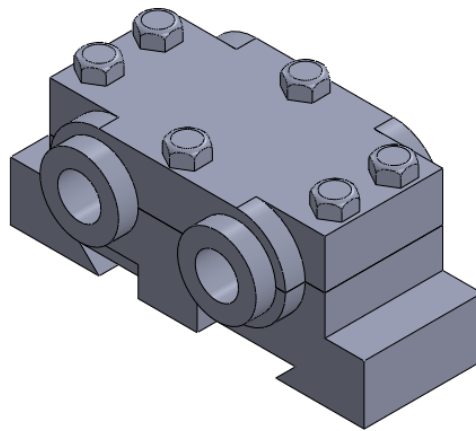


# Student Projects

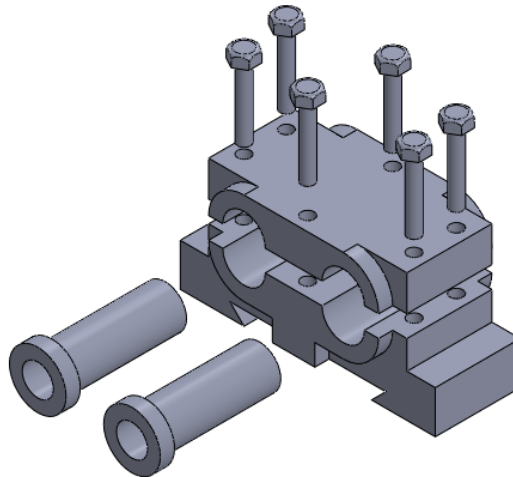
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## Student Project 1

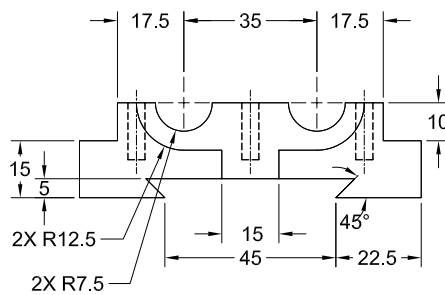
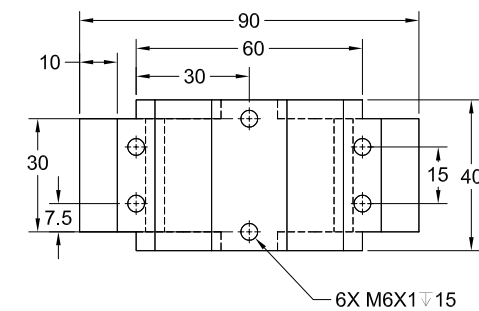
Create all components of the Double Bearing assembly and then assemble them, as shown in Figure 1. Figure 2 shows the exploded view of the assembly. The dimensions of the components are given in Figures 3 through 5. **(Expected time: 1hr 45 min)**



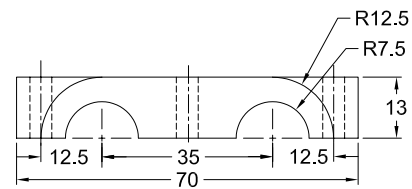
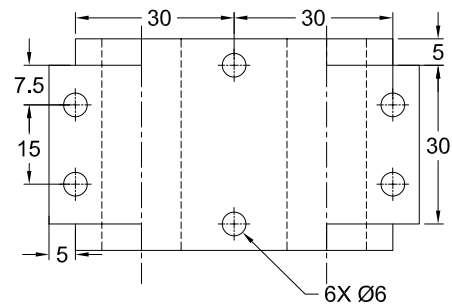
*Figure 1 Double Bearing assembly*



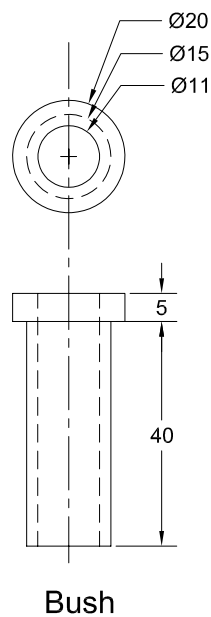
*Figure 2 Exploded view of the Double Bearing assembly*



