



Ghost Clip

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Summary

The Ghost Clip project was a team project designed to have a fun-looking 2D sculpture. (continued)

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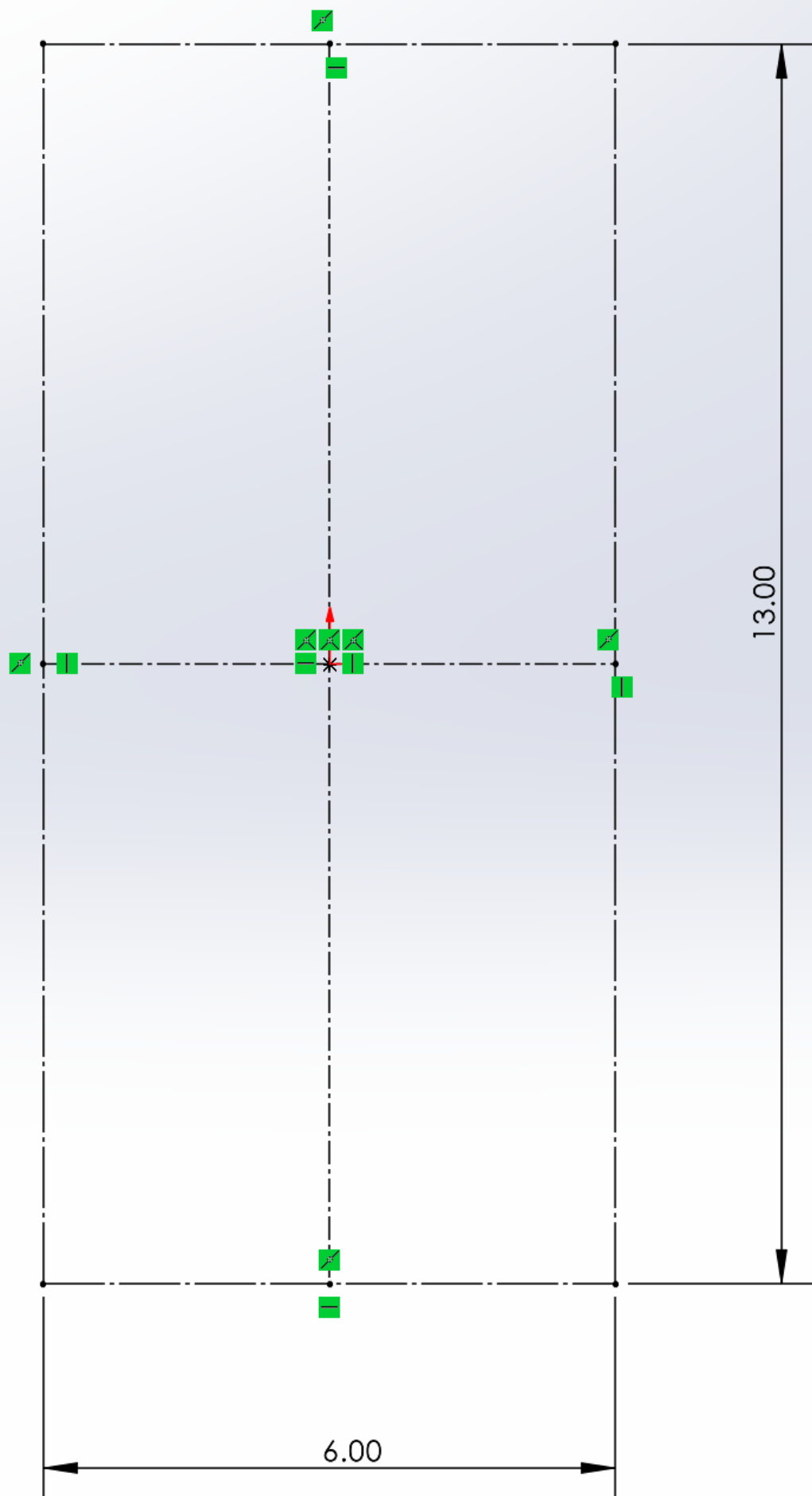
(continued summary) This sculpture was made to be utilized as a paper clip or as a design piece. This useful clip is easy to carry when reading a book, can be used as a fidget toy to relieve any stress, or can be used to organize papers in a fun way. The dimension of the clip are 3cm X 6.5 cm. Me and my partners first step was to twice the dimensions of the original model, furthermore, we sketched the model on Solidworks and created the 2D version of the ghost clip. After we created the 2D version, we extruded the 2D model to 3D, added our initials, and printed the model.

My partners Ghost Clip can be found under the username Garret Labbe

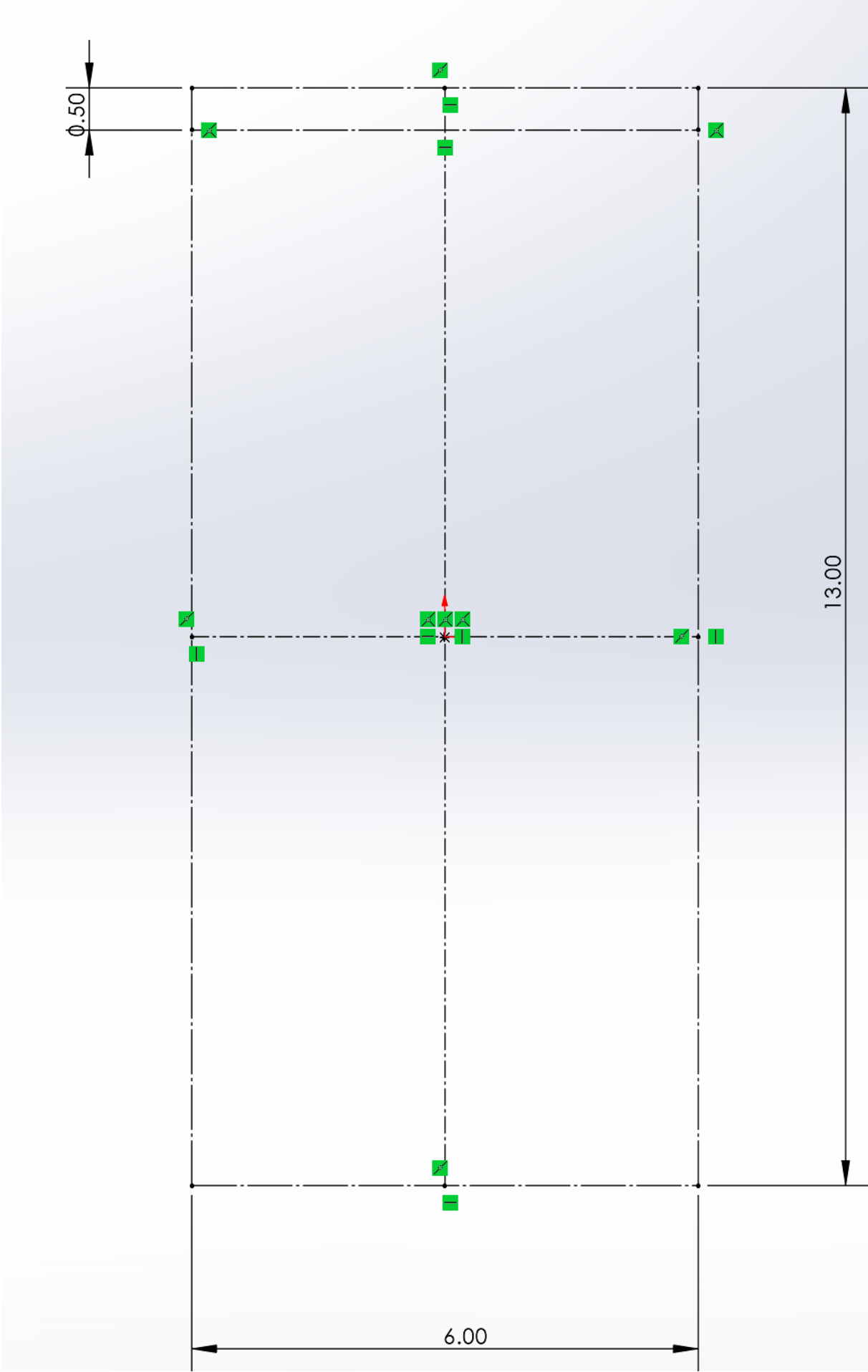
Construction Instructions: With a partner, you will recreate your ghost clip using Solidworks from a model example provided in class. You and your partner **MUST** have identical files that you create by collaborating on each step, one at a time.

