

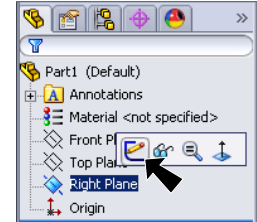


**A. Motor.**


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**.



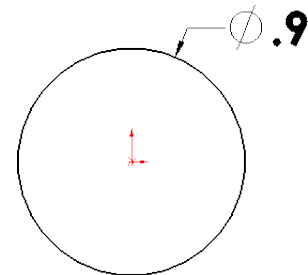
**Fig. 1**

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

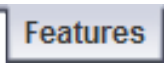
Step 4. Draw **circle** starting at the Origin , **Fig. 2**.

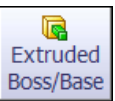
Step 5. Click **Smart Dimension**  (S) on the Sketch toolbar.

Step 6. Dimension circle diameter **.9** as shown in **Fig. 2**.





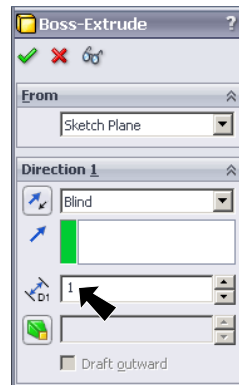
**Fig. 2**

Step 7. Click **Features**  on the Command Manager toolbar.

Step 8. Click **Extruded Boss/Base**  on the Features toolbar.

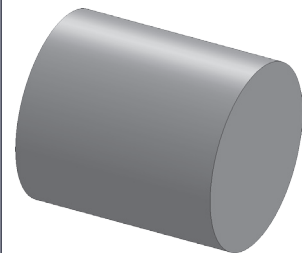
Step 9. In the Property Manager set:

**Depth**  **1**  
click OK , **Fig. 3** and **Fig. 4**.



**Fig. 3**

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



**Fig. 4**

**B. Save as "MOTOR".**



Step 1. Click File Menu > Save As.

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

### C. Fillets.

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

Step 2. In the Fillet Property Manager set:

**Radius**  **.03**, Fig. 5  
 click **cylindrical face** of motor, Fig. 6  
 select **Full preview**  
 click **OK** , Fig. 7.

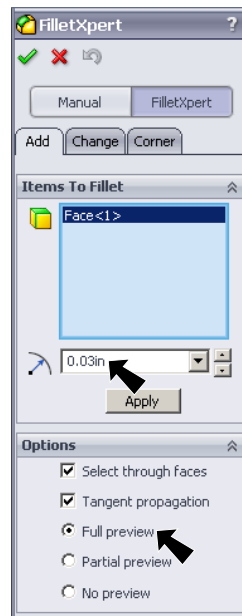


Fig. 5

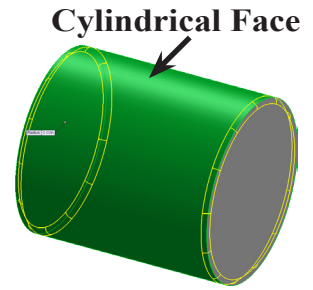


Fig. 6

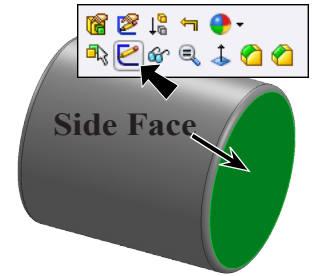




Fig. 7

### D. Shaft.

Step 1. Click the **side face** and click **Sketch**  on the Content menu, Fig. 7.

Step 2. Click **Normal To**  on the Views toolbar.

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

Step 4. Starting at the **Origin** , draw a circle for the shaft, Fig. 8.

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

Step 6. Dimension the circle **diameter .08** as shown in Fig. 8.

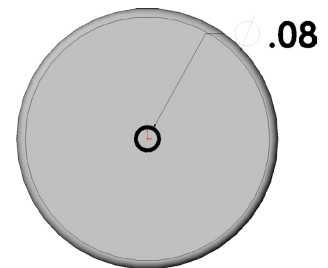
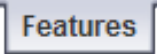


Fig. 8

Step 7. Click **Features**  on the Command Manager toolbar.

Step 8. Click **Extruded Boss/Base**  on the Features toolbar.

Step 9. Click **Isometric**  on the View toolbar.

Step 10. In the Property Manager set:

**Depth**  **.25**, Fig. 9  
 click **OK** , Fig. 10.

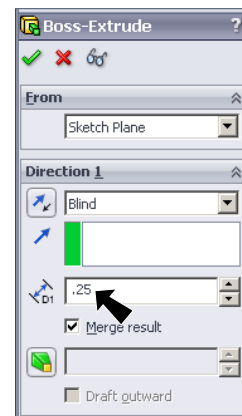


Fig. 9

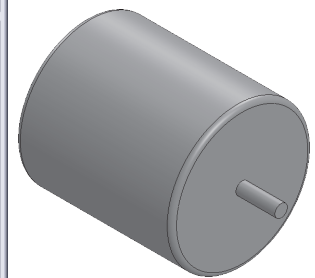


Fig. 10

### E. Material Chrome Stainless.

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

Step 2. Expand **Steel** in the material tree and click **Chrome Stainless**. Click **Apply** and **Close**.

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