
WEEKLY SPONSOR COMMUNICATION

TO: VICTOR NUNEZ, AESCULAP
FROM: CASSIE CHRISTMAN
TEAM NAME AND NUMBER: AESCULAP 1
DATES COVERED IN THIS COMMUNICATION: SEPTEMBER 26, 2016 TO OCTOBER 2, 2016
WEEK NUMBER: 5 OF 15

Overview

On behalf of the team, I would like to thank you for having Jadon, Brian and myself at Aesculap this past Thursday. Additionally, thank you for 3D printing our model and for your's and Chris's feedback. We took all of what you said into consideration and made some adjustments to the distractor and paddle designs. If you have any further comments on any of the changes we made to either design, please let us know.

Accomplishments

1. Christian continued to make improvements based on your feedback regarding the pins. We believe that the adjustments will make the distractor easier to print so it can function similarly to the actual distractor. Exhibit 1 portrays the new version of the distractor that will be printed.

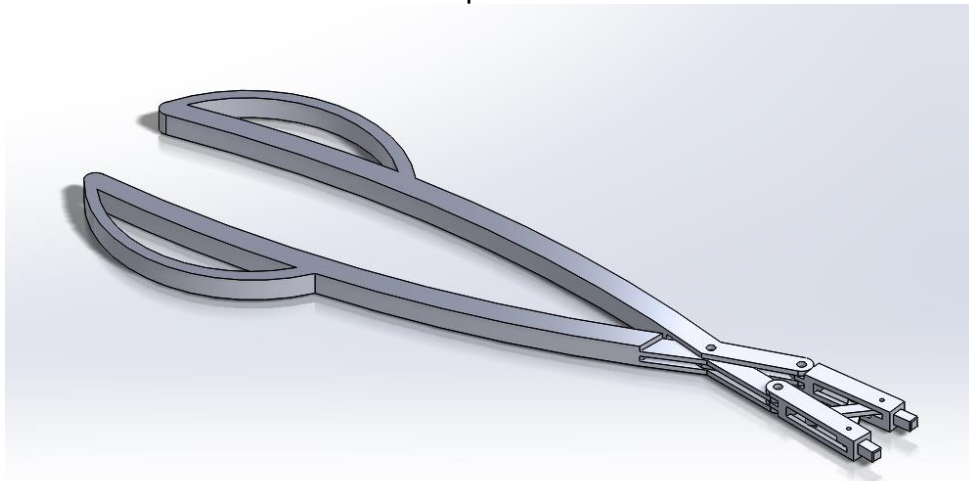


Exhibit 1 - Updated Version of Distractor

2. I completely redesigned the distractor paddles based on the feedback you and Chris had; Exhibit 2 shows the new paddle design. After looking at the general

dimensions of the activL implant that Chris provided, I tried to create a similar geometry and size ratio for the paddles. For the smallest paddle size, I made the depth of the paddle 25mm to correlate to the 26mm depth of the smallest activL device since the paddles are inserted to the almost very back of the vertebrae during the procedure. I also took your advice and made the paddle slightly larger to try to expand the contact area between the paddle and vertebrae. The minimum width of the paddle is now 6mm and extends to 14.53mm; this 6:14.53mm ratio stems from the 12.8:31mm ratio of the widths of the smallest activL implant. Additionally, I kept the gradual increase in height and expanded the area over which the vertebrae will rest on the paddles, as you suggested. Lastly, I added fillets to all edges of the paddles as to not have any sharp edges. If you like the design of this paddle, I will use this design to create the different size paddles.

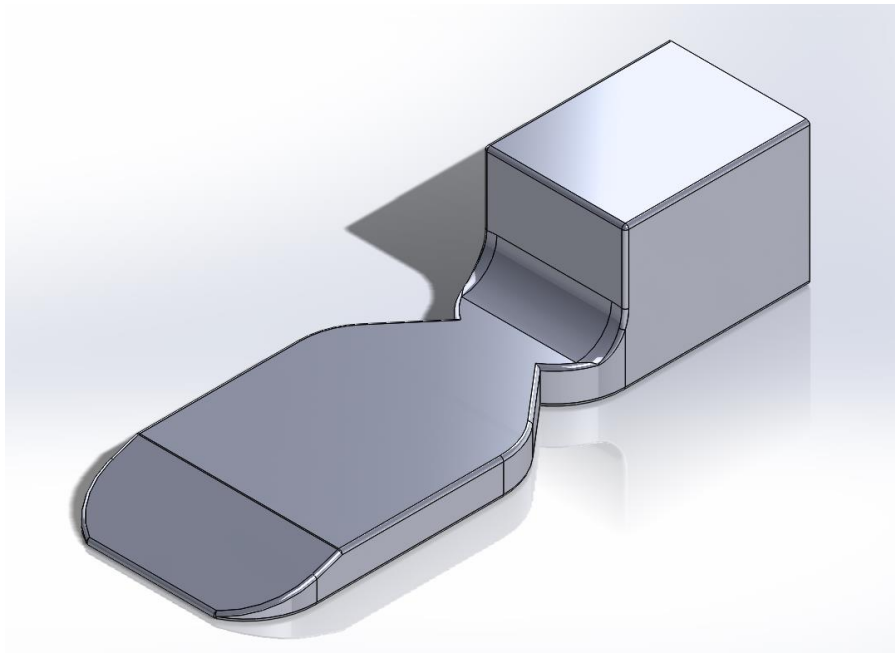


Exhibit 2- New Smallest Paddle Design

Next Steps

1. Our midterm presentation is this Friday October 7th, so this week we will be focusing on preparing for that. We will update you with any feedback we get from our advisor and peers.
2. Over the next few weeks, we will be 3D modeling the various components we discussed in our meeting. We will be focusing on the ratchet system, the impaction handle design, the measuring system, and the quick connect system for the paddles.
3. We will continue to test the strength and mechanical soundness of our designs by simulating them on Autodesk.