

Student's Project 1

Create all the components of the Butterfly Valve shown in Figure 1 and Figure 2 and then assemble them. The dimensions for the various components are given in Figure 3 through Figure 11. Assume the missing dimensions for the components.

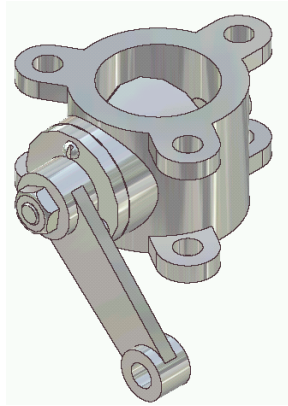


Figure 1 Butterfly Valve assembly

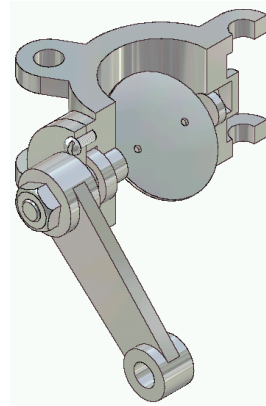


Figure 2 Inside view of the Butterfly Valve

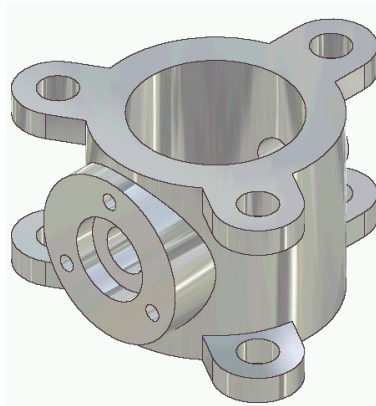


Figure 3 Solid model of the Body

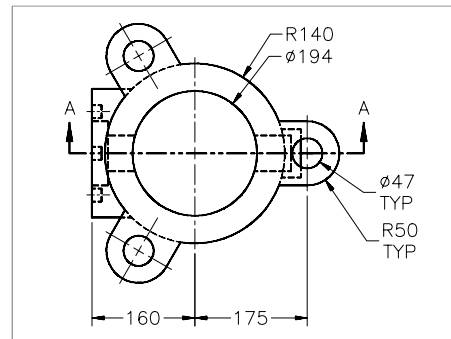


Figure 4 Top view of the Body

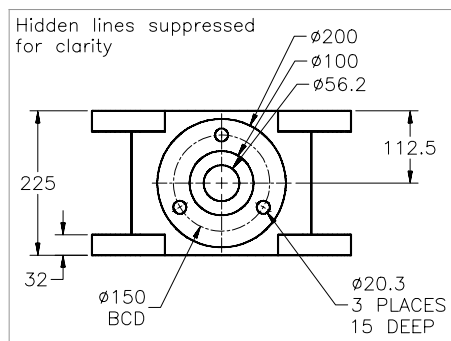


Figure 5 Left side view of the Body

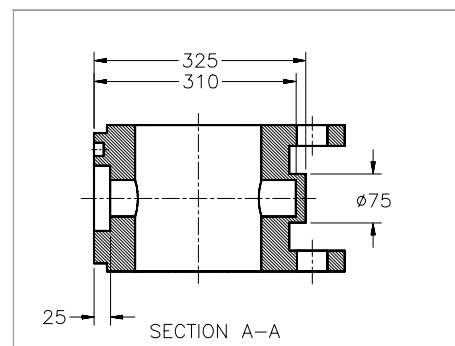


