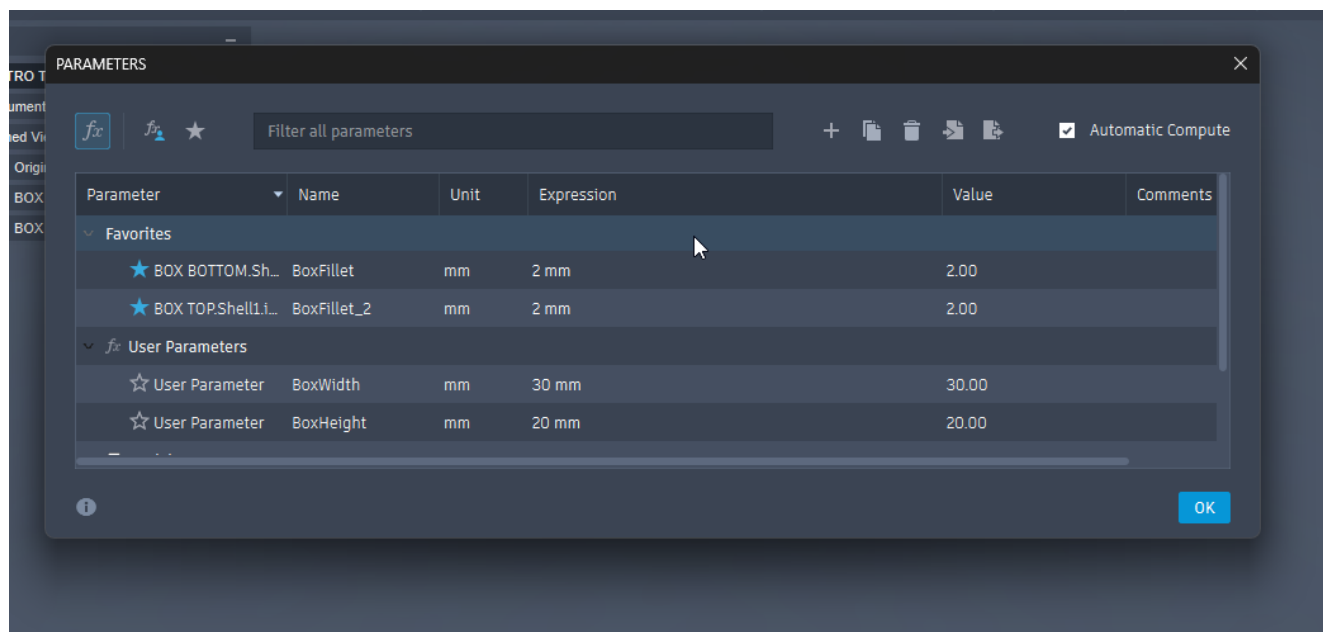
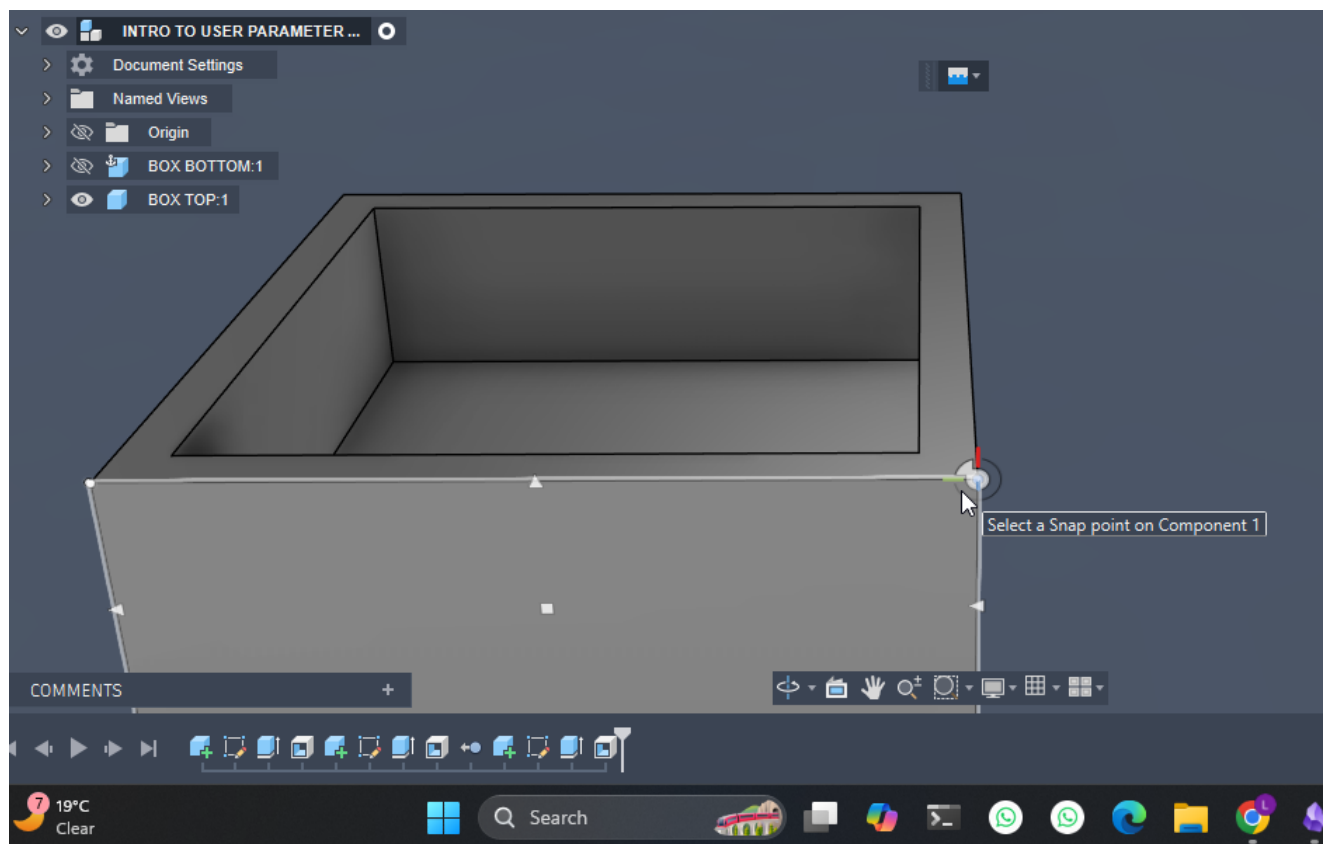


