




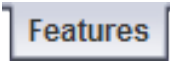
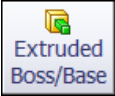





# Spinning Top Axle



## A. Axle.

- Step 1. Click File Menu > New, click **Part** and OK.
- Step 2. Click **Top Plane**  in the Feature Manager and click **Sketch**  from the Content toolbar, **Fig. 1**.
- Step 3. Click **Circle**  (S) on the Sketch toolbar.
- Step 4. Draw a circle starting at the Origin , **Fig. 2**.
- Step 5. Click **Smart Dimension**  (S) on the Sketch toolbar.
- Step 6. Dimension circle **diameter 3/8**, **Fig. 3**. Key-in 3/8 and SolidWorks will convert to .375.
- Step 7. Click **Features**  on the Command Manager toolbar.
- Step 8. Click **Extruded Boss/Base**  on the Features toolbar.
- Step 9. In the Property Manager set:  
 under Direction 1, **Fig. 4**  
**Depth**  **2.85**  
 click OK , **Fig. 5**.
- Step 10. Click Zoom to Fit  (F) on the View toolbar.

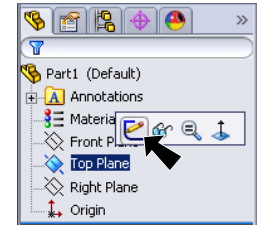


Fig. 1

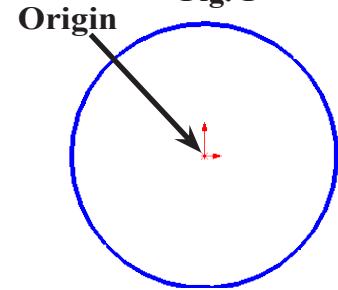


Fig. 2

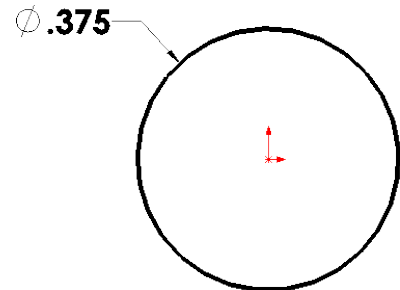


Fig. 3

**Depth**  **2.85**  
 click OK , **Fig. 5**.

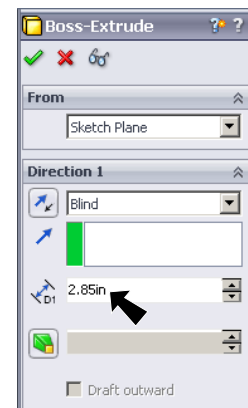


Fig. 4



Fig. 5

## B. Save as "AXLE".

- Step 1. Click File Menu > Save As.
- Step 2. Key-in **AXLE** for the filename and press ENTER.

## C. Fillets.

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

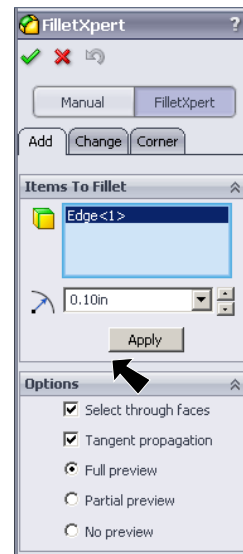
Step 2. In the Fillet Property Manager set:  
select **FilletXpert**, **Fig. 6**

**Radius**  **.1**  
select **Full preview**

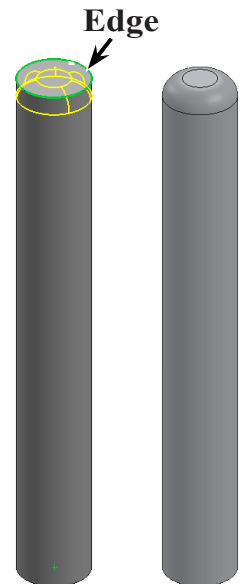
click **top edge**, **Fig. 7**

click **OK** .

Step 3. Save. Use **Ctrl-S**.





**Fig. 6**



**Fig. 7**

**Fig. 8**

## D. Hole.


Step 1. Click **Right Plane**  in the Feature Manager and click **Sketch**  from the Content toolbar, **Fig. 9**.

Step 2. Click **Normal To**  on the Standard Views toolbar.  
(**Ctrl-8**)

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

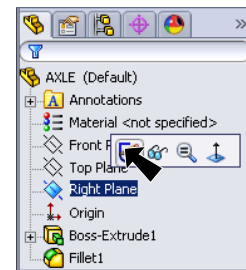
Step 4. Draw **circle** on Axle, **Fig. 10**.

Step 5. **Right click graphics area and click Select** from menu to unselect Circle tool.

