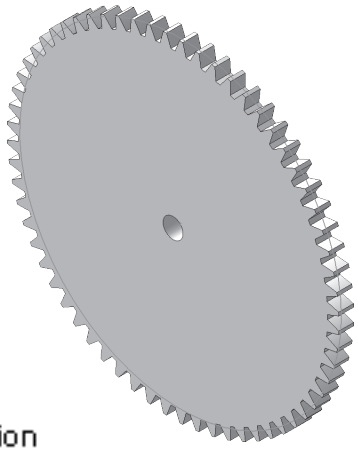
Chapter 14

JSS

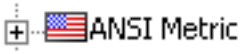
Gear 64T

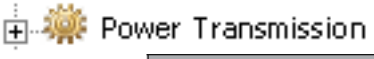


A. Toolbox New Part Spur Gear 64T.

Step 1. Click the **Design Library** tab  in the Task Pane, **Fig. 1**.

Step 2. In the **Toolbox** 

Expand **ANSI Metric** folder 

Expand **Power Transmission** folder 

Click **Gears** folder 

Step 3. In the lower pane, **right click Spur Gear** and click **Create Part**, **Fig. 1**.

Step 4. In the Property Manager set:
under Properties, **Fig. 2**

Module: .5
Number of Teeth: 64
Pressure Angle: 20
Face Width: 1.5
Hub Style: One Side
Hub Diameter: 6
Overall Length: 3.5
Nominal Shaft Diameter: 2
Keyway: None

click OK  .

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

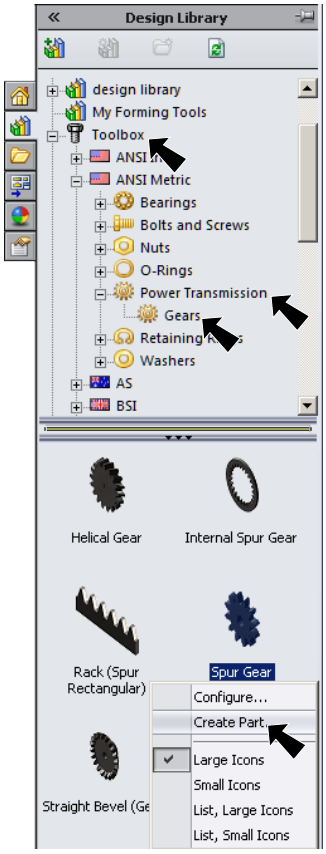


Fig. 1

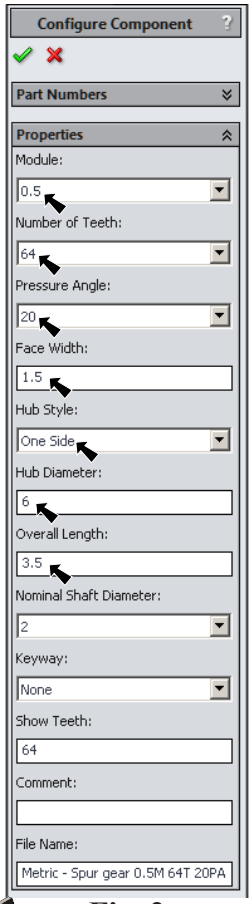


Fig. 2

B. Save As.

Step 1. Click File Menu > Save As.

Step 2. Redirect file path to your **JSS folder** in your Tech Ed 14-15 folder.

Step 3. Delete the Part Number in the filename leaving:
Metric - Spur gear 0.5M 64T 20PA 1.5FW

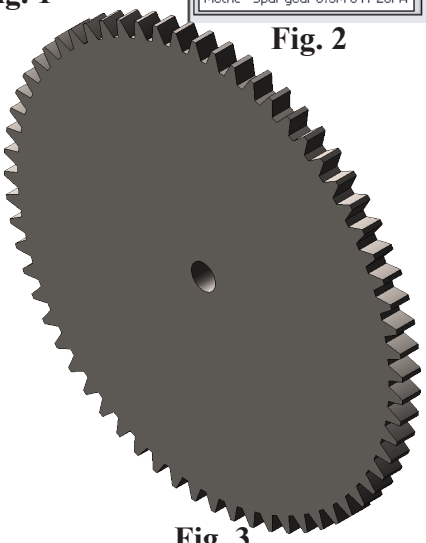


Fig. 3

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and click Save.

