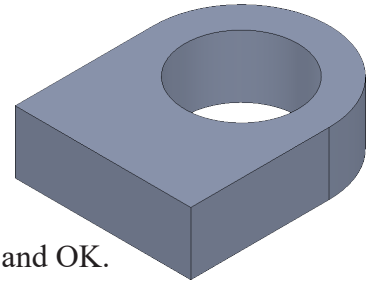


Solar Train Coupler Lug



A. Extrude.

Step 1. Click **New**  on the Standard toolbar, click **Part Metric**  and OK.

Step 2. Click **Top Plane**  in the Feature Manager and click **Sketch**  on the context toolbar, **Fig. 1**.

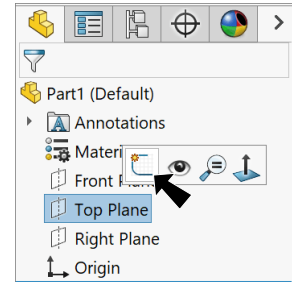
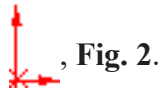


Fig. 1

Step 3. Click **Corner Rectangle**  in the **Rectangle flyout**  on the Sketch toolbar.

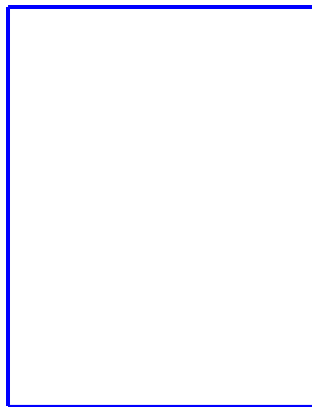
Step 4. Sketch **corner rectangle above Origin**



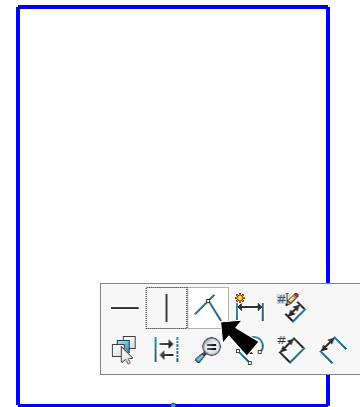
, Fig. 2.

Step 5. **Unselect Rectangle tool.** To unselect, right click graphics area and click **Select**  from menu.

Step 6. **Ctrl click midpoint of a horizontal line and Origin**  to select both. Release Ctrl key and click **Make Coincident**  on the context toolbar, **Fig. 3**.



Origin 
Fig. 2



Ctrl click
midpoint
and Origin
Fig. 3

Step 7. Click **Circle**  (S) on the Sketch toolbar.

Step 8. Sketch **circle above Origin**  , **Fig. 4**.

Step 9. **Unselect Circle tool.** To unselect, right click graphics area and click **Select**  from menu.

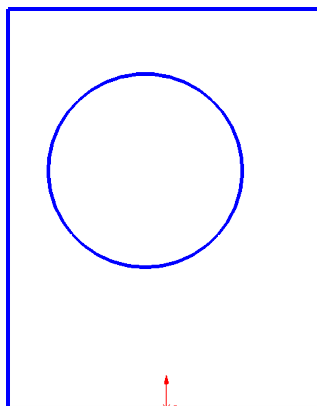
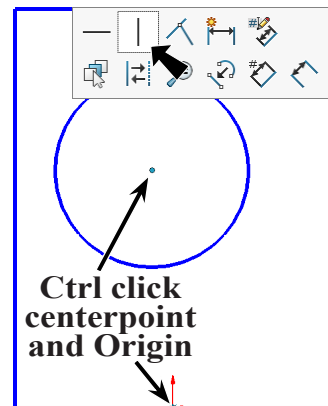


Fig. 4

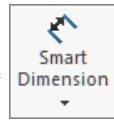


Ctrl click
centerpoint
and Origin

Fig. 5

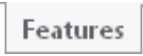
Step 10. **Ctrl click centerpoint of circle and Origin**  to select both. Release Ctrl key and click **Make Vertical**  on the context toolbar, **Fig. 5**.