Figure 6 Sectioned front view of the Body

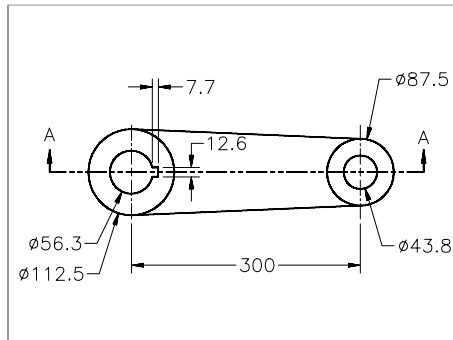


Figure 7 Top view of the Arm

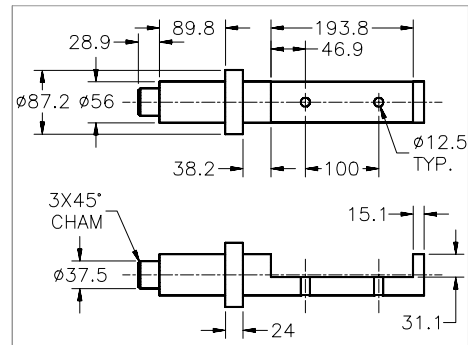


Figure 9 Dimensions of the Shaft

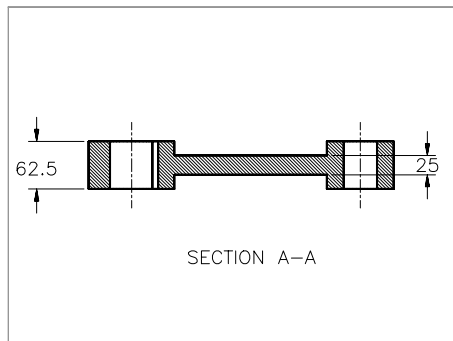


Figure 8 Sectioned front view of the Arm

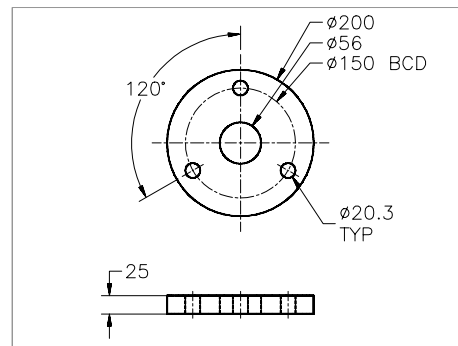


Figure 10 Dimensions of the Retainer

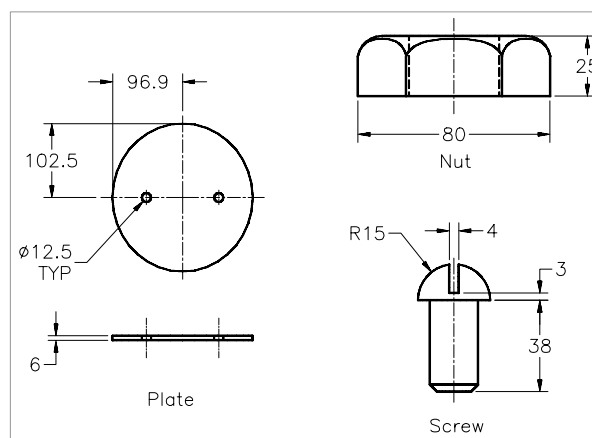


Figure 11 Dimensions of the Plate, the Nut, and the Screw

Student's Project 2

Create different components of the Double Bearing assembly and then assemble them as shown in Figure 12. Figure 13 shows the exploded view of the assembly. The dimensions of various components are given in Figure 14 to Figure 18.

