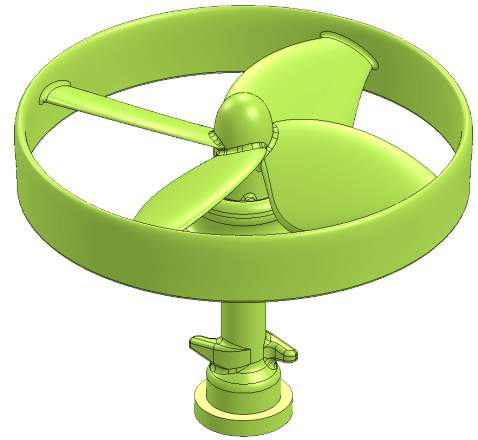



# Spinner Assembly





## A. Insert Shaft and Propeller.

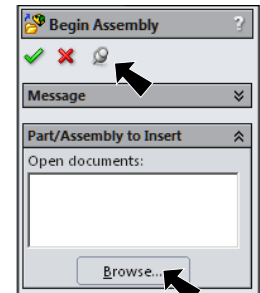
Step 1. Click File Menu > New, click **Assembly** and OK.

Step 2. Click **Keep Visible**  in the Property Manager, **Fig. 1**.

Step 3. Click **Browse** in the Property Manager, **Fig. 1**.

Step 4. Select your **SHAFT** file and click Open.

Step 5. Click OK  in the Property Manager. This will place the Shaft origin at the assembly origin and fix the position of the Shaft so that it cannot move. This fixed component should have a **(f)** before its name in the Feature Manager  (f) SHAFT<1> -> .




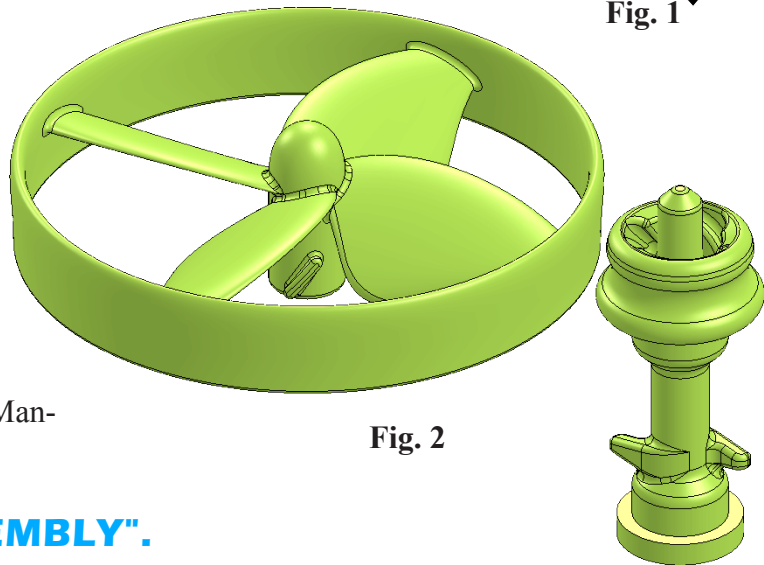
**Fig. 1**

Step 6. Click **Browse** in the Property Manager, **Fig. 1**.

Step 7. Select your **PROPELLER** file and click Open.

Step 8. Place **Propeller** as positioned in **Fig. 2**.

Step 9. Click OK  in the Property Manager when done.




**Fig. 2**



## B. Save as "SPINNER ASSEMBLY".

Step 1. Click File Menu > Save As.

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




### C. Mate: Propeller.

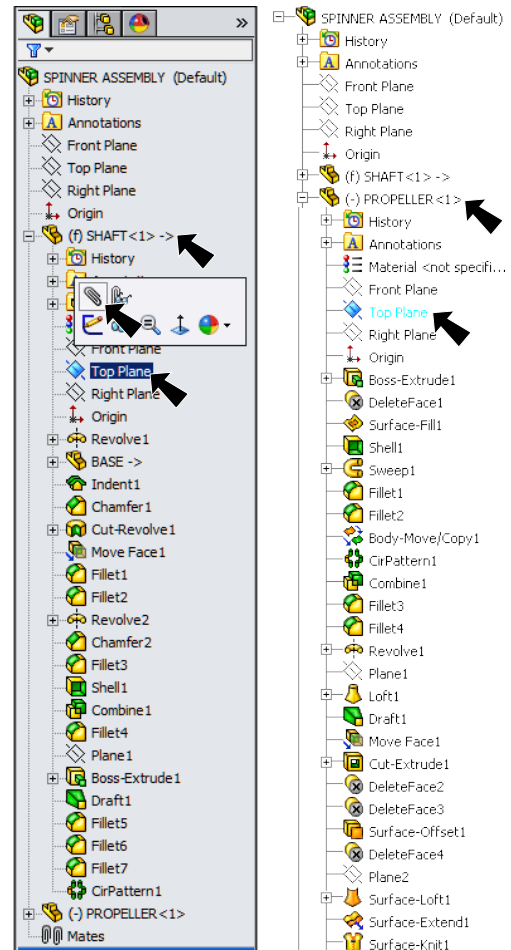
Step 1. Click **Front**  on the Standard Views toolbar. (**Ctrl-1**)

Step 2. Expand **Shaft** in the Feature Manager, click **Top Plane**  and click **Mate**  on the Context toolbar, **Fig. 3**.