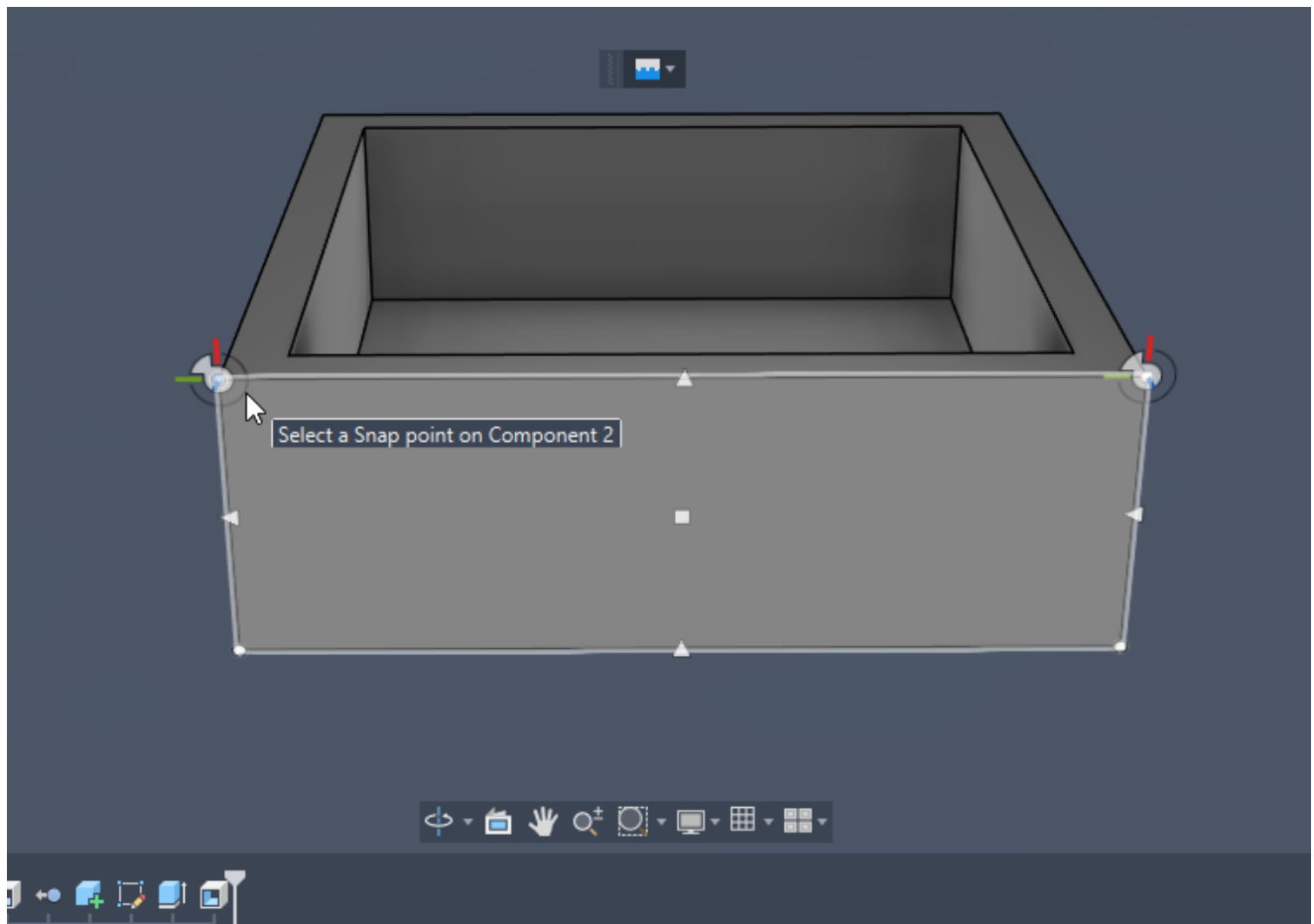
# Printable Hinges



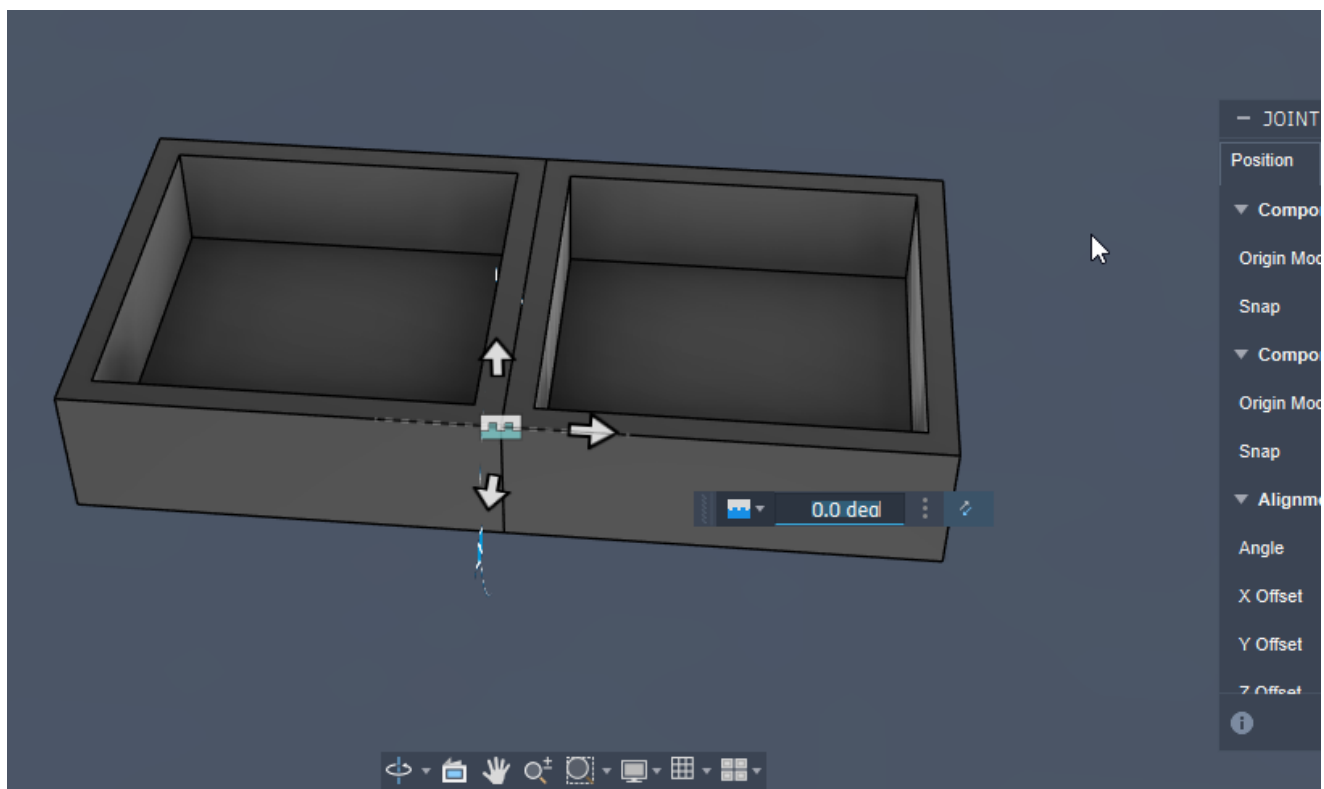
Using the previous box model, update the parameters to these values.



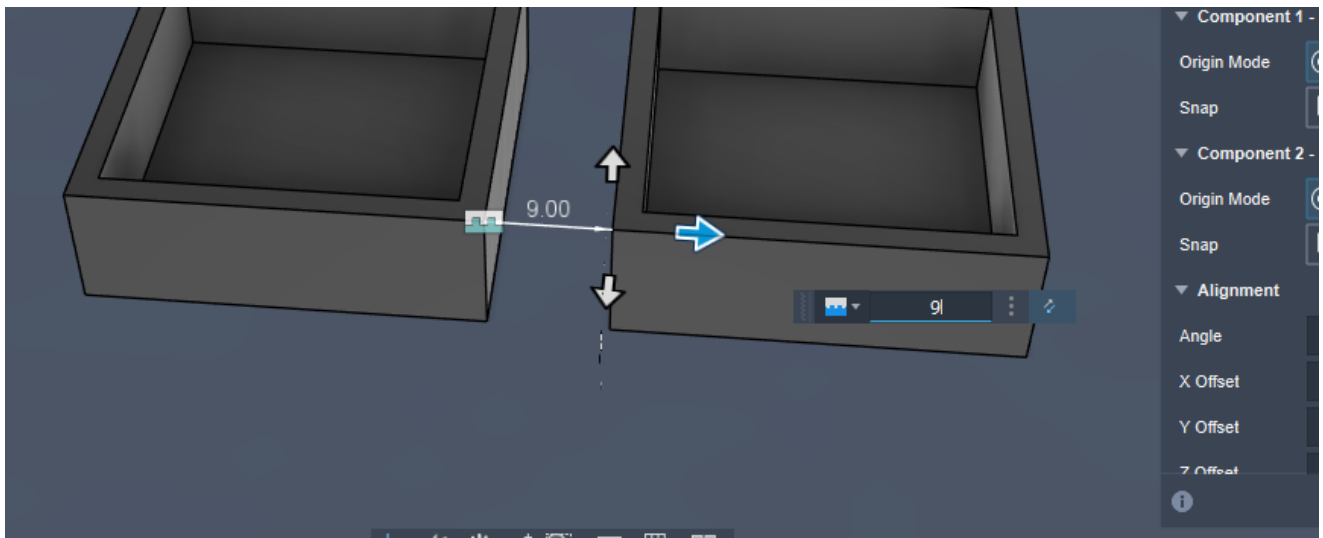
Hide one box and add a joint on one of the side face corners.



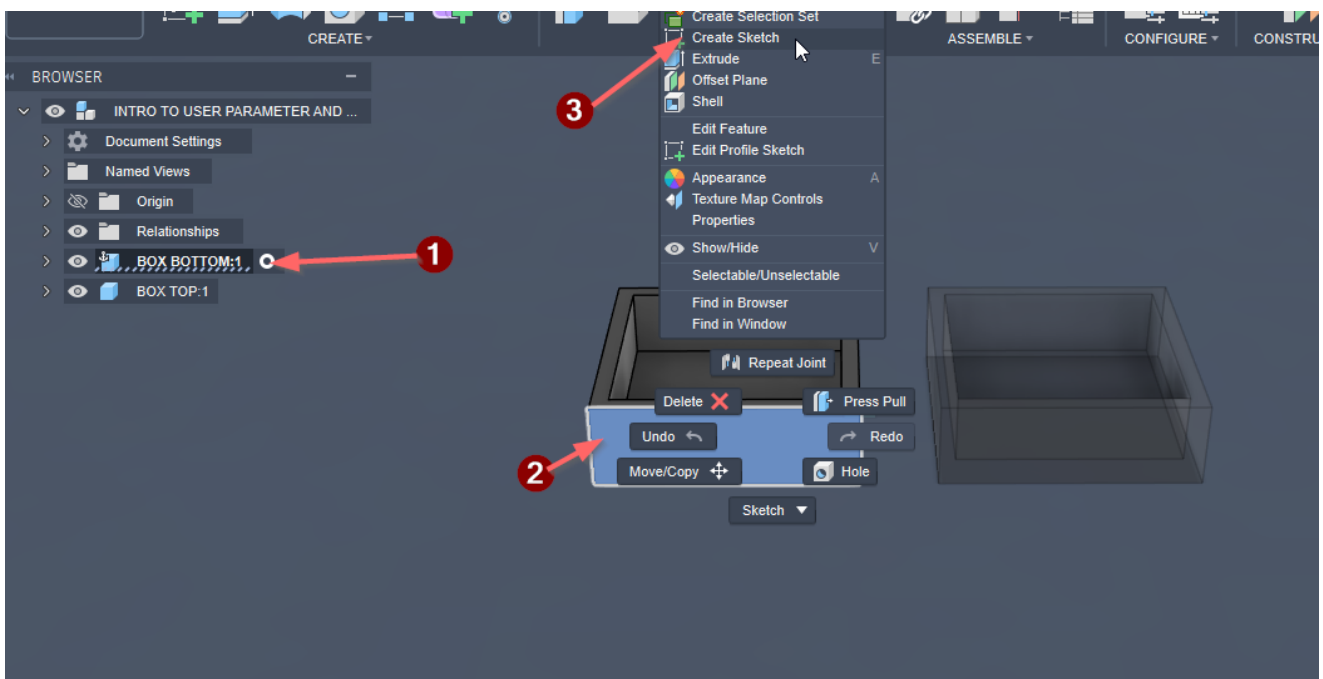
Unhide the box and add the second joint on the opposite side.



Set the distance between the two boxes to **9 mm**.



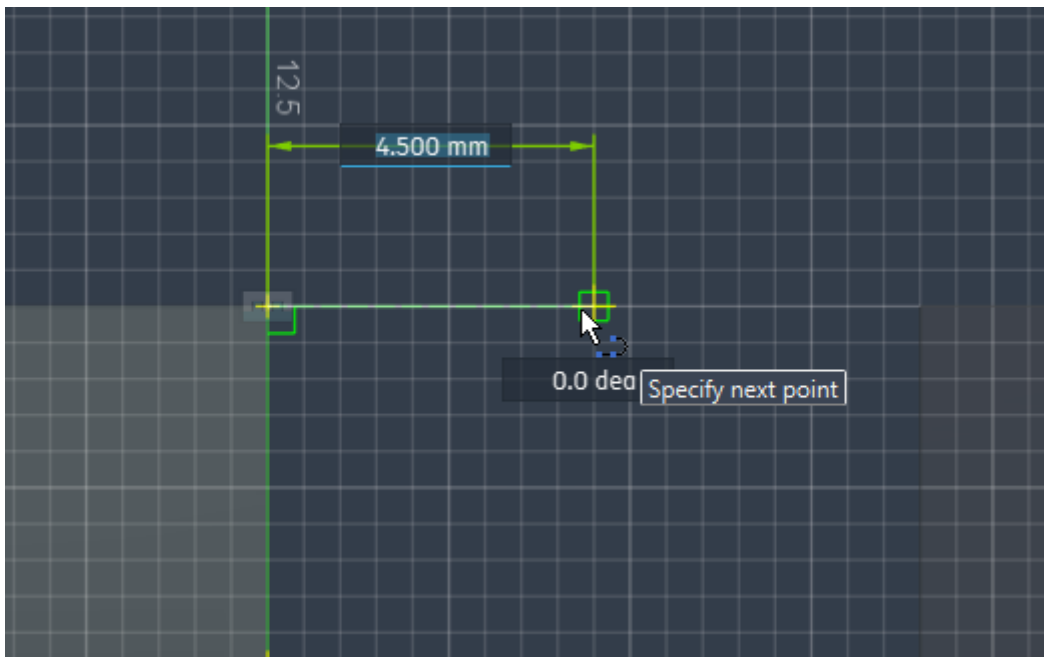
It should look like this.