C. Create Plane.

Step 1. Click **Plane 3** in the Feature Manager to select Plane, **Fig. 4**.

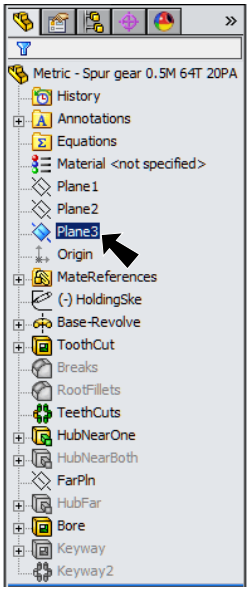
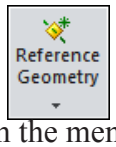


Fig. 4

Step 2. Click **Reference Geometry** on the Features toolbar and **Plane** from the menu.



Step 3. In the Plane Property Manager set:

under First Reference, **Fig. 5**

Plane 3 should be selected

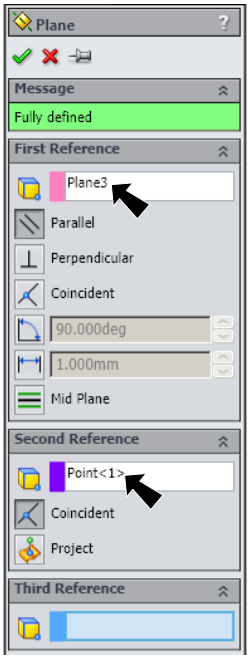


Fig. 5

under Second Reference

click **Midpoint of tooth face width edge**, **Fig. 6** and Fig. 7

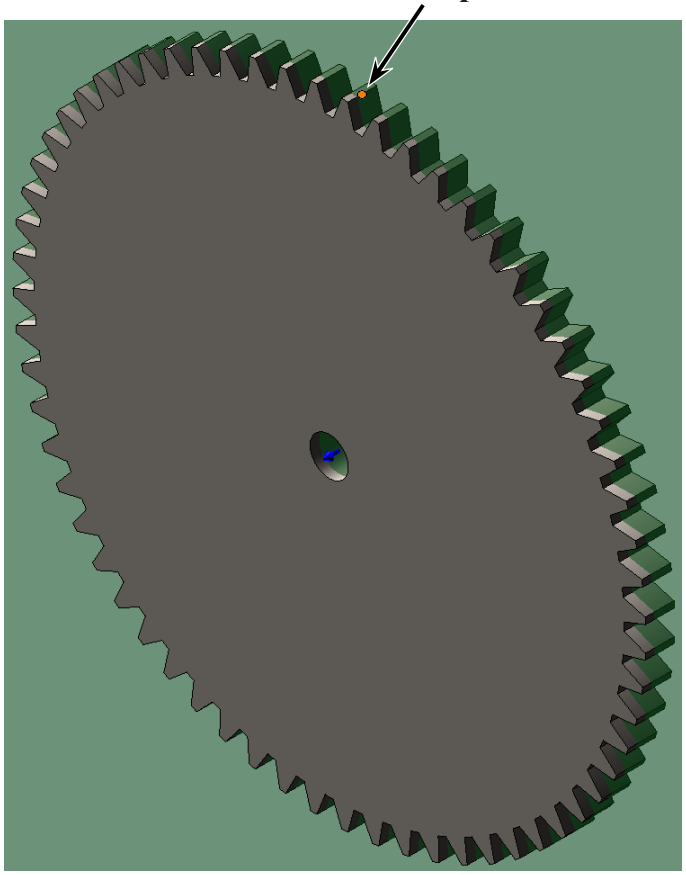


Fig. 6

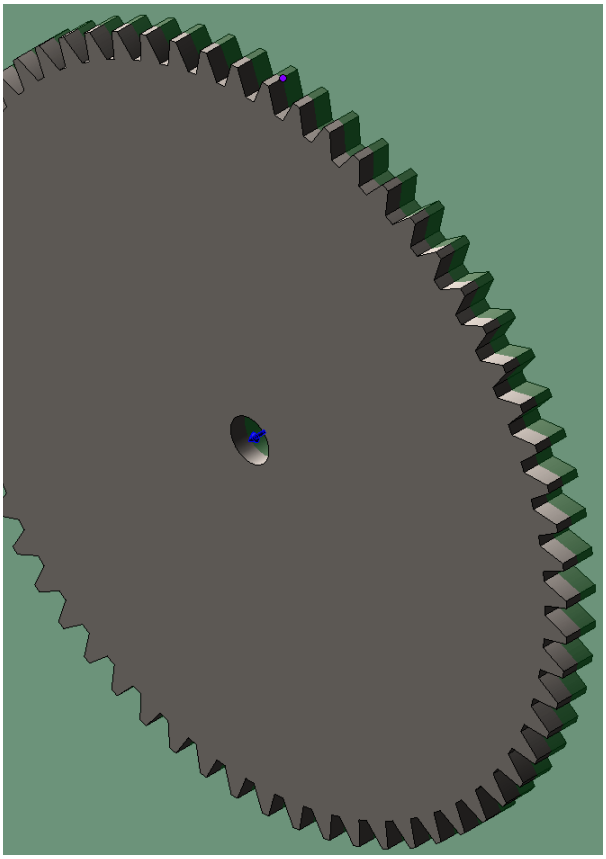


Fig. 7

click OK .

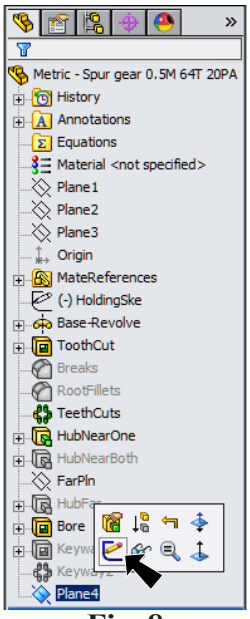


Fig. 8

D. Pitch Circle.

Step 1. Click new **Plane4** in the Feature Manager and click **Sketch** on the Context toolbar, **Fig. 8**.