The instructions on creating the ghost clip:

Step 1: Create a 6x13 dimension constraint box where the bottom right corner touches the origin.

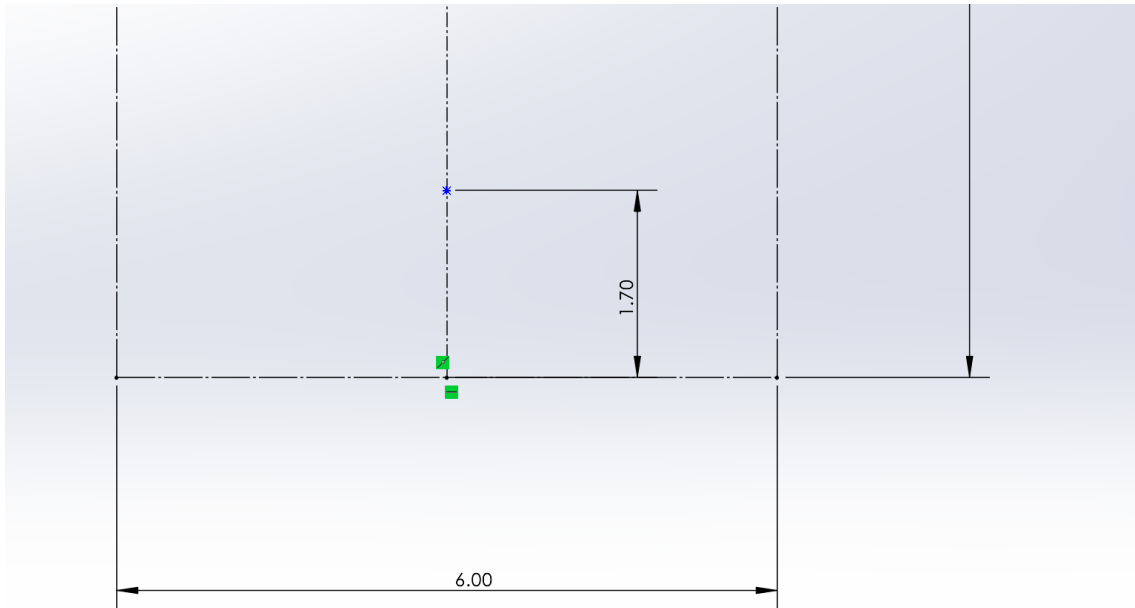


Step 2: Create a horizontal construction line that is 0.5 down from the top line

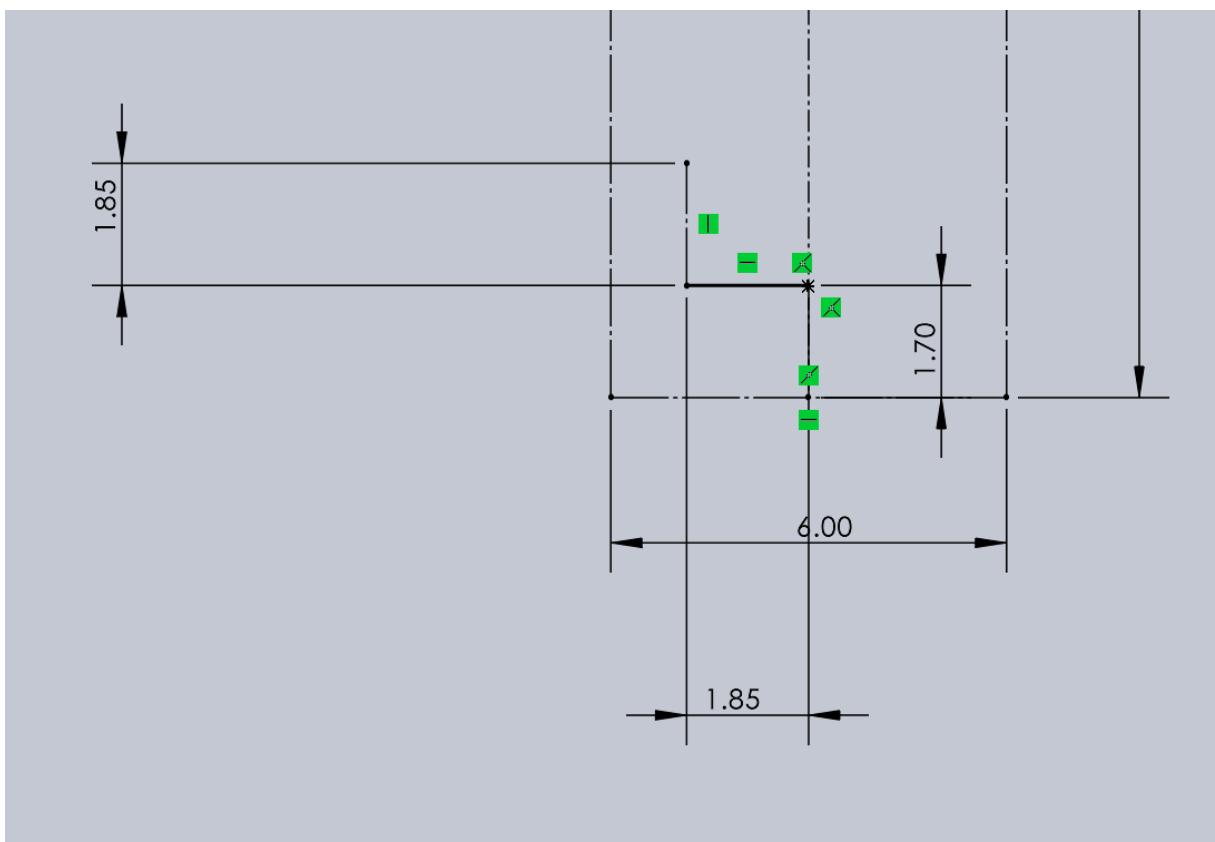


Step 3: Create the mouth

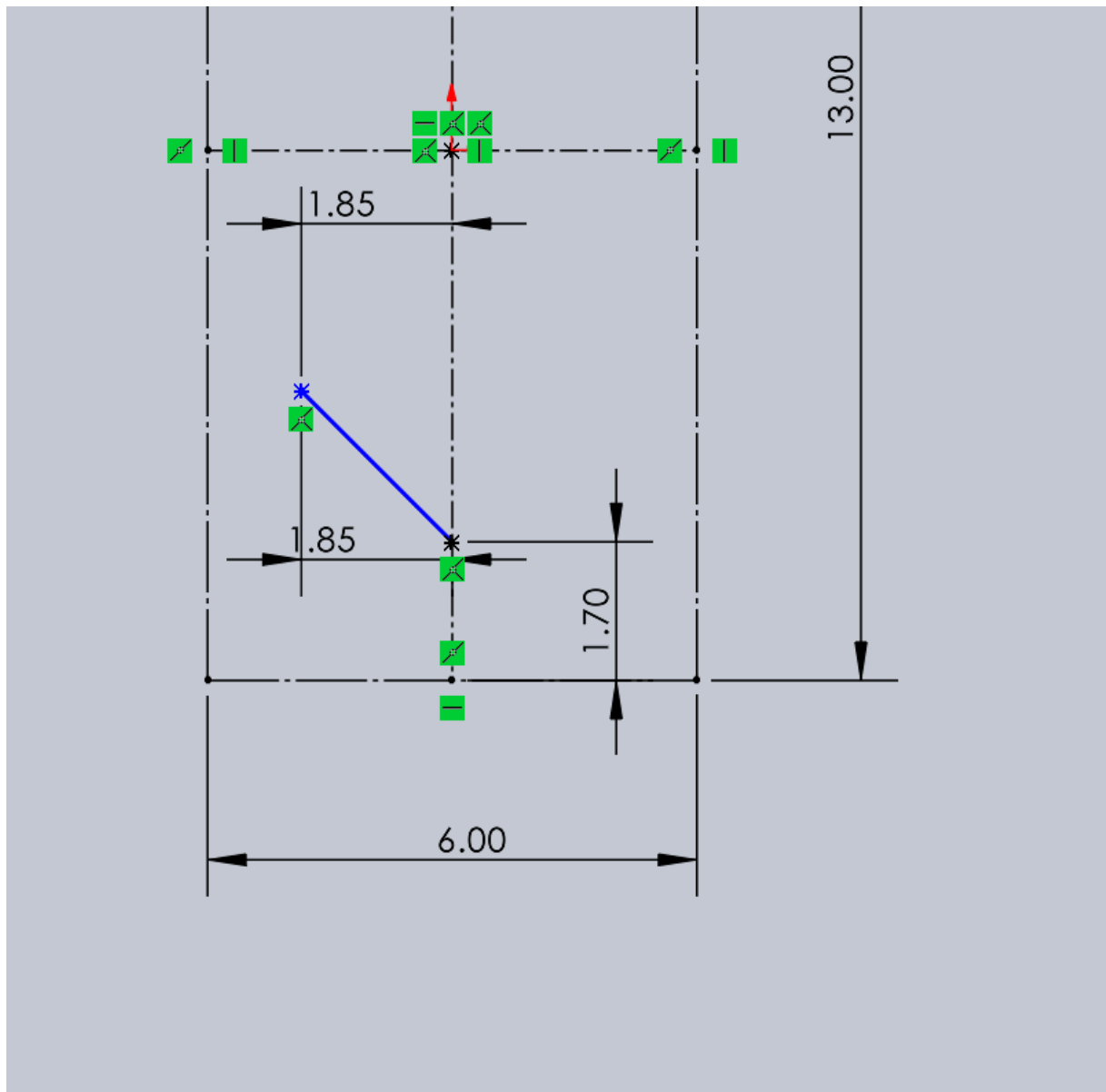
- Place a point, 1.7 cm up from the bottom mid point. This is the bottom of the mouth.