1 — Select this component

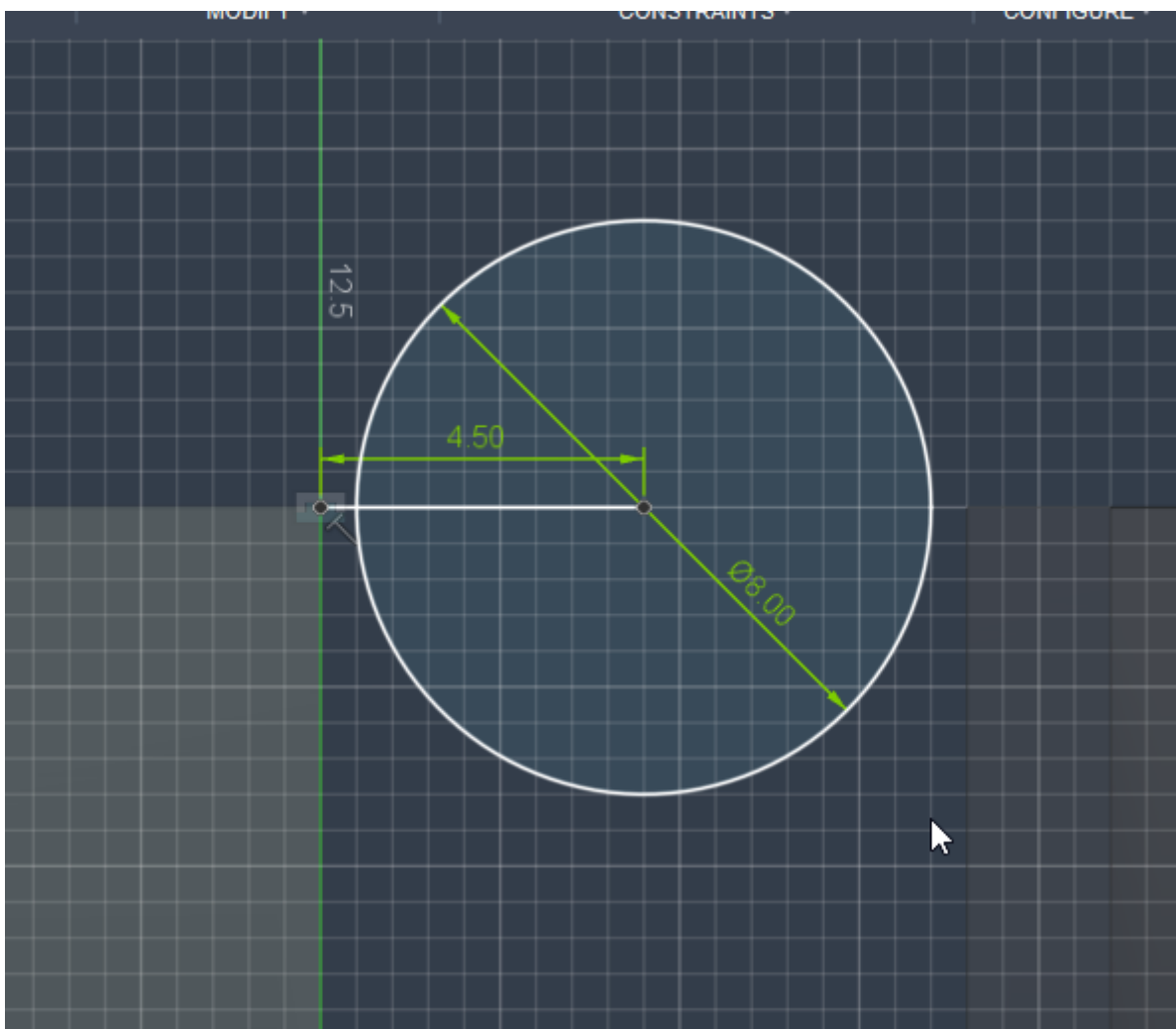
2 — Select this side

3 — Create a sketch



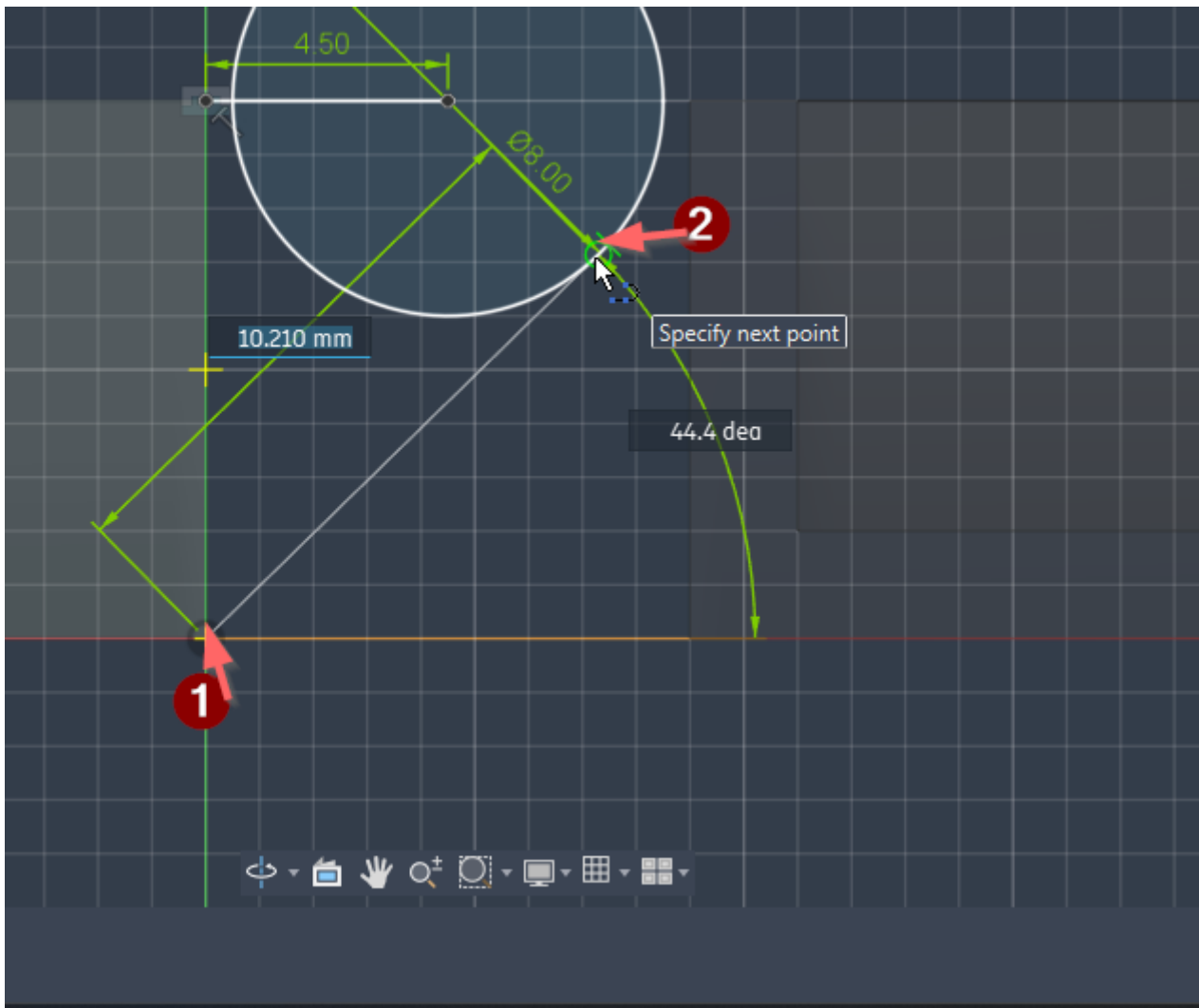
Draw a **4.5 mm** horizontal line.

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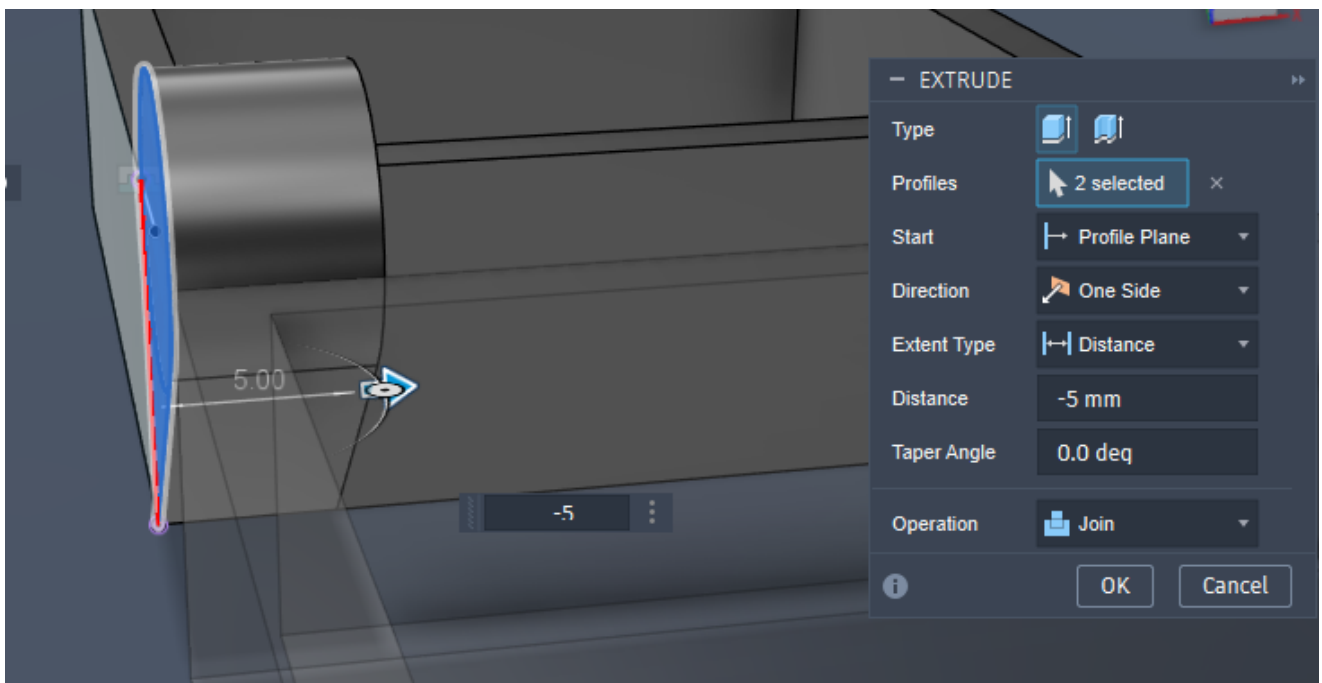


Draw an **8 mm diameter** circle from the line endpoint.

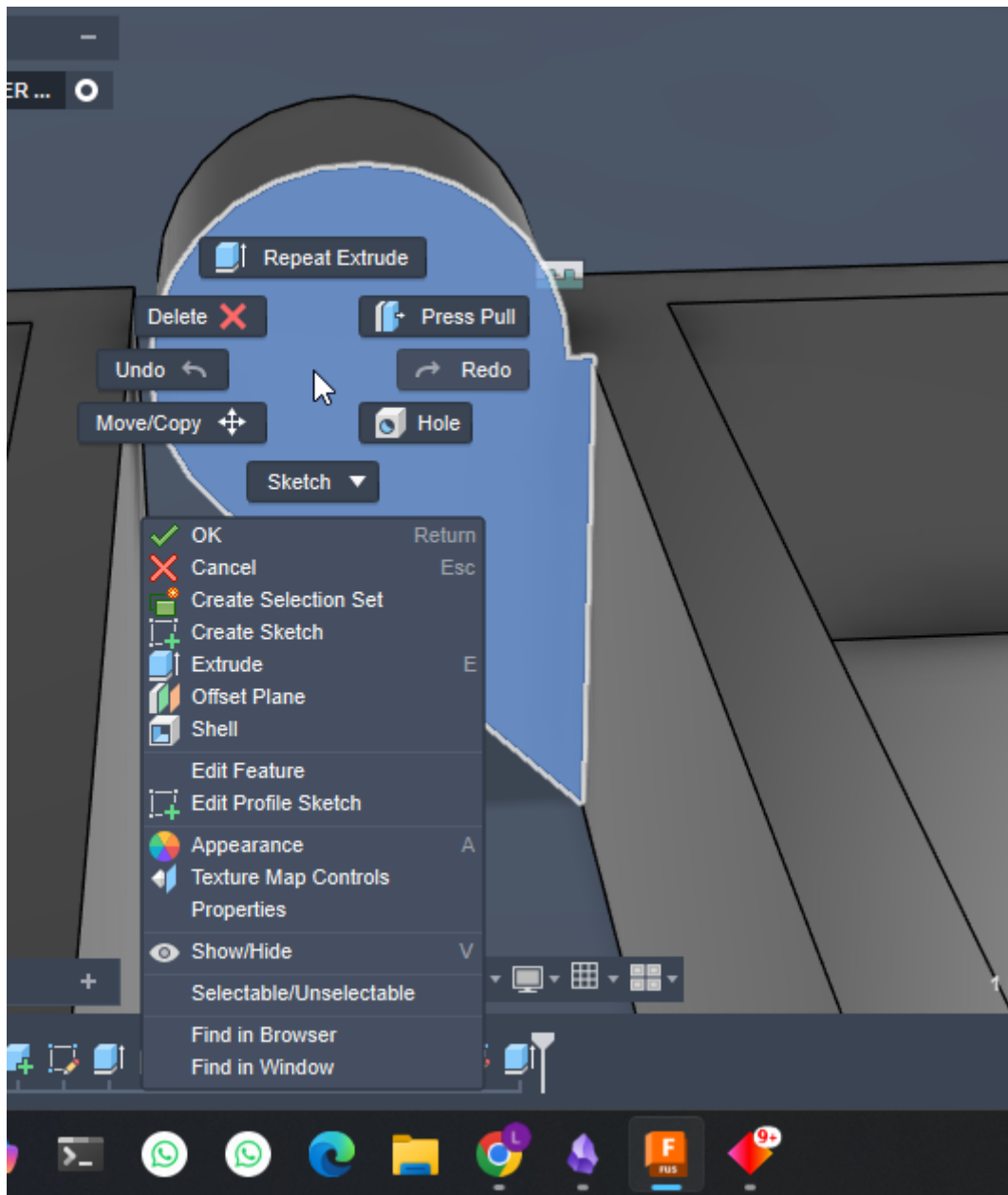
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- 1 — Start the line here
- 2 — Drag the line until the **tangent symbol** appears