Step 11. Click **Smart Dimension** (S) on the Sketch toolbar.

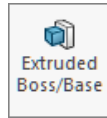


Step 12. Add dimensions, **Fig. 6**.

Step 13. Click **Features** on the Command Manager toolbar.



Step 14. Click **Extruded Boss/Base** on the Features toolbar.



Step 15. In the Boss-Extrude Property Manager set:
under Direction 1, **Fig. 7**
End Condition **Mid Plane**

Depth 2.85
click OK.

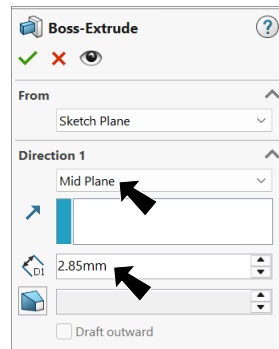


Fig. 7

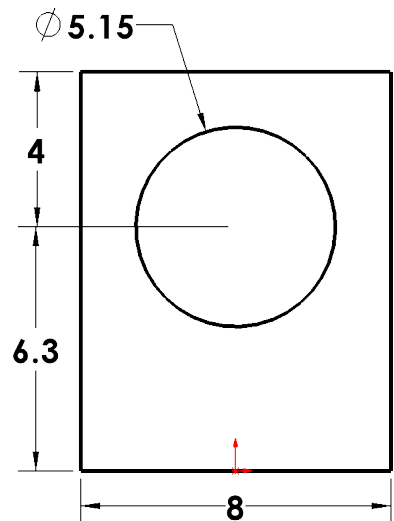


Fig. 6

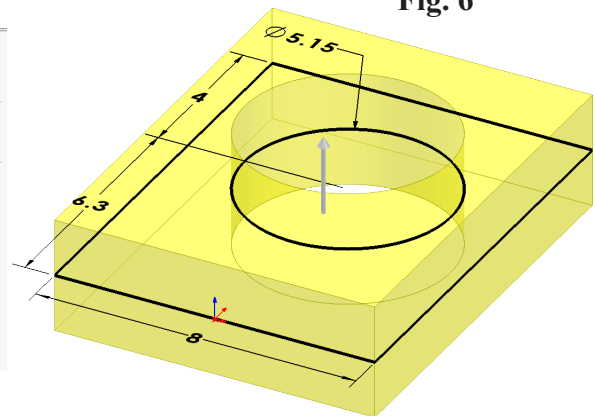


Fig. 8

B. Save as "LUG".

Step 1. Click File Menu > Save As.

Step 2. Key-in **LUG** for the filename and press ENTER.

C. Fillet Full Round.

Step 1. Click **Fillet**  on the Features toolbar.

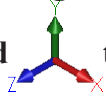
Step 2. In the Fillet Property Manager, select **Manual**, **Fig. 9** under Fillet Type

select **Full Round Fillet** 

click in  **Side Face Set 1**  box

click **side face**, **Fig. 10**

Rotate view to back side, **Fig. 11**. To rotate view, **Shift click Y**

axis of Reference Triad  **twice.**

click in  **Center Face Set**  box

click **rear face**, **Fig. 11**

click in  **Side Face Set 2**  box

click **other side face**, **Fig. 11**

click OK .

