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EGN 4410 Engineering Design 1 ED1
EGN 4411 Engineering Design 2 ED2

Course Guidelines

College of Engineering (COE)

Florida Atlantic University

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Labs Usage Limitation

To use any lab facilities and equipment, you must be enrolled in Engineering Design I or II Courses. Or, you may have a special permission from COE.

Rules & Regulations

1. **Use your student's ID card to admit ONLY yourself and KEEP the doors always CLOSED.**
2. **No smoking / drinking / eating is allowed in the labs. Keep the entire lab CLEAN.**
3. **Lab Equipment, Hardware, Software, and Documents MAY NOT be checked out.**
4. **Do not INSTALL / COPY / DELETE / MODIFY any software in the labs.**
5. **Once you are assigned a station in any lab, stick with it till the end of the project.**
6. **You may keep personal components related to your project in the lab till it is completed.**
7. **Be conservative on consumable items and reuse working items.**

Security

You may be video taped for your security and against lab vandalism

Problem Reporting

Any hardware/software failure, discovery of any lost or damaged item, or any abuse in any form in any lab must be reported to the COE tech support or to the coordinators.

Penalties

Any violation and/or abuse in any form of any Lab regulations and/or facilities may result in disciplinary actions and loss of lab access privileges.

ED1 and ED2 Guidelines

1. GENERAL

This is a sequence of two design project courses that must be taken in two consecutive semesters. The two courses replace traditional departmental Senior Project 1 and 2 and are administered by coordinating faculty from various COE departments.

2. MULTIDISCIPLINARY CONSCIOUS

The goal of these joint engineering multidisciplinary design projects is to foster creative thinking, diversified background exposure, teamwork, communication, and collaboration skills. Therefore students are normally required to form teams of four members from different department to enhance inter-disciplinary interaction. Special cases must be approved by the coordinators.

3. FORMING TEAMS AND PROJECTS

Students are encouraged to form their own teams, or consult with the coordinators to join other forming teams. Students may mutually developed their own project, adopt one from a list suggested by Engineering faculty, or sponsored by local industry. Once teams are formed, students are mandated to continue the teamwork to complete the project over 2-semester sequence.

4. COURSE COORDINATORS AND PROJECT ADVISORS

Course Coordinators are the faculty members who teach the Engineering Design 1 and 2 courses. They coordinate the team formation and project selection and approval. Students must communicate with the Course Coordinators. The Coordinators will not interact with students on their project details.

Project Advisors are the faculty members who work with the teams until completion; they assign grades to team members and report the grades to the Project Coordinators. Students who formed their own team must secure advisors for their projects. Students who solicit a listed project must work with the advisors already appointed to the project. It is the students' responsibility to contact and convey the progress of the project to their advisors and the project coordinators. Advisors and coordinators WILL NOT contact students to follow up on any projects.

5. LAB SPACE AND INSTRUMENT USAGE

Several labs within the Engineering Departments (CSE, EE and ME) are available for student teams to work on their projects. Assigned workspace may be shared by more than one project as needed. If special hardware setups are required, students must arrange with the course coordinators. General lab and computer issues must be forwarded to COE technical staff at ED12@fau.edu.

6. PASSING AND INCOMPLETE (I) GRADES

Passing grade for each of the courses is C. Incompletes will normally be given only for serious personal reasons. If received, the Incomplete must be completed no later than a date mutually agreed upon by faculty advisors and the course coordinators. Normally, this period shall not extend beyond the end of the following semester. Any "I" grade remaining past the end of the following term will automatically be changed to the grade of "F".

Florida Atlantic University
College of Engineering
Engineering Design 1 & 2

ED1 & ED2 Log Book Guidelines

Each student within the team must maintain his/her own Log Book. The Log Book should be reviewed and signed every 1-2 weeks by the advisors, or coordinators if advisors are not available. Along with the Log Book, students should maintain their individual Log Sheet whish is an executive summary of their Log Books. Students must submit their Log Books at the end of the semester along with the Log Sheet.

