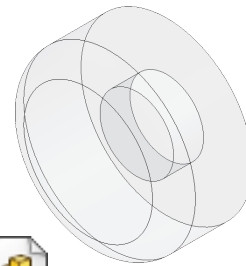




E's Small Car Headlight




A. Extrude 1.

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


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

Step 3. Click **Circle**  (S) on the Sketch toolbar.



Step 4. Sketch circle at Origin , **Fig. 2**.

Step 5. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 6. Dimension **diameter 12**, **Fig. 2**.

Step 7. Click **Features**  on the Command Manager toolbar.

Step 8. Click **Extruded Boss/Base**  on the Features toolbar.

Step 9. In the Boss-Extrude Property Manager set:
 under Direction 1, **Fig. 3**
 End Condition **Blind**
 Depth  **5.5**
 click OK .

Step 10. Save  (Ctrl-S).

B. Save as "HEADLIGHT".

Step 1. Click File Menu > Save As.

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

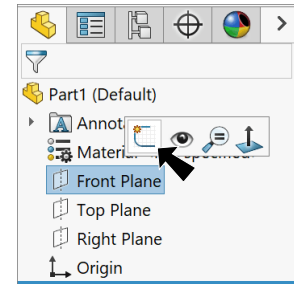


Fig. 1

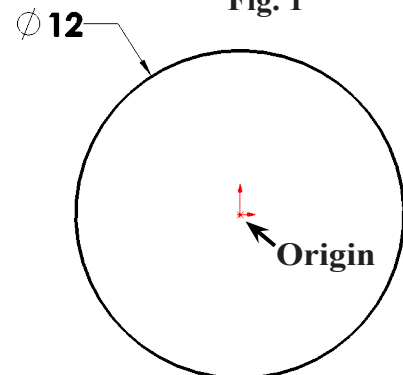


Fig. 2

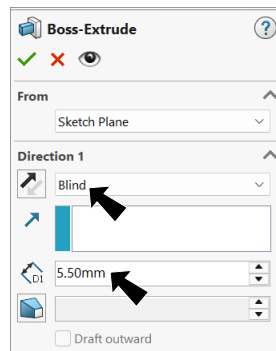


Fig. 3

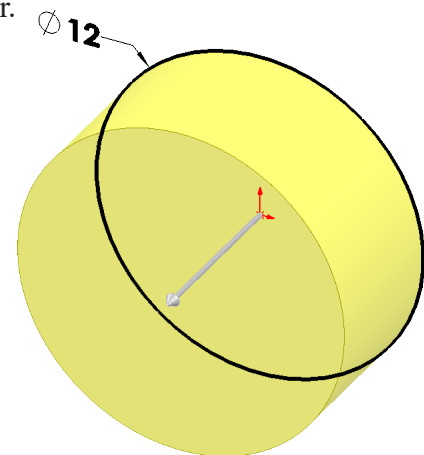




Fig. 4

C. Extruded Cut.

Step 1. Click **Front Plane**  in the Feature Manager and click **Sketch**  on the context toolbar, **Fig. 5**.

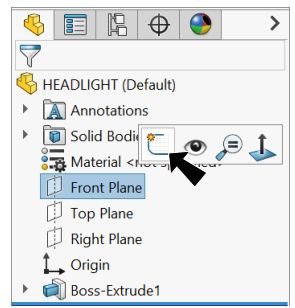



Fig. 5

Step 2. Click **Circle**  (S) on the Sketch toolbar.

Step 3. Sketch circle at Origin , **Fig. 6**.

Step 4. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 5. Dimension **diameter 5.15** (.15 clearance of stud), **Fig. 6**.

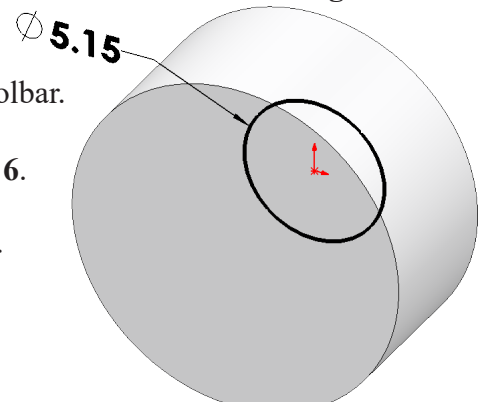

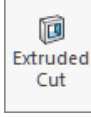




Fig. 6

Step 6. Click **Features**  on the Command Manager toolbar.

Step 7. Click **Extruded Cut**  on the Features toolbar.

Step 8. In the Cut-Extrude Property Manager set:
 under Direction 1, **Fig. 7**
 End Condition **Blind**
Depth  **2.1**
 click OK .

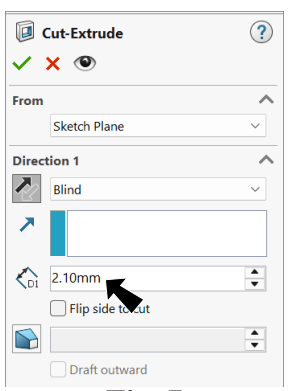


Fig. 7

Step 9. Save  (Ctrl-S).

