VM 250 Computational Lab Sessions

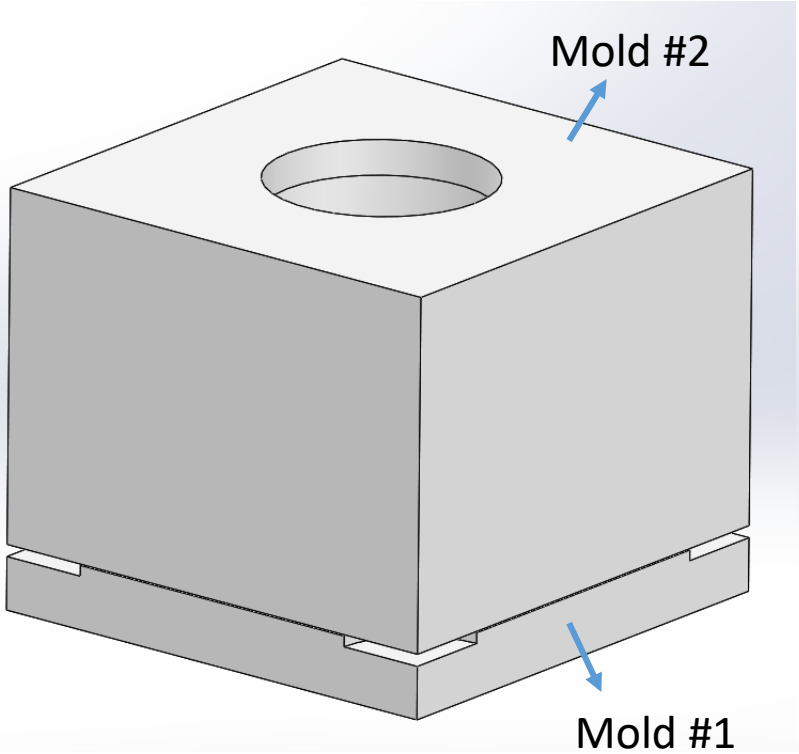
Molds for Injection Molding

Prepared by TA Group

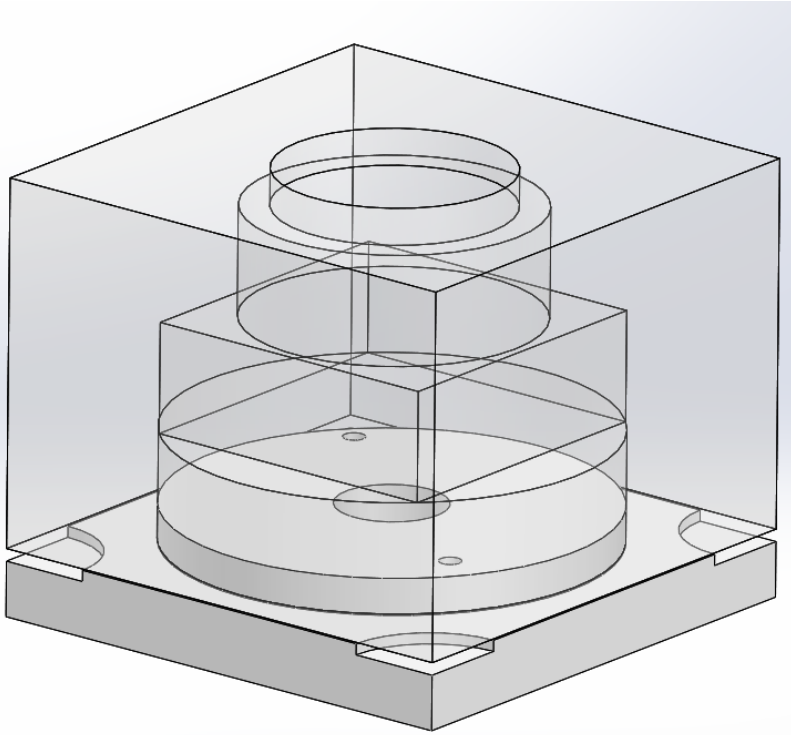
Overview

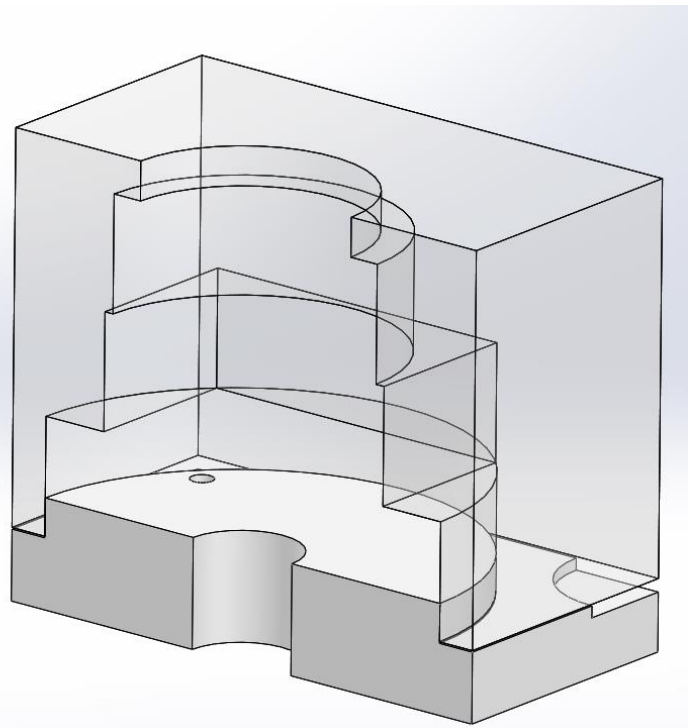
- Mold #1
- Mold #2
- Assembly

Injection molding is a manufacturing process for producing parts by injecting molten material into a mold.



