



WEEKLY SPONSOR COMMUNICATION

TO: VICTOR NUNEZ, AESCULAP

FROM: CASSIE CHRISTMAN

EDITOR: ALEXIS HAUPT **TEAM NAME AND NUMBER**: AESCULAP 1

DATES COVERED IN THIS

FEBRUARY 15, 2016 TO FEBRUARY 21, 2016

COMMUNICATION:

WEEK NUMBER: 3 OF 15

Overview

This week we focused on assigning tasks to be completed for our midterm presentation, which is the week of March 7th. We utilized a Gantt chart to define the crucial topics as the following: industry, company, and project description; mission statement; intellectual property research; standards research; customer needs; and target specifications. We then assigned each topic to 1-2 team members and reviewed the crucial components of them. While this week was primarily spent organizing action items and building a foundation, we believe this structure will help us develop a more efficient and innovative product.

Accomplishments

- In preparation for our midterm presentation, we outlined the topics our presentation shall cover in the form of a Gantt chart, which is displayed in the Appendix. Listed below is a summary of the areas we will focus on and who is responsible for each topic:
 - Industry, Company, and Project Description: Cassie Obzud This section will include background information on the medical industry in which the device will be used, on Aesculap, and why there is a need for the device we are developing. Furthermore, it will explain the opportunity that exists for this medical device, both within the company and the medical industry. Much of the research that will be included in this portion was already conducted when we familiarized ourselves with Aesculap, as well as the information you gave us at the site visit.
 - Mission Statement: Brian Loughran
 Our mission statement will consist of the description of the product and the opportunity for the product, as well as identify both the goal of the product and the primary and secondary markets for it. We will strengthen our mission statement by also including the constraints of the product and the stakeholders of the product. Thus far, Brian has examined various medical device company's mission statements as examples and has begun developing one for our project.

- Intellectual Property Research: Christian Davis
 This topic will cover an overview of the patent landscape surrounding spinal distractors. Any additional elements we add to the design (hinges, ratchet system, etc.) will also be evaluated for issues of infringement and patentability. Information on several spinal distractors we have already researched were included in last week's brief.
- Standards Research: Christian Davis and Alexis Haupt
 This category will evaluate ISO standards related to our design
 (7151:1988, 7153-1:1991, 7153-1) and include any necessary ASTM
 testing standards that we will use for mechanical testing. The research
 done in this portion will primarily be conducted on an as-needed basis.
 Christian has begun researching ISO standards that apply to our product.
- <u>Customer Needs</u>: Alexis Haupt and Cassie Christman
 This section will identify the customers and end users of the product and clarify their product needs including that for form, fit, function, features, and finances. The information depicted in this topic will be based upon interviews and meetings with both customers and end users. Alexis and I have begun reviewing proper interview conduct and appropriate questions to ask customers to obtain useful answers.
- Target Specifications: Jadon Sargeant
 This topic will utilize a needs metrics matrix as a visual representation of our problem solving process to display the customer's and end user's needs and our possible solutions. In the end, the chart will have many possible potential metrics for each need, so we can then select the best combination of solutions for each need. The completed needs metrics matrix will be sent in a brief in the near future.
- In lecture this week, we discussed the steps of prototyping and the resources available to us at Lehigh. Although this isn't applicable to our project at the moment, once we finish conducting background research and brainstorm practical ideas, these resources will be extremely helpful in creating mock-ups and working models.

Next Steps

- Our goal for this week is to begin accomplishing some of the tasks needed for our midterm presentation. In doing so, we will use the information gathered from our research on each topic to aid in not only with creating our presentation, but also to better understand what our next steps should be in the development of our device.
- 2. We will also be touring a number of the labs on campus to learn more about the resources available to us and their capabilities.

Project Related Questions 1. Do you have ISO standards for surgical instruments or ASTM testing standards that we could have access to?

Appendix: Gantt Chart

2	/17/2016	Jan'16 February'16							Mar	ch'16			Api	ril'16		May'16		
Aesculap 1		25th	-			•	29th	7th	14th	21st	28th	4th			25th	_		
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Industry Research:	\dashv																Completed	
Company Research:																	To Be Determined	
Project Context:																	Delayed	
Opportunity Research: Mission Statement - Brian																	Category Heading	
Project Description	-			_														
Value Proposition	-																	
Key Business goals																		
Primary and secondary markets	=																	
Assumptions and constraints																		
Stakeholders/End-users/Gatekeepers																		
IP Research - Christian																		
Design Patents - Primary																		
Design Patents - Secondary																		
Standards Research - Alexis and Chr	sitain																	
Industry Standards																		
Company Standards																		
Engineering Standards																		
IPD Class Administrative Tasks																		
Budget Planning																		
Weekly Briefs																		
Notebook Progress																		
Benchmarks Research																		
Status Quo																		
Internal benchmarks																		
Competitive benchmarks																		
Customer Needs - Cassie and Alexis																		
Customer interviews																		
Form, Fit, Features, Function and Fin	ances																	
Needs ranking																		
Target Specifications - Jadon																		
Needs Metrics/units, value																		

Mockups and Prototype Development Analytical Models Physical Models Component Comprehensive Midterm Powerpoint Company and Industry Product Importance Specifications Needs Metrics Chart Intellectual Property Research Considerations Current Direction Midterm Presentation Product Concepts Function and attribute decomposition Creativity methods Concept combination Concept Selection Voting Screening Scoring Concept Description Mockups, Models and prototypes BOM Drawings Concept Testing Customer Feedback Forecasting Go no go for primary market Key Deliverables Weekly Briefs Midterm Presentation	
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