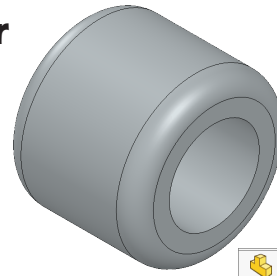




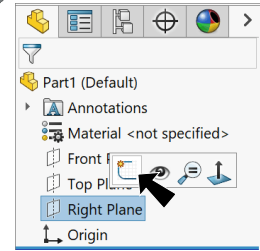
# Bike and Trailer Hub



## A. Extrude1.

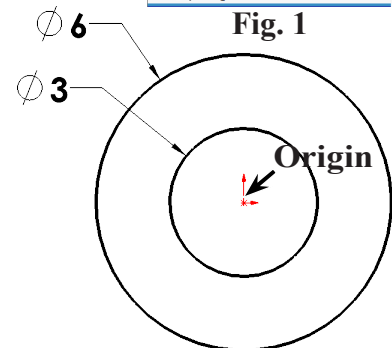
Step 1. Click File Menu > New, click **Part Metric** and OK.

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



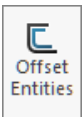
Step 3. Click **Circle**  (S) on the Sketch toolbar.

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

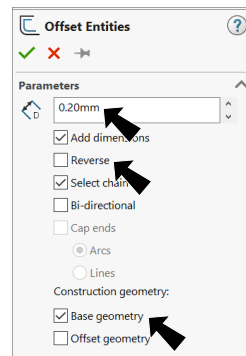




Step 5. Click **Smart Dimension**  (S) on the Sketch toolbar.

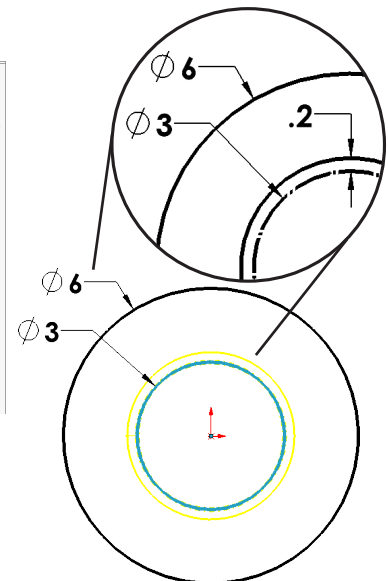
Step 6. Dimension **diameters 6 and 3**, **Fig. 2**.

Step 7. Click **Offset Entities**  on the Sketch toolbar.

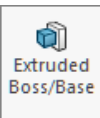
Step 8. In the Offset Entities Property Manager set:  
under Parameters, **Fig. 3**



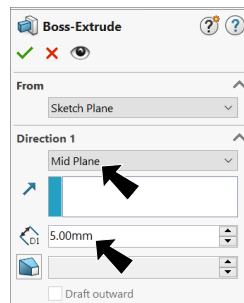
**Distance**  **.2 (clearance of Axle)**  
 uncheck **Reverse**  
 under Construction geometry  
 check **Base geometry**  
 click **inside circle**, **Fig. 4**  
**Yellow offset circle on outside - base geometry (construction) on inside**  
 click OK  .





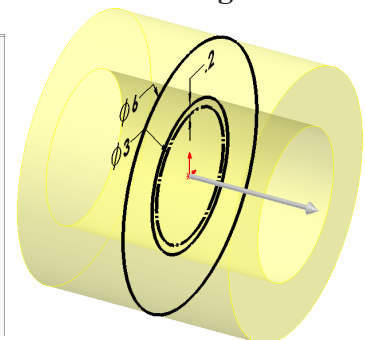
Step 9. Click **Features**  on the Command Manager toolbar.

Step 10. Click **Extruded Boss/Base**  on the Features toolbar.

Step 11. In the Boss-Extrude Property Manager set:  
under Direction 1, **Fig. 5**



End Condition **Mid Plane**  
**Depth**  **5**  
 click OK  .



## B. Save as "HUB".

Step 1. Click File Menu > Save As.