Tip: Right click in graphics area to advance cursor to next selection in Property Manager

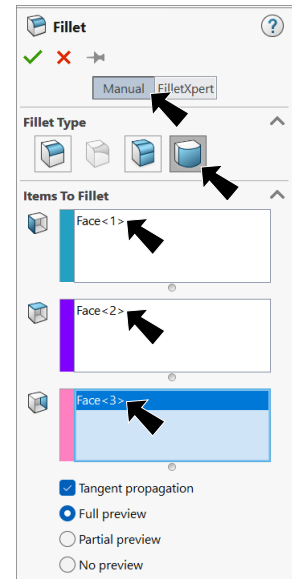


Fig. 9

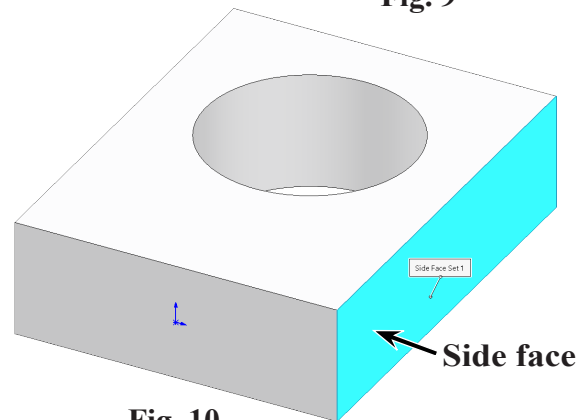


Fig. 10

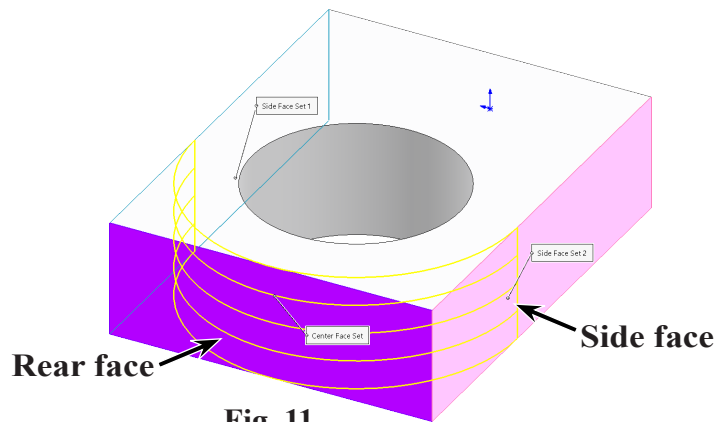


Fig. 11

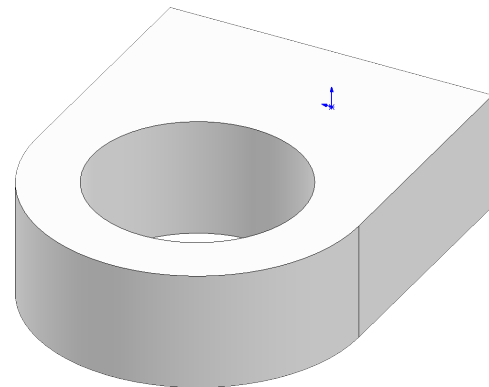


Fig. 12

D. Appearance: Blue Plastic.

Step 1. Click **Isometric**  on the Standard Views toolbar. (Ctrl-7)

Step 2. Click part, click **Appearance Callout**  on the context toolbar and click **LUG** , Fig. 13.

Step 3. In the Appearances Task pane, expand **Plastic**, click **Medium Gloss** and in the lower pane select **blue medium gloss plastic**, Fig. 14.

Step 4. Over in the Appearances Property Manager:
under Color, Fig. 15

set **RGB** values

R 132

G 142

B 165

and OK .

Step 5. Save  (Ctrl-S).