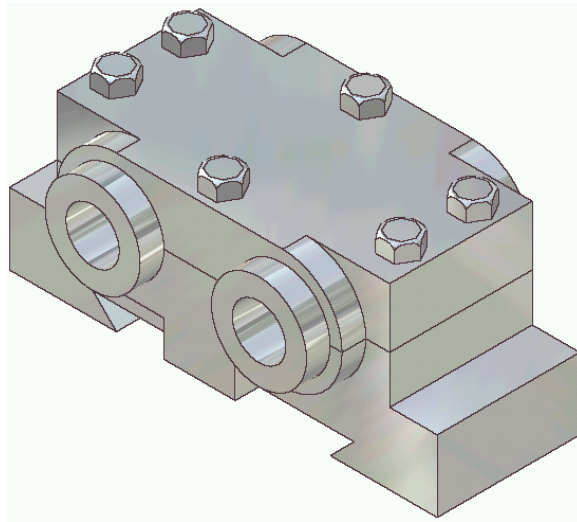


Figure 12 Double Bearing assembly

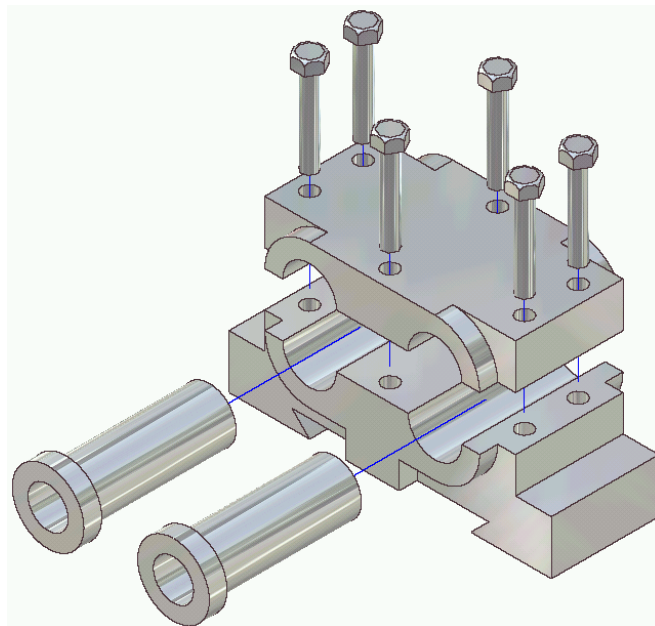


Figure 13 Exploded view of Double Bearing assembly

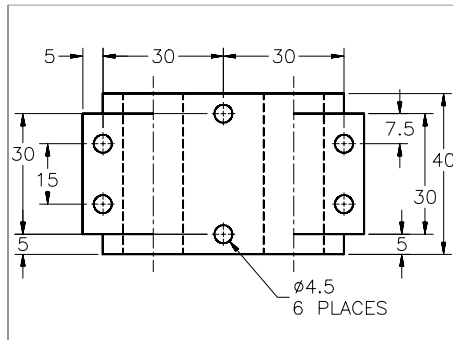


Figure 14 Top view of the Cap

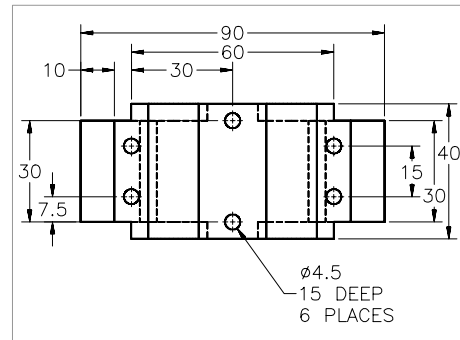


Figure 16 Top view of the Base

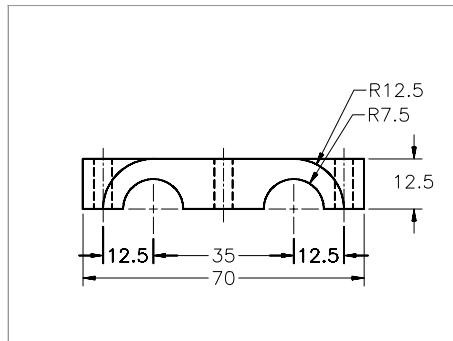


Figure 15 Front view of the Cap

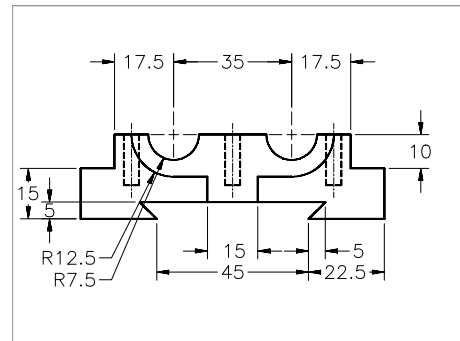


Figure 17 Front view of the Base

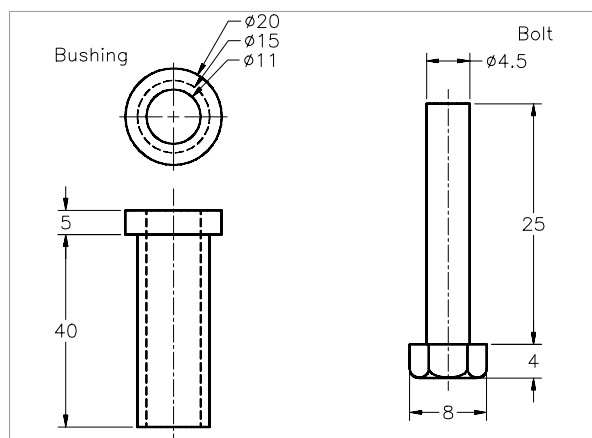


Figure 18 Dimensions of the Bushing and the Bolt

Student's Project 3

In this tutorial you will create all the components of the Wheel Support assembly and then assemble them together as shown in Figure 19. The exploded view of the assembly is shown in Figure 20. The dimensions of the components are shown in Figure 21, to Figure 25.