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

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

Step 4. Draw a circle starting at the Origin , **Fig. 9**.

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

Step 6. Dimension circle **diameter 32**, **Fig. 9**.
Module * Number of Teeth = Pitch diameter
or **.5 * 64 = 32**

Step 7. Click **Exit Sketch** on the Sketch toolbar.

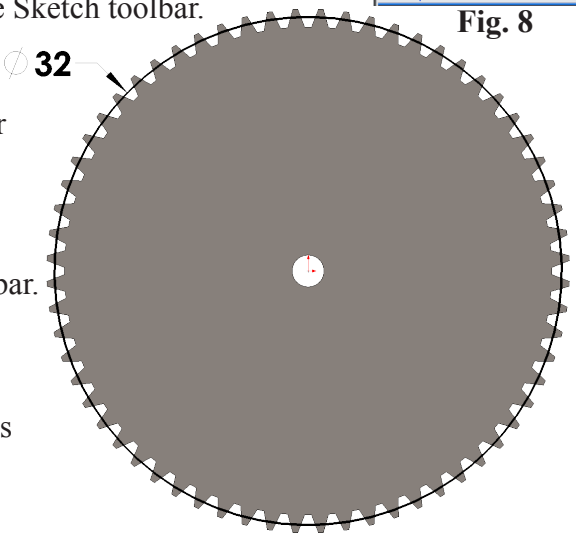


Fig. 9

E. Material ABS Plastic.

Step 1. Click **Isometric** on the Standard Views toolbar. (**Ctrl-7**)

Step 2. **Right click Material** in the Feature Manager and click **Edit Material**.

Step 3. **Expand Plastic** in the material tree and Click **Apply** and **Close**.

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

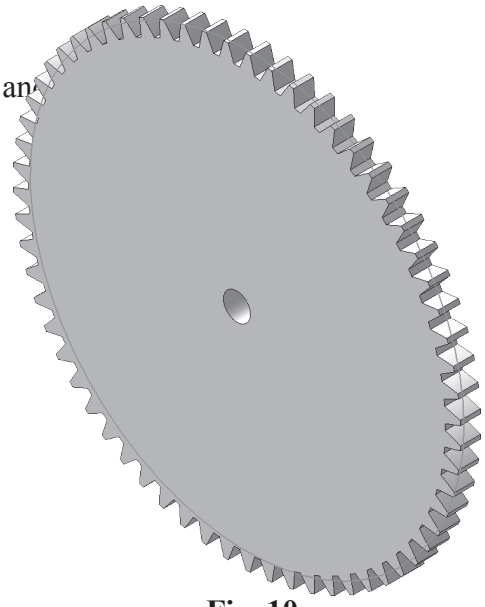


Fig. 10