




A. Extrude.

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

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

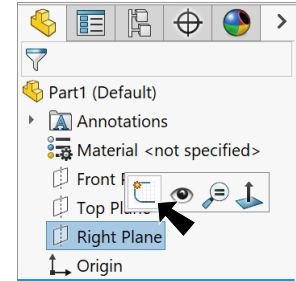


Fig. 1

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

Step 4. Sketch **two circles at the Origin** , **Fig. 2**.

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

Step 6. Dimension circle **diameters 8.2 and 5.2**, **Fig. 2**.

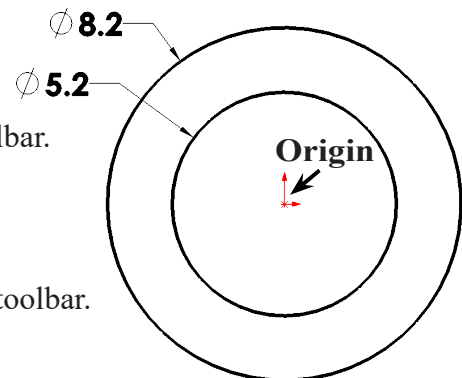




Fig. 2

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  **3**
 click OK .

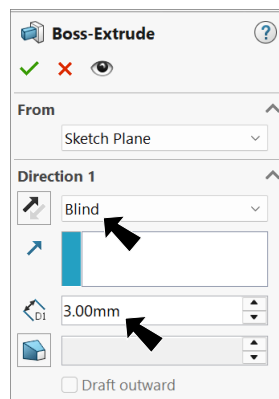


Fig. 3

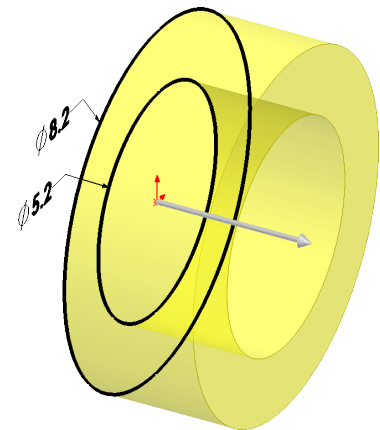


Fig. 4

B. Save as "WASHER".

Step 1. Click File Menu > Save As.

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

Tip: Create a **ESCar folder** in your My Document folder to save the your ESCar project files. At cudacountry we go a step further, and create a Tech Ed [school year] folder and in that folder we create the ESCar folder.
 Documents\Tech Ed 25-26\ESCar.

C. Mate Reference.

Step 1. Click **Reference Geometry** on the Features toolbar and **Mate Reference** from the menu.

Step 2. In the Mate Reference Manager set: under **Primary Reference Entity** click **cylindrical face**, Fig. 5 click OK.

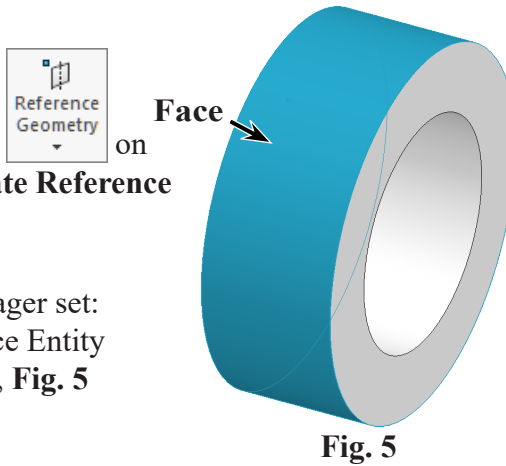


Fig. 5

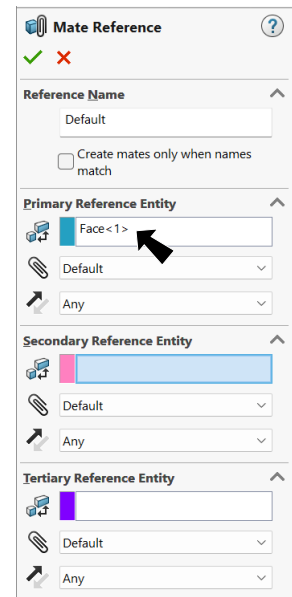


Fig. 6

D. Material: Gray Plastic.

Step 1. Click part, click **Appearance** Callout on the context toolbar and click **WASHER**, Fig. 7.