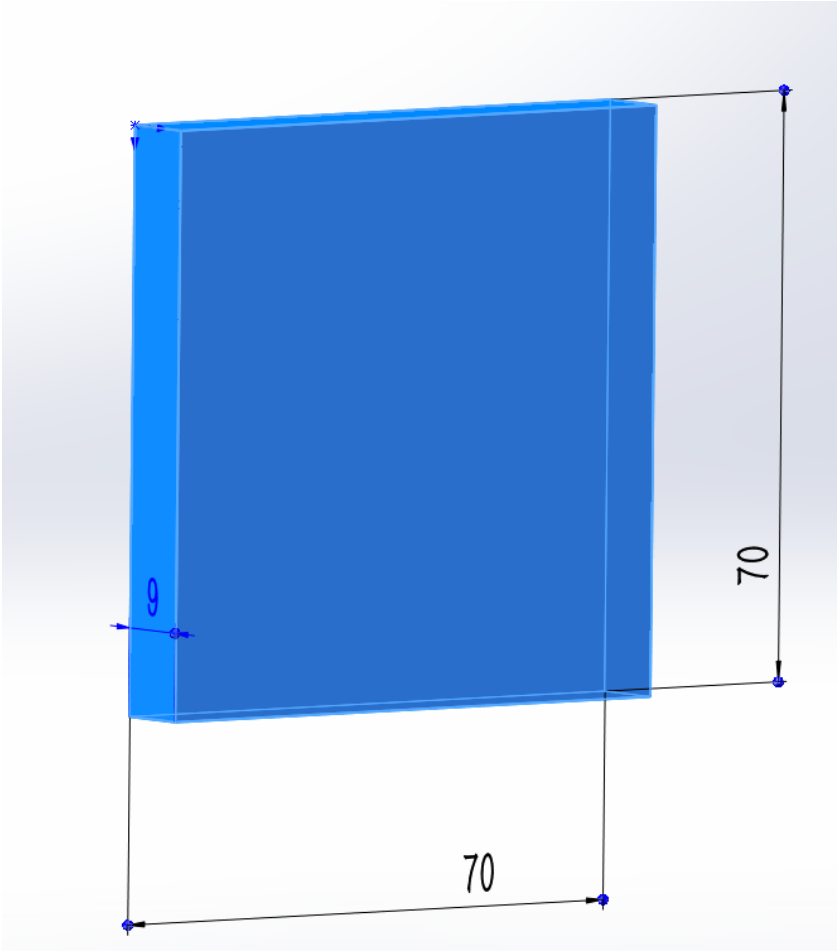
Assembly


Changed the transparency


Cross section view

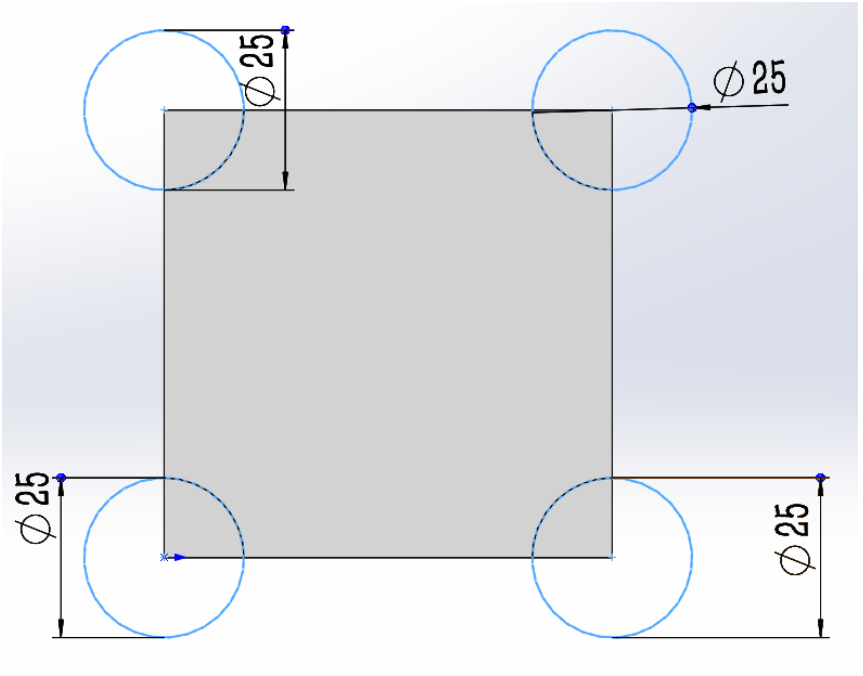
Mold #1

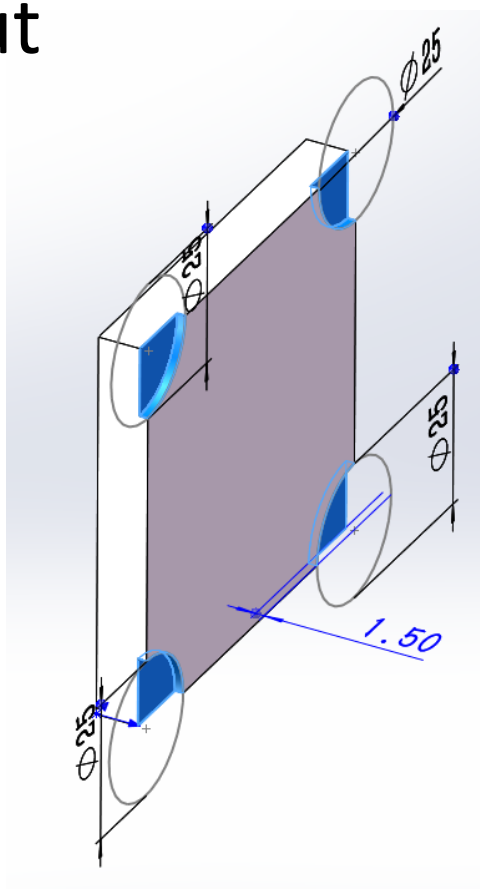
1. Extruded Base



Draw a base with dimension 70 × 70 × 9 mm

2. Extruded Cut

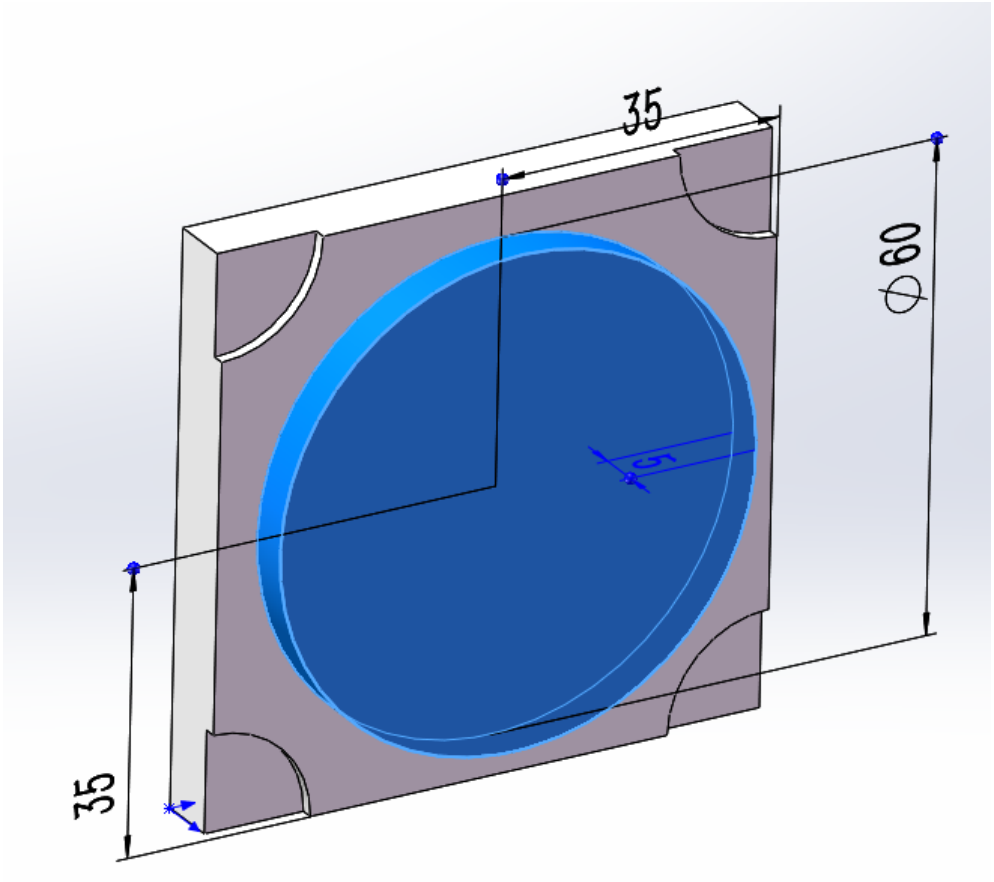




