

# Delta Dart Prop Wire

## A. Sketch Centerpoint Arc.

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

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

Step 3. Click **Centerpoint Arc**  (S) in the Arc flyout  on the Sketch toolbar.

Step 4. Draw a slightly open arc starting from the Origin , **Fig. 2**.

To draw the arc, click the Origin to place the center of the arc. Start the first endpoint directly left of the Origin, then swing the arc down around counterclockwise. Click to place the second endpoint leaving a small gap in the arc, **Fig. 2**.

Use the inferencing line, the dotted line that appears when you draw the arc.

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

Step 6. Dimension radius of the arc **2.65** as shown in **Fig. 3**.

Step 7. Click Zoom to Fit  (F) on the View toolbar.

## B. Save as "PROP WIRE".

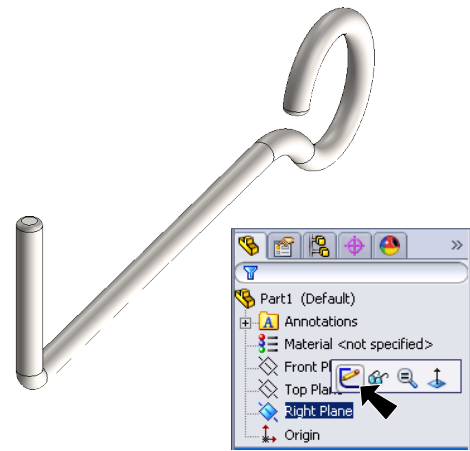
Step 1. Click File Menu > Save As.

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

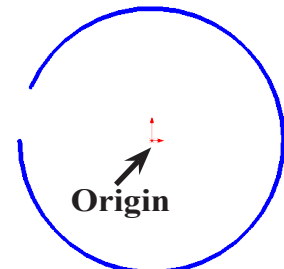
## C. Line.

Step 1. Click **Line**  (L) on the Sketch toolbar.

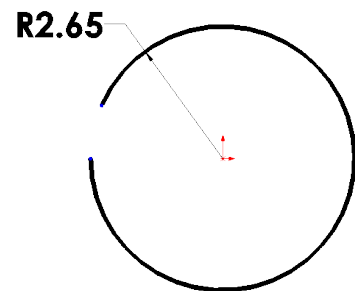
Step 2. Draw **2 lines** as shown in **Fig. 4**. Draw the line from the arc endpoint that is directly to left of Origin.



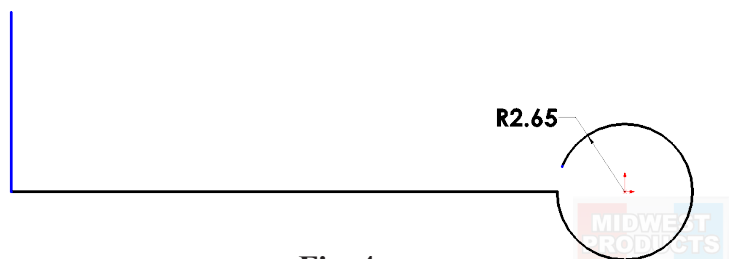
**Fig. 1**



**Fig. 2**



**Fig. 3**




**Fig. 4**

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

Step 4. Dimension arc gap **.4**, the lines **24** and **7** as shown in **Fig. 5**. To dimension the gap in arc, click both endpoints of arc, then move cursor out away and click.





Step 5. Click **Zoom to Fit**  (F) on the View toolbar.

### D. Sketch Fillet.

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

Step 2. In the Sketch Fillet Property Manager set:

**Radius**  **4**, **Fig. 6**  
 click the **right endpoint of horizontal line at arc**, **Fig. 7** and **Fig. 9**  
 click OK 

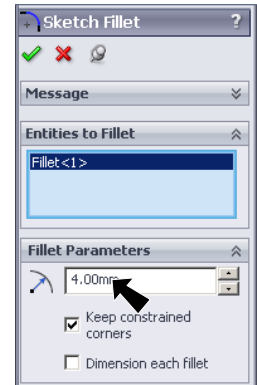


Fig. 6



**Radius**  **.5**, **Fig. 8**  
 click **left endpoint of horizontal at vertical line**, **Fig. 9** and **Fig. 10**  
 click OK **twice** 



Fig. 7

Step 3. Click **Exit Sketch**  on the Sketch toolbar.

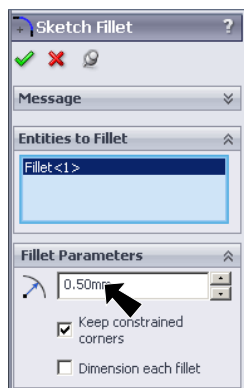


Fig. 8

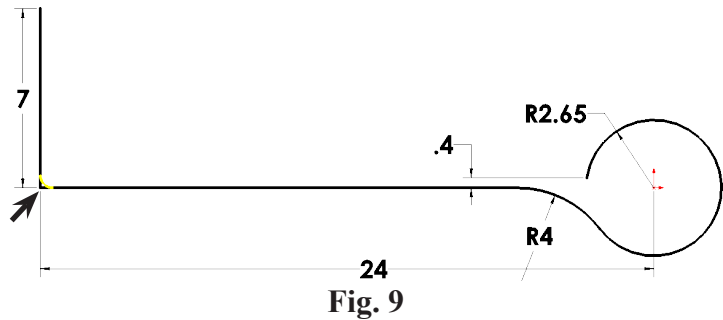


Fig. 9






Fig. 10


## E. 3D Sketch Profile.

Step 1. Click **Trimetric**  on the Standard Views toolbar.