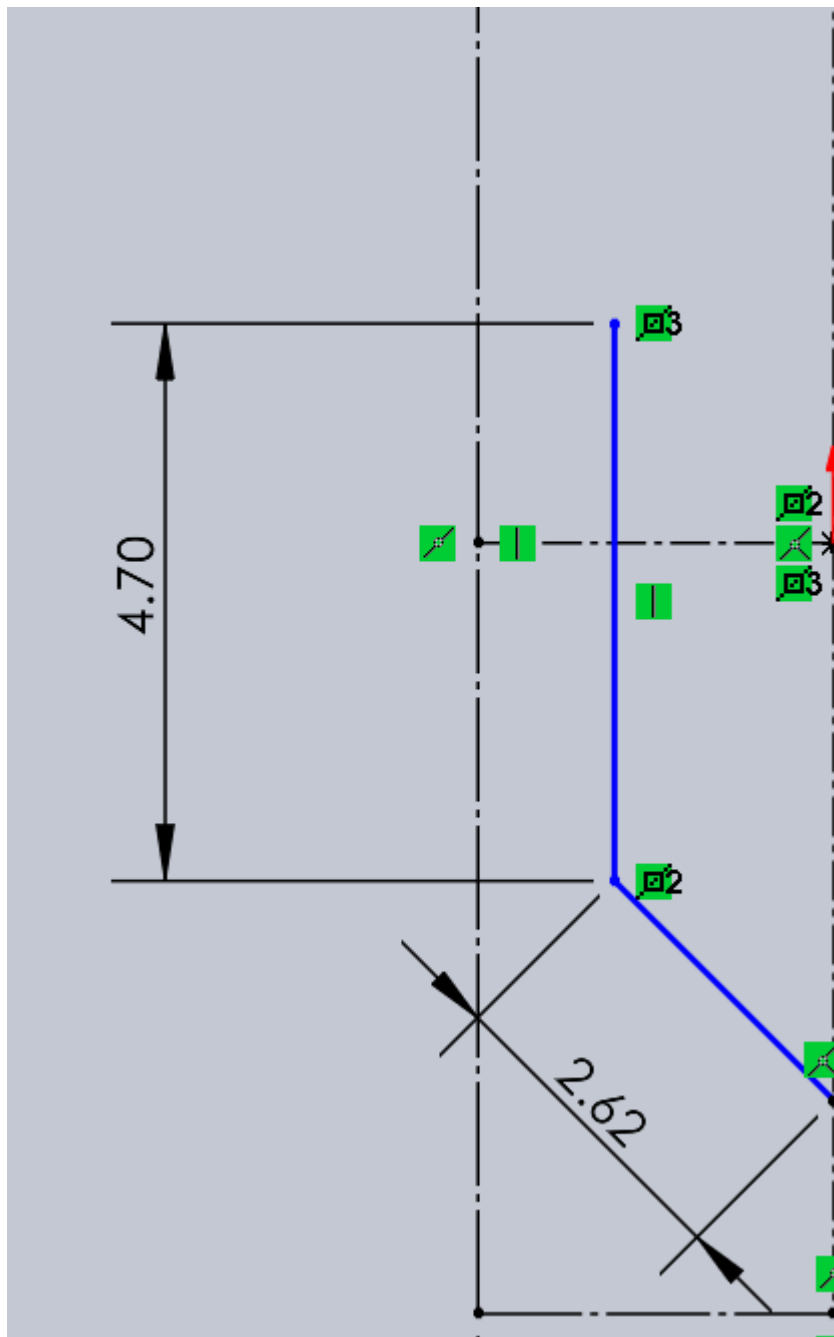
- Goleft 1.85 and up 1.85,create dots



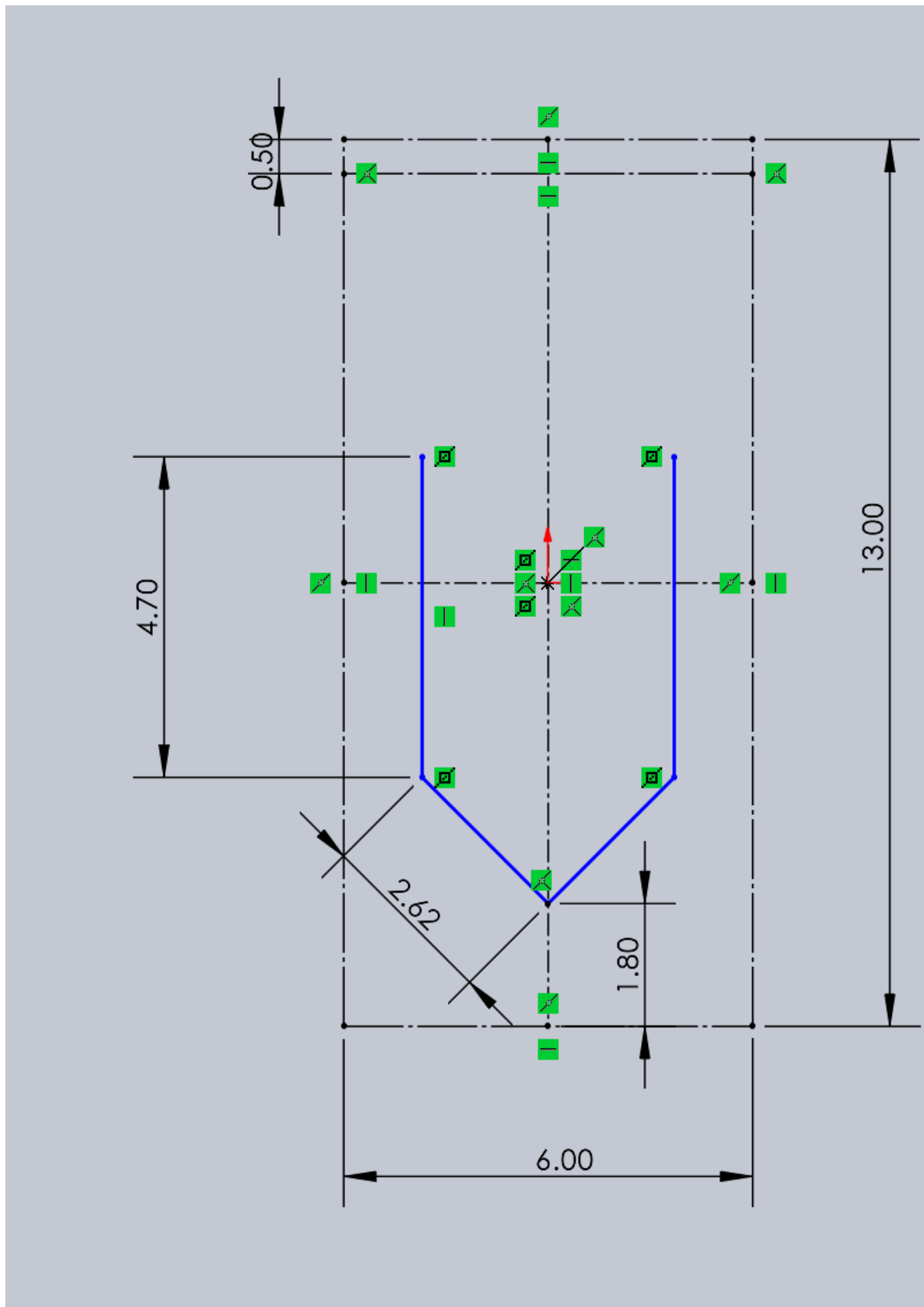
- Create a line from those points



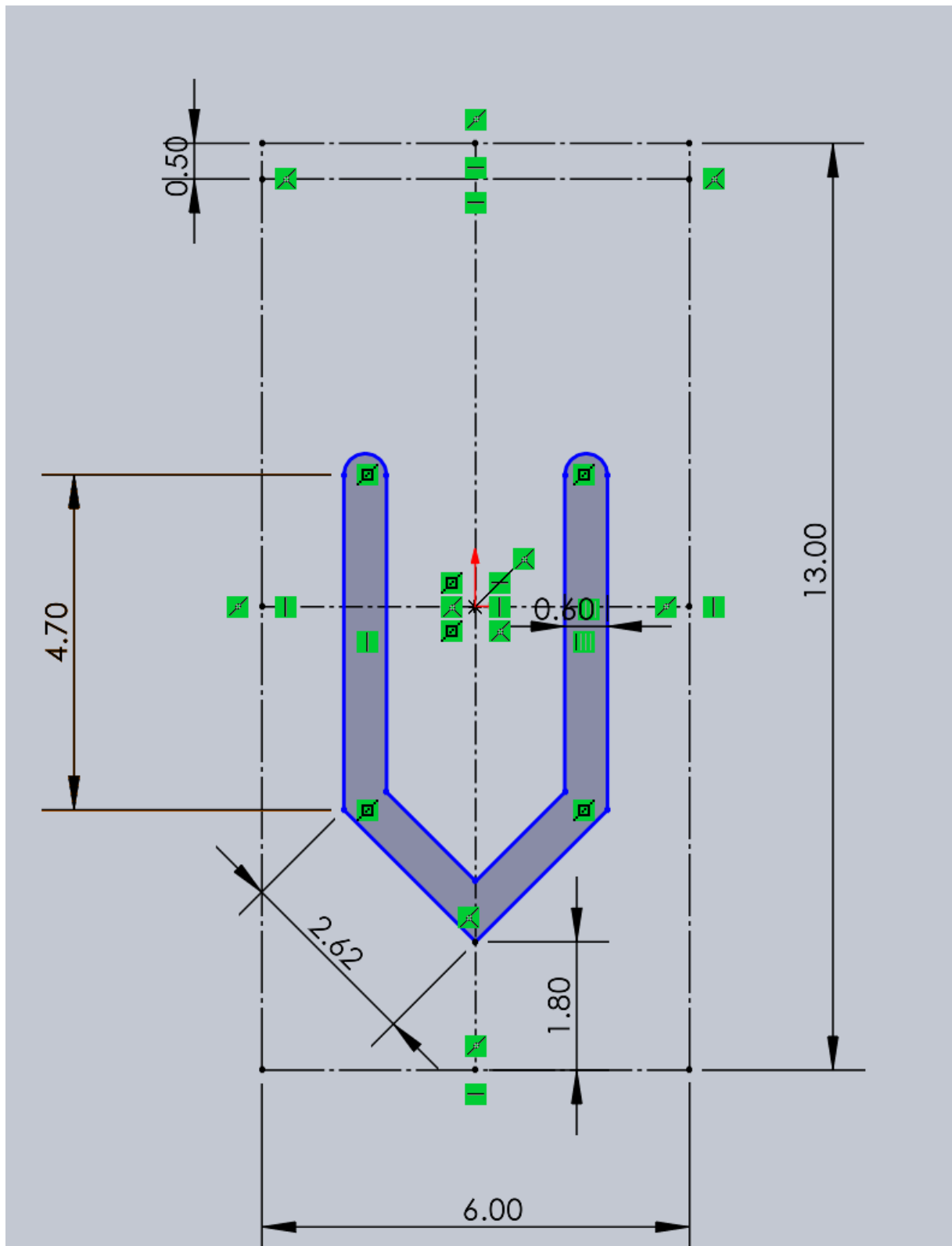
- Make that line 2.5 cm and draw a line 4.7 cm up