a. Draw four circles with a diameter of 25 mm at the corner of the base.
b. Extruded Cut the base by using the circles with a depth of 1.5 mm.

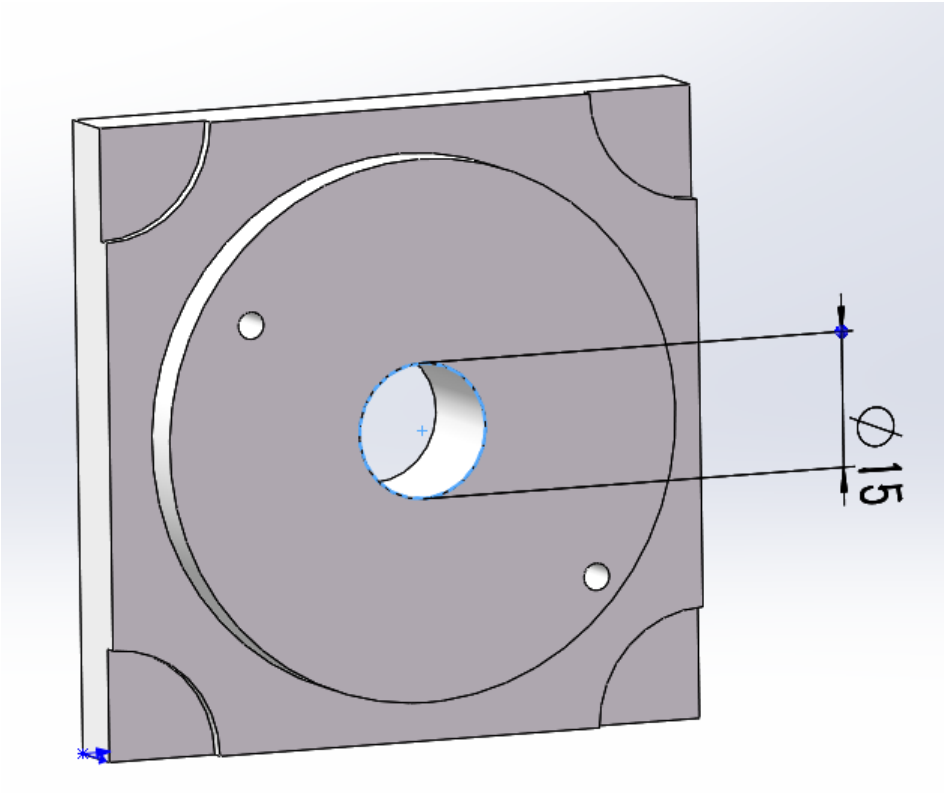
Mold #1

3. Extruded Boss



Draw a circular boss with a diameter of 60mm and a height of 5mm.