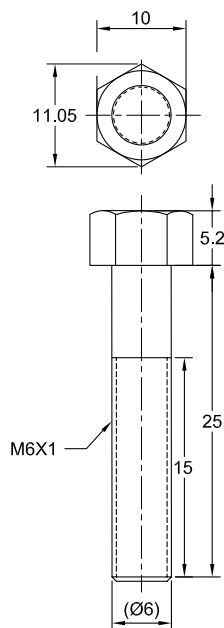
**Figure 3** Top and Front views of the Base



**Figure 4** Top and Front views of the Cap

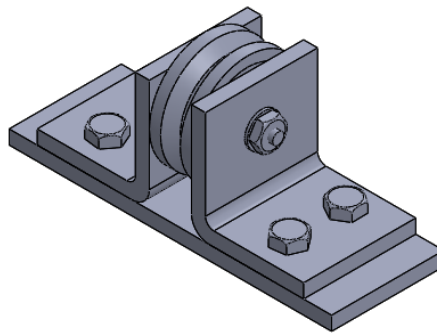


**Figure 5** Top and Front views of Bushing and Bolt

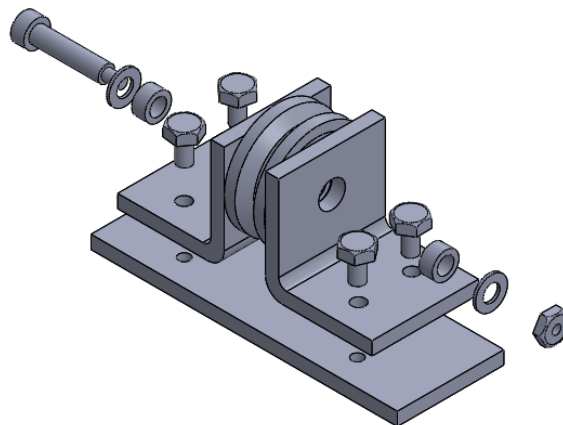


## Student Project 2

Create all components of the Wheel Support assembly and then assemble them, as shown in Figure 6. The exploded view of the assembly is shown in Figure 7. The dimension of the components are shown in Figures 8 through 11. **(Expected time: 1hr 45 min)**



