Chapter 8

Sumo Car

Ball Glide Block

A. Sketch.

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**.

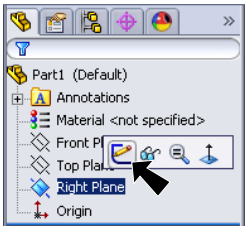


Fig. 1

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

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

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

Step 6. Dimension the rectangle as shown in **Fig. 2**.

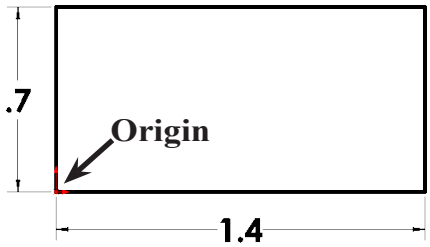


Fig. 2

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

Step 8. Click **Features** on the Command Manager toolbar.

Step 9. Click **Extruded Boss/Base** on the Features toolbar.

Step 10. In the Property Manager set:
under Direction 1, **Fig. 3**
End Condition **Mid Plane**
Depth 1
click OK , **Fig. 4**.

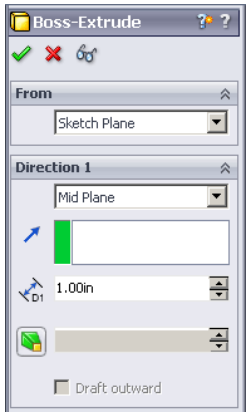


Fig. 3

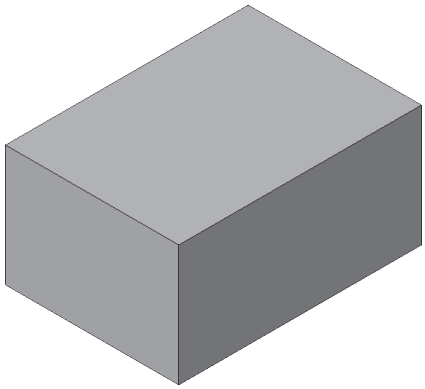


Fig. 4

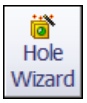
B. Save as "BALL GLIDE BLOCK".

Step 1. Click File Menu > Save As.

Step 2. Key-in **BALL GLIDE BLOCK** for filename and press ENTER.

C. Ball Glide Hole.

Step 1. Click **Bottom**  on the Standard Views toolbar. (**Ctrl-6**)

Step 2. Click **Hole Wizard** 

on the Features toolbar.

Step 3. In the Property Manager, on the Type tab:
under Hole Type, **Fig. 5**
click **Hole** 
under Standard:
select **ANSI Inch**

underType:
select **Fractional Drill Sizes**
under Size:
select **3/32**
under End Condition:
Blind Depth Hole  **.3**

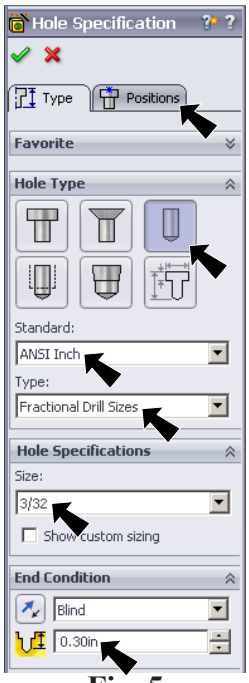


Fig. 5

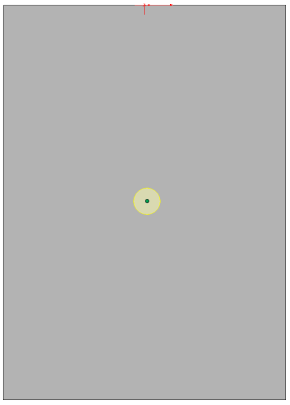


Fig. 6

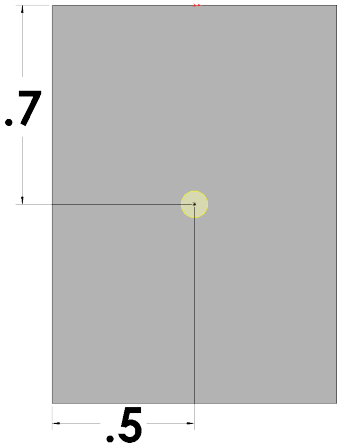


Fig. 7

Step 4. Click the Position tab at the top of the Property Manager. First, click top face to select face and then click to place hole, **Fig. 6**.

Step 5. Click **Smart Dimension** 

on the Sketch toolbar.

Step 6. Add the dimensions as shown in **Fig. 7**.

Step 7. Click OK  in Dimension Property Manager and OK  in Hole Property Manager.

D. Material Pine.

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

Step 2. **Expand Woods** in the material tree and click **Pine**. Click **Apply** and **Close**.

Fig. 8

E. Rotate Mapping.

Step 1. Click PhotoView 360 Menu > Edit Appearance.

Step 2. In the Property Manager set:

click **Mapping tab**  , **Fig. 9**

under Mapping controls,

click **Surface mapping** 

Rotation 90

click OK  , **Fig. 10**.

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

Fig. 10

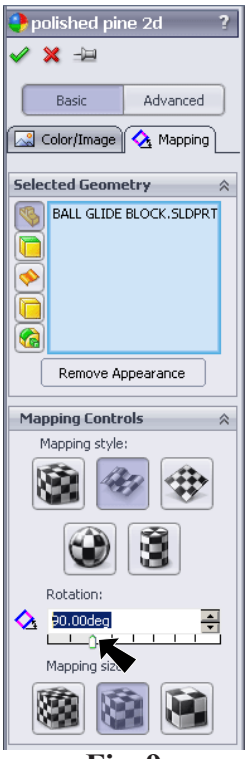


Fig. 9