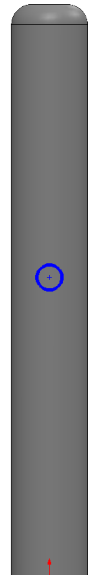
Step 6. **Ctrl click centerpoint of circle and Origin** to select both, **Fig. 11**. Release Ctrl key and click **Make Vertical**  on the Content toolbar.

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

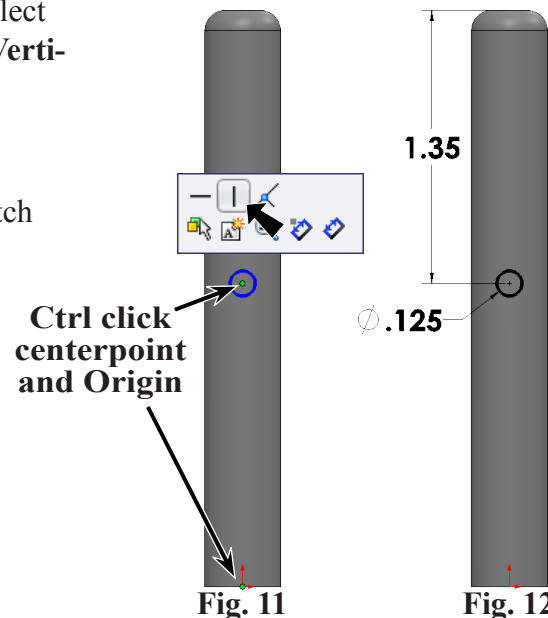
Step 8. Dimension circle **diameter 1/8** (SolidWorks will convert to .125) and **1.35 from top**, **Fig. 12**.



**Fig. 9**

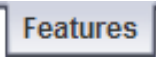


**Fig. 10**



**Fig. 11**

**Fig. 12**

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

Step 10. Click **Extruded Cut**  on the Features toolbar.

Step 11. Click **Trimetric**  on the Standard Views toolbar.

Step 12. In the Cut-Extrude Property Manager set:  
 under Direction 1, **Fig. 13**  
 End Condition **Through All**

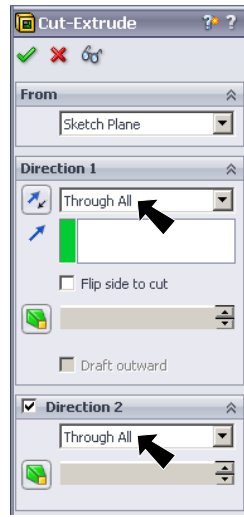


Fig. 13

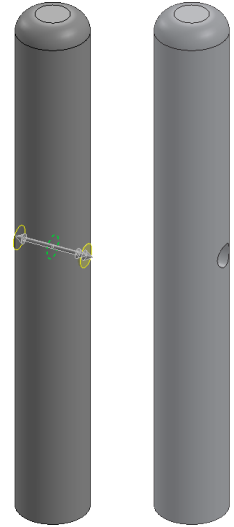



Fig. 14

Fig. 15

check **Direction 2**  
 End Condition **Through All**  
 click OK .

### E. Material Maple.

Step 1. **Right click Material**  in the Feature Manager and click **Edit Material**, **Fig. 16**.

Step 2. **Expand Woods** in the material tree and click **Maple**. Click **Apply** and **Close**, **Fig. 17**.

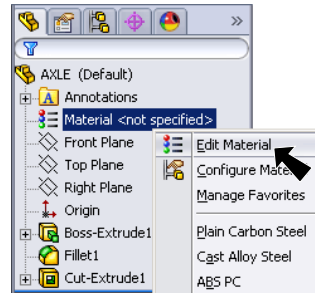


Fig. 16



Fig. 17

### F. Rotate Mapping.

Step 1. Click PhotoView 360 Menu > Edit Appearance.

Step 2. In Appearances:  
 click **Advanced button**, **Fig. 18**

click **Mapping tab**   
 under Size/Orientation

**Width**  **2.1**

**Rotation** **90**

click OK .

Step 3. Save. Use **Ctrl-S**.

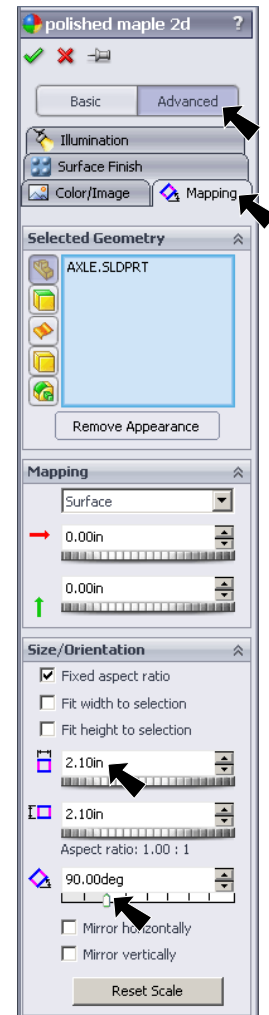


Fig. 18



Fig. 19