The Engineer's Log Book is intended to serve as a record of new ideas and engineering research and developments whether or not they materialize into commercial usage

The primary purpose and reason for maintaining a complete log book is that it will serve as evidence to prove inventorship, establish the date of conception and reduction to practice of an invention, and to show that the inventor has used diligence in advancing his invention to completion. In order that the primary purpose be realized, the following should be complied with:

1. Ideas, calculations, experiments, tests, etc., which may have bearing on developments should be entered in the Log Book.
2. All entries should be in ink and should include the project work order, objects, problems worked on, possible and actual solutions, tradeoffs considered, calculations made and tests made (including procedure used and results). Avoid characterization of tests as "successful" or "unsuccessful", etc., since the facts will speak for themselves.
3. Margins should be maintained in order to provide ease of reproduction.
4. Each page should be signed and dated on the day of entry, pages being used in consecutive order.
5. All entries should be periodically and routinely witnessed by at least one witness, preferably two. The witnesses should be persons capable of understanding the entries. The witnesses should endorse each sheet, "read and understood".
6. Where tests are made or models are constructed or operated, the witness must have observed what was done, and not merely read the Log Book entry. Preferably, the witness should note on the document, "witnessed tests, read and understood this page".
7. Do not leave any pages blank. If a page or part of a page must be left blank, draw a line down through the blank portion.
8. Do not tear our any pages.
9. Photos, graphs, drawings, etc., should be used liberally. They must be dated and signed by the project advisors. Preferably, there are inserted in the Log Book and attached (e.g., by staples).
10. If a change is made, draw a line through the original entry and add the new material so as to clearly indicate what the change is and why it was made; also note the date when made and who made it. Where possible, make a new entry rather than alter an existing entry.
11. When the project is completed, return it to the designated Project Coordinator.

ED1 Proposal Organization

This section provides a structural template for an engineering proposal. Note that a proposal includes both front matter (cover sheet, letter of transmittal, title page, summary/abstract, table of contents, list of figures, and list of tables) and the main body of the proposal. The first three parts of the main body (introduction, scope of work, and plan of implementation) demand the most writing effort.

Note that each section of the proposal has a specific purpose. All team members should understand the purpose of each section and put material in the right section. Make sure that the readers can tell a section's purpose from cues in the writing.

The text itself should read like an argument with an easy-to-follow structure complete with transitions, a clearly stated point for each paragraph, and appropriate details supporting each point. Headings and subheadings are there only for the reader's quick visual orientation. The document should read smoothly and clearly with all the heads removed. Try to imagine writing the proposal without any headings whatsoever so that you are forced to include sufficient transitions. Then add the headings back in.

All figures and tables must be clearly referenced in the text and explained in detail. Imagine each figure projected on a screen during an oral presentation. Typically you would talk your listeners through the figure using a pointer. The text of your proposal should do the same thing. Figures and tables are not self-explanatory. You must tell your readers what you want them to see or understand.

The following template is based upon typical proposals in technical fields. The template describes a generic proposal; the peculiarities of an individual problem may require modifications. The important consideration is to keep your reader on track.

OUTLINE OF CONTENTS FOR THE PROPOSAL

Your proposal should contain the following parts or sections:

Cover
Letter of Transmittal
Title Page
Summary or Abstract
Table of Contents
List of Figures
List of Tables

I. INTRODUCTION
   A. Background
   B. Statement of the Problem

II. SCOPE OF WORK
   A. Overview
   B. Literature Review
   C. Alternative Solutions
   D. Evaluation
   E. Decision

III. PLAN OF IMPLEMENTATION
   A. Research
   B. Design
   C. Prototype Construction (if relevant)

D. Testing
E. Documentation

IV. REFERENCES
V. FACILITIES
VI. PERSONNEL/ORGANIZATION CHART
VII. SCHEDULE
VIII. BUDGET
Appendices

EXPLANATION OF EACH SECTION OF THE PROPOSAL

This section explains the purpose and contents of each section of the proposal.

Cover

Letter of Transmittal

The proposal is introduced to the dient through a "letter of transmittal"—a brief one-page business letter addressed to the liaison or course coordinator at the sponsoring company or institution. The letter explains that the requested proposal is attached. Summarize your proposal briefly and highlight what you see as its major selling points. This letter constitutes your reader's first impression of your team—its professionalism, thoroughness, and writing ability. Make the letter graceful, respectful, and professionally cordial; use the letter to sell your design approach and your team's abilities. The letter of transmittal is often the last part of the document you write, but save plenty of time to write a good one.

Title Page

The title page for your proposal should contain the title of proposed project, followed by 'A Proposal Submitted by', your names and affiliations, and date, all of which should be centered in the page.

Summary or Abstract

A summary or abstract typically accompanies proposals that are reviewed at several levels in the sponsor organization. A busy executive may not have time to read the total proposal. A summary, therefore, is a brief condensation of the proposal identifying the project problem, describing the proposed solution, and indicating that the design approach meets all specifications and criteria.