*Figure 6 Wheel Support assembly*



*Figure 7 Exploded view of the Wheel Support assembly*

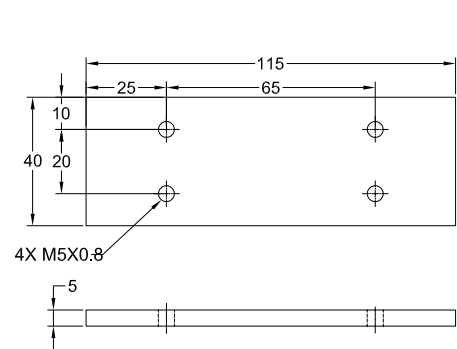


Figure 8 Front and Top views of the Base

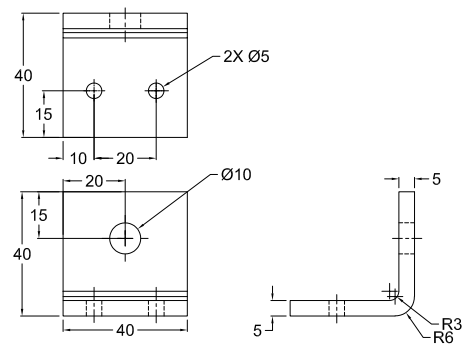


Figure 9 Top, Front and Right views of the Support

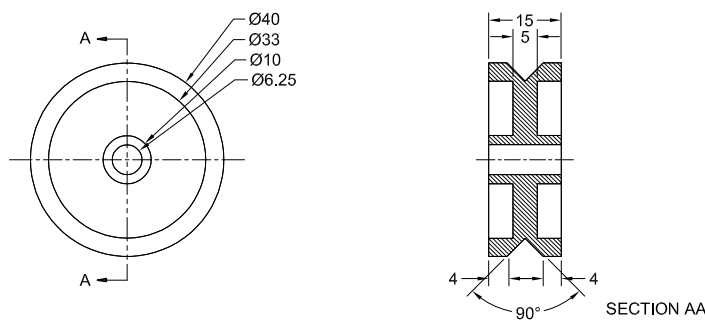


Figure 10 Front and Section views of the wheel

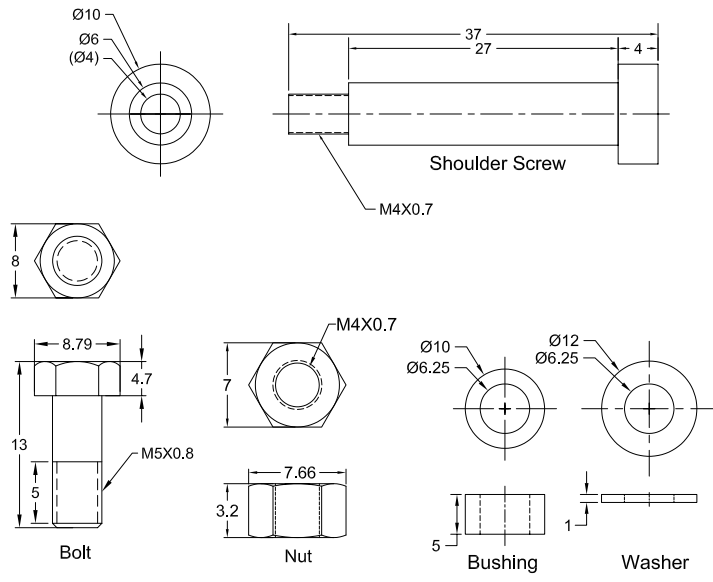
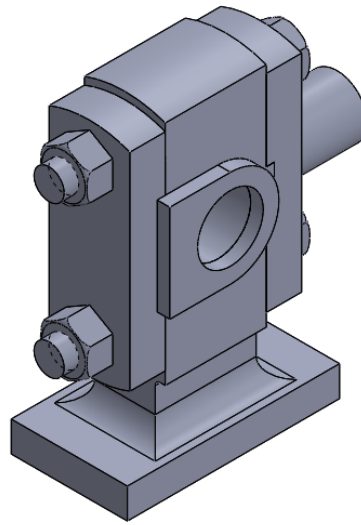


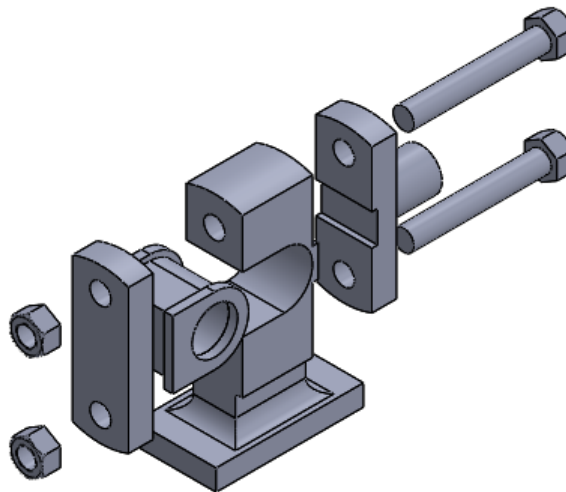
Figure 11 Dimensions of the Shoulder Screw, Bolt, Nut, Bushing, and Washer

### Student Project 3

Create all components of the Crosshead assembly and then assemble them, as shown in Figure 12. The exploded view of the assembly is shown in Figure 13. The dimension of the components are shown in Figures 14 through 18. **(Expected time: 2hr)**



