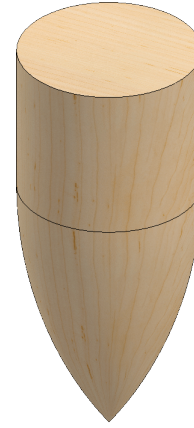


# Spinning Top Axle Tip



## A. Lines.

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

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

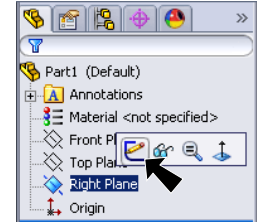



Fig. 1

Step 3. Click **Line**  (L) on the Sketch toolbar.

Step 4. Draw **3 lines** starting from Origin , **Fig. 2**.



Fig. 2

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

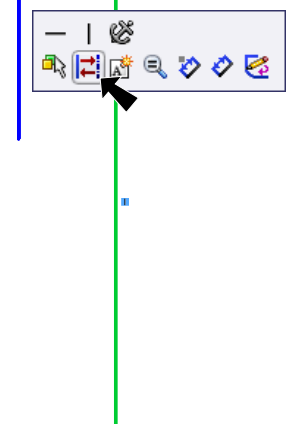



Fig. 3

Step 6. **Click long line on right** and click **Construction Geometry**  on the Content toolbar, **Fig. 3**.

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

Step 8. Add dimensions, **Fig. 4**. Double distance dimension across horizontal line. To double distance dimension, click the vertical line and then the centerline, move the cursor to right side of the centerline and click. Key-in 1 and press ENTER.

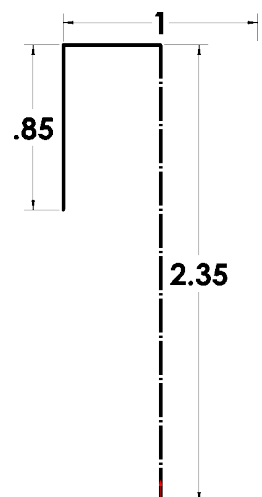


Fig. 4

Step 9. Click Zoom to Fit  (F) on the View toolbar.

## B. Tangent Arc.

Step 1. Click **Tangent Arc**  (S) in the Arc flyout  on the Sketch toolbar.

Step 2. Draw an arc between the Position 1 and Position 2 in **Fig. 5**. Draw along path as shown.

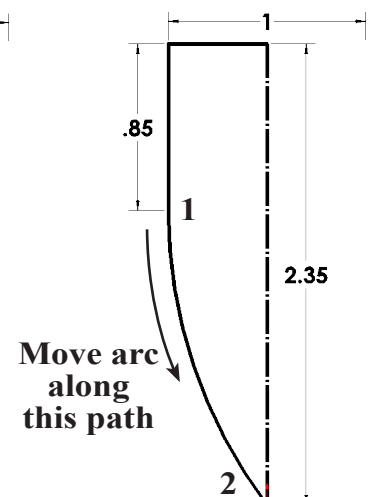


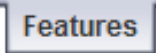
Fig. 5

### C. Save as "AXLE TIP".

Step 1. Click File Menu > Save As.

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



### D. Revolve.

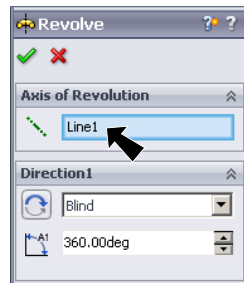
Step 1. Click **Features**  on the Command Manager toolbar.

Step 2. Click **Revolved Boss/Base**  on the Features toolbar.

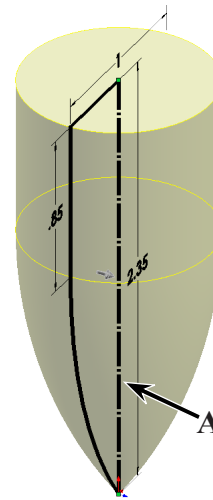
Step 3. Click **Yes** to close sketch.

Step 4. In the Revolve Property Manger:

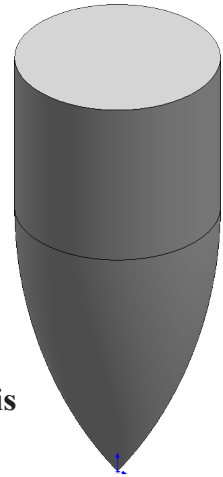
for **Axis of Revolution** ,  
**Fig. 6**  
click **vertical centerline**  
**in sketch, Fig. 7**  
click **OK** .