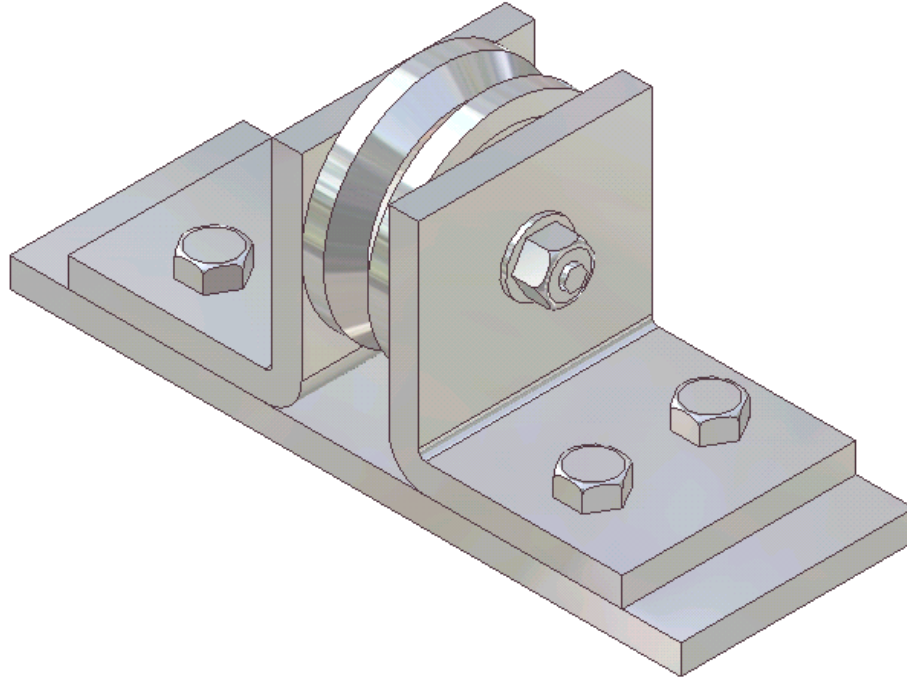


Figure 19 Wheel Support assembly

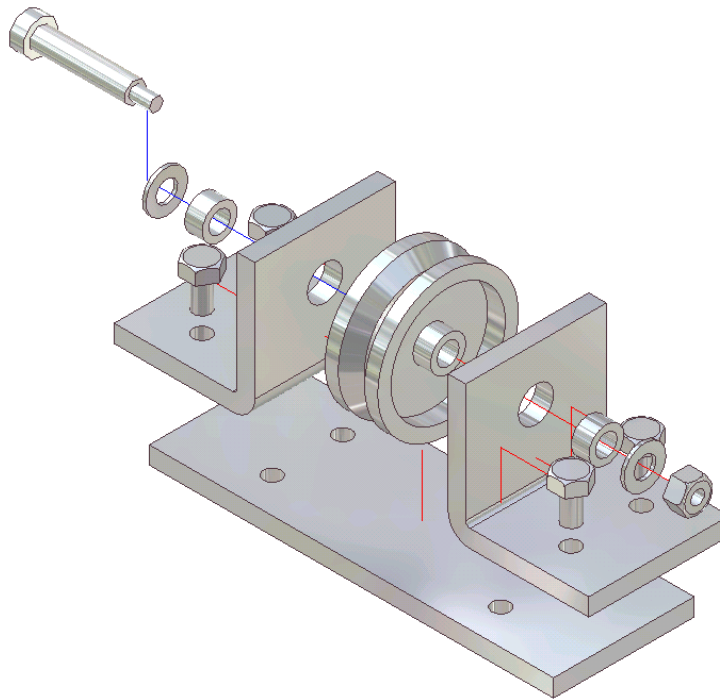


Figure 20 Exploded view of the Wheel Support assembly

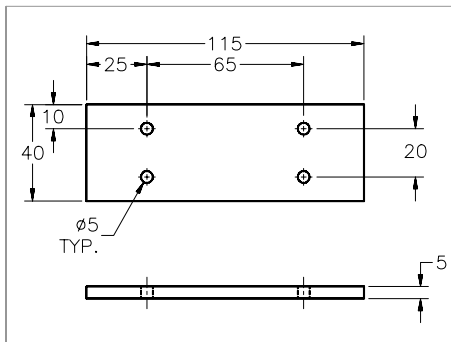


Figure 21 Dimensions of the Base

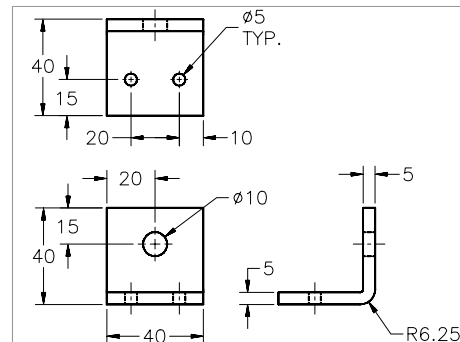


Figure 22 Dimensions of the Support

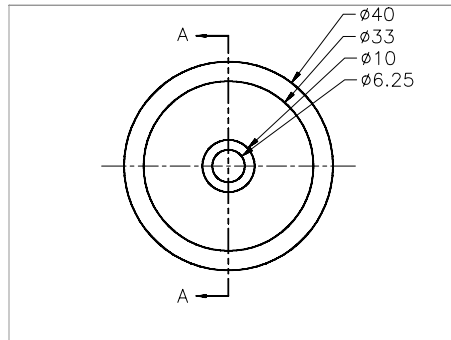


Figure 23 Front view of the Wheel

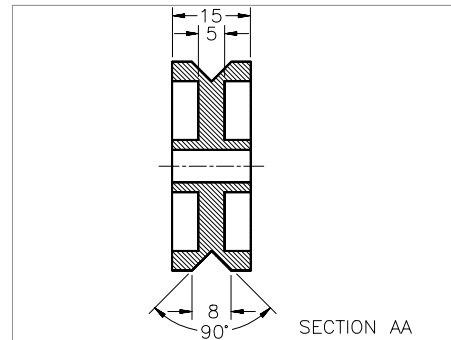


Figure 24 Sectioned side view of the Wheel

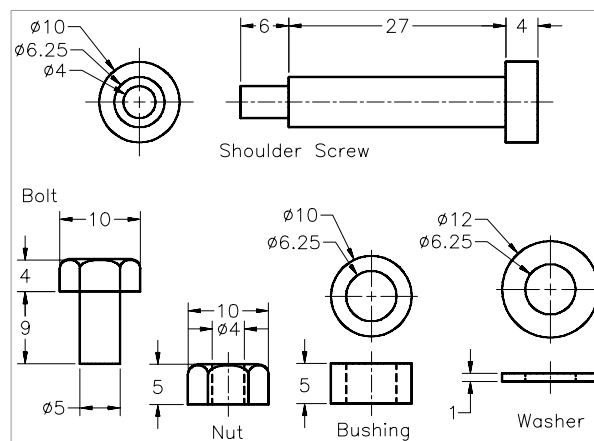