Step 2. In the Appearances Task pane, expand **Plastic**, click **Medium Gloss** and in the lower pane select **light gray medium gloss plastic**, Fig. 8.

Step 3. In the Appearances Property Manager set: under **Color**, Fig. 9 set **RGB values**
R 184
G 189
B 194
 click OK.

Step 4. Save (Ctrl-S).

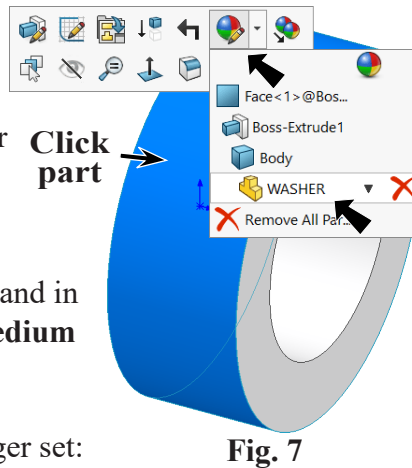


Fig. 7

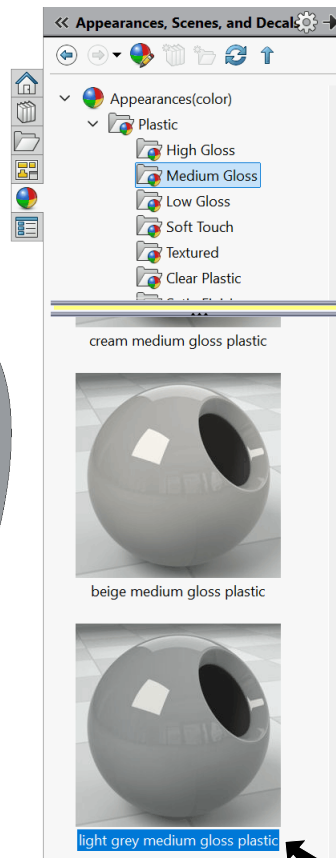


Fig. 8

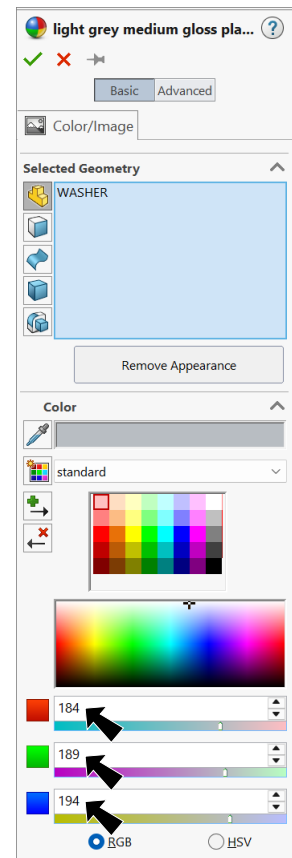


Fig. 9

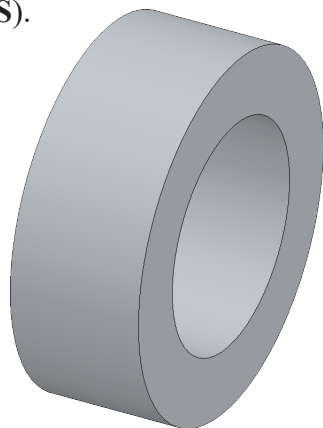


Fig. 10