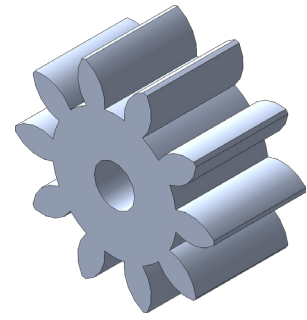


Solar Train Gear 10T



A. Toolbox New Part Spur Gear 10T.

Step 1. Click **Design Library** tab  in the Task Pane (right side of graphics area), **Fig. 1**.

If necessary activate Toolbox add-in. Click the **flyout of Options**  on the Standard toolbar and click **Add-Ins**. In the dialog box find **SOLIDWORKS Toolbox Library** and place a check in the check box under **Active Add-Ins** and **Start-Up**. Click OK.

Step 2. Expand the **Toolbox**  **Toolbox**
Expand **ANSI Metric** folder  **ANSI Metric**
Expand **Power Transmission** folder  **Power Transmission**
Click **Gears** folder  **Gears**

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

Step 4. In the Component Property Manager set:
under Properties, **Fig. 2**
Module: .9
Number of Teeth: 10
Pressure Angle: 20
Face Width: 5
Hub Style: None
Nominal Shaft Diameter: 2
Keyway: None
click OK .

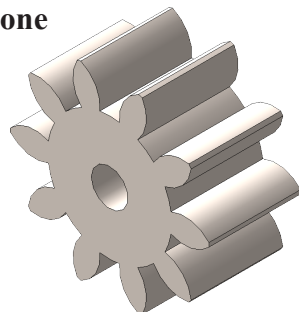


Fig. 3

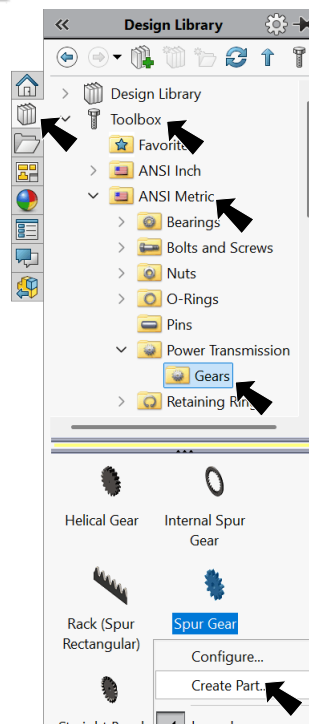


Fig. 1

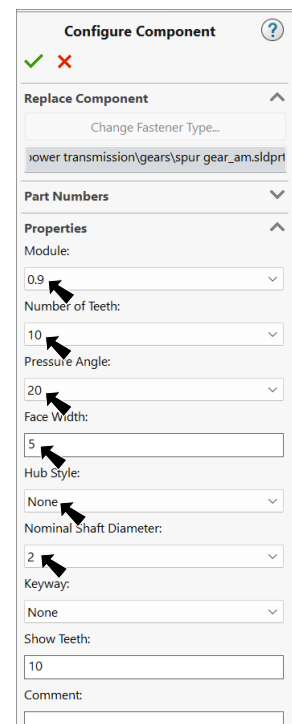


Fig. 2

B. Save as "GEAR 10T".

Step 1. Click File Menu > Save As.

Step 2. In the Save As dialog box:
key in **GEAR 10T** for file name.

Navigate to your **My Documents/**
Tech Ed 26-27/Solar Train folder
click **Save**, **Fig. 4**.

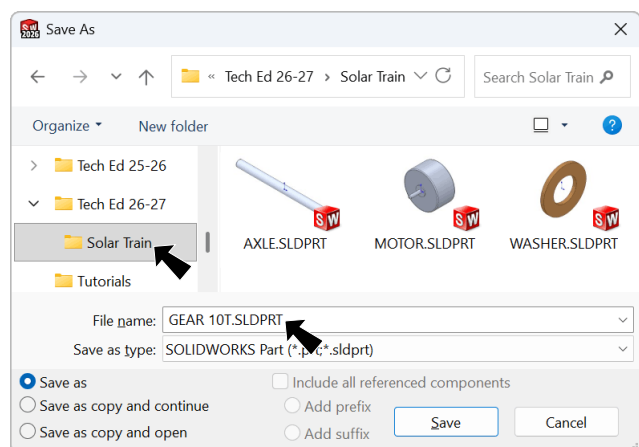


Fig. 4

C. Change Bore Diameter.

Step 1. Click **Bore**  in the Feature Manager and click **Edit Sketch**  on the context toolbar, **Fig. 5**.