Figure 25 Dimensions of the Shoulder Screw, Bolt, Nut, Bushing, and Washer

Student's Project 4

Create all the components of the Bracket Support assembly and then assemble them as shown in Figure 26. The Bill of Material is shown in Figure 27 and exploded view of the assembly is shown in Figure 28. The dimensions of the components are given in Figure 28 to Figure 33.

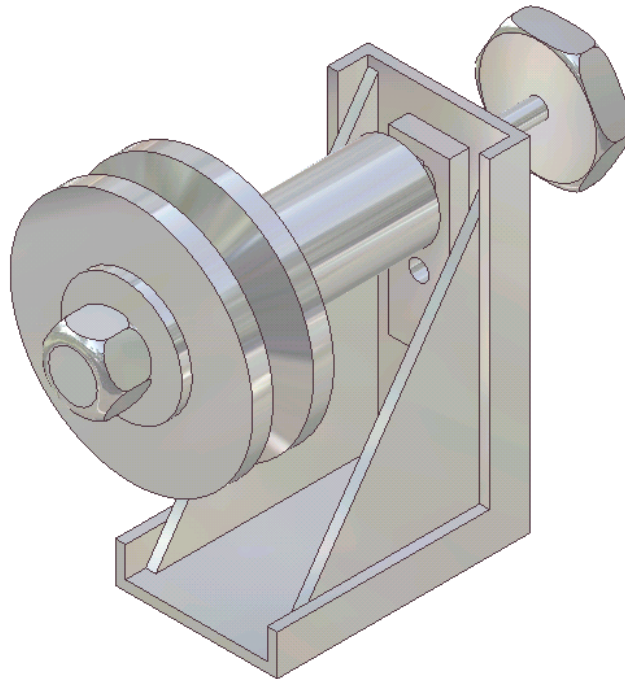


Figure 26 Pulley Support assembly

PARTS LIST			
ITEM	QTY	NAME	MATERIAL
1	1	Bracket	Steel
2	2	Nut	Steel
3	1	Bushing	Steel
4	1	Turn Screw	Steel
5	1	Pulley	Steel
6	1	Washer	Steel
7	1	Cap Screw	Steel