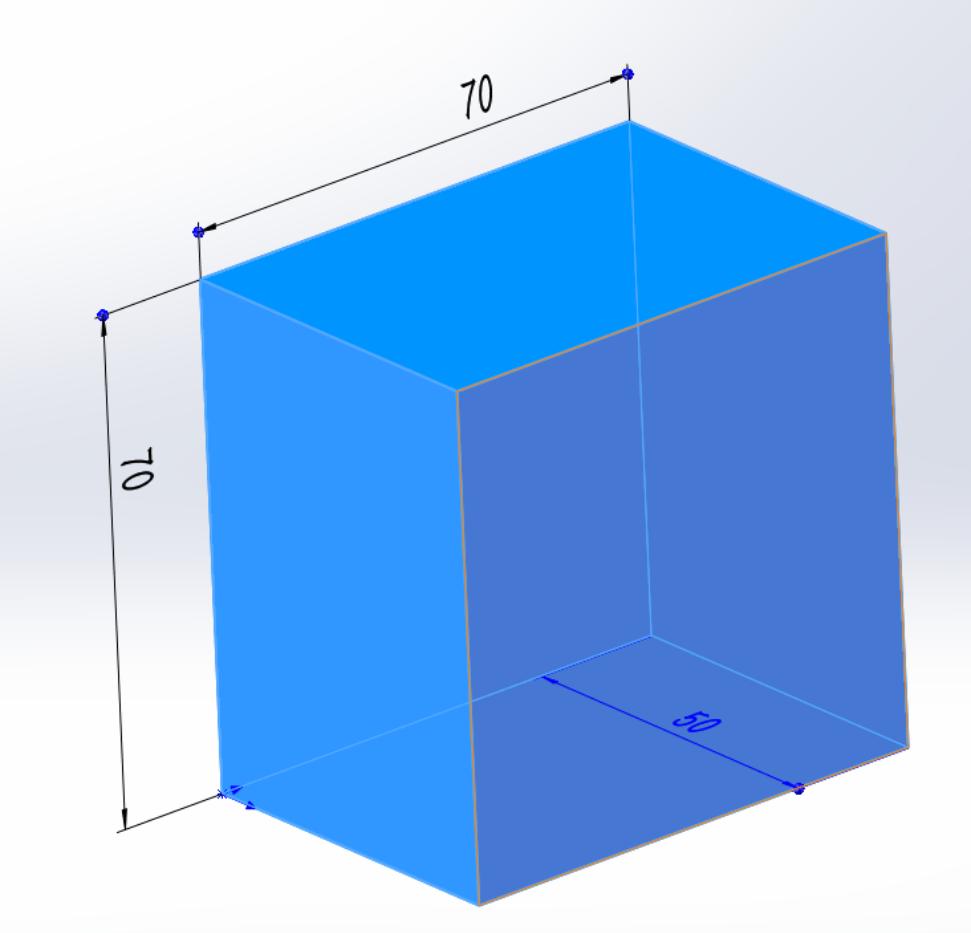
4. Extruded Cut



The holes cutting through the base facilitates the discharge of the air and the flowing of the melt material during injection.

