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## WEEKLY SPONSOR COMMUNICATION

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**TEAM NAME AND NUMBER:** AESCULAP 1  
**DATES COVERED IN THIS COMMUNICATION:** SEPTEMBER 5, 2016 TO SEPTEMBER 11, 2016  
**WEEK NUMBER:** 2 OF 15

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### Overview

Thank you very much for speaking to us this week. We value the feedback you gave us on our final presentation. After hearing your feedback as to what steps we should take next, we determined some initial dimensions for the distractor in order to start creating 3D models to analyze.

### Accomplishments

In order to begin creating a 3D model of the distractor, we first needed to establish some overall dimensions of the distractor. We did so by first creating a ratio between the length of the handles before the ratchet joint and the length of the distractor after the ratchet joint. Last semester we determined the maximum grip strength that can be applied to the handles to be 300N, and the distractor needs to apply 2000N to the spine at the paddles. Therefore, we created a length ratio of approximately 7:1. We also know the maximum height the paddles needs to distract is 15mm. Using this information, we were able to establish a  $12^\circ$  angle from the horizontal axis through the middle of the distractor at the ratchet joint. A sketch, drawn by Cassie, illustrating our starting dimensions can be found in Exhibit 1.

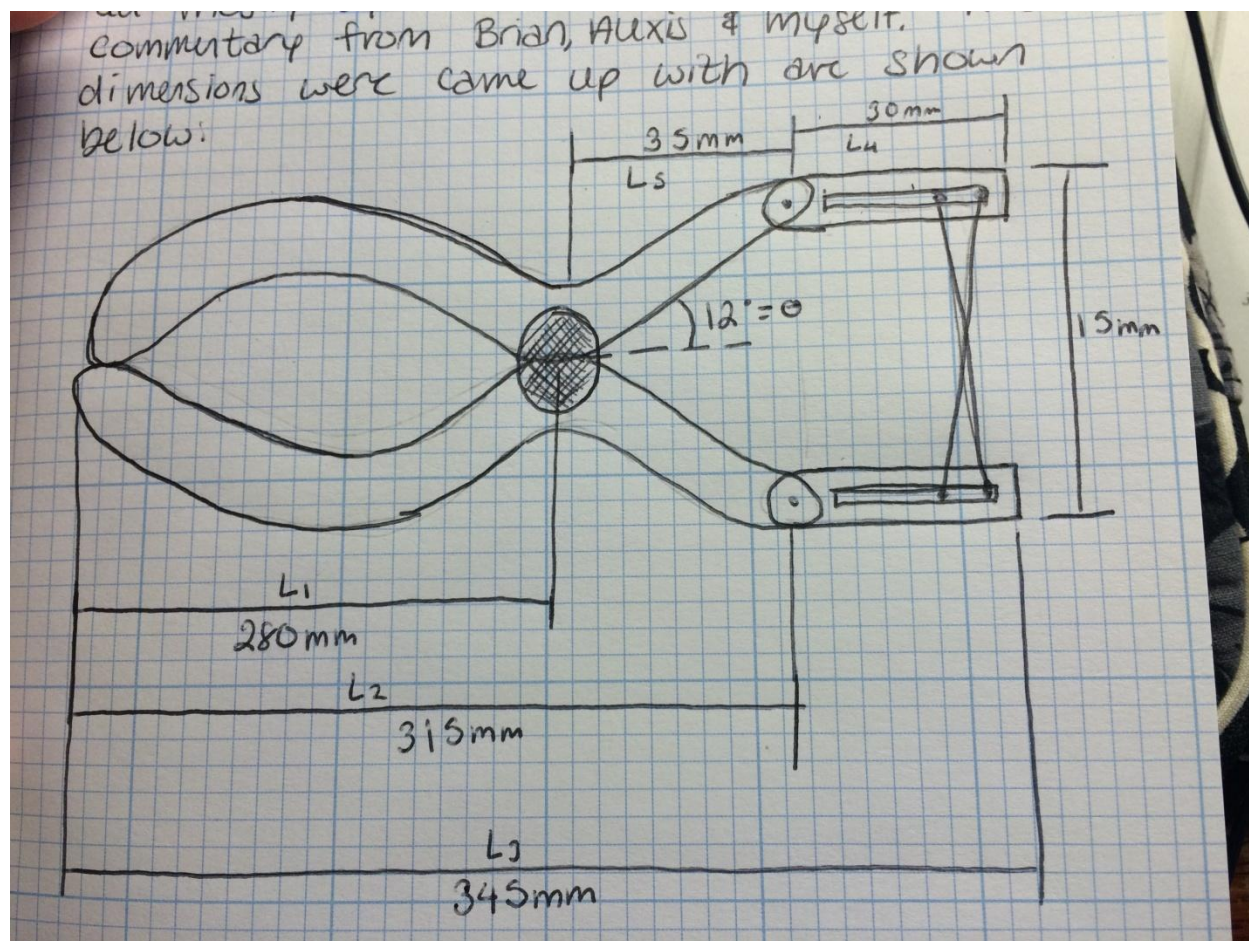


Exhibit 1 Starting Distractor Dimensions

### Next Steps

1. Christian will begin to create a 3D model of our distractor design.
2. We will be in contact with Monika Martin and Chris Good to determine the expected ROI for the distractor.