*Figure 12 Crosshead assembly*



*Figure 13 Exploded view of the Crosshead assembly*

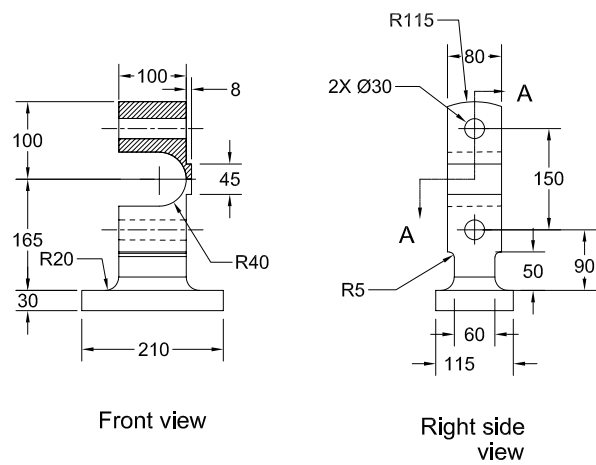


Figure 14 Front view and right-side views of the Body

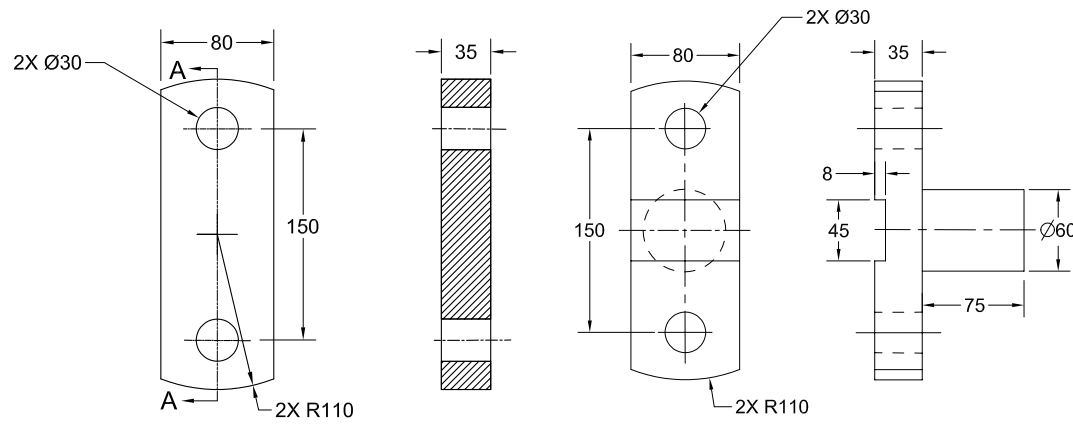


Figure15 Dimensions of the Keep Plate

Figure 16 Dimensions of the Piston Rod

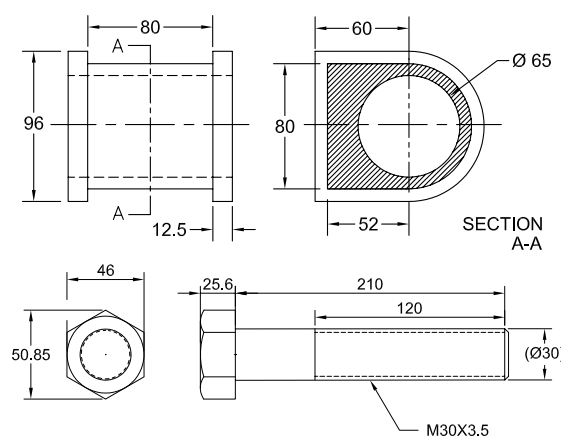


Figure 17 Dimensions of the Brass and Bolt

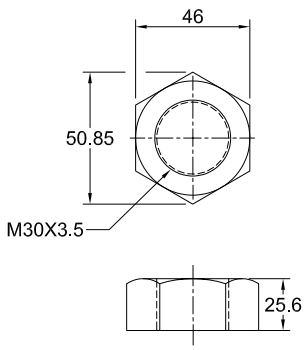
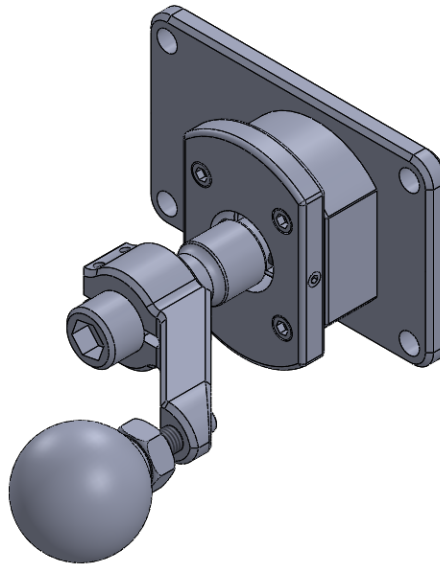