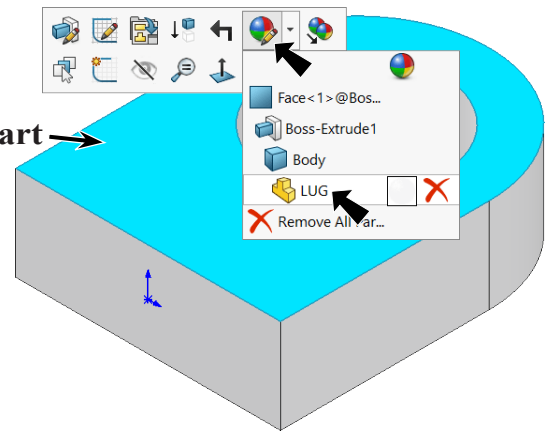


Fig. 13

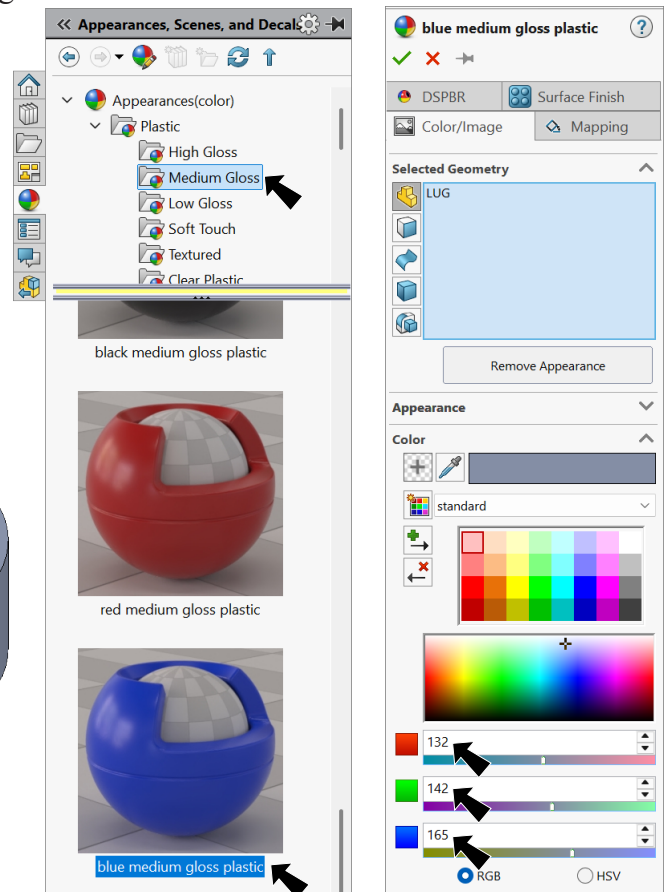


Fig. 14

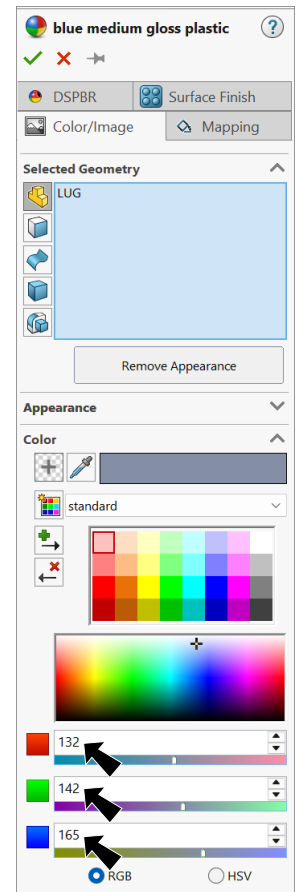


Fig. 15

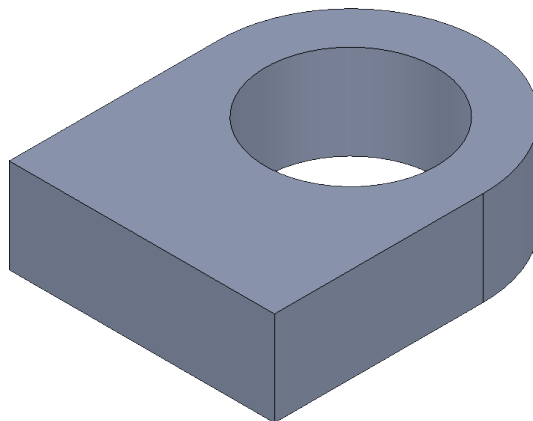


Fig. 16