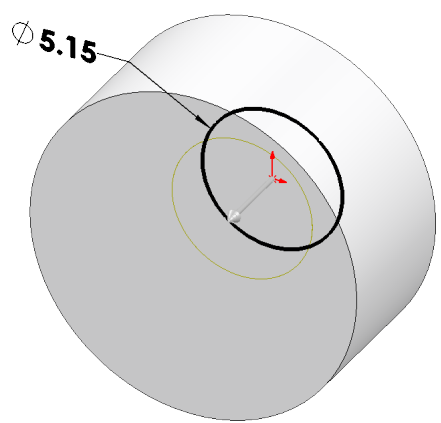


Fig. 8

D. Fillet.

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

Step 2. In the Fillet Property Manager set:
 select **FilletXpert**, **Fig. 9**
Radius  **1.5**
 click **front edge**, **Fig. 10**
 click OK .

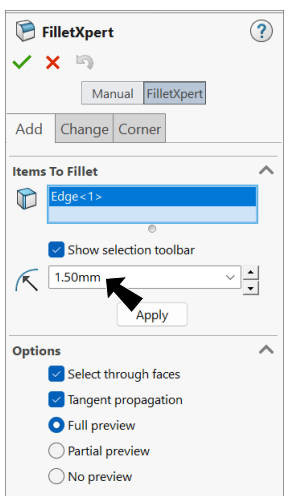


Fig. 9

Step 3. Save  (Ctrl-S).

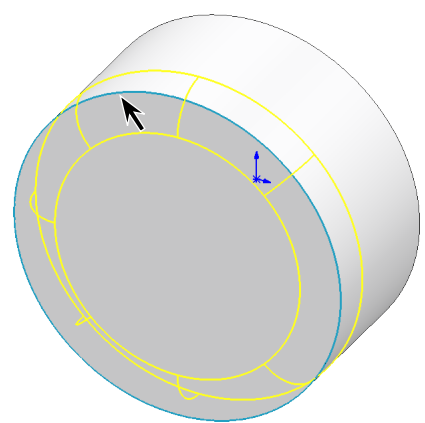


Fig. 10

E. Appearance : Clear Translucent Plastic.


Step 1. Click the Headlight to select part, click **Appearances**

Callout  on the context toolbar and click **Headlight** , Fig. 11.

Step 2. In the Appearances Task pane, expand **Plastic**, click **Clear Plastic** and in the lower pane select **translucent plastic**, Fig. 12.

Step 3. In the Appearances Property Manager click OK .

Step 4. Save  (Ctrl-S).

Tip: If necessary turn on **Enable selection through transparency**. To enable, click **Options**  on the Standard toolbar. Under System Options, Selection, check **Enable selection through transparency**.

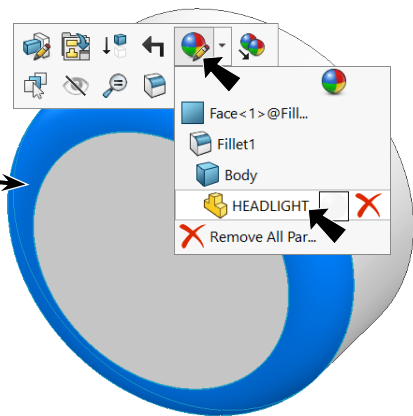


Fig. 11

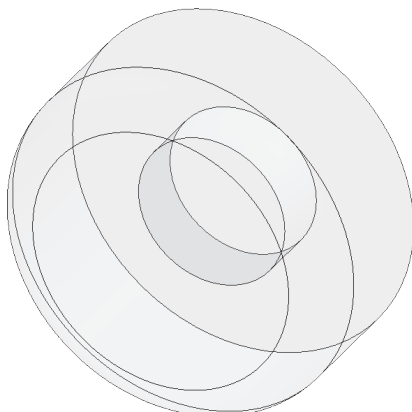


Fig. 14

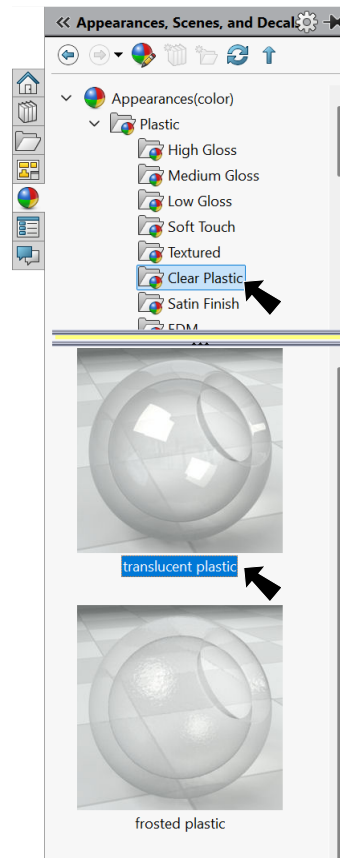


Fig. 12

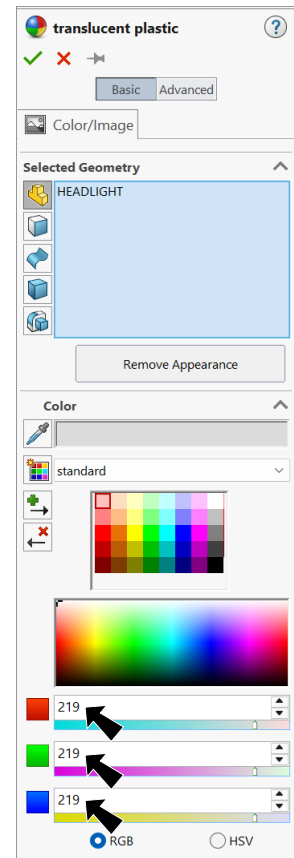


Fig. 13