
EDD Design Proposal (Q3)

Introduction

Your team has done a lot of work to devise, justify, and validate a problem solution. If you intend to continue down your planned design path, the information that you have compiled for your Business Plan should strongly support further development of your team's design, but you need additional resources to further develop the design. Often, inventors or innovators will have to present their proposed design to other interested parties, such as a bank or investor, in order to solicit the needed resources to build and test a prototype of their product. And, typically, inventors and innovators will have to make additional presentations and provide progress reports as they proceed through the design process. Often, each new report and/or presentation adds to or revises information previously presented and is tailored to the specific audience to whom it will be presented.

In this project you will prepare a written proposal and make a short oral presentation to present your proposed design and justify further development of the product. Your presentation should be persuasive but truthful. More than likely, for this course, you must convince your instructor that you have completed the work and investigation necessary to move forward, but you may also need to convince a panel of experts that your design has merit and that it is worth the risk of committing resources to further develop the product. This proposal will also become an important part of your business plan and final project documentation.

Equipment

- Engineering notebook
- Computer
- Previous work related to the problem

Procedure

Your team's proposal is primarily a collection of your research, validation, and justification for further development of your product. Gather and organize all of your data related to this project. Prepare a written proposal.

1. Prepare a written proposal. Your document should be created electronically and in an 8.5 x 11 format. It should include all sections detailed below and should meet any expectations set forth by your instructor. Beyond that, it is up to your team to ensure that the document is professional and impressive. It is your goal to create a proposal that will sell and support development of your product.

The following formatting tips are recommended:

- A serif typeface, such as Times Roman
- 10 to 12 point type
- Page margins of at least 0.5 inches
- The use of color when possible
- The use of graphics when it enhances and supports your text
- The use of front matter (Table of Contents, List of Figures, etc.)

Your proposal should include, at a minimum, the following:

Title Page

The title page should at least include a title (for example, A Proposal for _____), team member names, and the date.

Executive Summary

The summary is a condensed version of your entire proposal. Remember that you are trying to convince investors to help support further development of your product. This section should convince them to read further. Please note that your Executive Summary from your Problem Proposal is not sufficient here since you have gathered a wealth of additional information since you wrote that document.

The Industry

Provide an overview of the industry sector in which your product will compete. Include industry trends, other companies in the industry, and estimated industry sales. Explain strategic opportunities in the industry and where your business fits within this industry. Elaborate on your problem statement and statement of purpose in order to properly support and justify your problem. For example you could include a source for statistics or a map of a geographic location.

Market Analysis

Describe the primary target market for your product and the target market's needs. Include an explanation of how these needs are currently being met. How can you be reasonably certain that there is a need and demand for the product?

Also describe the Total Available Market and an estimation of your market share. Refer to the Knowledge of the Marketplace, Conducting Market Research, and the Market Analysis in your Project Proposal prepared during Lesson 2.2. Compile and revise this information as necessary to reflect your more recent research and development.

Competitive Product Analysis

Describe the products that will compete with your product and assess their strengths and weaknesses. Explain your strategies to take advantage of the competition's weaknesses and obtain a competitive advantage. How will your product stand out among the competition?

Include information from the Past and Present Solutions section of the Project Proposal you prepared in Lesson 2.2 and the more recent Competitive Product Analyses that you have completed.

Design Specifications

List the design specifications created in Lesson 3.1 with any necessary revisions based on your more recent work.

Product Design

Present your proposed product design and anticipated cost.

Design Justification

Justify the validity of your design. Include your ethical justification and your research, including market analysis data, your Competitive Product Analysis, patent research, and feedback from potential consumers and experts. It is important to justify why you believe there is a problem and why your product will solve that problem better than the competition. How can you be reasonably certain that your product will be successful in the marketplace?

Project Management

Update your Gantt chart (from Lesson 1.2) to reflect any changes to the timeline for all of the tasks (and the people responsible for them) that will need to be completed in order to finalize your design within the bounds of the time allowed for the project by your instructor.

Appendix

Include important documents that support your product design but disrupt the flow of your proposal text.

Note that you may be able to revise parts of the Project Proposal that you created in Lesson 2.2 for this Design Proposal.

2. Prepare and present an informal two minute “elevator pitch” to summarize your design proposal. As part of your pitch, create a one page “flyer” that will help you sell your product to a potential investor. Describe your proposed product, its benefits, and why your product will be successful. Your goal is to convince a prospective investor to consider investing in your product and to read your design proposal. You may want to choose only one or two members of your group to make the presentation.