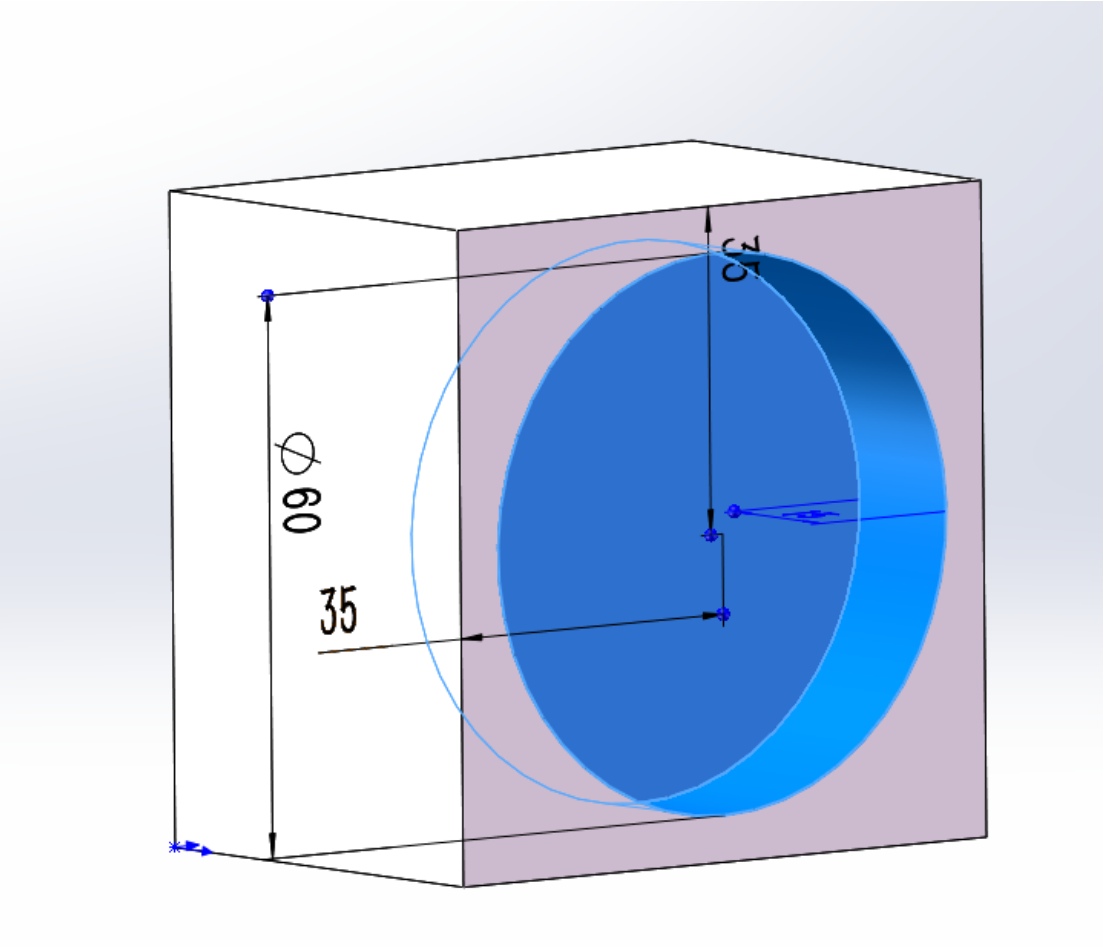
Mold #2

1. Extruded Boss



Draw a base with dimension 70 × 70 × 50 mm

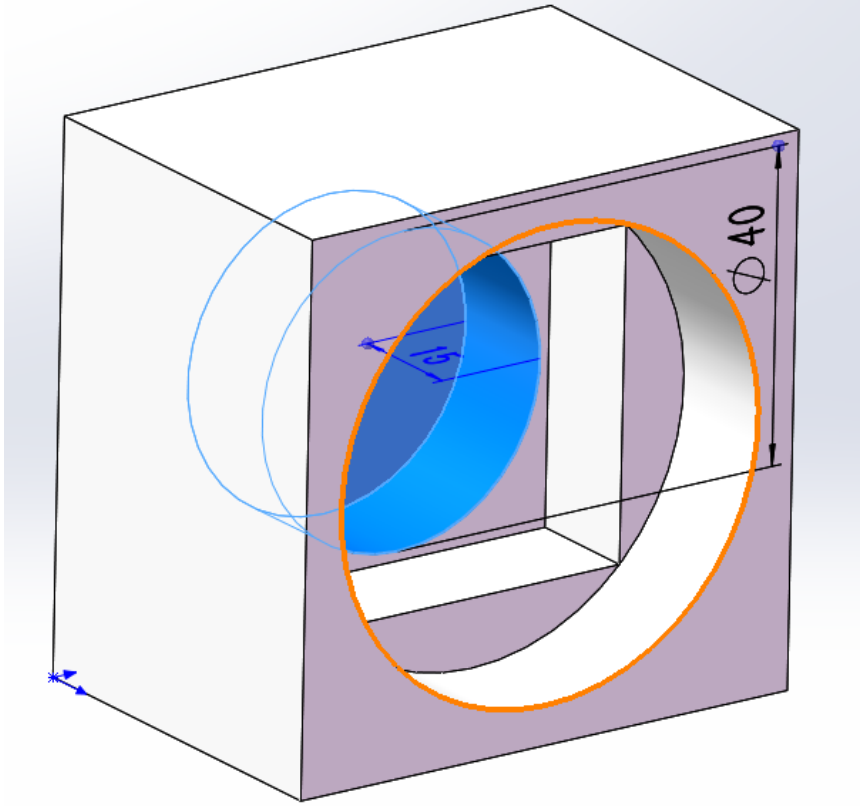
2. Extruded Cut



a. Draw a circle with a diameter 60 mm at the center of the base.
b. Extruded Cut the base with the circle to a depth of 15 mm.