Figure 27 Parts list for the Pulley Support assembly

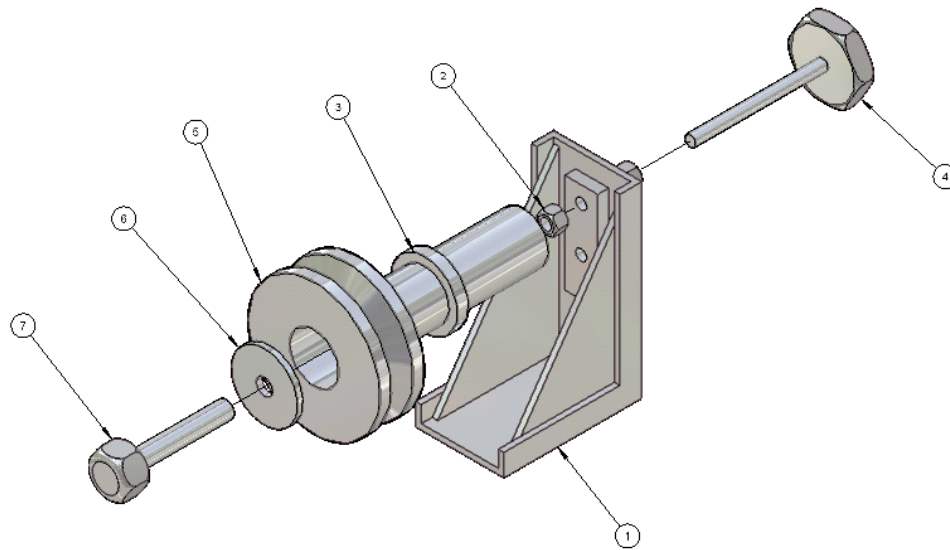


Figure 28 Exploded view of the Pulley Support assembly

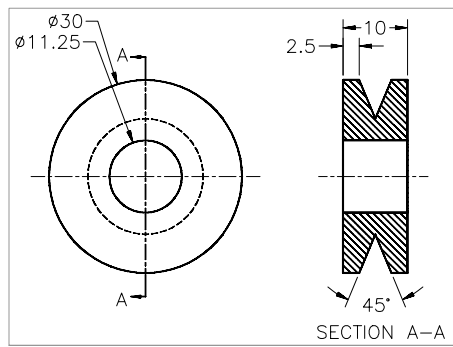


Figure 29 Dimensions of the Pulley

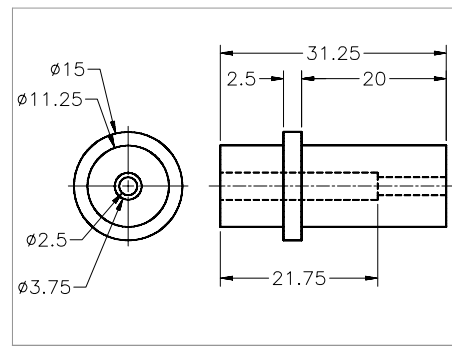


Figure 30 Dimensions of the Bushing

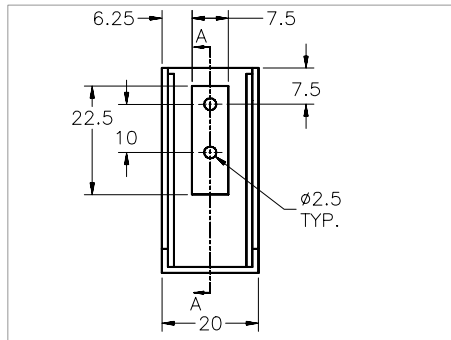


Figure 31 Left side view of the Bracket

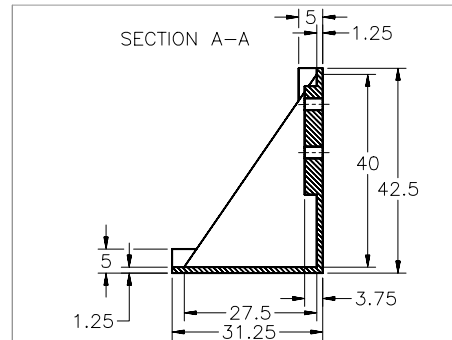


Figure 32 Sectioned front view of the Bracket

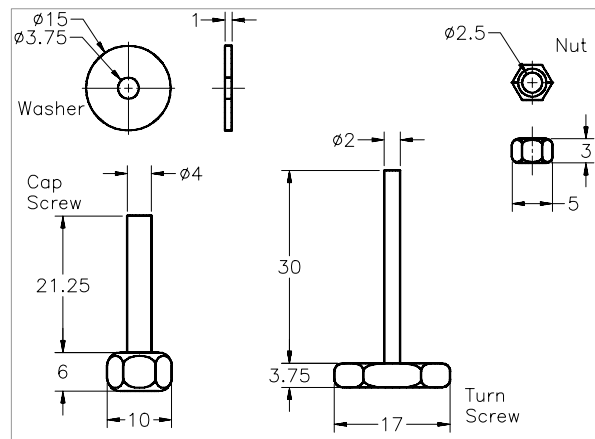


Figure 33 Dimensions of the Washer, Cap Screw, Turn Screw, and Nut