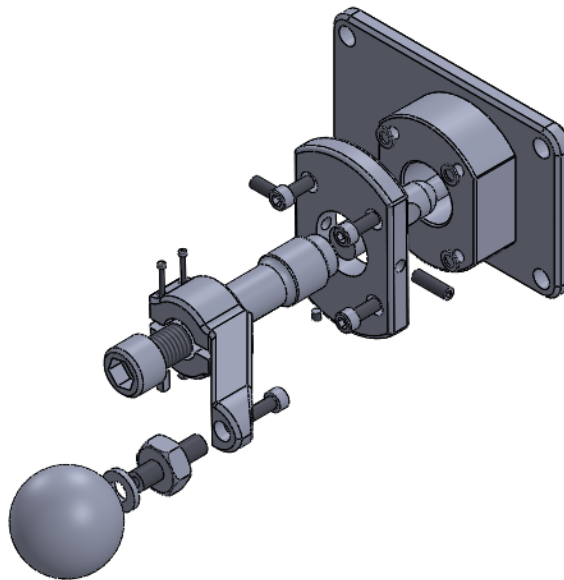
Figure 18 Dimensions of the Nut

## Student Project 4

Create all components of the Lever assembly and then assemble them, as shown in Figure 19. The exploded view of the assembly is shown in Figure 20. The dimension of the components are shown in Figures 21 through 26. **(Expected time: 2hr)**