Mold #2

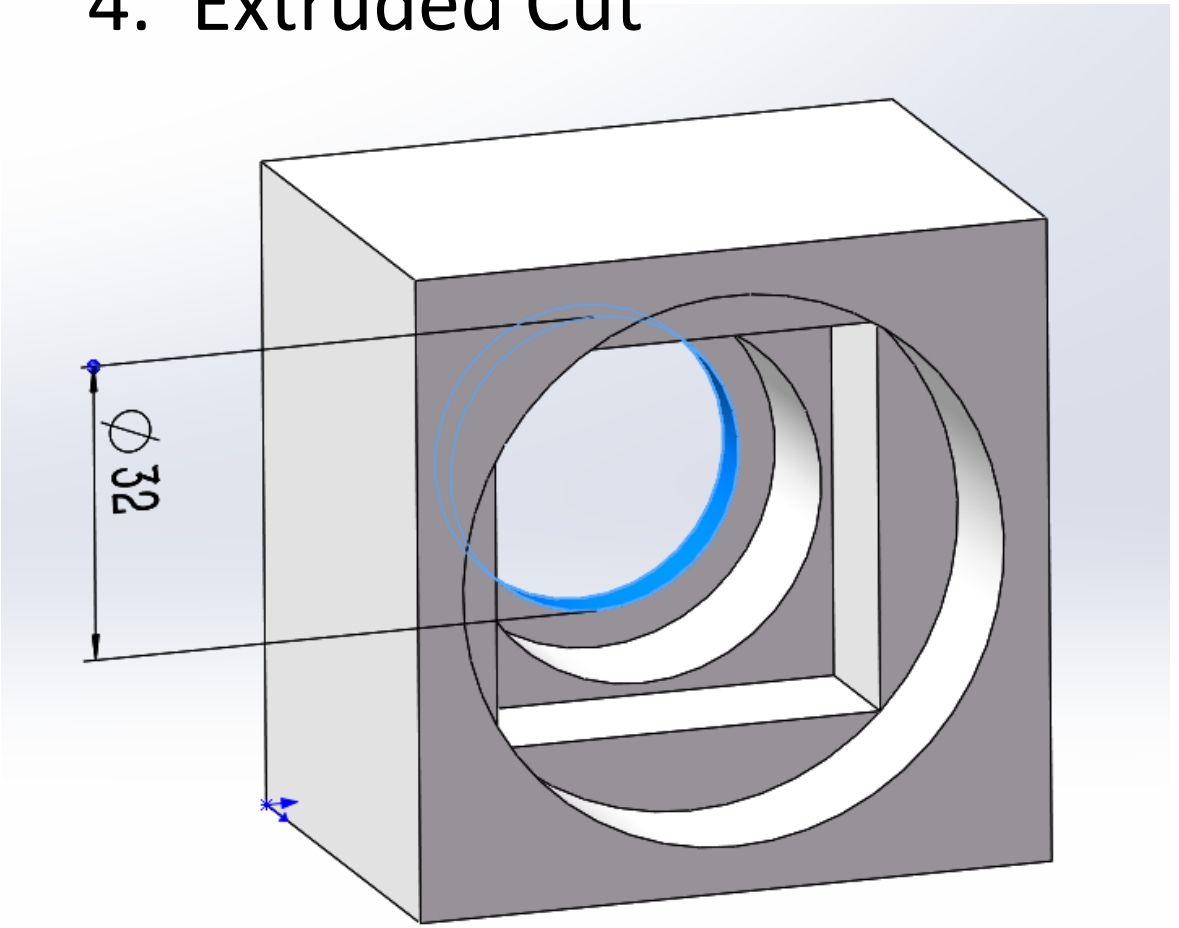
3. Extruded Cut



a. Draw a circle with a diameter 40 mm at the center of the base.

