6.111 Writing Support
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Goals for Laboratory 2 Report
Designing a Traffic Light Controller and Memory Tester

- To describe your experimental work.
  - What did you do?
  - How did you do it?
  - Why did you do it?
- To allow your design to be replicated.
  - Consider your reader's needs:
    - concise language
    - ample description
    - clear organization
- To engage in a professional conversation.
  - Others will learn from your problem-solving approach.

Potential Pitfalls for Lab 2 Report

- Context is implied or unclear--What is the purpose of the device? Why should your reader care about your design?
- Reader is assumed to be an "insider" (e.g., "As Prof. Termin mentioned in lecture the other day….").
- Relationship of information is unclear--Author did not use headings and subheadings for visual organization.
- Conclusions/implications are not offered--what did you learn from this design and what would you like other engineers to learn?
- Figures and tables are not anchored in the text (e.g., "See Figure 1") and/or are not adequately titled or described.
- Abstract does not describe entire report (including conclusions).
- Title is not descriptive or compelling.

Use Section Hierarchies to Clarify Structure

Performance of the Solar One Receiver

Introduction
Steady State Efficiency
Average Efficiency
Start-Up Time
Operation Time
Operation During Cloud Transients
Panel Mechanical Supports
Tube Leaks
Conclusion

Performance of the Solar One Receiver

Introduction
Receiver's Efficiency
- **Steady State Efficiency**
- **Average Efficiency**

Receiver's Operation Cycle
- **Start-Up Time**
- **Operation Time**
- **Operation During Cloud Transients**

Receiver's Mechanical Wear
- **Panel Mechanical Supports**
- **Tube Leaks**

Conclusion

Section Headings Should Be Descriptive and Parallel

Non-Parallel
Non-Descriptive

Introduction
Background
Marx Generators
Line Pulse
Beam Generation
Transporting Beam
Pellets
Results
Conclusions

Parallel
Descriptive

Introduction

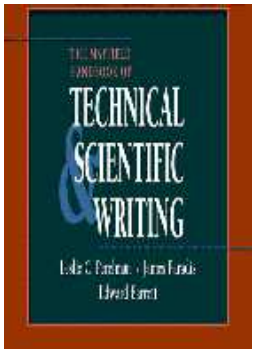
Past Designs for Particle Beam Fusion

New Design for Particle Beam Fusion
- **Charging Marx Generators**
- **Forming Line Pulse**
- **Generating Particle Beam**
- **Transporting Particle Beam**
- **Irradiating Deuterium-Tritium Pellets**

Results of New Design

Conclusions and Recommendations

Good MIT Resources



The Mayfield Guide On-Line
https://web.mit.edu/21.guide/www/home.htm (must have MIT certificates to access)

The MIT Writing and Communication Center
Room 14N-317; 617.235.3090
Appointment preferred but not required

6.111 Writing Resources

- *CI-M Report Guide* and *CI-M Lecture* notes on 6.111 Web Site (under "General Handouts")
- N. Lerner, M. Zoll, and K. Pepper
  - N. Lerner's office hours (68-150a):
    - M 12-1 p.m., Tue 3-5 p.m.
  - M. Zoll and K. Pepper hours by arrangement.