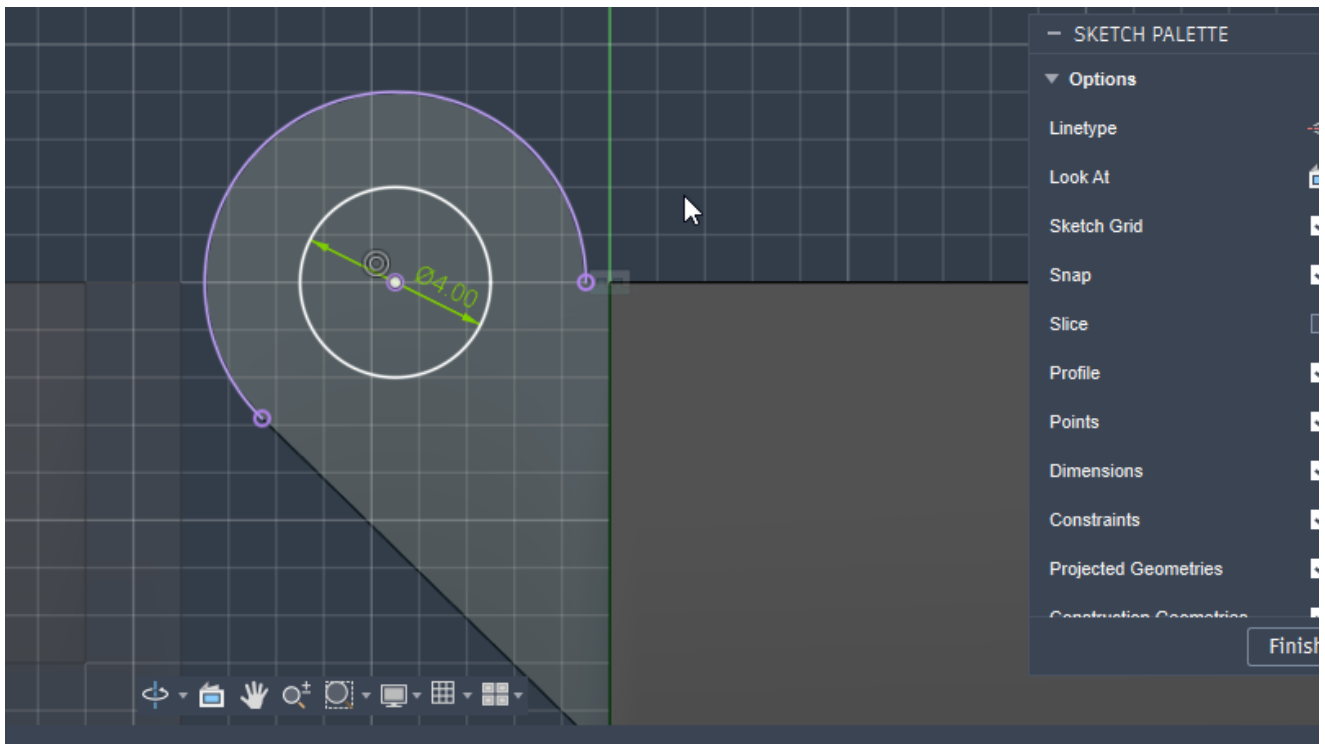


Extrude this profile **5 mm** as a new body.



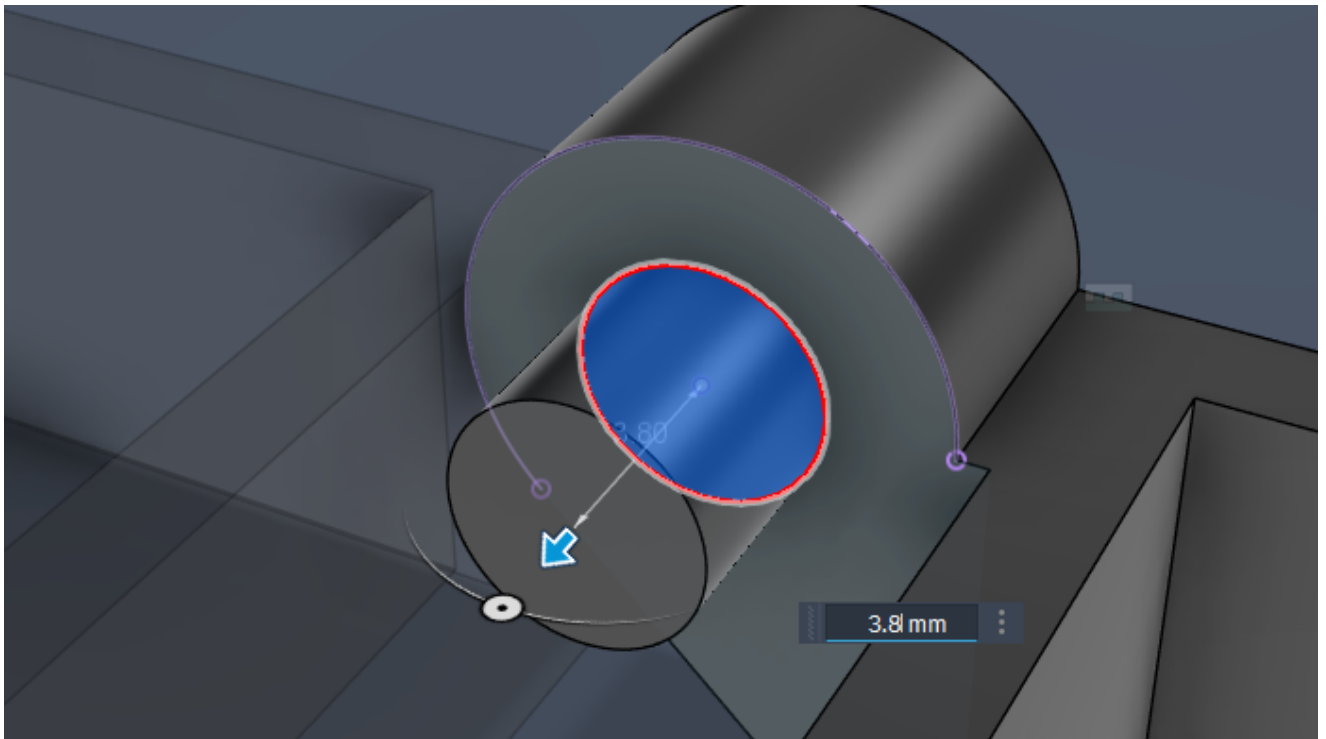
Create a sketch on this face.

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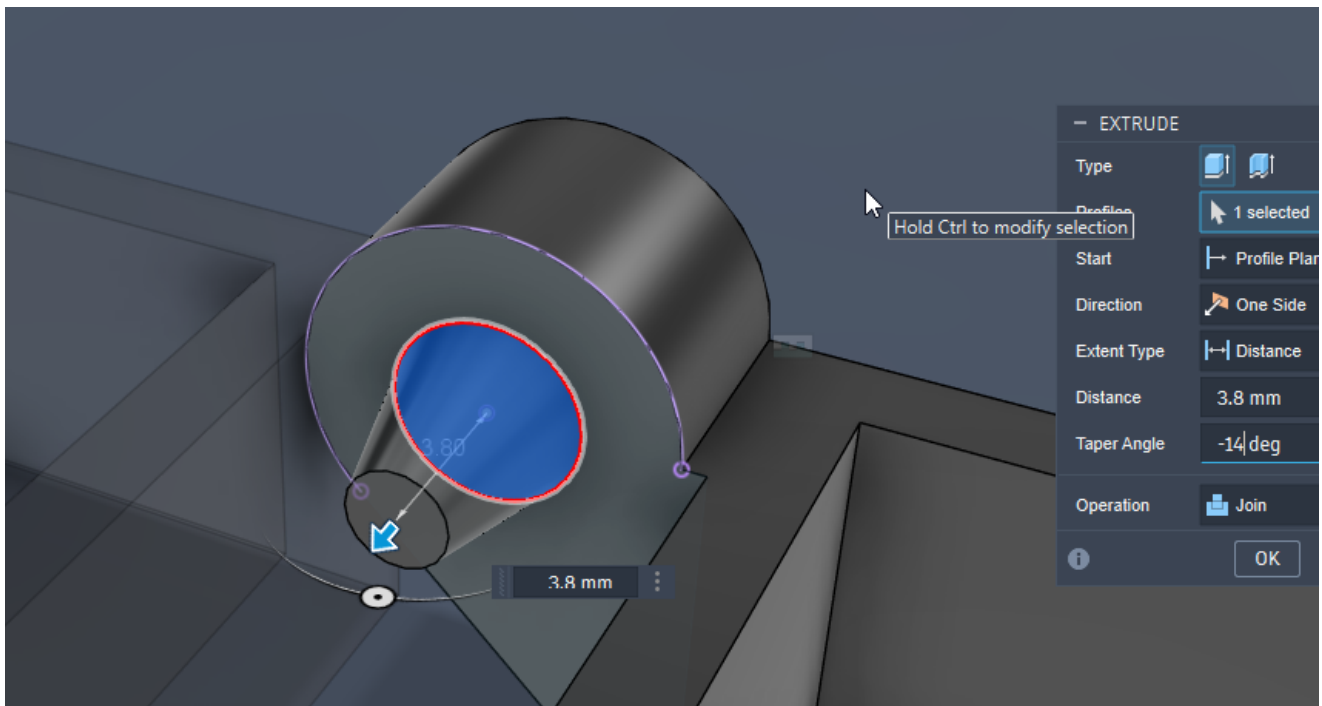
Project the edge, then draw a **4 mm** circle.