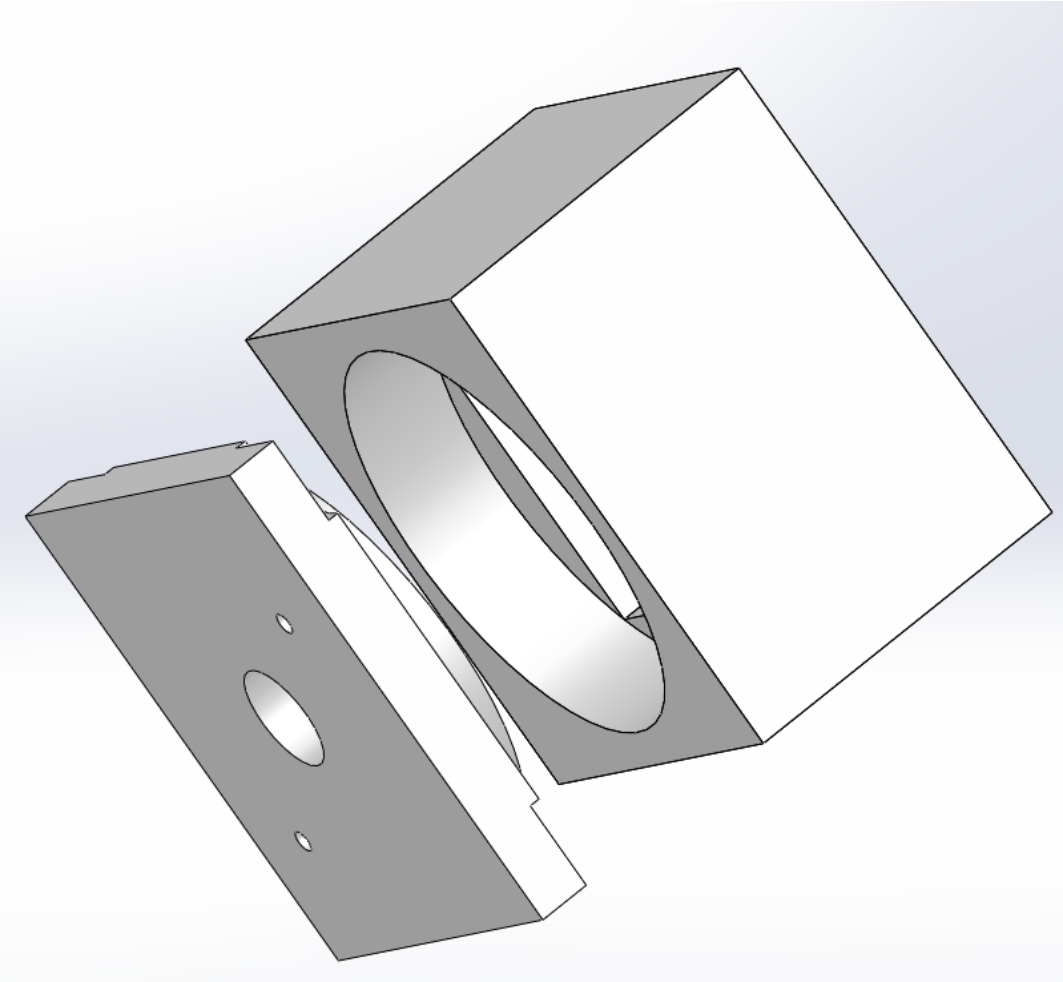
b. Extruded Cut the base by using the circle to a depth of 15 mm.