Using the mirror tool you should be able to only mirror the mouth

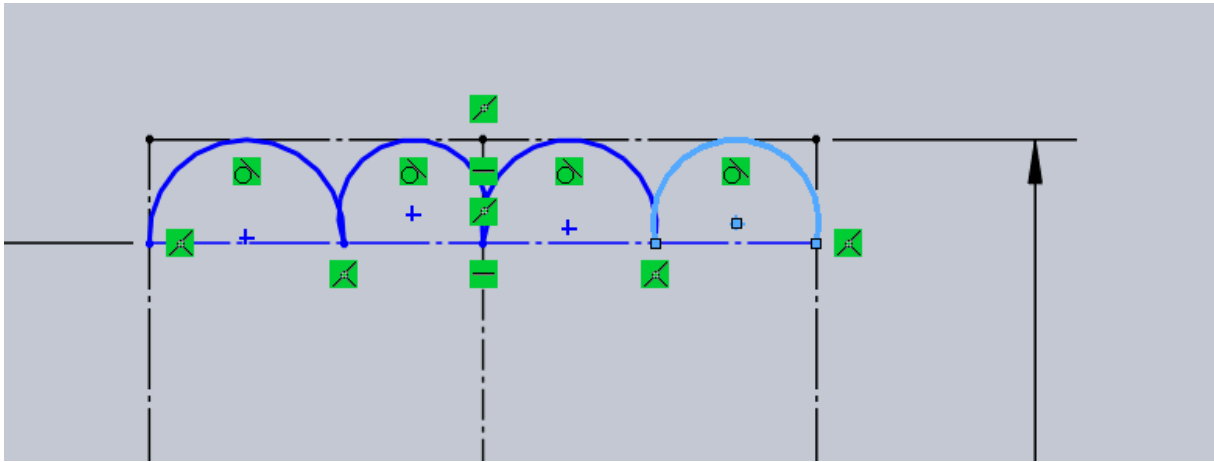


- Check off offset entities and cap ends to make half cylinders on top of the mouth and make the thickness of the mouth 0.60