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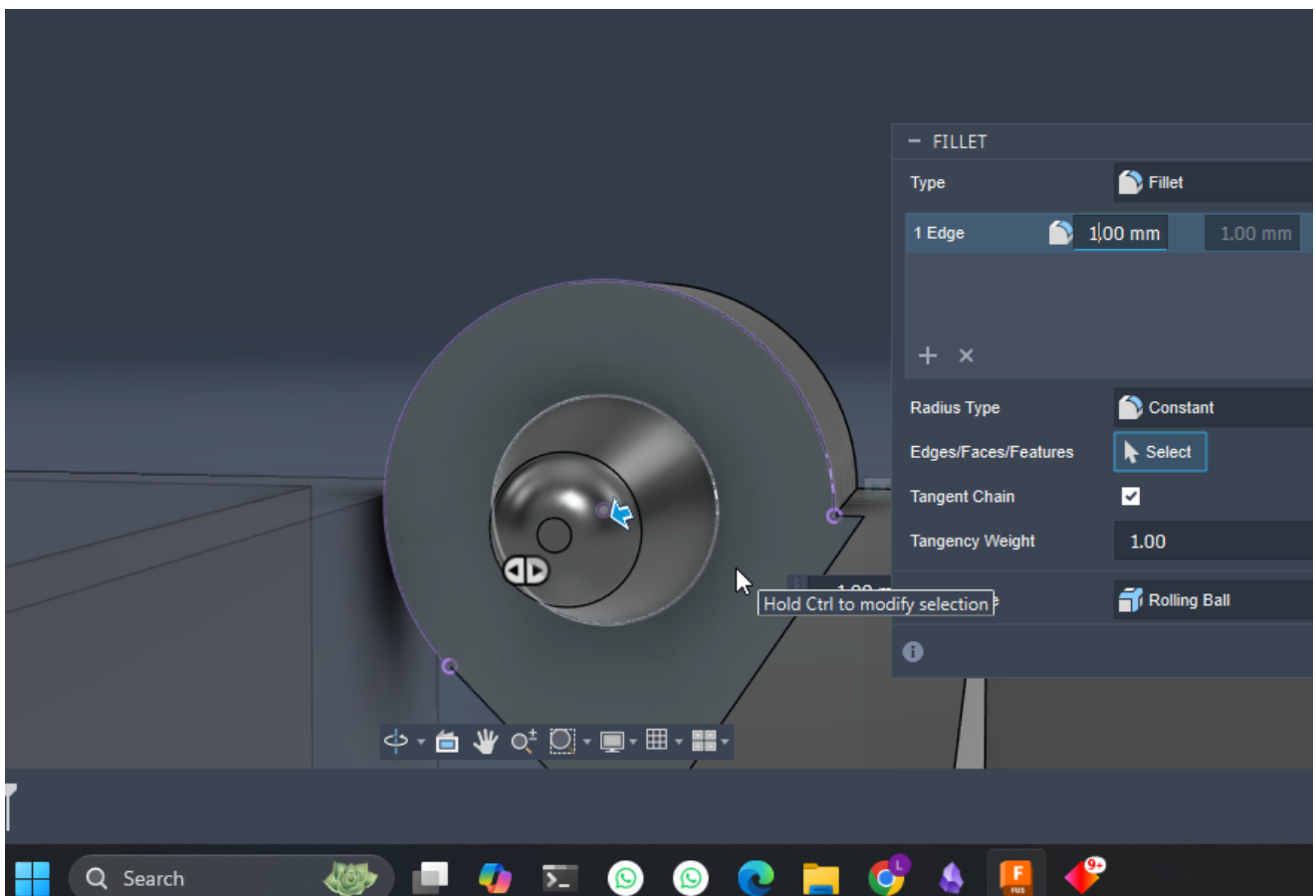


Extrude the circle **3.8 mm**.

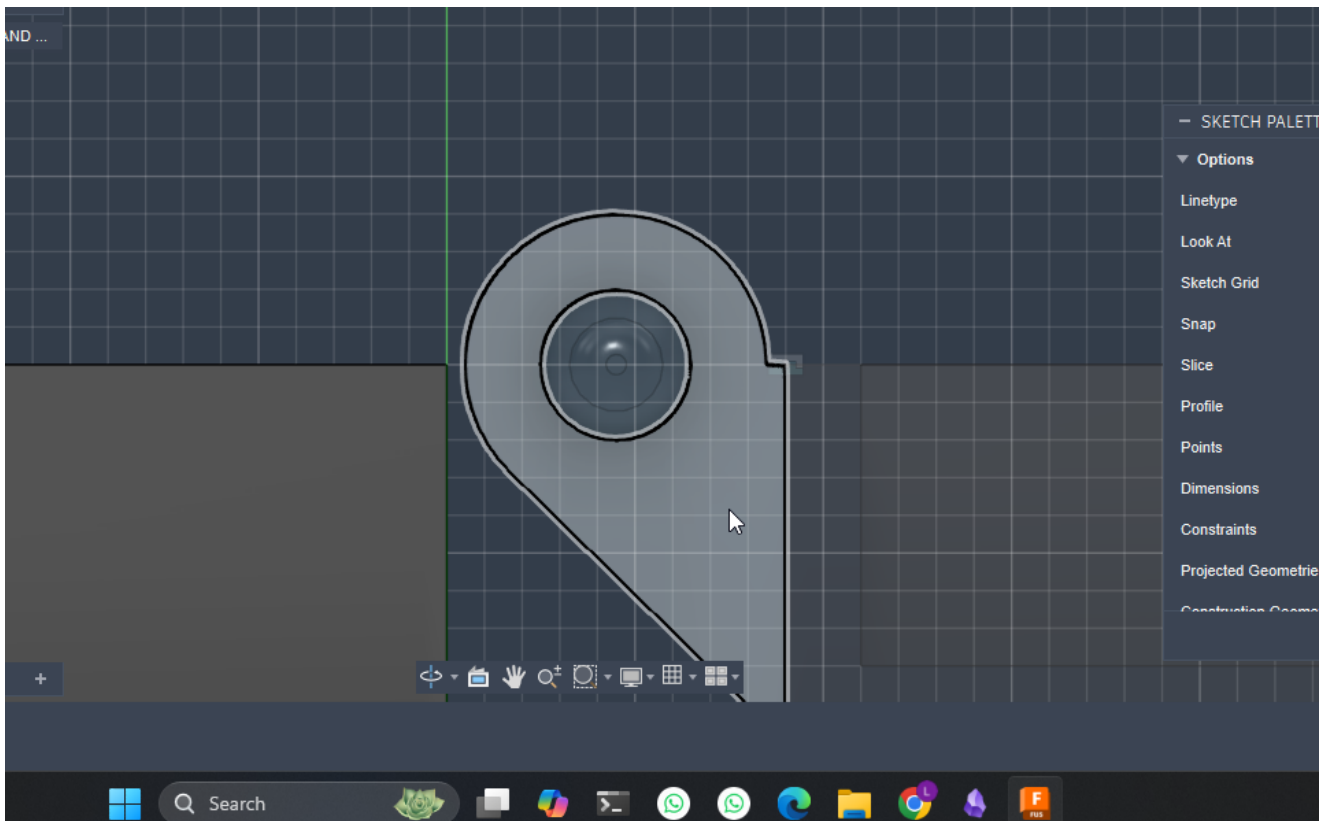
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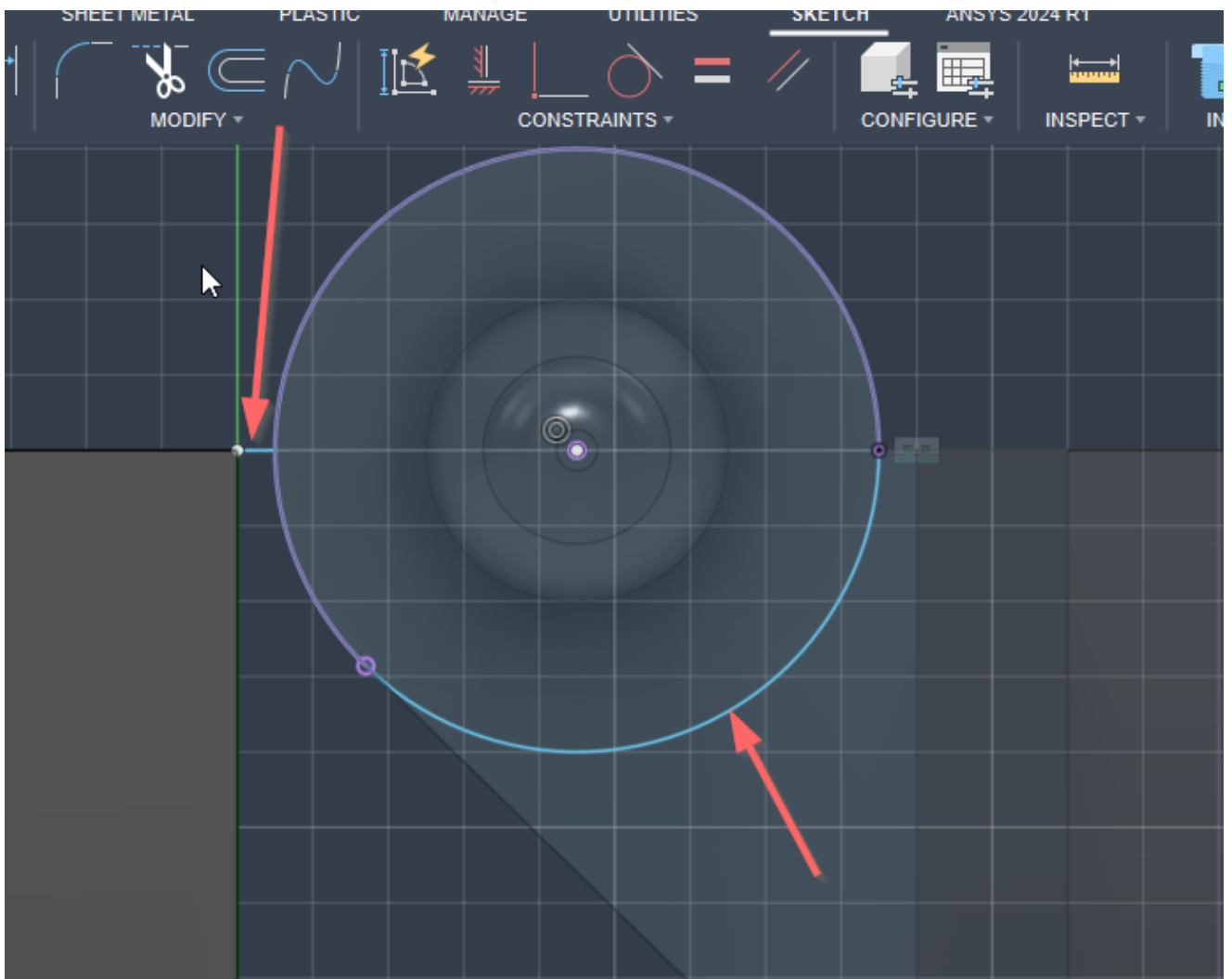
Apply a  $-14^\circ$  taper angle.



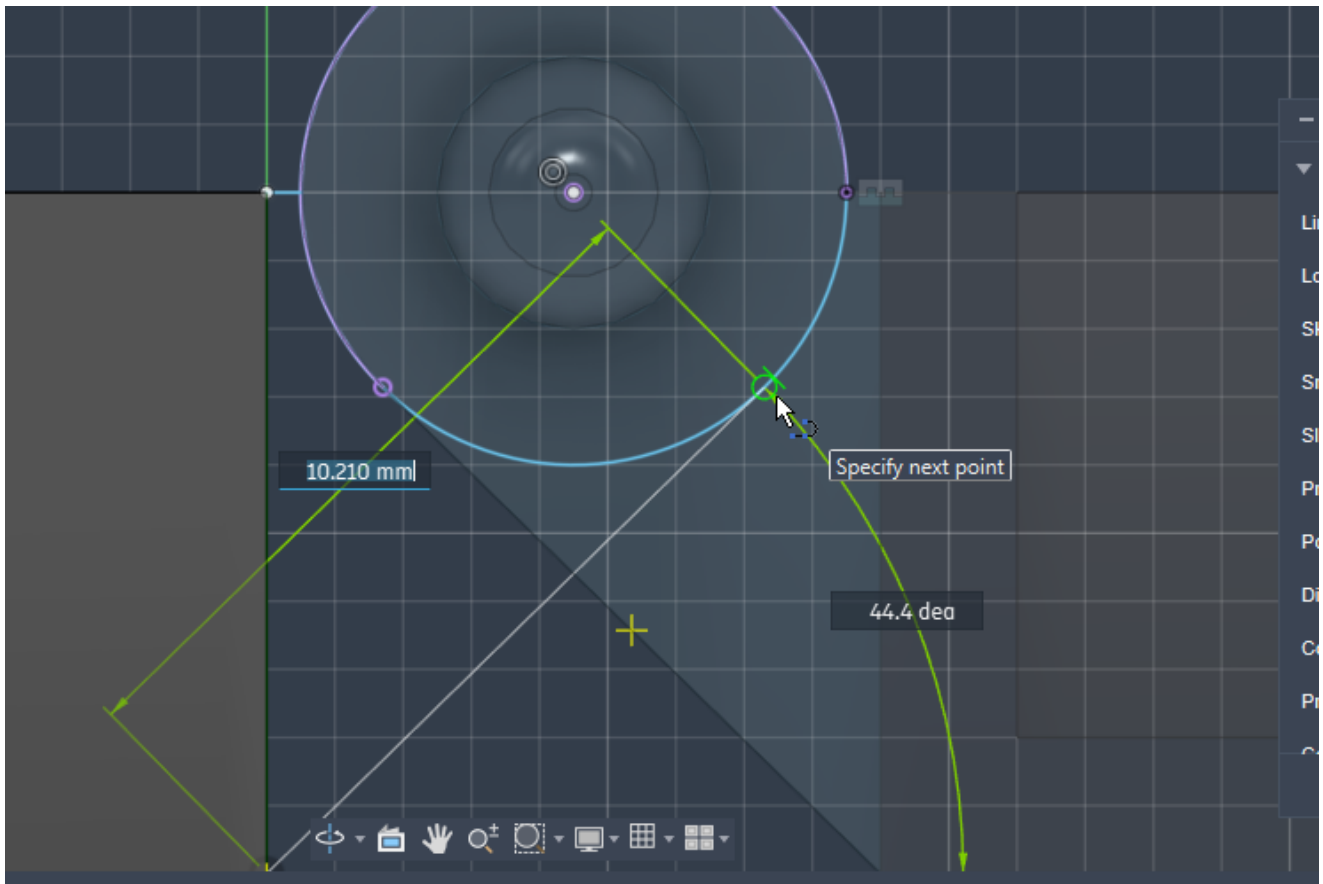
Apply a 1 mm fillet to the edge.