Table of Contents, List of Figures, List of Tables

Any proposal of more than five pages should have a Table of Contents. The Table of Contents should include all the main headings in the proposal, showing page numbers. Teams should make sure that headings in the Table of Contents are worded exactly as they are worded in the proposal itself. Following the Table of Contents is a List of Figures and a List of Tables (the figures and tables themselves are embedded in the text). Include only necessary figures and tables that contribute to the reader's rapid comprehension of material. Several figures common to most proposals would be an organization chart and a project schedule. Proposals that evaluate various alternative solutions would include a decision matrix.

Introduction

The Introduction is the first section in the main body of the paper. As such, it is headed with a First Level Heading (e.g., **I. INTRODUCTION**).

At the very start of the Introduction, provide an overview of the whole proposal in one or two sentences. It is suggested to use the following boilerplate:

This proposal responds to an RFP from [sponsoring company] [include date, if known, or title of RFP]. The [sponsoring company] seeks a solution to the [describe the problem to be addressed]. The [sponsoring company] requests [describe the main deliverables the sponsor expects.]

The Introduction includes a Statement of the Problem along with necessary background information. Describing the problem to be solved is important in both solicited and unsolicited proposals, even though the writer knows that the recipients understand their own problem. In solicited proposals, the problem statement shows that the writer, too, understands the problem and has the readers' concerns in mind when setting forth a solution. In unsolicited proposals the writer often needs to convince the reader that the problem exists. In some proposals the background information and statement of the problem have their own subheads. In other proposals, the background information is woven smoothly into the statement of the problem.

Background

To provide a context for the reader, the writer often needs to supply background information about the company and the history of the problem to be solved. Organizationally this section is headed with a Second Level Heading, e.g., **A. Background** (Continue to follow these style guidelines for the remainder of your proposal.)

In the background section the conditions leading up to the problem are described, indicating why the problem is now being considered and why it is important to the company. If previous attempts at solution have been made, they are described along with their results and shortcomings. A brief review of the literature is sometimes given at this point. Often a better place to put literature review is in the Scope of Work section as an introduction to Alternative Solutions. What the writer needs to show is an understanding of the total context of the problem and an awareness of previous work in the area.

Statement of the Problem

The team spends a paragraph to several pages defining the problem, its significance, its ramifications, and its relation to larger problems or issues. In this section the team must also identify the specifications, criteria, and constraints described by the sponsor in the RFP. By the end of the introduction the reader knows what the problem is, why it is important to the sponsor, why it is problematic technically, and what specifications and criteria a suitable solution must meet.

Scope Of Work

This section summarizes what the project team actually proposes to do. Usually the Scope of Work involves several stages with different goals for each stage and ends in some kind of final product. This section differs from the Plan of Implementation in that the Plan of Implementation section focuses more on the "how we will do it" rather than "what will we do."

Overview

The Overview section of the Scope of Work should summarize what the team will do for the project and specify deliverables. Often work will be divided into several stages such as a research stage, a design stage, a construction stage, and a final testing/calibration stage. These stages should be specified and

described briefly in the Overview section to provide a clear statement of all the work to be done. You will need to work cooperatively with your faculty project advisor and sponsor liaison, who must approve your design plan.

Literature Review

To keep from re-inventing the wheel and to be professionally aware of the state-of-the-art on any design question, effective engineers and computer scientists search and review the available literature before tackling a design problem. What has been published in the professional literature that has bearing on your design problem? In this section, briefly review the relevant literature by summarizing findings that may advance your project. An alternative approach is to work references to the literature into the body of your proposal where they are most relevant.

Alternative Solutions

In this section, you explain different approaches your team could take toward solving the client's problem. Devote one subsection of "Alternative Solutions" to each possible design approach. First describe the approach. Then analyze its strengths and weaknesses in terms of technical and economic feasibility.

In some cases, depending on the nature of the project and the needs and specifications of the sponsor, a detailed section on alternative solutions is not necessary. Of course, all designs require some consideration of alternative solutions, such as selection of types of materials. You will also need to leave yourself open to modifying your design if subsequent work reveals new problems or better solutions.

This section presents numerous organizational difficulties that the writers need to solve. Typically your team would describe two or more alternative solutions and to compare and contrast their respective strengths and weaknesses. Good transitions, topic sentences, and mapping statements are crucial. Often the strengths and weaknesses of each approach are displayed in bulleted lists. Good technical writing demands that all listed items are grammatically parallel.