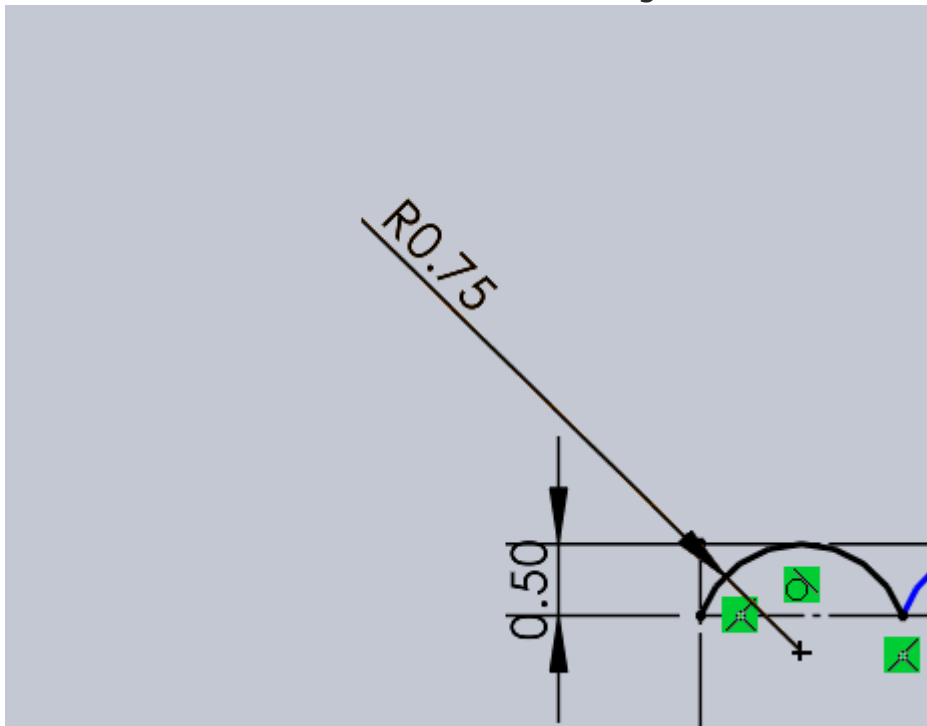


Step 4: make the arcs

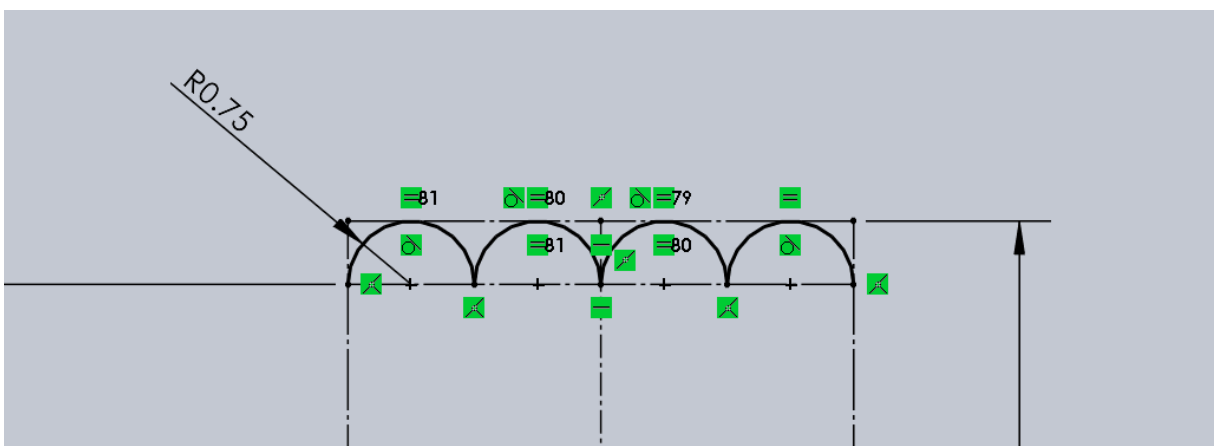
- Make 4 arcs to the top of the ghost



- Set on of the arcs dimension to 0.75 degrees
-

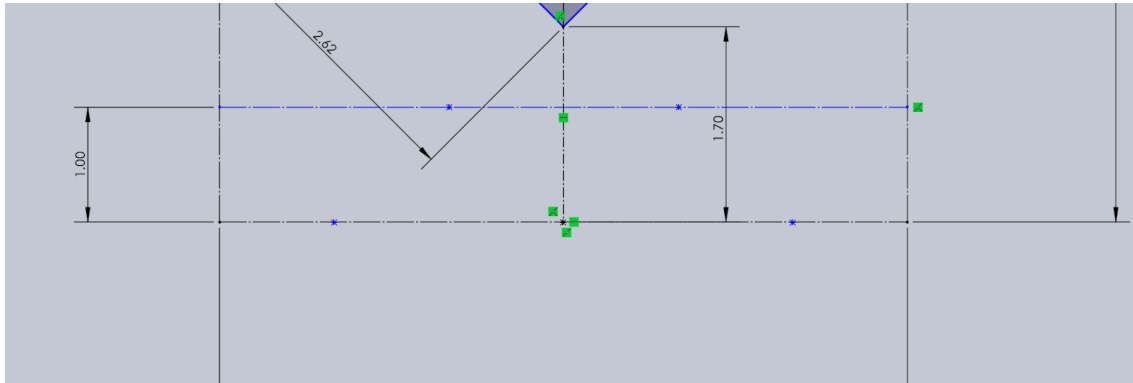


- Set all arcs equal to each other

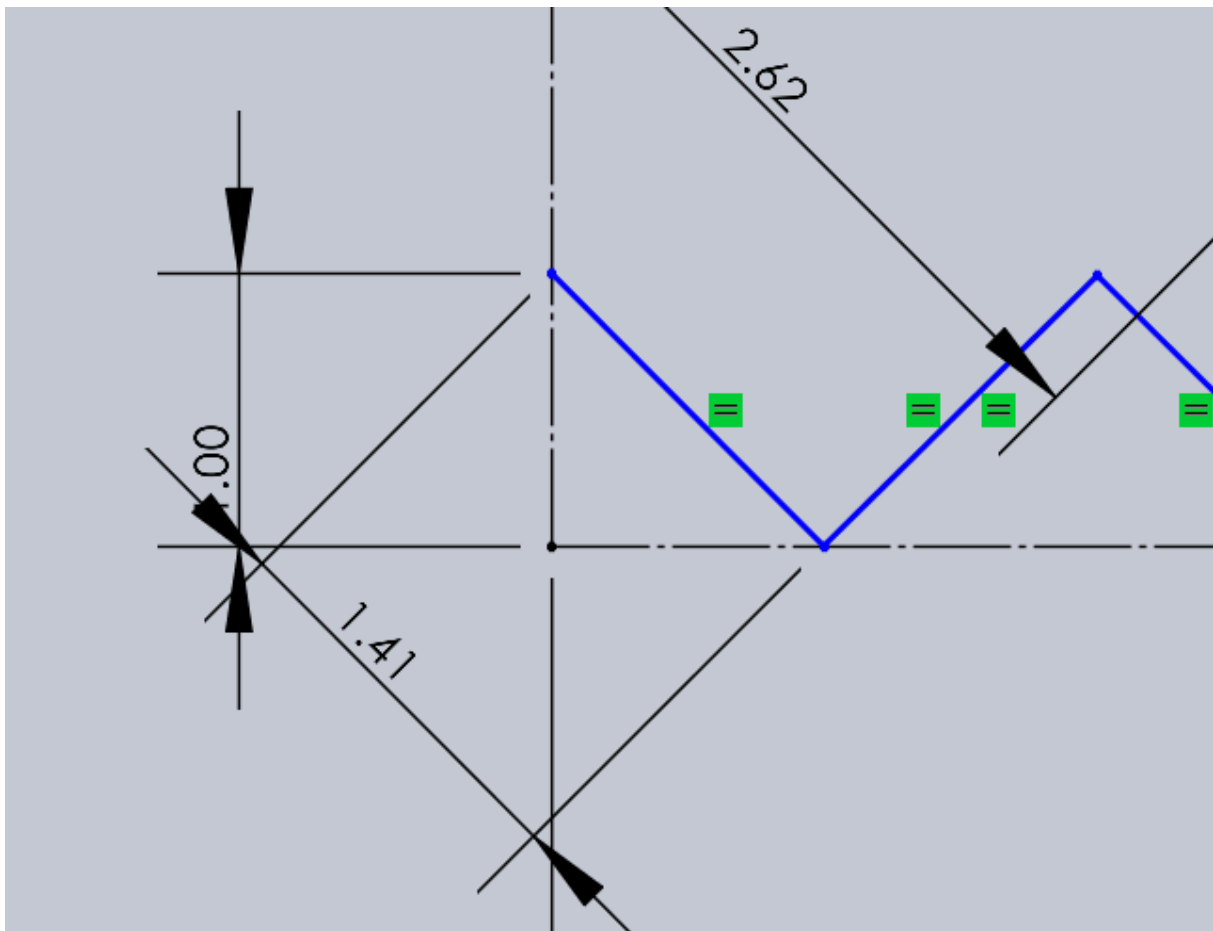


Step 5: Make the triangles

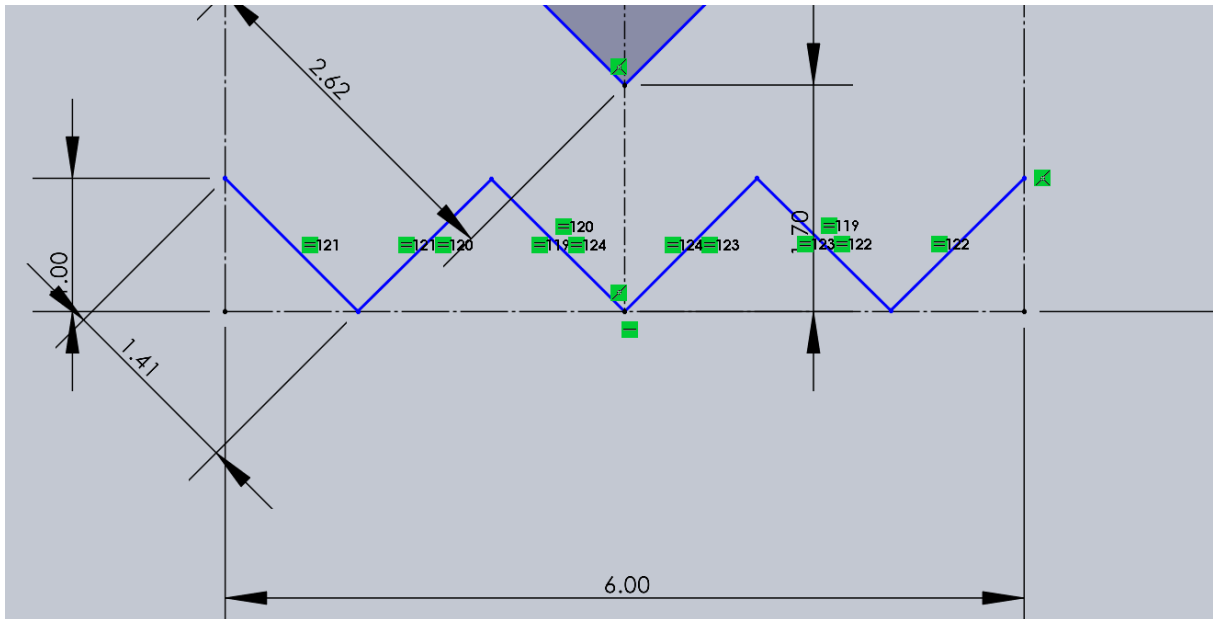
- Create make a construction line 1 cm above the bottom of the ghost
- Create 3 points that are 2 cm apart and on the bottom make 2 point 2 cm apart



