A3 JOURNAL

DEKU ~Stay Hydrate Together~
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STAGE 1

DATE: 27/10/2020

METHOD USED:

This is the bottom part of the bottle and this is where the battery, microchip, and light strips go in. First, I created the cup shape by reshaping a cylinder with bevel in the edit mode. Then I have used the method of boolean operations to union all the supporting elements. Four bars inside are made to attach the microchip and two hinges are made to connect the bottom part to the main body of the bottle. Four circles are decorated on the outside which can show how much battery is remaining(Figure.2). Finally, the octagon attached is a button designed for users to turn the light on and off. (Figure.3.

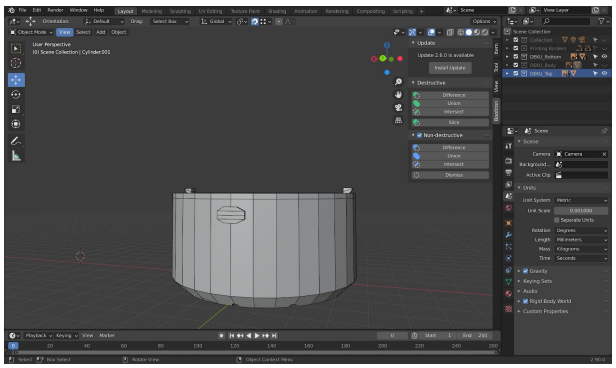


Figure 1

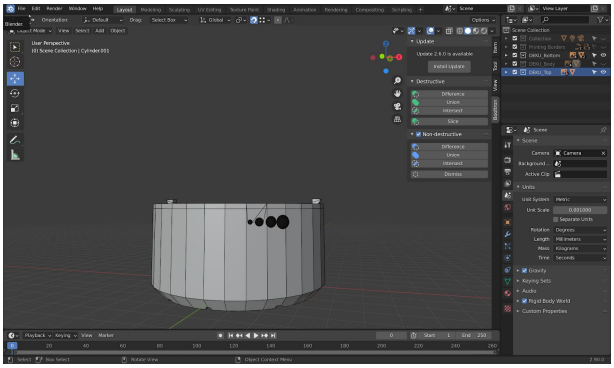


Figure 2

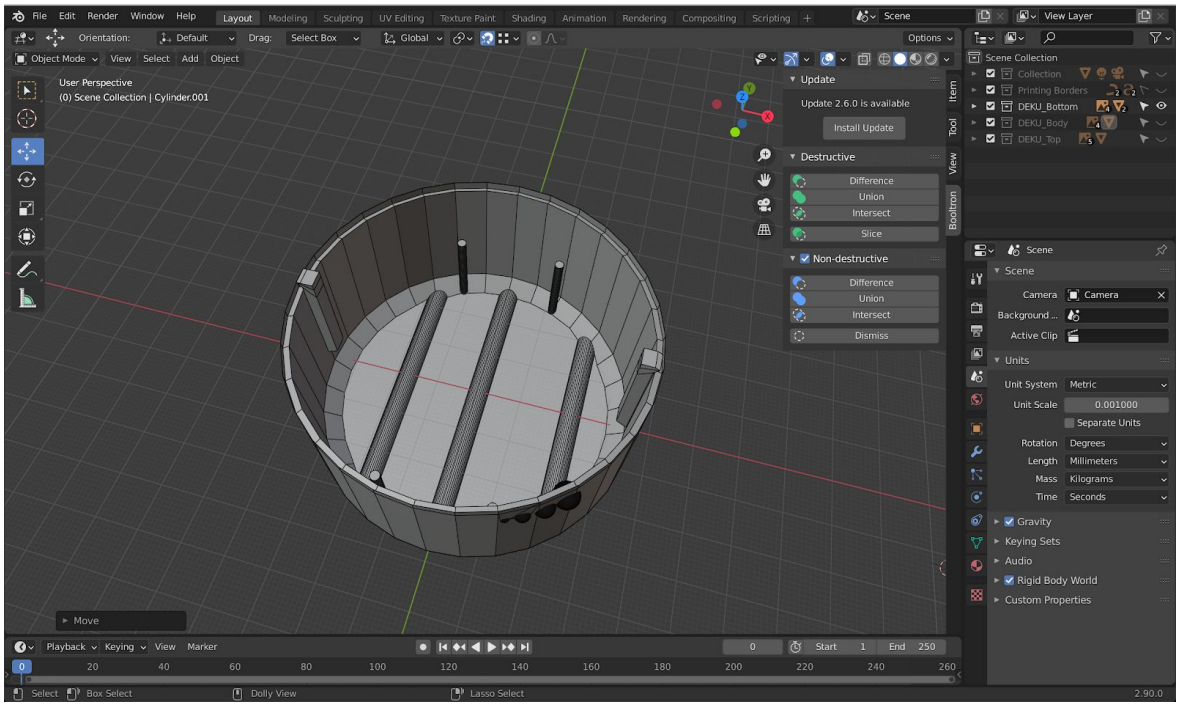


Figure 3

STAGE 2

DATE: 27/10/2020

METHOD USED:

In the body part of the DEKU, I used a Cylinder tool to create the base shape, added 3mm of solidify. I have also added the water drop shaped logo by using the union method in the boolean operation, and also added the 3mm thickness using solidify(Figure 2). For the Logo, I first inserted a thin cylinder then moved the vertices by having my reference image on the back using the poly build tool. As figure 1 and 3 shows, Two thin ditches are made around the body both at the top and bottom. These are made in a circle so that the lid and battery part can be fit from any direction(Figure 1). This bottle is also designed for users to be able to hold the bottle easily by creating three concaves on each side of the bottle using the difference method from the booltron(Figure 2).