**Fig. 6**



**Fig. 7**

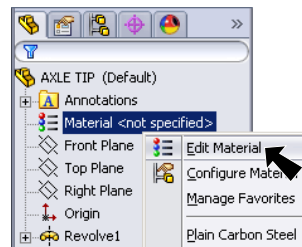


**Fig. 8**

### E. Material Maple.

Step 1. **Right click** **Material**  in the Feature Manager and click **Edit Material**, **Fig. 9**.

Step 2. **Expand Woods** in the material tree and click **Maple**. Click **Apply** and **Close**, **Fig. 10**.





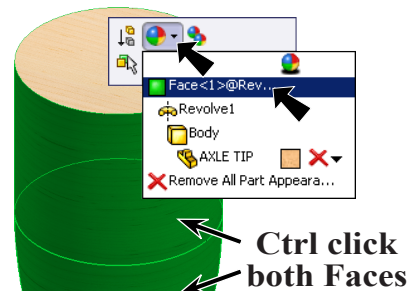
**Fig. 9**



**Fig. 10**

## F. Rotate Mapping.

Step 1. **Ctrl click both cylindrical faces** to select both faces, click **Appearance Callout**  on the Content menu and click **Face<1>...** , Fig. 11.



Step 2. Click **Appearances, Scenes, and Decals**  tab to display the Task pane, Fig. 12.

Step 3. In the Appearances Task pane, expand **Appearances**, Fig. 12 expand **Organic** expand **Wood** click **Maple** and in the lower pane select **polished maple 2d**.

Step 4. Over in the Appearances Property Manager, click **Advanced** button, Fig. 13

click **Mapping** tab  under **Size/Orientation**

**Width**  .95

**Rotation** 90

click **OK** .

Step 5. Save. Use **Ctrl-S**.

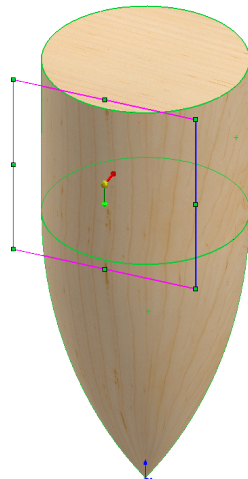
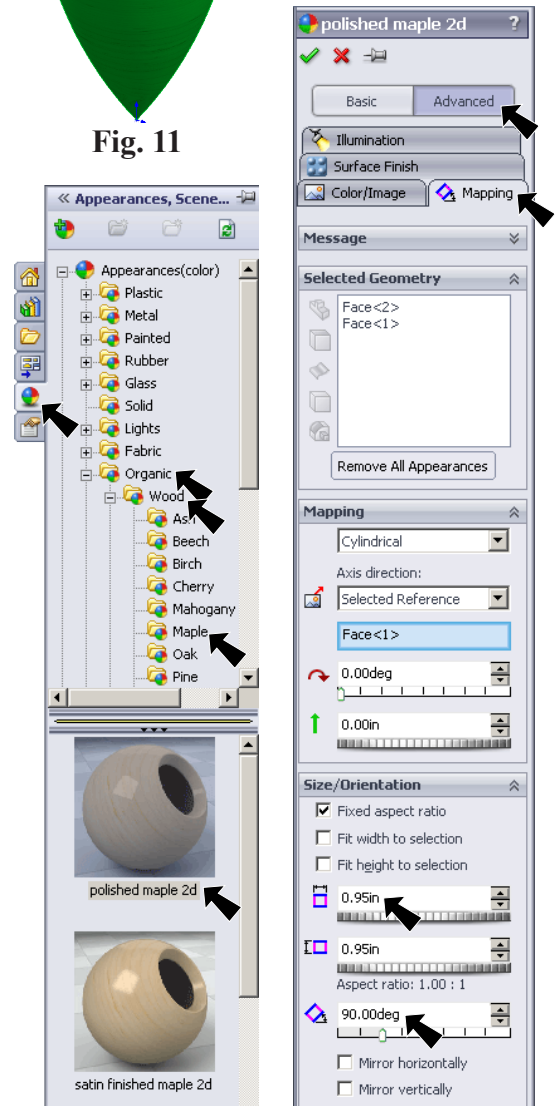


Fig. 14

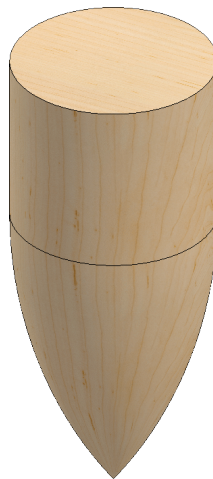


Fig. 15