- Next, smart dimension one of the lines to 1.41 cm and set the lines of the triangle equal to each other

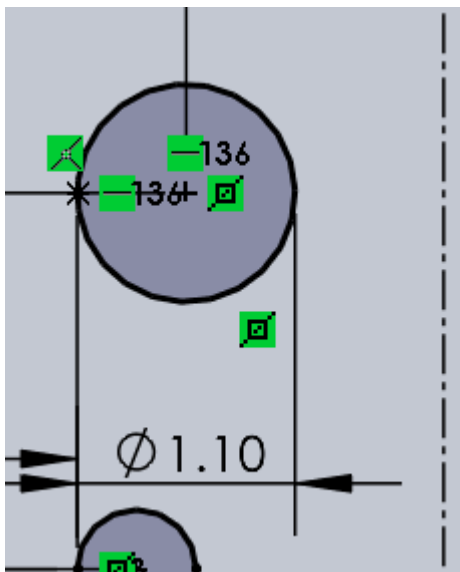


- Lastly, set all dimensions equal

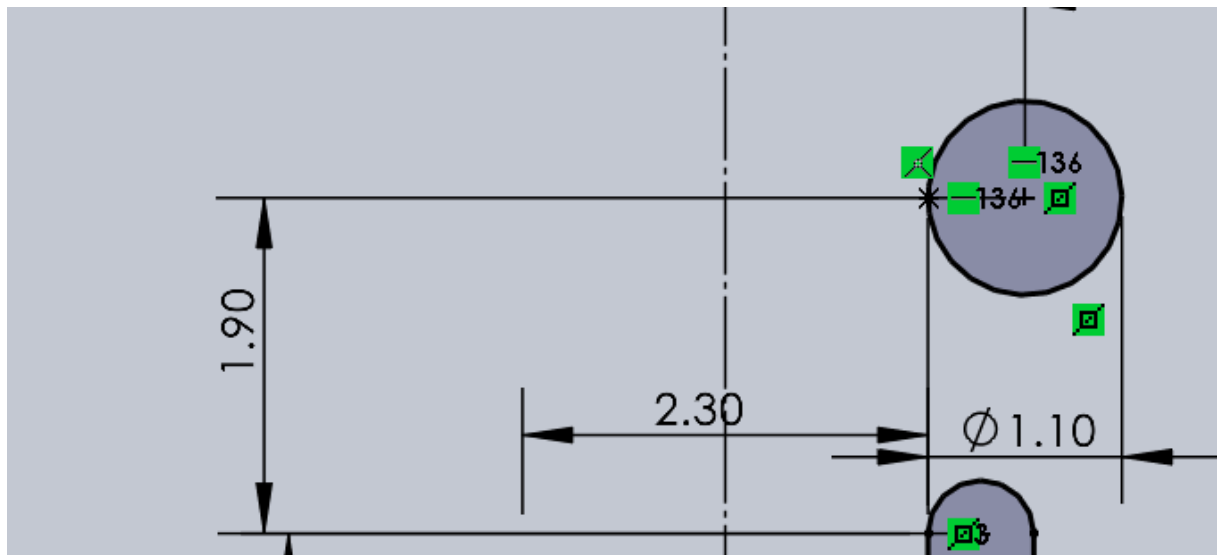


Step 6: Create the eyes

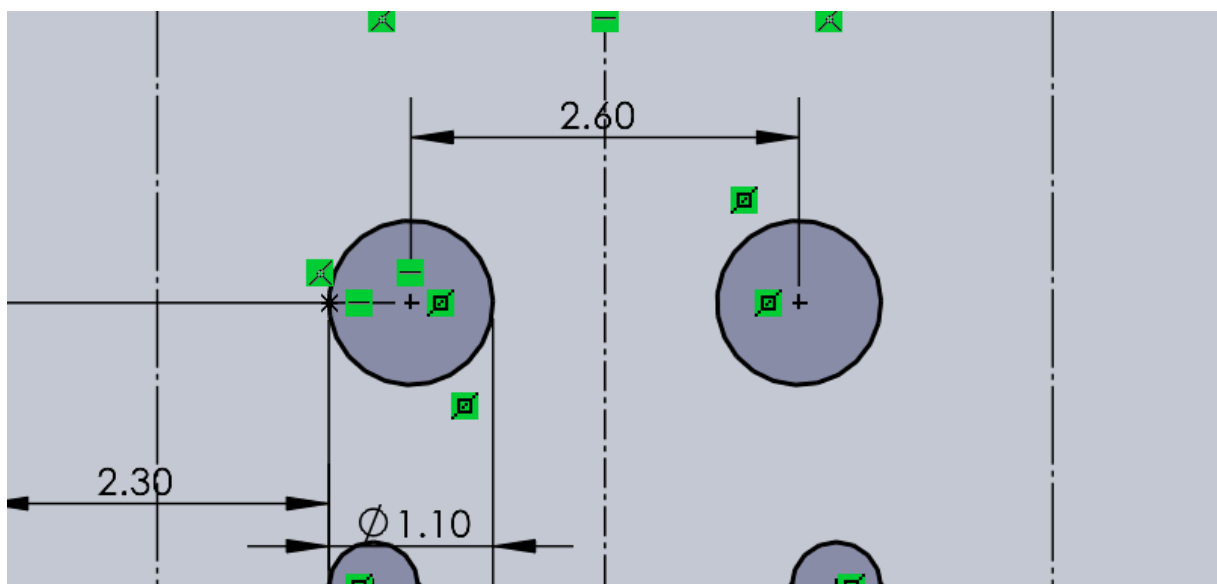
- Create one circle, make its diameter 1.10



- Make the smart dimension of the center of the circle from the center of the caped end of the mouth 1.90