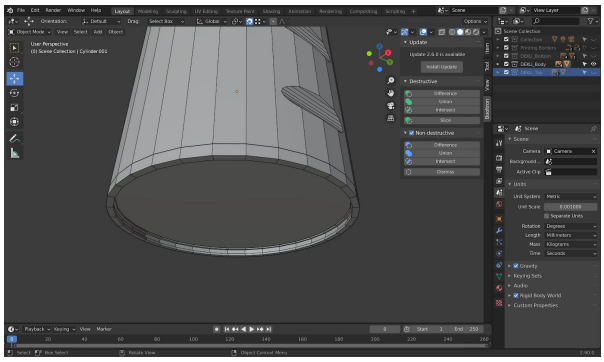


Figure 1

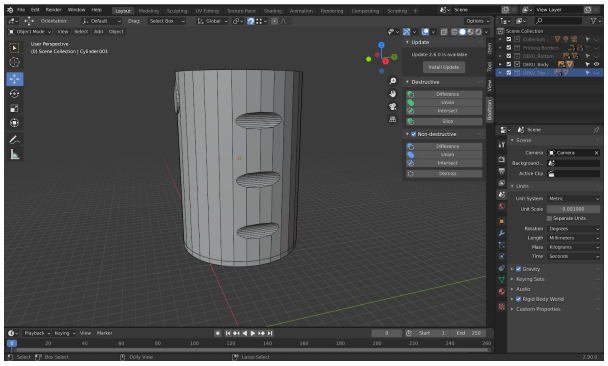


Figure 2



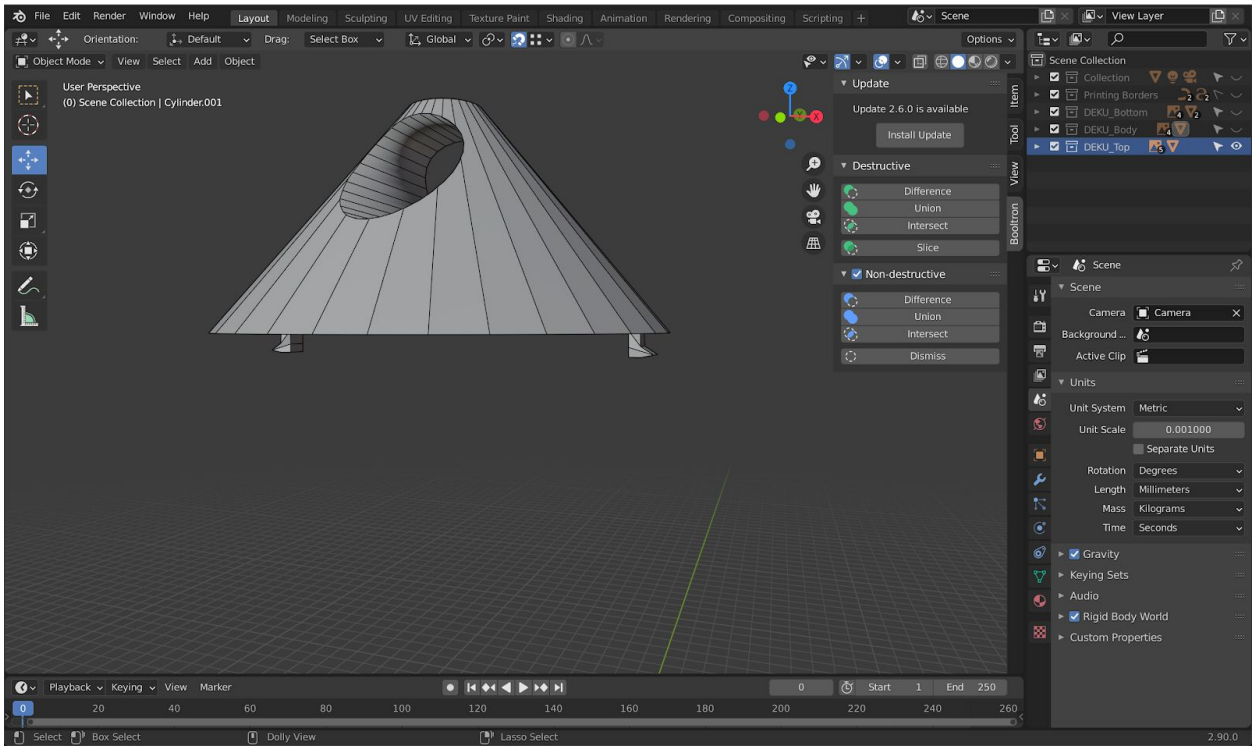
Figure 3

STAGE 3

DATE: 27/10/2020

METHOD USED:

Last part is the lid of the bottle. I created a cylinder and changed the radius of the top face and bottom face. I have used the method of difference in Booltron to create a hole that can fit one finger so it makes it easy to hold. In addition, I have attached the same hinges at bottom right and left using the union in Booltron so it can be attached to the body part of the bottle.