Step 2. Click **Sketch**  on the Command Manager toolbar.

Step 3. Click **3D Sketch**  in the **Sketch flyout**  on the Sketch toolbar. Be sure to click the **flyout arrow**  to select 3D Sketch.

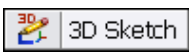


Step 4. Click **Circle**  (S) on the Sketch toolbar.

Step 5. Press **Tab** key on keyboard until cursor changes to **ZX** plane  (ZX is Top Plane)

Step 6. Draw a circle starting at the top endpoint of the vertical line in sketch, **Fig. 11**.

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

Step 8. Dimension the circle **1** diameter as shown in **Fig. 12**.

Step 9. Exit the **3D Sketch**. To Exit, click  **3D Sketch** in the **Sketch flyout**  on the Sketch toolbar. Click the **flyout arrow**  then 3D Sketch.

Step 10. Save. Use **Ctrl-S**.

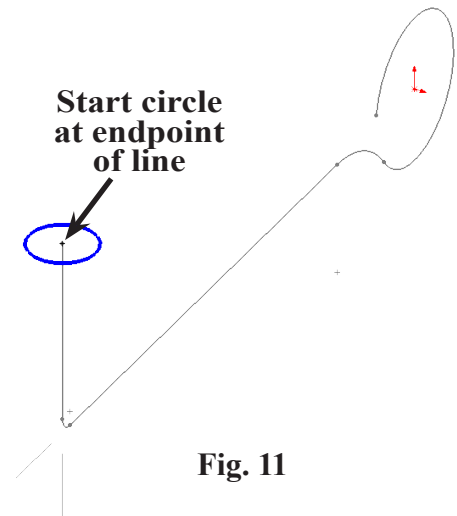


Fig. 11

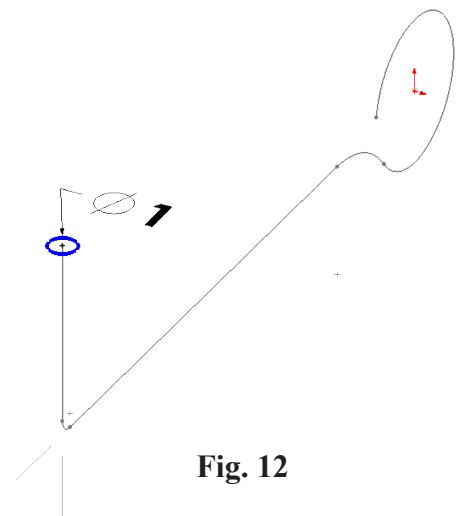
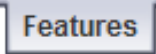
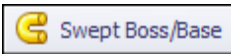


Fig. 12


## F. Sweep.

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

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

Step 3. In the Swept Boss/Base Property Manager:

for **Profile** , click **circle** in the 3D Sketch, **Fig. 14**

for **Path** , click a line in **Sketch1**, **Fig. 14**

click **OK** 



**Fig. 13**

Step 4. Save. Use **Ctrl-S**.

## G. Fillet Edges.

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

Step 2. In the Fillet Property Manager set:

**Radius**  **.2**, **Fig. 15**

click **edge at end of sweep**, **Fig. 16**

click **Internal to feature**

 on the Fillet pop-up toolbar

click **OK** 

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

**Profile (circle)**

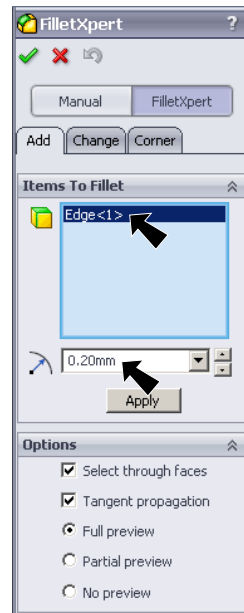
**Path**

**Fig. 14**

click **Internal to feature**

 on the Fillet pop-up toolbar

click **OK** 



**Fig. 15**

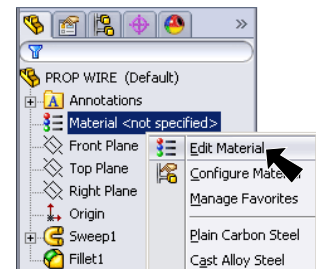
**Fig. 16**

## H. Material Steel 304.

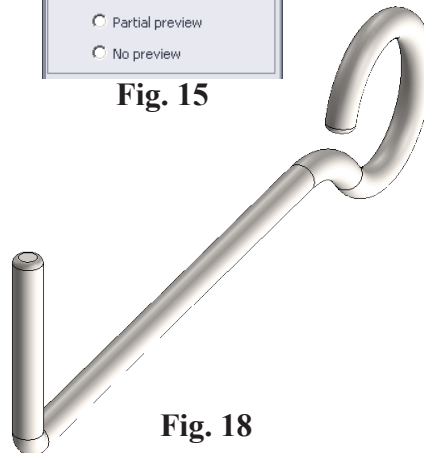
Step 1. **Right click Material**  in the Feature Manager and click **Edit Material**, **Fig. 17**.

Step 2. Expand **Steel** in the material tree and select **Steel AISI 304**. Click **Apply** and **Close**.

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



**Fig. 17**



**Fig. 18**