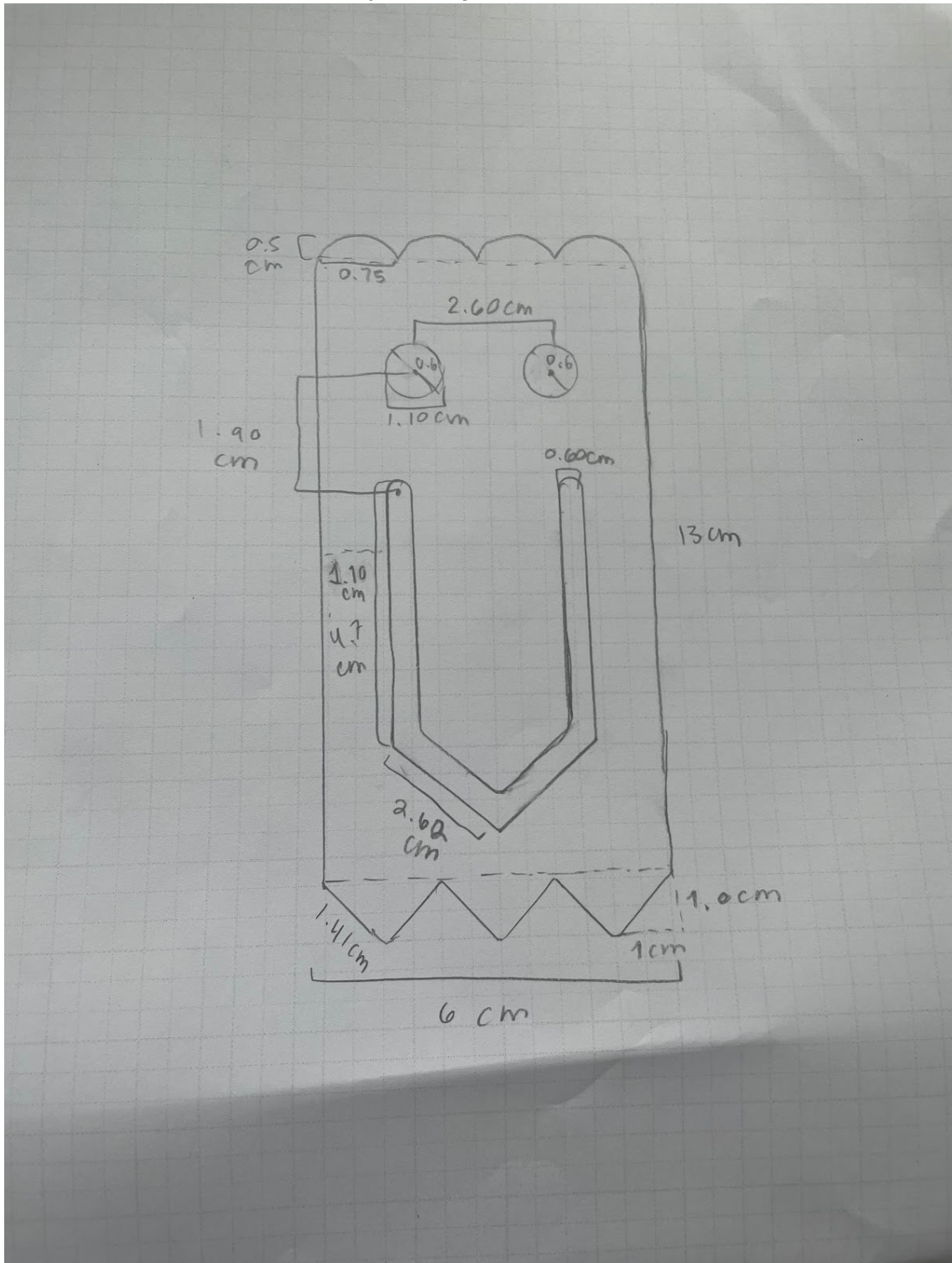


- Mirror another circle 2.6 cm to the left of the center of the first circle



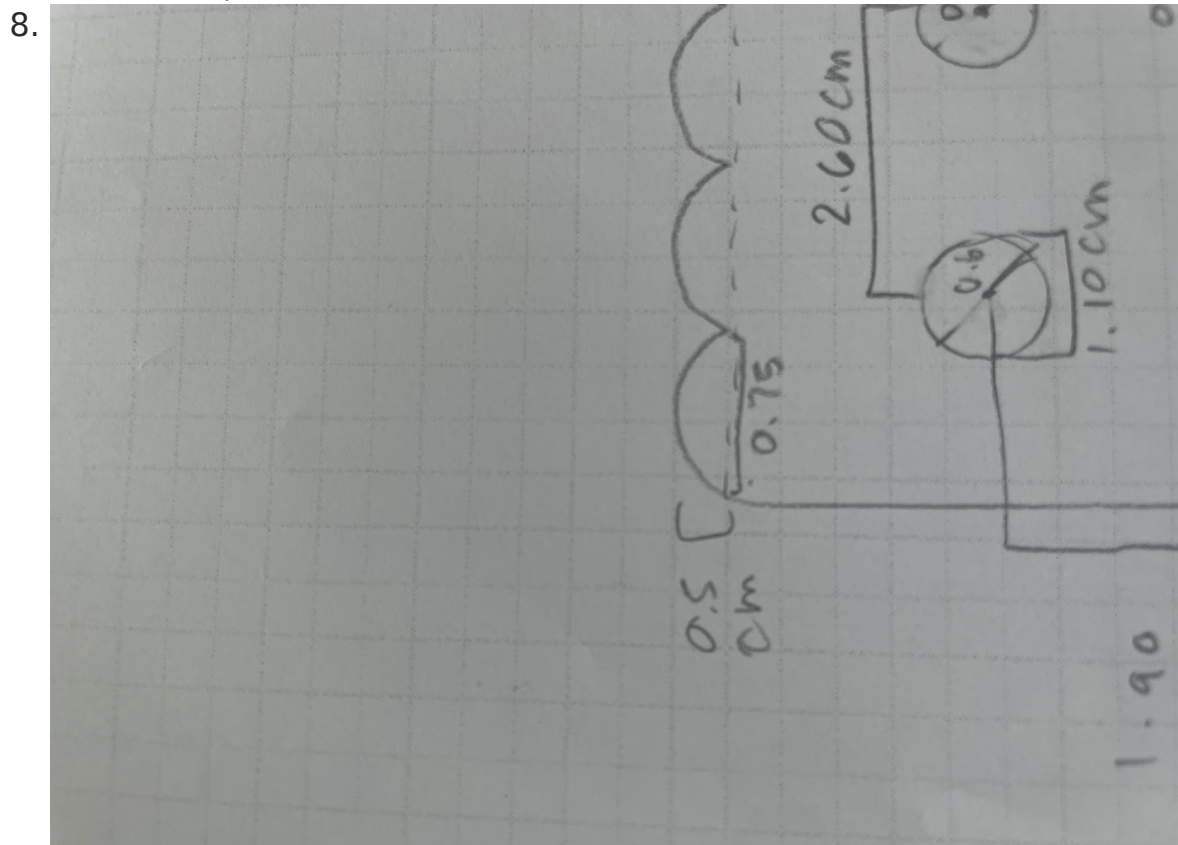
Step 7: Make lines on the sides to complete the ghost

2. We made sure to have the same exact model of the ghost clip in paper with the right dimensions so that we could write instructions on how to sketch it on Solidworks
3. We used the 2x scaled size of the original ghost clip so that it could be easier to view and to adjust any dimensions
- 4.



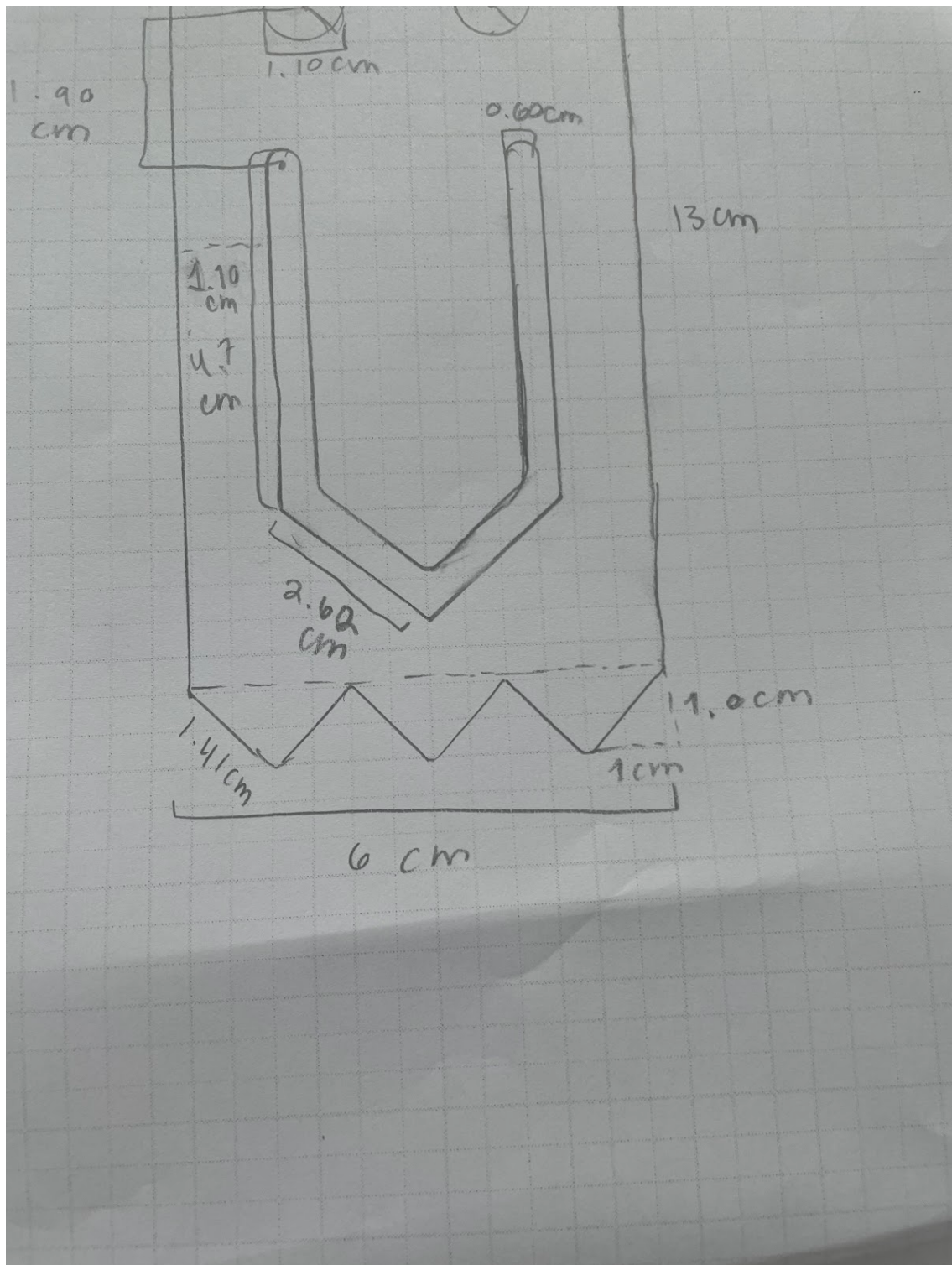
5. After we drew the model on paper, we created the instructions necessary to create the model on Solidworks. We used the measurements found for the instructions and started the instructions first with the steps to create the constraint box, the mouth, the arcs, the triangles, and lastly the eyes