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

Step 3. Change Bore **diameter to 2.2**, **Fig. 6**. **Clearance .2** of Motor Shaft.

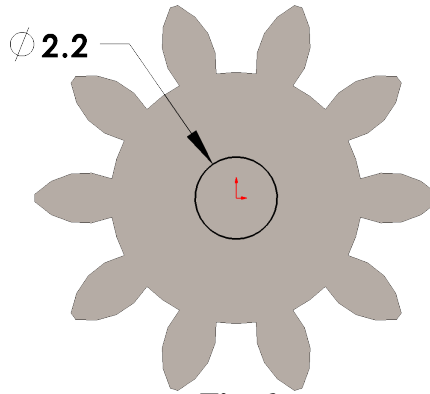


Fig. 6

Step 4. Click **Exit Sketch**  on the Sketch toolbar,.

Step 5. Save  (**Ctrl-S**).

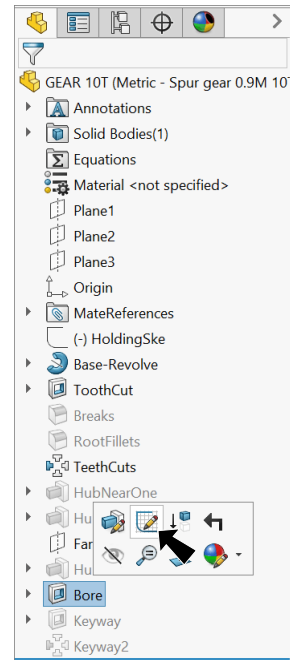


Fig. 5

D. Draft.

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

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

Step 3. Click **Draft**  on the Features toolbar.

Step 4. In the Draft Property Manager set:
 under Type of Draft, **Fig. 7**
 select **Neutral plane**
 under Draft Angle
.5°

Reverse Direction 

Neutral Plane

click **outside face**

Faces to Draft

click **cylindrical bore face**

click OK .

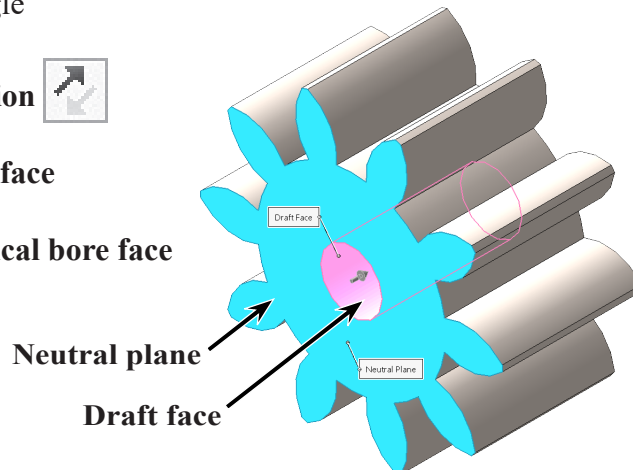


Fig. 8

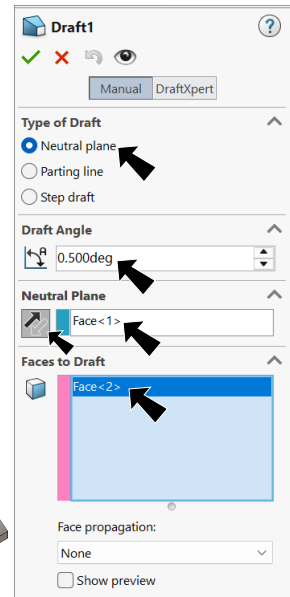


Fig. 7

E. Appearance: Blue Gray Plastic.

Step 1. Click part, click **Appearance Callout**  on the context toolbar and click **GEAR 10T** , Fig. 9.