4. Extruded Cut

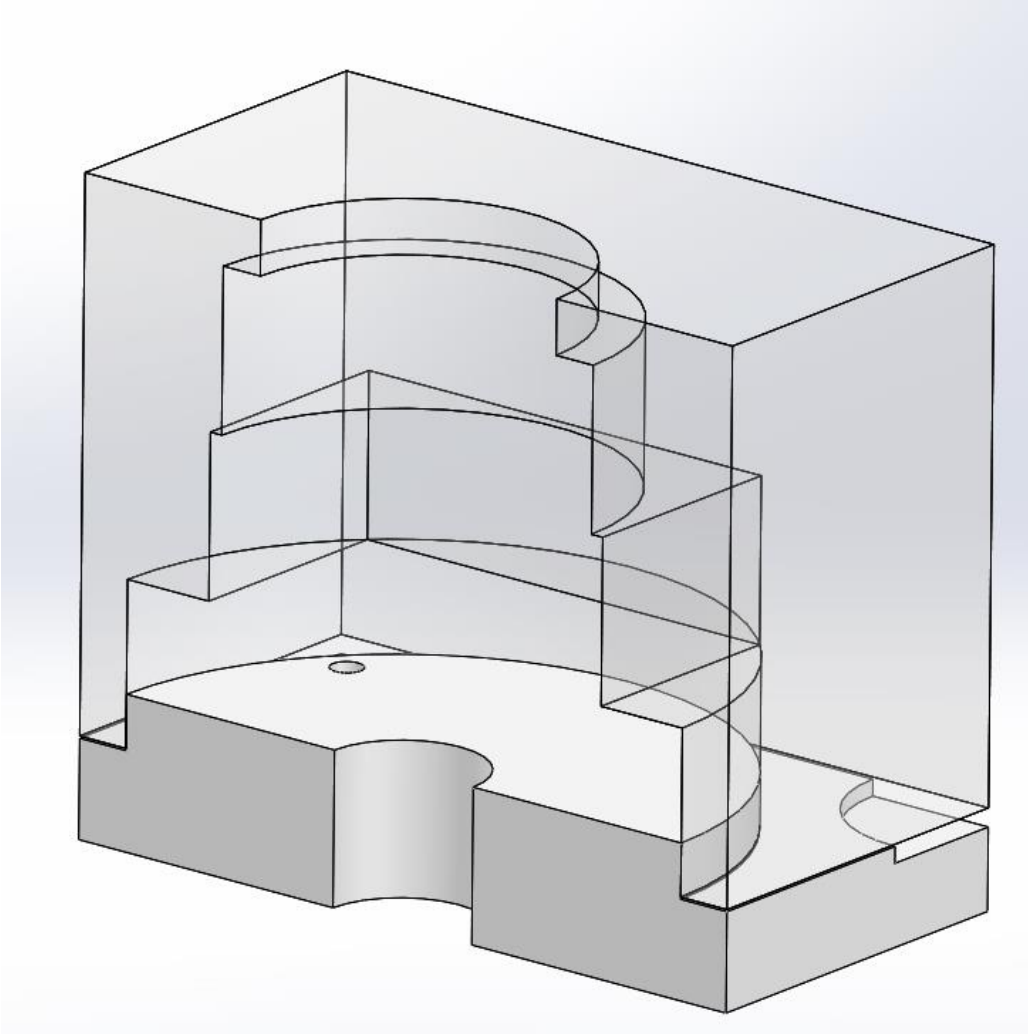


Draw a circle with a diameter of 32 mm and cut through the base.

Assembly



Assemble the previously created parts by mating them.



Create a cross-sectional view.