6. Starting with the mouth, we acknowledged that it was changed the most. We first started to make the mouth on both sides and also drew the insides of the mouth. However, we later on just drew the outside of the mouth, mirrored the mouth on both sides, used offset entities to create a more accurate inside of the mouth, added capped ends, and gave the accurate dimensions for the mouth
7. For the arches, we first did two arcs on one side and then measured it 0.75cm, and mirrored it. We realized that this did not make the arches defined and it was not accurate. Therefore, we adjusted it to making four arches and measuring only one of them 0.75cm, and setting them all equal to have the arches more accurate



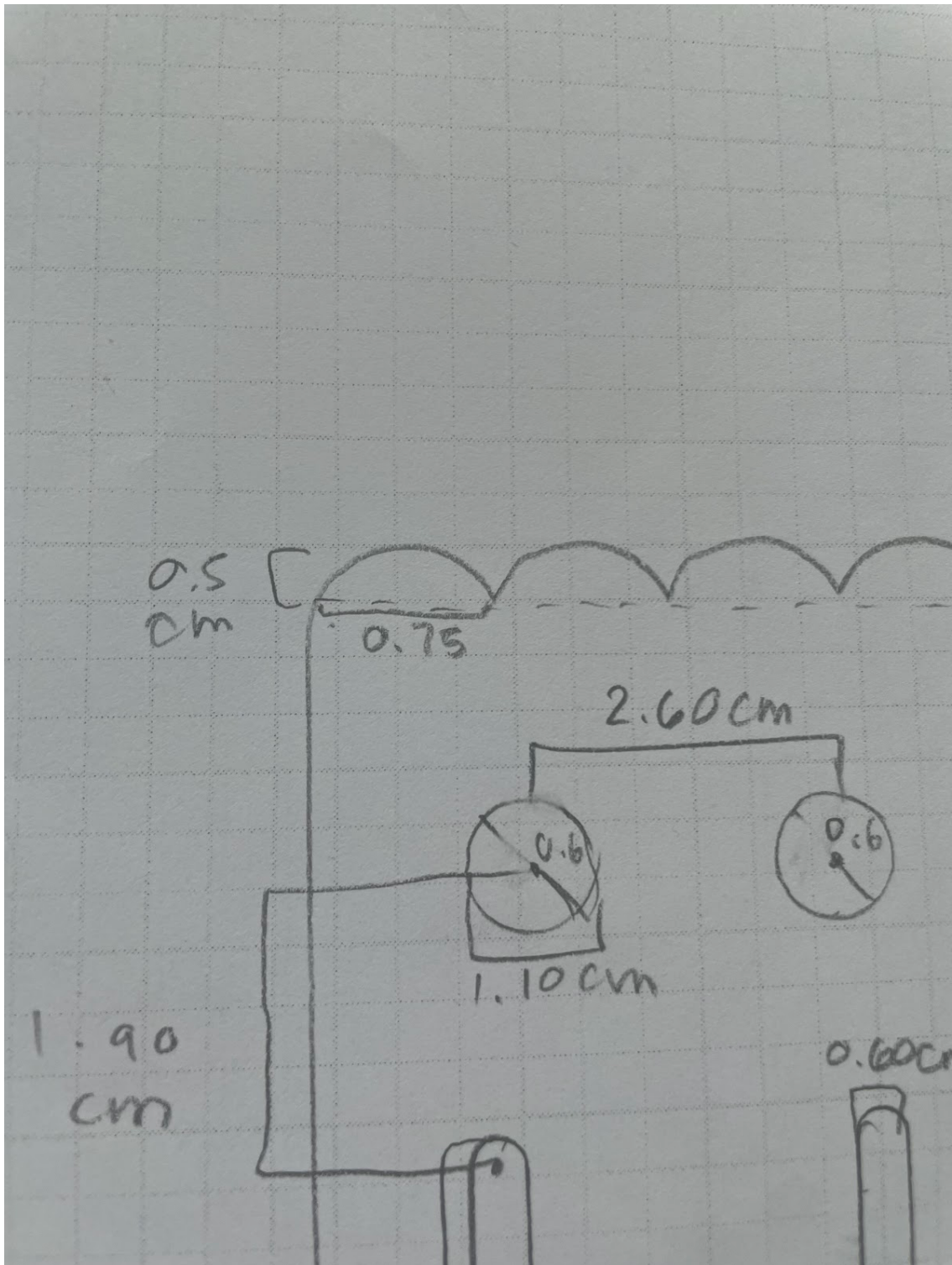
9. After the arches were complete and dimensioned off we moved on to the triangles at the bottom of the model. Similar to the arches, we first created three triangles that were 1.41 cm long. However, we changed our choice and created three triangles all equal to each other and one of them measured to 1.41cm. Here our paper sketch was accurate so it was an easy transition onto Solidworks

10.



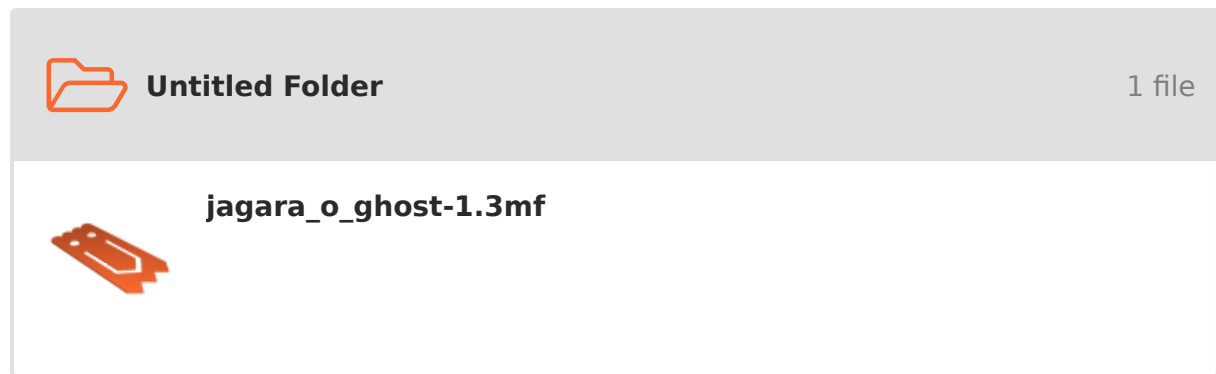
11. Lastly, we created the eyes. At first, we had created the eyes first however we realized that using the mouth and arches to measure from the circles would be easier. We created one eye, and used the dimensions we measured from the ghost. We then mirrored it over. Here is the comparison between the paper and the solidworks sketch

12.



13. The changes made through our model for the project were to improve the outcome of the design to best fit the original mode of the ghost. These changes influenced for a better design; both for the functionality and the aesthetics. These changes made it easier to set the measures for the ghost as well as making it all black, which meant they were all defined.

Model files



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