*Figure 19 Lever assembly*



*Figure 20 Exploded view of the Lever assembly*

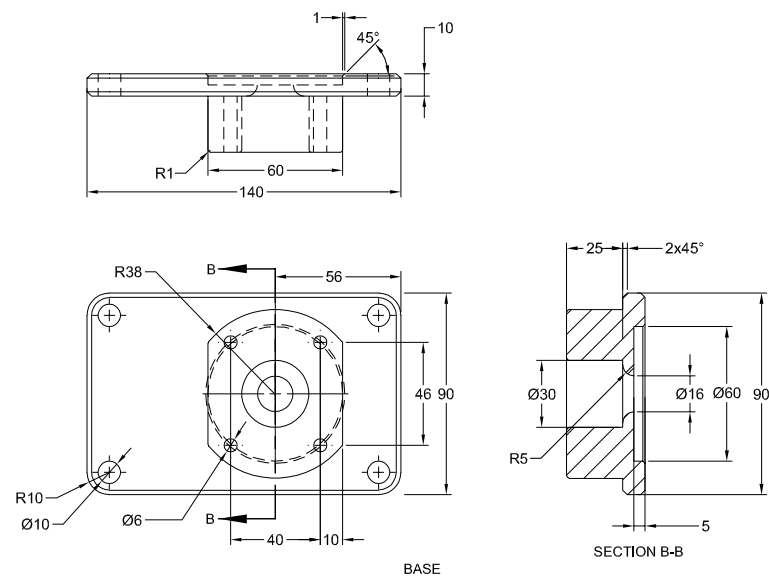


Figure 21 Dimensions of the Base

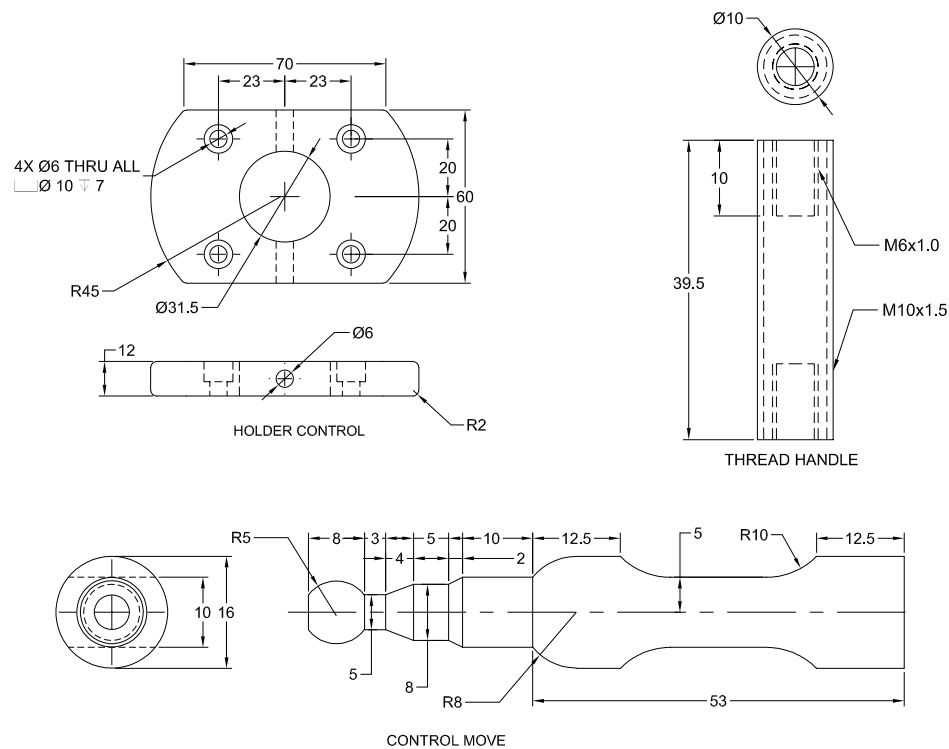


Figure 22 Dimensions of the Holder Control, Thread Handle, Control Move



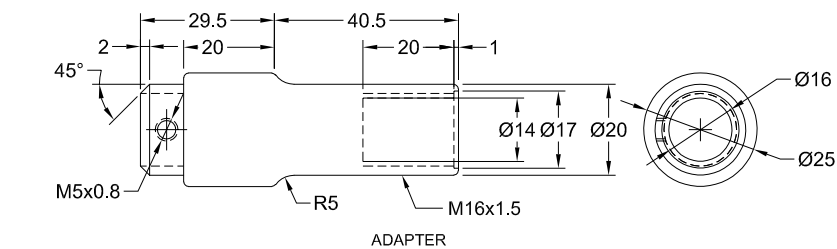