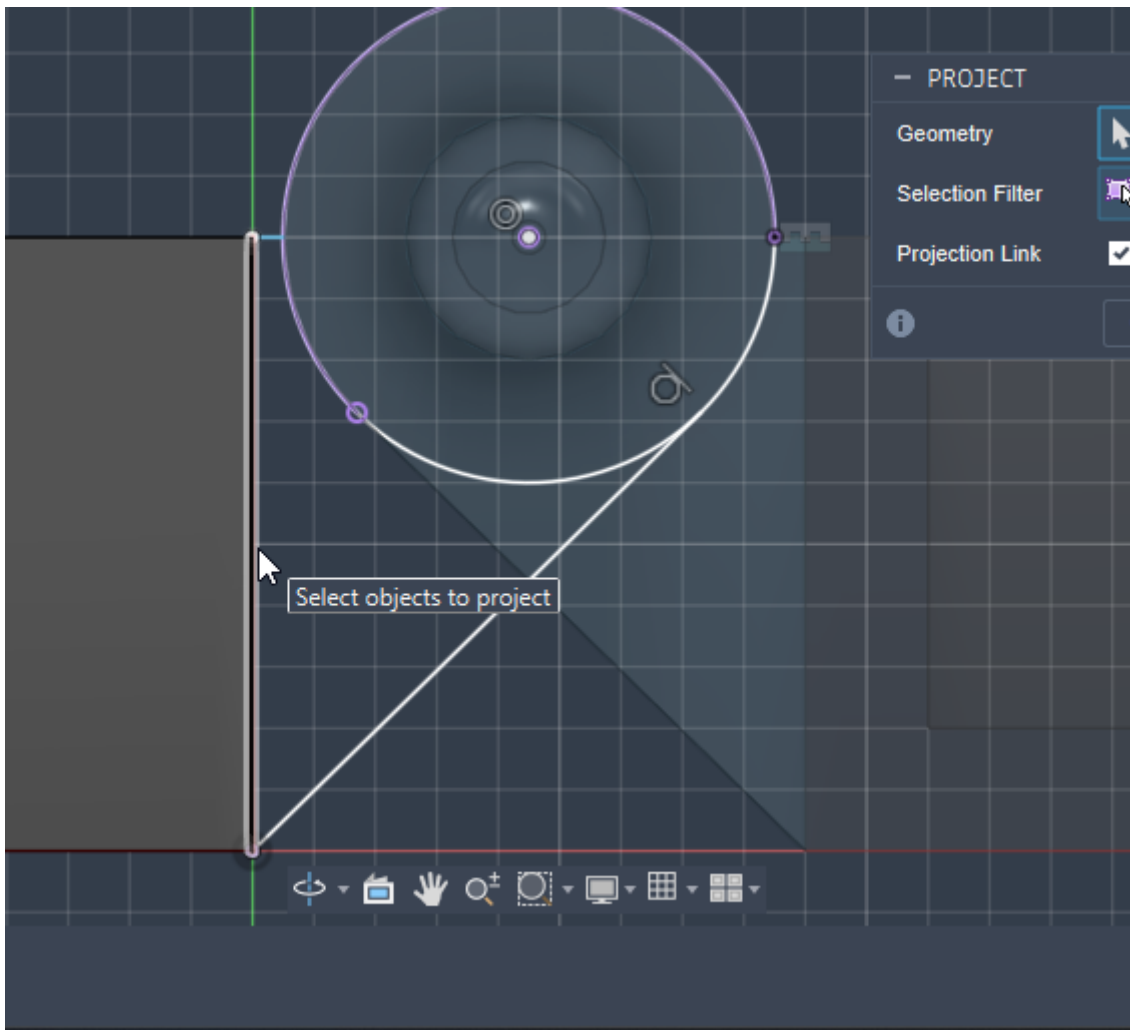
Activate the **Top** component and create a sketch.



Create a circle and the line as shown.

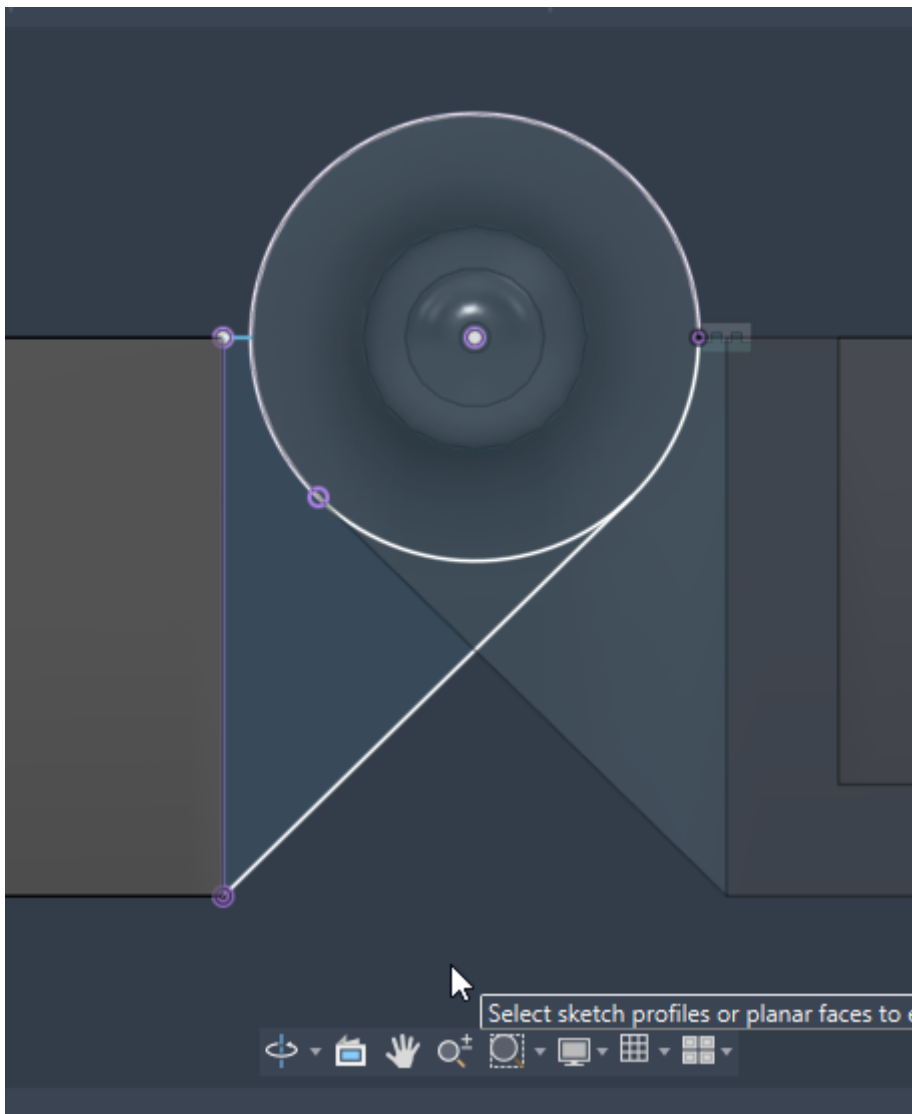


Create the next connecting line.

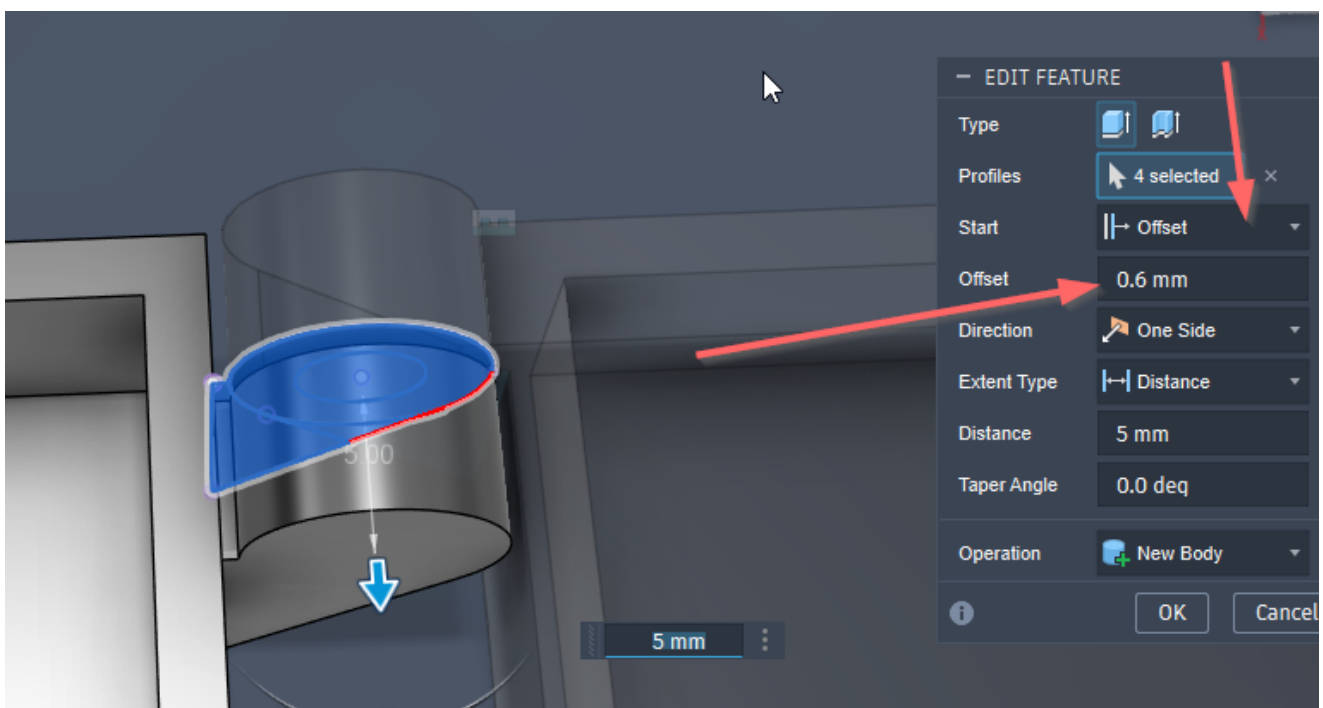


Create another line using the **Project** tool.

