeled (*e.g.* Figure 1: Pitch angle response of the Quanser to a step input of 20 degrees) and referred to in the text (*e.g.* Figure 1 shows the pitch angle response of the Quanser to a step input of 20 degrees). You should discuss the results, explain their significance and present the findings of the experiment. In addition, you should discuss different sources of error in the experiment, and quantify the error when possible.

Conclusion

Summarize the report and add any additional remarks about the experiment.