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

## C. Fillet Edges.

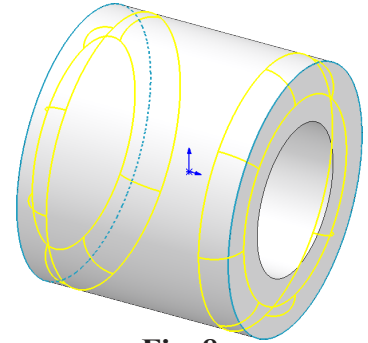
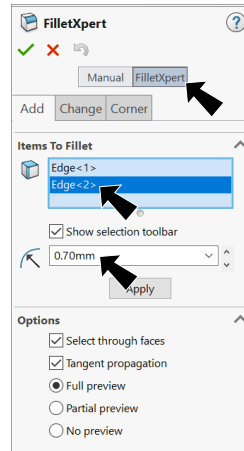
Step 1. Click **Fillet**  on the Features toolbar.

Step 2. In the Fillet Property Manager set:  
select **FilletXpert**, **Fig. 7**

**Radius**  **.7**



click **outside circular edges**, **Fig. 8**

click **OK** .



**Fig. 8**

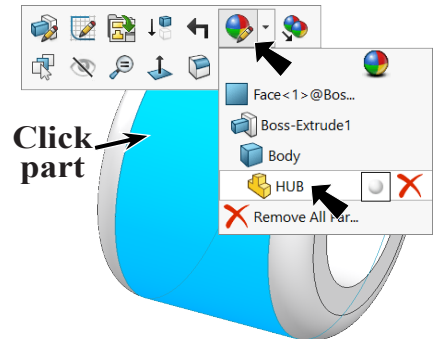
## D. Appearance: Chrome.

Step 1. Click the part to select part, click **Appearances Callout**  on the context toolbar and click **HUB** , **Fig. 9**.

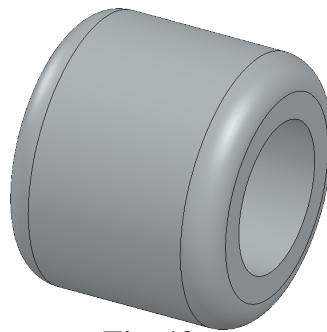
Step 2. In the Appearances Task pane, expand **Metal** and click **Chrome** and in the lower pane select **chromium plate**, **Fig. 10**.

Step 3. In the Appearances Property Manager click **OK** .

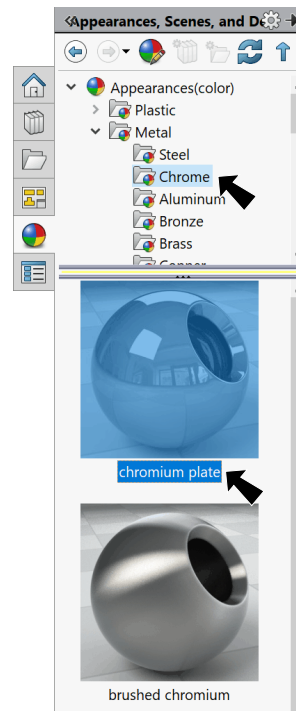
Step 4. Save  (**Ctrl-S**).



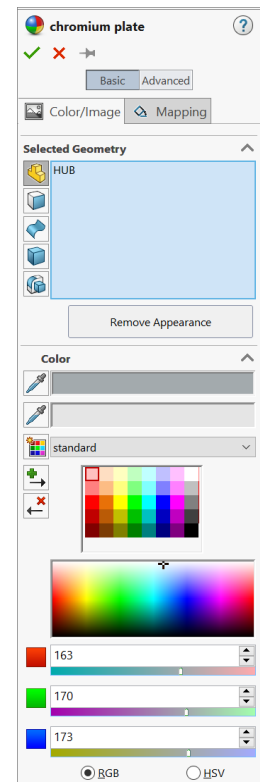
**Fig. 9**



**Fig. 12**



**Fig. 10**



**Fig. 11**