Evaluation

In this section you describe the criteria you used to evaluate the design approaches and justify the weights you give to each. Discuss external constraints including economic, environmental, sustainability (e.g., long term availability of parts, equipment, or staff to continue the processes), manufacturability, ethical, health and safety, social, and political constraints. Often this section will refer to a decision-matrix figure that displays each of your criteria, assigns relative weights to them, and scores each alternative against each criterion in turn. This section talks your reader through the decision matrix.

Decision

In this section you show how the evaluation process identifies the strongest alternative solution. Your team's decision governs the rest of your project because it determines the design approach you will pursue from here on out. Convincing your client that this approach is superior to alternatives is crucial to your proposal argument.

Plan Of Implementation

Because this section explains how the work is to be accomplished, it is crucial for "selling" your proposal to a prospective client. The reader wants to know that the methods used will, in fact, produce

the results promised. Because a project is often a single and non-repetitive enterprise, its achievement must be based on careful planning within a time limit and a cost budget. If the Scope of Work section explains what your team promises to do, the Plan of Implementation section convinces your reader that your team can in fact do it.

A Plan of Implementation describes how you will accomplish your objectives in the face of problems that may be encountered on the way. Success depends largely on carrying out the constituent tasks in a sensible sequence and deploying resources to best advantage.

In preparing a Plan of Implementation, the project team should break the project into as many definable tasks as possible. Planning is crucial because it will affect both the budget and schedule. Both are based largely on the estimated time to complete each of the tasks.

When clients compare competing proposals with similar costs, they often choose the one offering the most comprehensive and convincing Plan of Implementation. For these reasons, the methods used to solve the problem or do the job are always given in detail. When the methods are unusually innovative, they are described step-by-step, with reasons for each step included in sufficient detail to convince the reader that they will work.

In short, this section explains how you will accomplish the tasks described in the Scope of Work. How do you propose to divide up and sequence the work? Who will do what when?

Facilities

Often a section describing the facilities to be used follows and amplifies the Plan of Implementation. You can't promise work in sterile conditions, for instance, if the proper laboratories are not available. Equipment to be used is frequently described in this section, although sometimes it is listed separately. Equipment might range from special computer capabilities to normal laboratory equipment, but it must clearly be capable of doing the job. In major proposals, one further reason for this section is that it explains what the client will be getting for the overhead charges, which often range from 50 to 100 percent above the cost of actually doing the work.

Personnel/Organization Diagram

The people who will be doing the work, or at least the major discipline leaders, are shown in the Personnel section. A diagram is used in most cases to show the major groupings of tasks and the group leader for each group of tasks. The diagram shows both the organizational structure of the team and the relationship of the team to the sponsor organization, the sponsor liaison or project manager, and the faculty advisor. It is typical in this section to make brief comments about the special capabilities of each group leader and to amplify these comments in the appendix with a fully developed one or two-page resume of all persons shown in the organization chart.

Schedule

This section places all of the tasks which were developed through planning the project from beginning to end into a time flow diagram. This diagram can be as simple as a Gantt chart, or more complex in the form of a CPM (Critical Path Method) schedule or a PERT (Program Evaluation and Review Technique) schedule. The time flow diagram shows the dates on which various deliverables, representing ongoing phases of the project, are submitted to the sponsor. A discussion of the project management techniques in ensuring that the deliverable schedule can be met should be included in this section. The items noted in the schedule should repeat exactly the items discussed in Scope of Work and Plan of Implementation.

Budget

The section on the costs of the proposed project is crucial. In a well-written proposal, the reader should be convinced that the expense is justified. Sometimes costs are detailed in a section separate from the proposal so that they will not influence other deliberations; sometimes they are presented first on a special budget sheet. In any case, all costs should be itemized under headings such as salaries, capital equipment, expendable equipment, miscellany, and overhead. Often only estimates are possible, but they obviously should be made with the greatest care. In industry, at least, expensive cost overruns are rarely tolerated.

References

This section cites any material which was utilized in providing information for the proposal. It could include technical journals, texts, newspaper articles, or other such sources of material.

Appendices

As in all written documents, Appendices should contain supplemental material that cannot easily and concisely be placed in the body of the document. In the case of proposals, Appendices would include the original statement of work, sometimes called the request for proposal (RFP), resumes, and information on the team and previous work that the team or company has done in areas similar to those covered by the

ED2 Report Organization

Project reports generally follow the typical structure of scientific and technical research reports: Introduction, Methods, Results, Conclusions, and Recommendations. Although other formats are acceptable, most readers anticipate this format and get their bearings most quickly when it is followed. The following template adopts this standard organizational structure. The headings are those recommended for your own Project Report, but you may have to make occasional deviations from this template to adapt to the needs of your own project.