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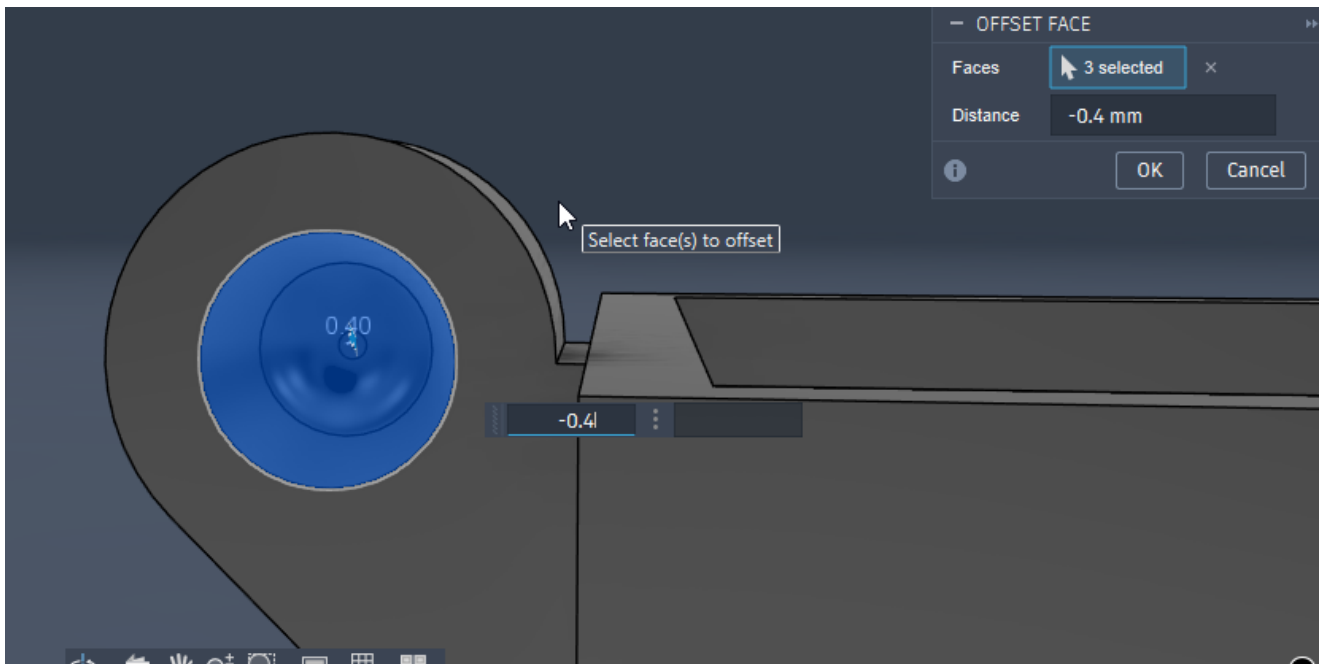


Extrude this profile.

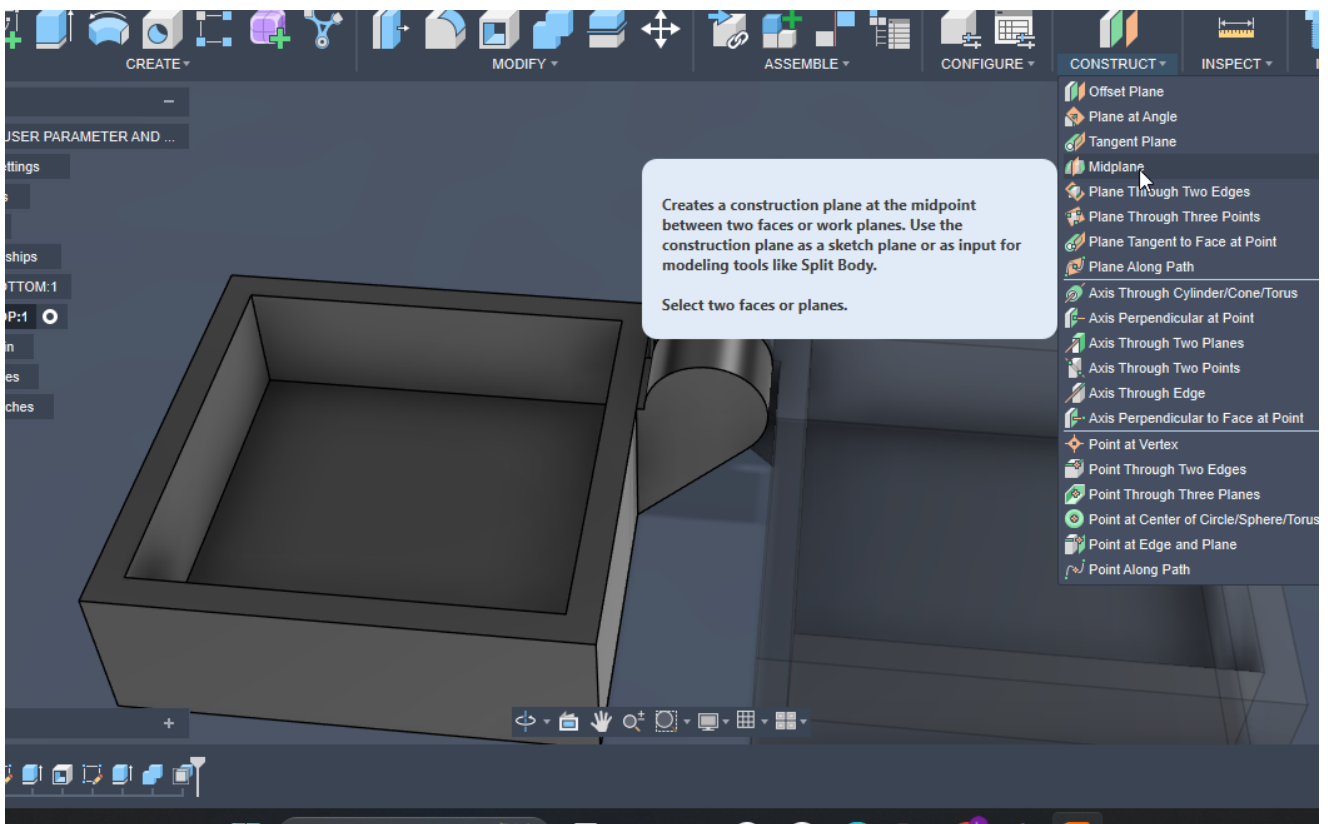


Extrude **5 mm** with an **offset of 0.6 mm**.  
Set the operation to **New Body**.

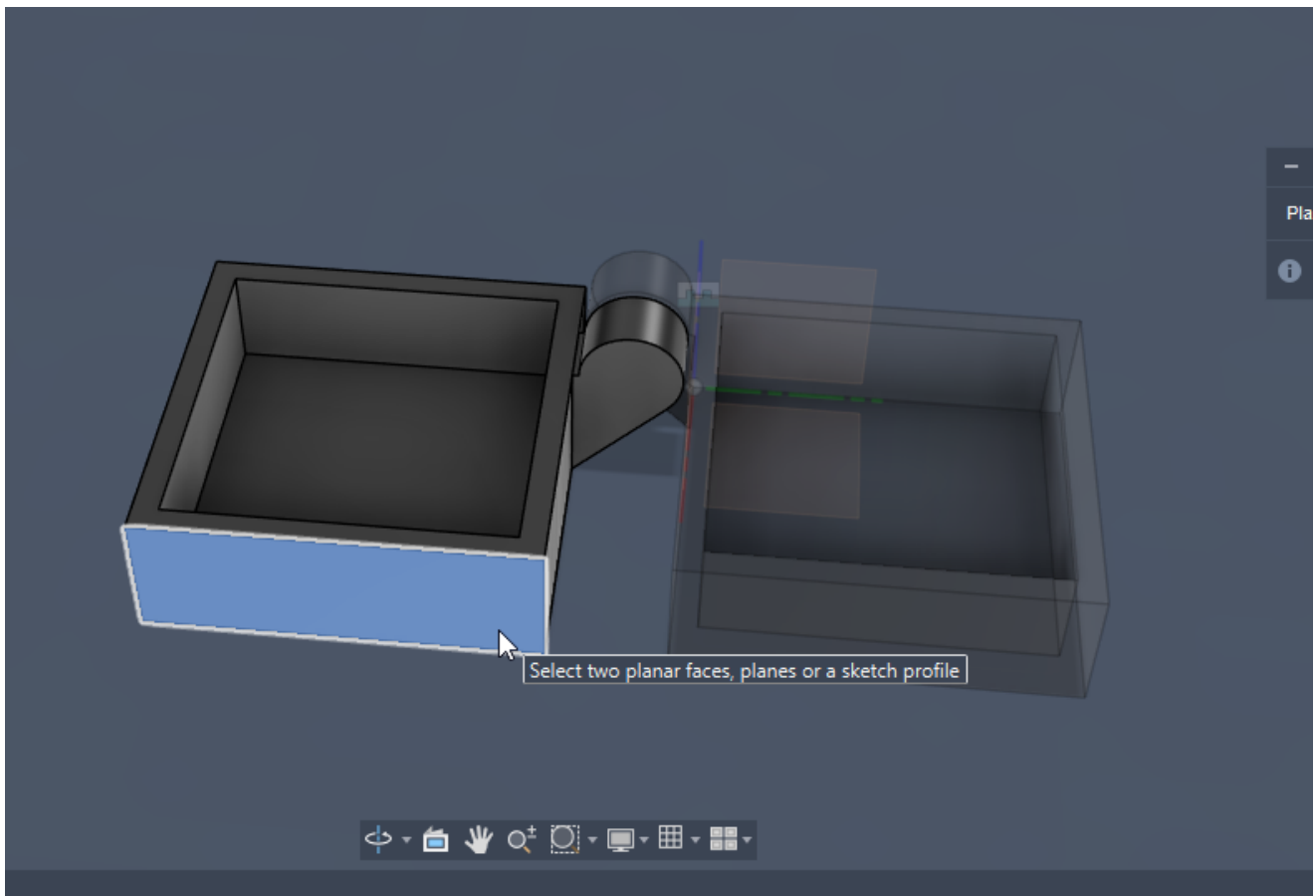




Apply **Offset Face** = **-0.4 mm** to add hinge clearance.

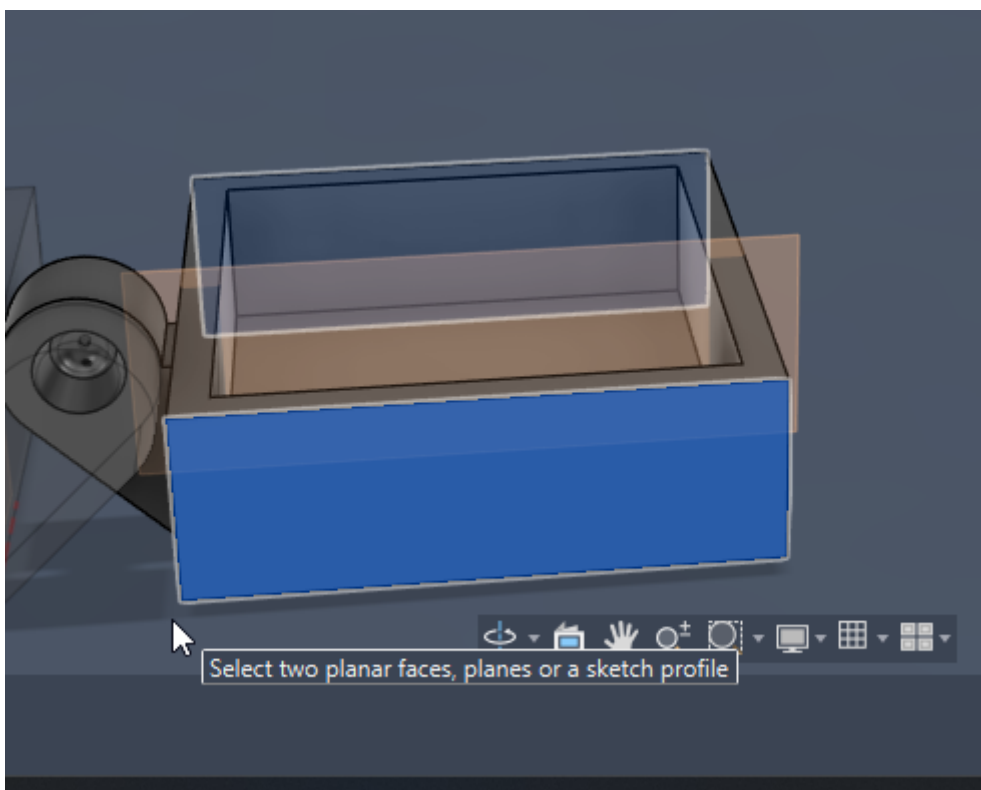


Create a **Midplane** construction plane.