Figure 23 Dimensions of the Adapter

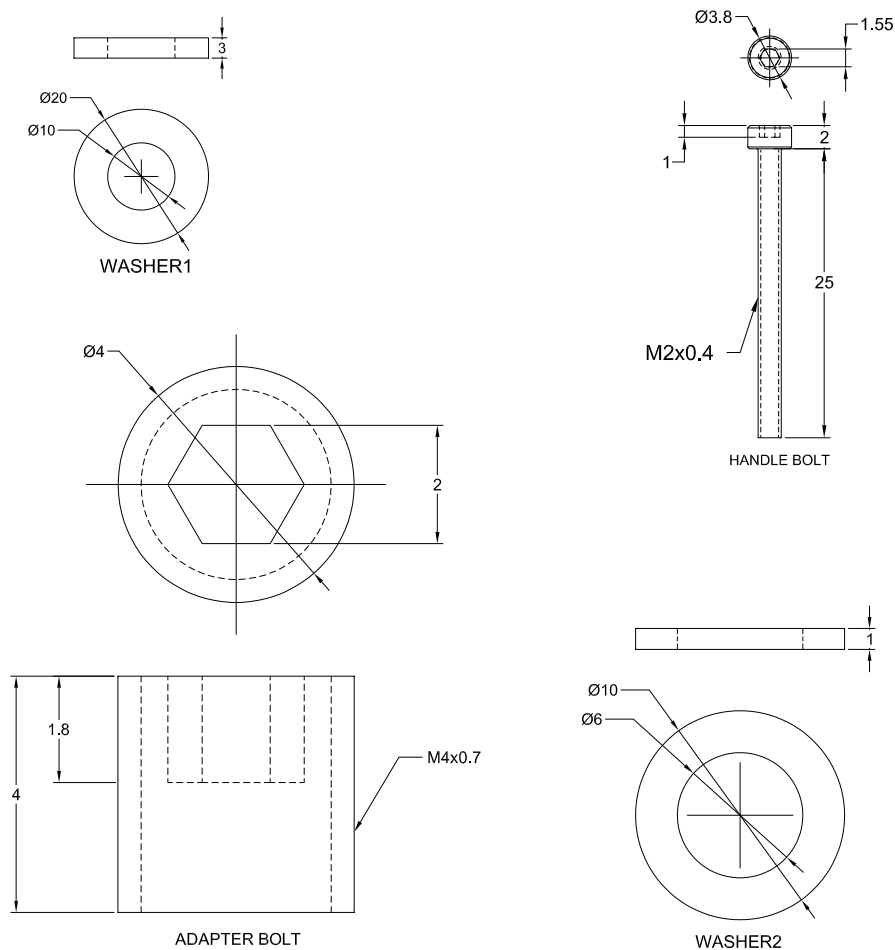
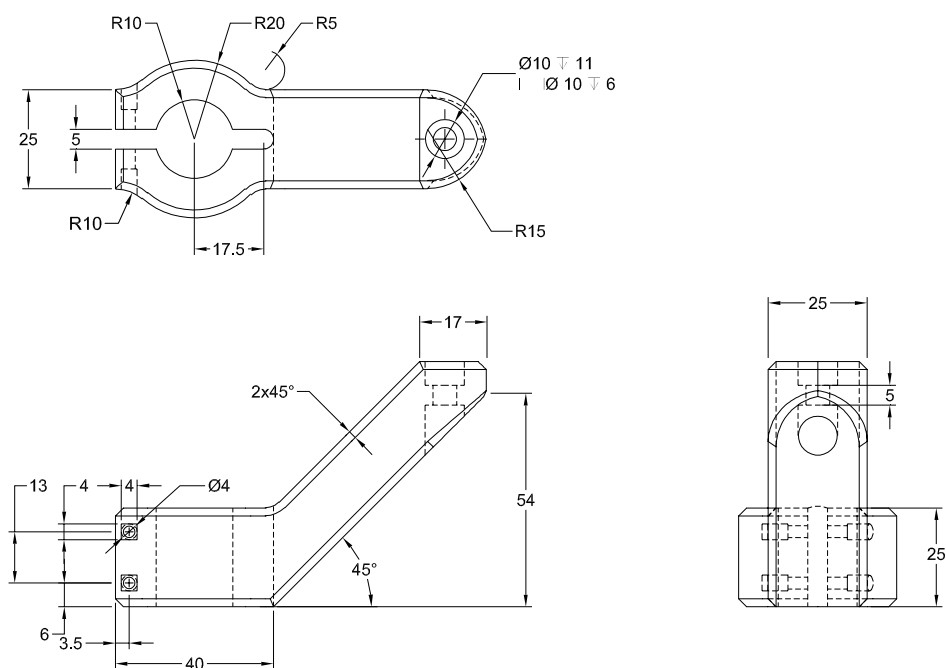
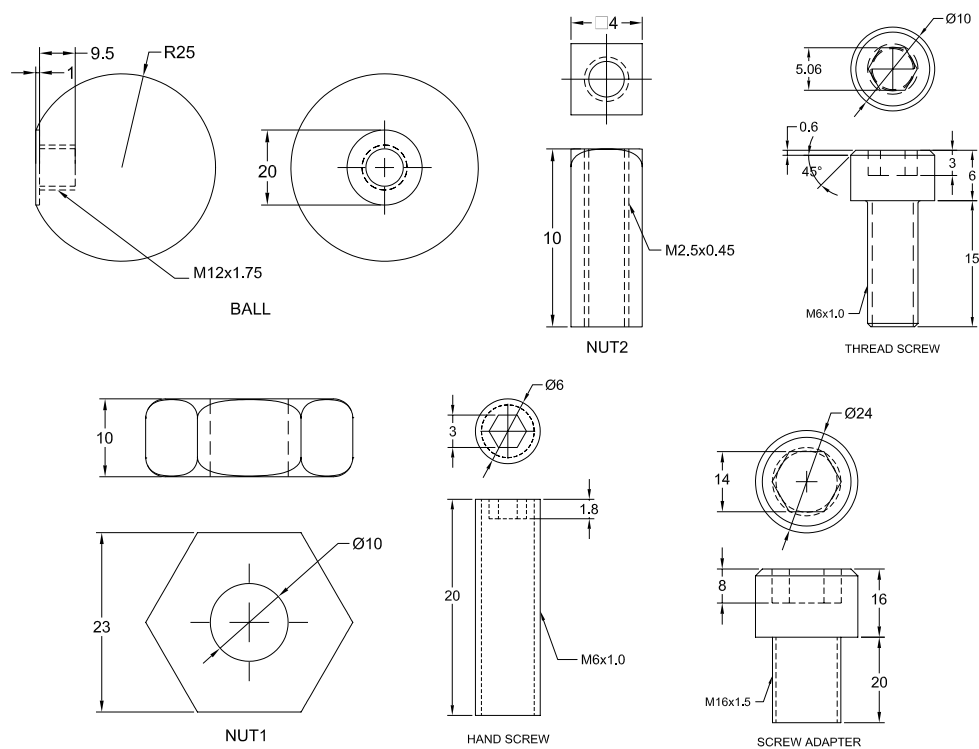


Figure 24 Dimensions of the Various components



*Figure 25 Dimensions of the Handle*



**Figure 26** Dimensions of the Various components