OUTLINE OF CONTENTS FOR THE REPORT

Your report should contain the following parts or sections:

Cover
Letter of Transmittal
Title Page
Executive Summary
Abstract
Acknowledgments
Table of Contents
List of Figures
List of Tables
Main Body Of Project Report

I. INTRODUCTION
- A- Statement of the Problem
- B- Background
- C- Purpose of Project and Overview of Project Report

II. METHODS AND DESIGN APPROACH

III. RESULTS
- A- Technical Description of (name of device or product)
- B- Specifications
- C- Construction Methods
- D- Operation
- E- Testing and Calibration
- F- External Constraints

IV. CONCLUSIONS

V. RECOMMENDATIONS

VI. REFERENCES

APPENDICES
- Appendix A - Original Statement of Work or RFP
- Appendix B - Detailed technical documentation
- Appendix C - Student resumes

EXPLANATION OF EACH SECTION OF THE REPORT

This section explains the purpose and contents of each section of the Report.

Cover

The Cover should contain the title of the project, followed by the date of submission, and then followed by the names and affiliations of the submitters, all of which should be centered in the page. The Cover may be printed on colored paper of slightly heavier stock.

Letter of Transmittal

A brief single-page business letter addressed to the liaison at the sponsoring company informing him or her of the enclosed Project Report being delivered. You may wish to restate the design problem here and point out the essential nature of your solution.

Title Page

Use a format similar to those used for project update presentations.

Executive Summary

The Executive Summary is a one page section which summarizes in bullet form the essential conclusions and recommendations of your work. It is non-technical in nature and is intended for reading by management who wants to know what was accomplished, not how. Explain the purpose and scope of your Project Report very briefly in this section. Write the Executive Summary after you have finished drafting the body of the Project Report so that the report's recommendations are accurately represented.

Abstract

The Abstract is a succinct statement that comprises the essential content of the Project Report. It will be technical in nature, intended for reading by an engineer or computer scientist. The Abstract summarizes the results of the design project without explaining why design decisions were made, or justifying the findings.

Acknowledgments

The Acknowledgments should recognize the assistance given by the liaison at the sponsoring company, the project faculty advisor, the institutional support, and any other individuals who rendered significant assistance.

Table of Contents

List of Figures

List of Tables

The Table of Contents, List of Figures, and List of Tables should be self explanatory, and most modern word processors can generate them for you.

Main Body of Project Report

INTRODUCTION

Statement of the Problem

This section can usually be reproduced directly from your proposal, completed at the end of fall term. The purpose of this section is to listen to the needs of the sponsoring company and to show that you

understand the problem from their perspective. Since the 'conclusions' section of your Project Report will evaluate your solution in light of the needs expressed in the original RFP, this section is crucial to your entire document.

Background

This section, too, can be taken directly from your proposal unless new or revised information gives you a reason to change it.

Purpose of Project and Overview of Project Report

Summarize the purpose of your project in one or two sentences: "The purpose of this project was to develop an effective means of solving problem ABC by designing device XYZ." Your purpose statement is simply an expansion of your title into sentence format. Following your purpose statement, give a statement which describes the shape or structure of the rest of the Project Report. When readers can anticipate the shape of what is coming they can devote full attention to the content. This section follows the advice "Lay out the whole before presenting the parts."

METHODS AND DESIGN APPROACH

Your purpose in this section is to show the logic in the way that your design team attacked the problem. Your goal here is to explain the sequence of problem-solving steps that your team went through. Show your clear engineering thinking when describing your methods. Most design projects require similar sequence of problem solving steps, which can be explained to the reader using the following organizational frame:

First, criteria for a successful solution were established. [Describe criteria and provide your rationale for selecting them.]

Next, we examined several alternative solutions including X, Y, and Z. [Describe each one.]

Approaches X and Y were rejected on grounds that _____ [explain rationale for rejecting X and Y and choosing Z]. For technical data leading to the rejection of Approaches X and Y, see Appendix B.

Having selected Approach Z, we then designed the project and built and tested a prototype. [Explain any features of this stage of the process that seem essential.]