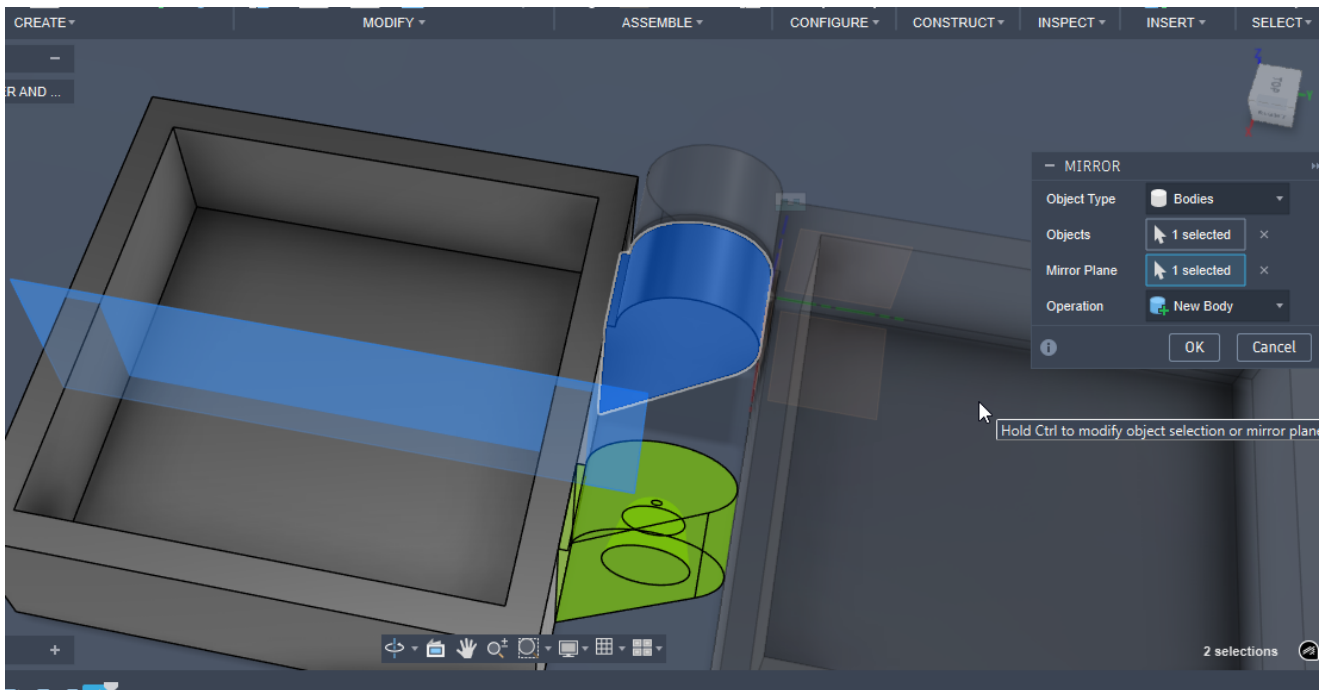
Select one side of the box.

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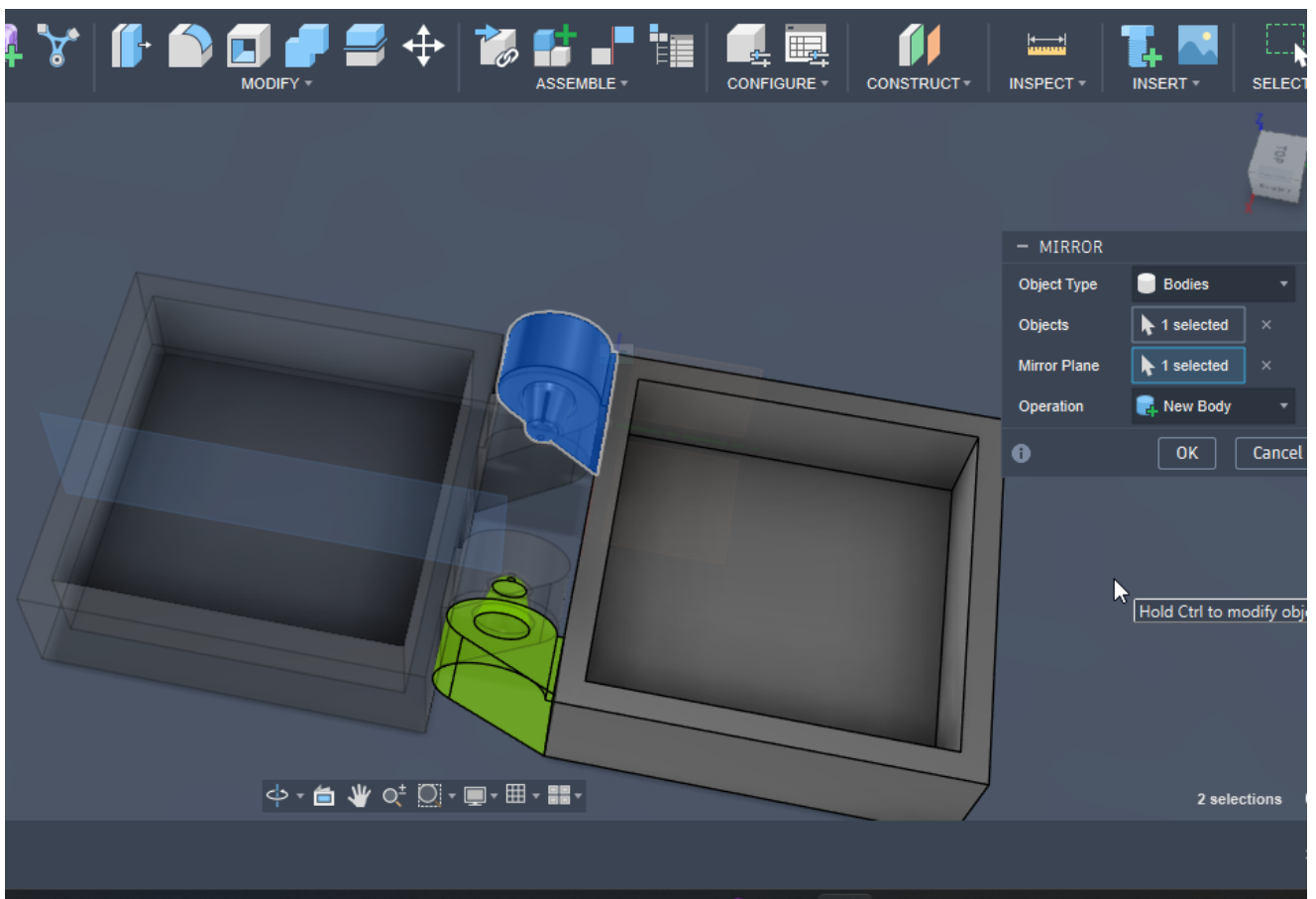
Select the opposite side.

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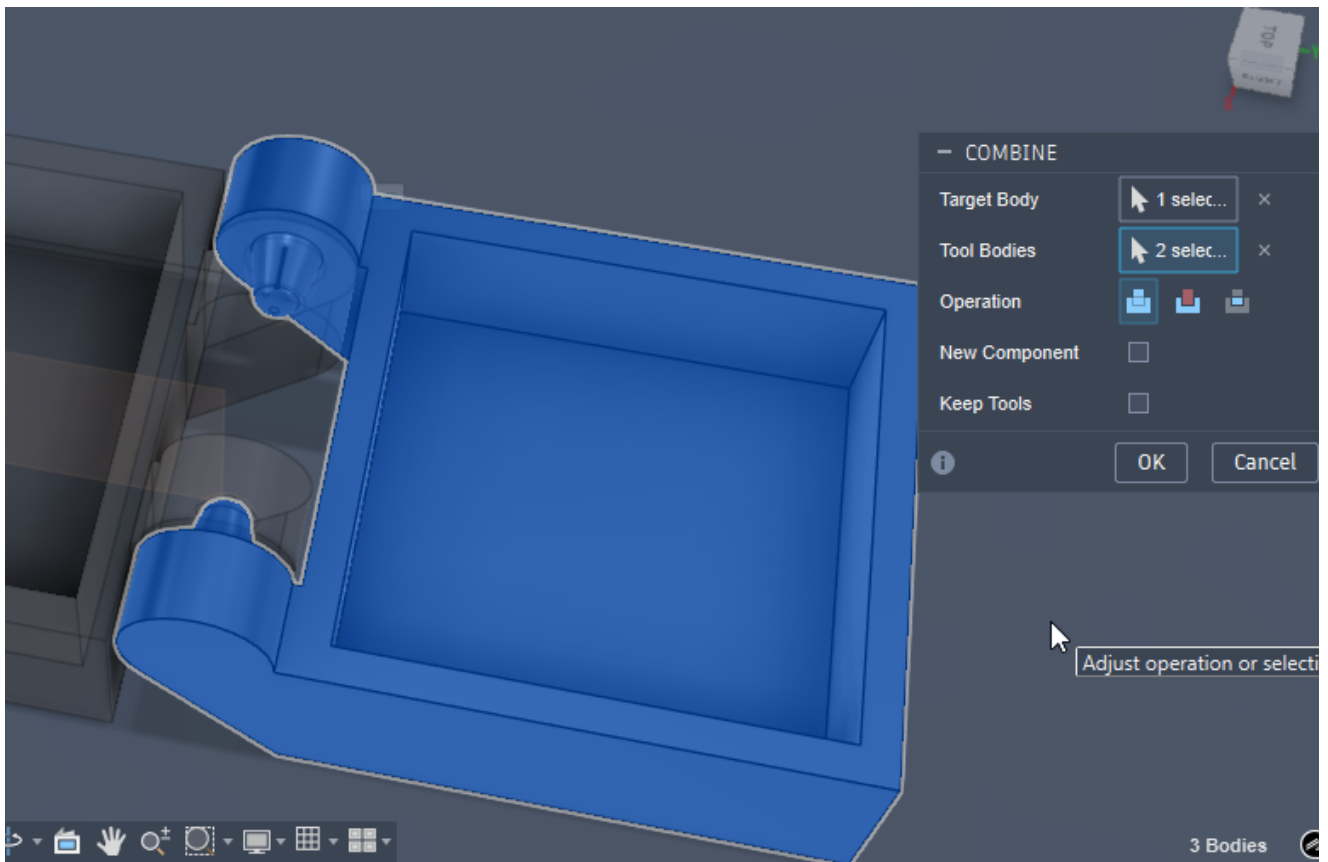
Mirror the hinge body across the midplane.

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Repeat the mirror process for the second hinge body.

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Use **Combine** again to join each hinge body to the box.  
Target body = box.