Step 3. Expand the flyout Feature Manager design tree in the top left corner of the graphics area, **Fig. 4**.

Step 4. Expand **Propeller** and click **Top Plane** , **Fig. 4**.

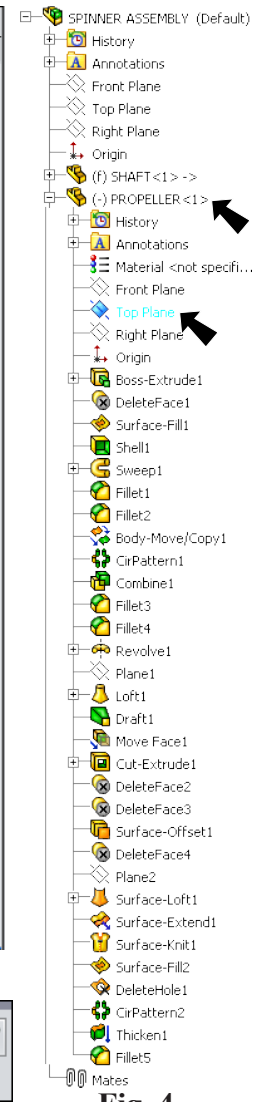
Step 5. Click **Distance**  in Mate pop-up, **Fig. 5**. Set **distance to .3** and press ENTER. The Propeller should be positioned .3 down into Shaft, **Fig. 6**. If positioned in opposite direction, click **Flip Dimension**  in the Mate pop-up, **Fig. 5**. Click Add/Finish Mate  to add Distance mate.



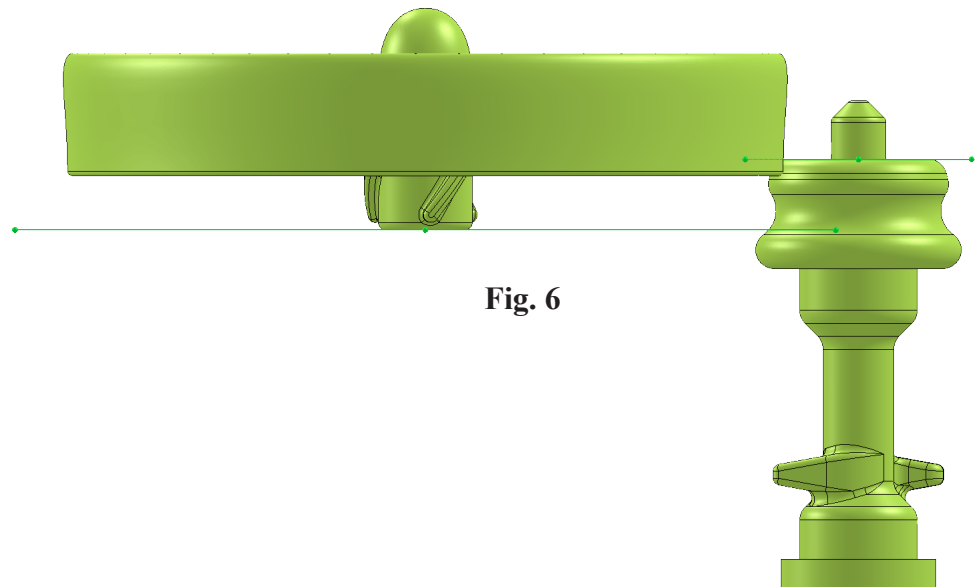
**Fig. 3**



**Fig. 5**

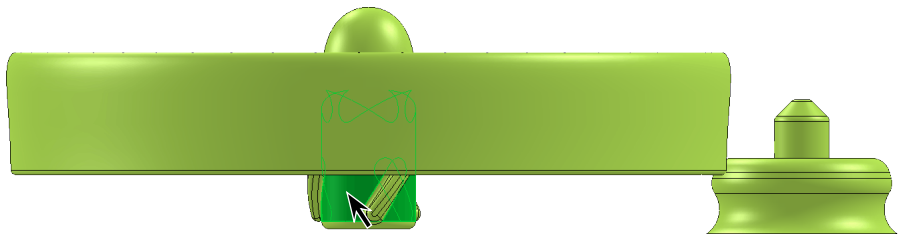


**Fig. 4**




**Fig. 6**

Step 6. Click **cylindrical face of Shaft** and **cylindrical face of Propeller**, Fig. 7.



Step 7. Click **Lock Rotation** and **Add/Finish**

Mate  in Mate pop-up toolbar to add a **Concentric** mate, Fig. 8.



Step 8. Click **OK**  in the Property Manager.

Step 9. Save. Use **Ctrl-S**.

