



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**  on the context toolbar, **Fig. 1**.

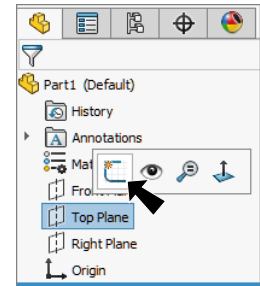


Fig. 1

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

Step 4. Sketch a circle starting at the Origin , **Fig. 2**.

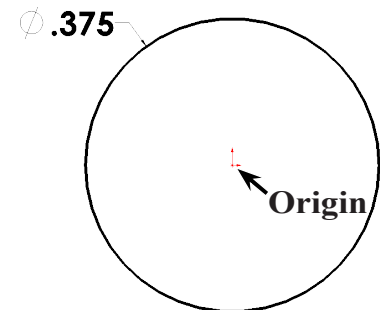
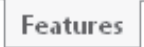


Fig. 2

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

Step 6. Dimension circle **diameter 3/8**, **Fig. 2**. 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 Boss-Extrude Property Manager set:
under Direction 1, **Fig. 3**

Depth  **2.85**
click OK .

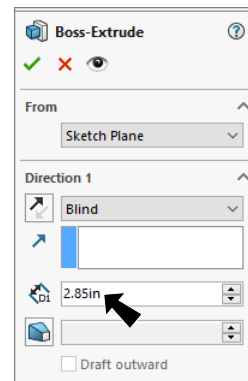


Fig. 3

Step 10. Click Zoom to Fit  (F) on the View toolbar.

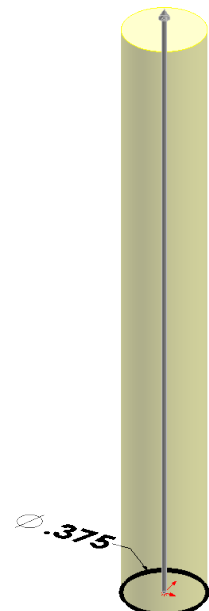


Fig. 4

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. 5**

Radius  **.1**
select **Full preview**
click **top edge**, **Fig. 6**
click **OK** .

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

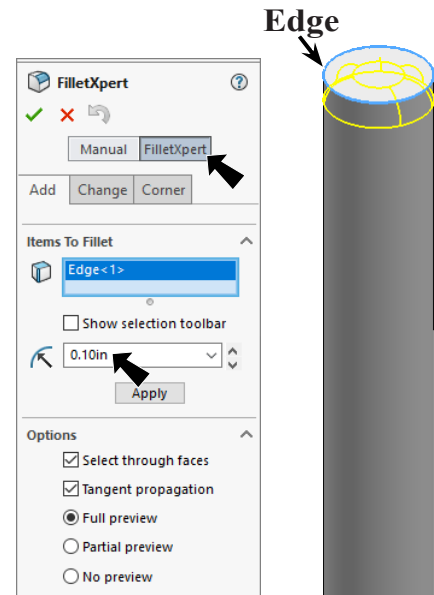



Fig. 5

D. Hole.

Step 1. Click **Right**  in the Feature Manager and click **Sketch**  on the context toolbar, **Fig. 7**.


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

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


Step 4. Sketch **circle** on Axle, **Fig. 8**.

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. Release Ctrl key and click **Make**

Vertical  on the context toolbar, **Fig. 9**.

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

Step 8. Dimension circle **diameter 1/8** (SOLIDWORKS will convert to .125) and **1.5** from Origin , **Fig. 10**.

