



### **WEEKLY SPONSOR COMMUNICATION**

TO: VICTOR NUNEZ, AESCULAP

FROM: CASSIE CHRISTMAN EDITOR: CHRISTIAN DAVIS

TEAM NAME AND NUMBER: AESCULAP 1

**DATES COVERED IN THIS** 

APRIL 11, 2016 TO APRIL 17, 2016

**COMMUNICATION:** 

**WEEK NUMBER:** 9 OF 15

#### Overview

This week we developed a rough plan of action for the rest of the semester with regards to what we would like to have accomplished by the end of the semester and what we intend to include in our final presentation on May 18th. Several of us also visited Lowes to examine products similar to our ideas that are currently available so we could better understand the distraction and ratchet methods we are considering for our final design.

## **Accomplishments**

- 1. We reviewed the material to be covered in our final presentation to help formulate a plan of action for the rest of the semester. Although we did not divide up the entire rubric at this time, we have assigned the following roles:
  - cost estimates: Cassie Obzud
  - competitive benchmarks and intellectual property: Christian Davis
  - customer segment and customer needs: Cassie Christman
  - · concept testing and ratchet systems: Jadon Sargeant

While many of these tasks have already been thoroughly researched, the purpose of the re-assignment is to ensure that the information listed above is steadily supplemented and updated.

- 2. We determined that by the end of the semester we would like to have a "looks like" mockup and a "works like" mockup of our final design. To achieve this goal, we will choose our final distraction method design by Wednesday, April 27th, and from there will develop the remaining criteria for the distractor, including paddle design, paddle connection system, ratchet system, impaction handle, and impaction handle connect system.
- 3. Jadon, Brian and I visited Lowes to examine the distraction and ratchet systems of existing hardware to establish a better understanding of the mechanisms we are trying to mimic and improve upon. We took particular interest in pliers that had their own locking mechanism which consisted of a spring and a trigger.

Images of these pliers are in Exhibit 1 and Appendix A. We purchased the pliers in Exhibit 1 to deconstruct so we can examine from an internal perspective how the mechanism works to verify if a similar design would be suitable for our distractor.



Exhibit 1 Stanley Straight Jaw Locking Pliers

We also found pliers that had a similar "S" handle design that we are considering. Although the design of the pliers in Appendix B is slightly different from our idea, it was beneficial for us to see how an existing product utilized this handle type. Lastly, we looked at a screw-controlled clamping system which reminded us of our "Internal Expansion" design and gave us a better idea of the kind of end we could use to separate the paddles. A picture of this product is located in Appendix C.

# Next Steps

1. In this upcoming week we will continue making progress on our delegated tasks for our final presentation.

2. We will also continue to compare our three designs in order to determine which one we want to move forward with.

# **Project Related Questions**

- 1. Do you have any comments or opinions on the designs we included in last week's brief?
- 2. Is there a website we could use to determine the price of medical grade material components (i.e. bolts, screws, springs, etc.)?

Appendix A: Pliers with Locking Mechanism



Appendix B: Pliers with "S" Handle



Appendix C: Clamp with Screw Mechanism