Step 2. In the Appearances Task pane, expand **Plastic**, click **Medium Gloss** and in the lower pane select **blue medium gloss plastic**, Fig. 10.

Step 3. In the Appearances Property Manager set:
under Color, Fig. 11
set RGB values
R 199
G 213
B 242
click OK .

Step 4. Save  (Ctrl-S).

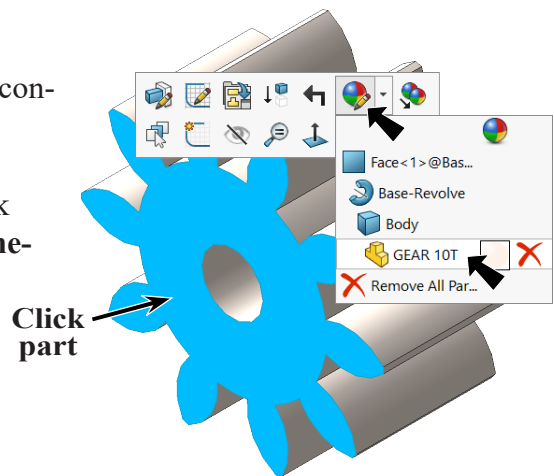


Fig. 9

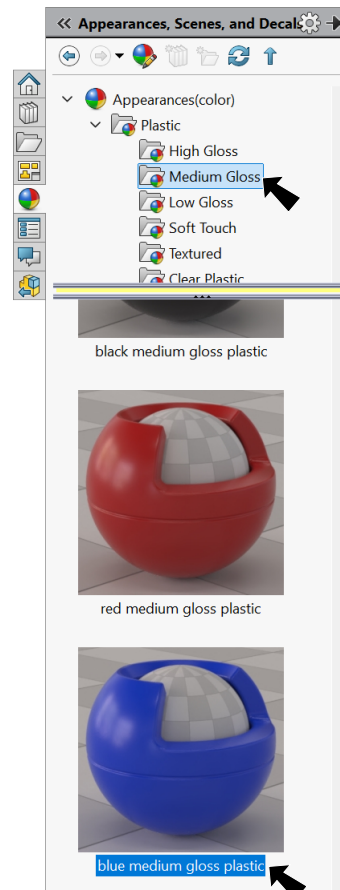


Fig. 10

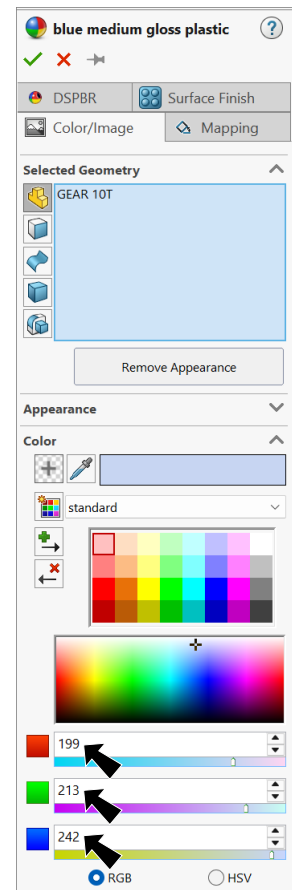


Fig. 11

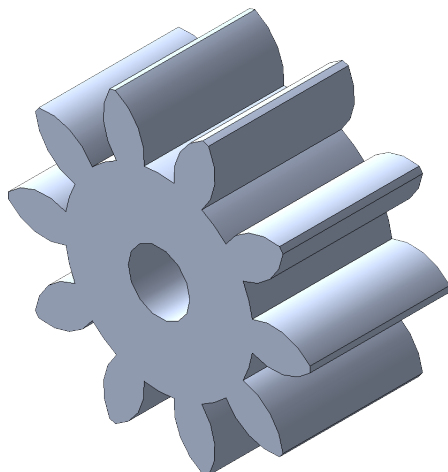


Fig. 12