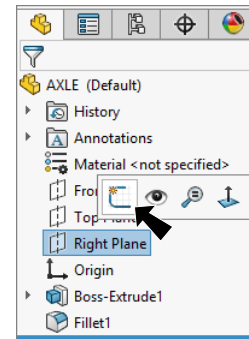


Fig. 7



Fig. 8

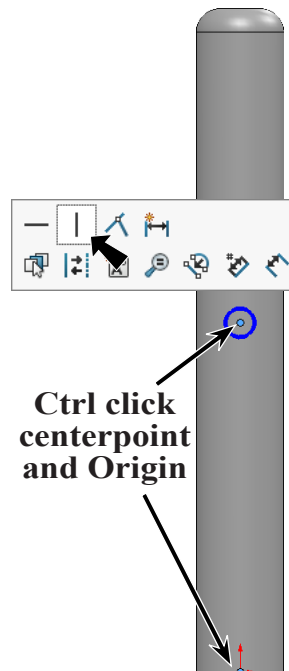


Fig. 9

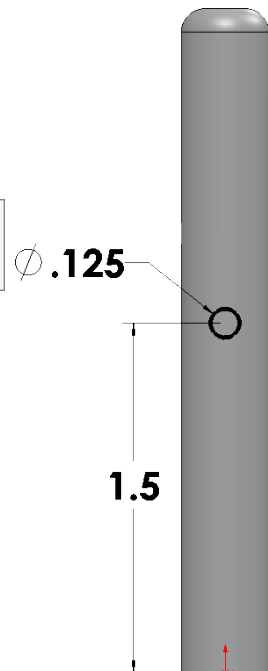



Fig. 10

Step 9. Click **Trimetric**  on the Standard Views toolbar.

Step 10. Click **Features**  on the Command Manager toolbar.

Step 11. Click **Extruded Cut**  on the Features toolbar.

Step 12. In the Cut-Extrude Property Manager set:
 under Direction 1, **Fig. 11**
 End Condition **Through All-Both**
 click OK .

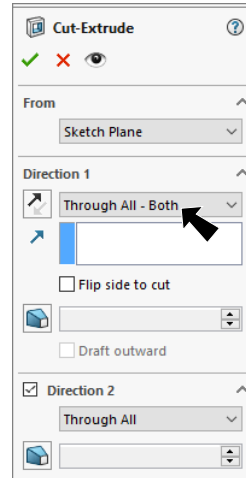


Fig. 11

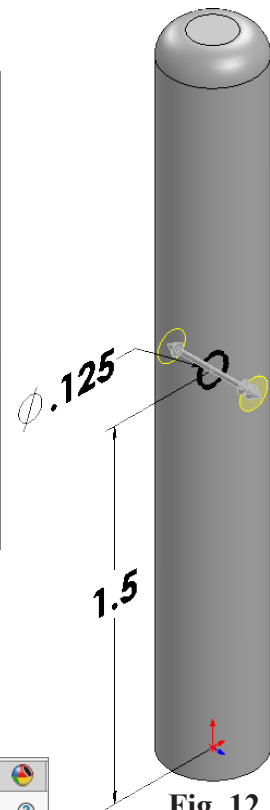



Fig. 12

E. Material Maple.

Step 1. **Right click Material**  in the Feature Manager and click **Edit Material**, **Fig. 13**.

Step 2. Expand **Woods** in the material tree and click **Maple**. Click **Apply** and **Close**, **Fig. 14**.

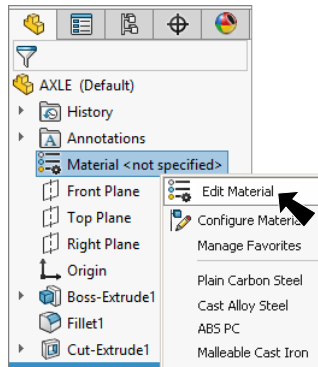


Fig. 13

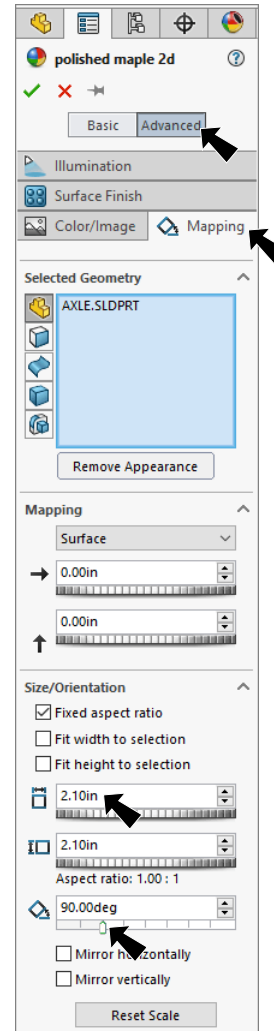
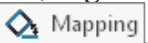


Fig. 15

F. Rotate Mapping.

Step 1. Click PhotoView 360 Menu > Edit Appearance.

Step 2. In Appearances:
 click **Advanced button**, **Fig. 15**
 click **Mapping tab** 
 under Size/Orientation

Width  **2.1**

Rotation **90**

click OK .

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



Fig. 14

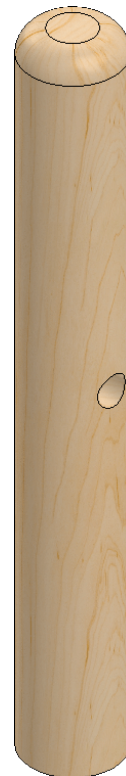


Fig. 16