RESULTS

The purpose of this section is to describe in detail the actual device or product you produced. The number of subheadings of this section depends on the complexity of your product and on the kinds of information that you think your sponsoring company will need to know. Group your explanations by category and give each category a clarifying heading. Here are some typical headings that will fit most projects.

Technical Description of _____ (name of your device or product)

Give a technical description of whatever you produced. Reference all figures related to schematics, etc. See information about figures and tables in the proposal guidelines.

Specifications

Tell what your device does at what levels of precision.

Construction Methods

Explain how your device is made, what its materials are, etc.

Operation

Explain how your device works; make your instructions clear to a new user.

Testing and Calibration

How did you test your device and how did you calibrate it?

External Constraints

The report must address economic, environmental, sustainability, manufacturability, ethical, health and safety, social, and political constraints of the project.

CONCLUSIONS

From a managerial standpoint, this is probably the most important section of your Project Report. Technical and business managers frequently read this section of the Project Report first even though it comes near the end of the document! Your goal here is to evaluate your original criteria. How well does your product actually work? Does it solve the problem that the company wanted solved? Be candid and honest here. What are the weaknesses and limitations of your product? What parts of the original problem were more difficult than anticipated? What hopes for your solution didn't turn out? In short, this section may say, "We solved part of your problem but not other parts," or "Our solution finally didn't work, and we didn't solve your problem at all."

RECOMMENDATIONS

The people who read the Conclusions and Recommendations sections of your Project Report are power people inside their company! In light of your conclusions, what recommendations do you have for the company? Should they begin immediate production of your prototype? Should they do further testing of your prototype? Should they put out an RFP for further research? Should they do a market study? Should they look for more cost effective ways of building a device similar to your prototype? Much of your future reputation as a design team rests on recommendations.

REFERENCES

Follow the Project Proposal guidelines.

APPENDICES

Appendices A (original RFP), and C (student resumes) can follow what you did in the original proposal with suggestions from your faculty advisor. In Appendix B include the theoretical and experimental developments, technical details, diagrams, and tables that were not included in the main body of the Project Report. Work with your faculty advisory, and your liaison, to determine what goes in Appendix B.

Florida Atlantic University
College of Engineering
Engineering Design 1 & 2

ED2 Team Executive Summary

Title of our Project:
The best Possible Ever (OK to have two lines)

Student Team	**Name1, Name2, Name3, Name 4**	**Advisor**	**Dr.**
		Co-Advisor	**Dr.**
		Coordinator1	**Dr.**
		Coordinator2	**Dr.**
		Date	**Mo/ Day/Year**

Objectives

Using this template, you can create your required executive summery, which briefly describes your project for general audience. Avoid technical details and use simple language. This project summary along with others will be posted on the College Web Site to serve several purposes:

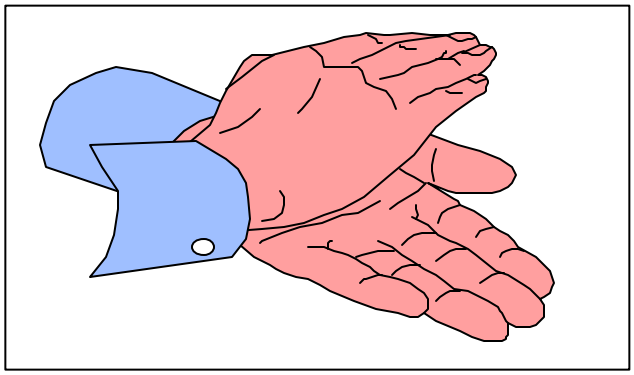
1) They inspire other students looking for ideas for projects.
2) They reflect the various capabilities available in the college design center and departmental labs, which may attract external students.
3) They serve as official references for your pride and future employment.

Submission

This page must be submitted along with the final report in both forms, on paper and on floppy.

Graphs and Drawings

Here you see one figure, which should be your main display. You may have another figure if it saves you a thousand words. You need to size your figure(s) to fill a reasonable area of this page. You may use drawings or bitmap file. Keep the summary in color.



Headings

You should use your own headings of your paragraphs to fit your particular project. However, a standard sequence of headings could be Introduction or backgrounds, Description or Theory of Operation, Design Issues, Things I Learned, Future enhancement, and Conclusion.

Exactly one page

Keep the whole thing exactly one page. If it is shorter or longer, it will not be accepted. You may have to adjust the text size and spacing to perfectly fit your entire summary in one page. You may also adjust the figure size to fill the page. Just make sure this summary is exactly one page. Maybe one more line. That is it. Well, one more word. Very good.