FINAL OUTCOME

DATE: 10/31/2020

The 3D printing of DEKU was successful, however, I can improve on shortening the hinges of the bottom part so they can fit perfectly into the body part because they were too long compared to the gap at the bottom and top of the main body(Figure 2). Same for the lid, I should delete the face of the bottom side and extend the height so that the lid can be fit into the body part.(Figure 3).



Figure 1. DEKU



Figure 2(DEKU. bottom)

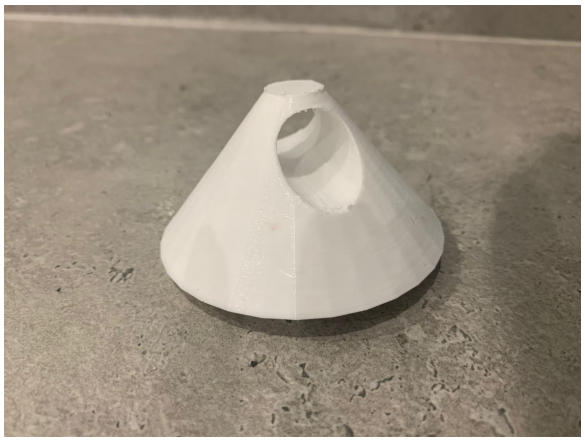


Figure 3(DEKU top)



Figure 4(DEKU body)

