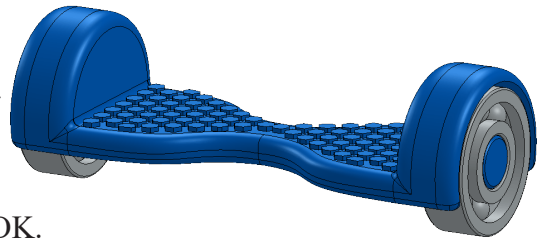


# Hoverboard Assembly




## A. Insert Board and Bearing.


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

Step 2. Select your **BOARD** file and click Open from the Open dialog box.

Step 3. In the Begin Assembly Property Manager set:

click **Keep Visible** , Fig. 1.

Click OK . This will place Board origin at the assembly origin and fix the position so Board cannot move. This fixed component should have a **(f)** before its name in the Feature Manager

 (f) BOARD<1>

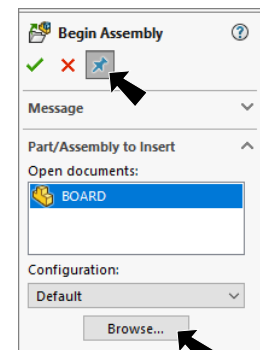


Fig. 1

Step 4. Click **Browse** in the Property Manager.

Step 5. Select your **BEARING** file and click Open.

Step 6. Place Bearing as positioned in Fig. 2.

Step 7. Click OK  in the Property Manager when done.

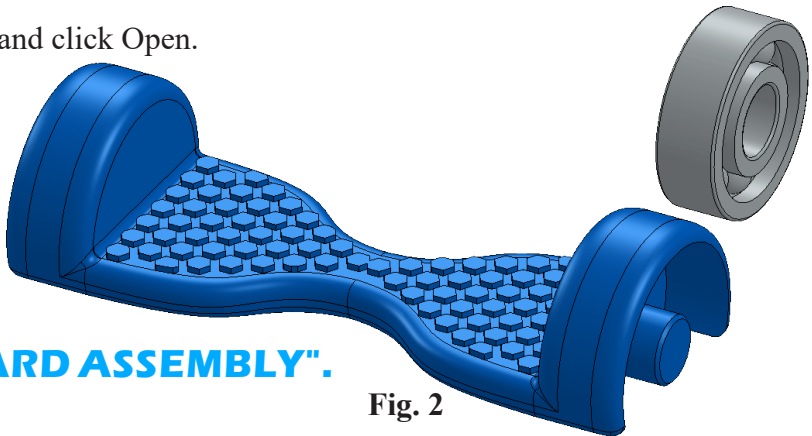



Fig. 2

## B. Save as "HOVERBOARD ASSEMBLY".


Step 1. Click File Menu > Save As.

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

## C. Mate: Bearing.

Step 1. Click **Mate**  on the Assembly toolbar.

Step 2. Click **outside face of axle on Board** and **outside face of Bearing**, Fig. 3.

Step 3. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Coincident** mate.

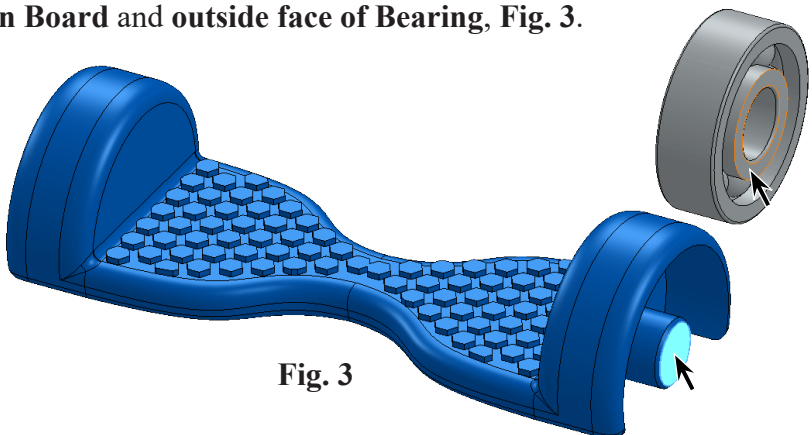


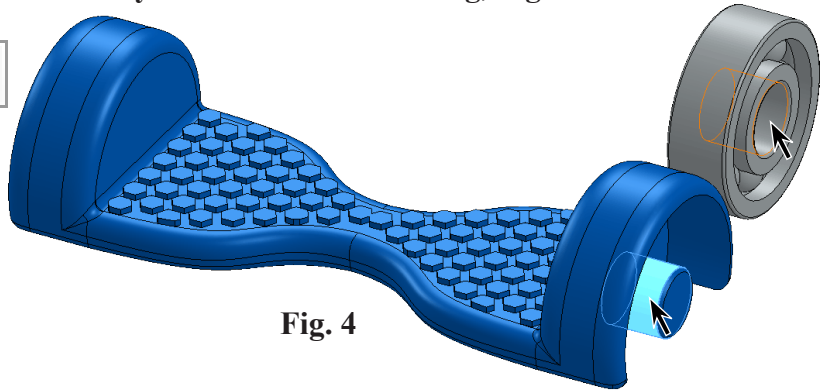
Fig. 3

Step 4. Click **cylindrical face of in axle** and **cylindrical face of Bearing**, **Fig. 4**.

Step 5. Click Add/Finish Mate  to add **Concentric** mate.



Step 6. Click OK  in the Property Manager.

Step 7. Save. Use **Ctrl-S**.



**Fig. 4**

### D. Mirror Bearing.

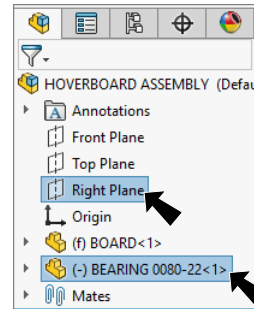
Step 1. **Ctrl click Right Plane**  and **Bearing** in the Feature Manager, **Fig. 5**. To Ctrl click, hold down the Ctrl key and click **Right Plane**  and **Bearing**.

Step 2. Click Insert Menu > Mirror Components.

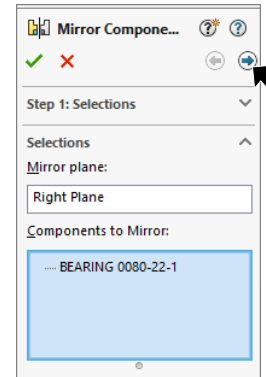
Step 3. Use Up Arrow key one time to rotate.

Step 4. In the Mirror Property Manager:  
click OK  or Next  to see preview, **Fig. 6**.

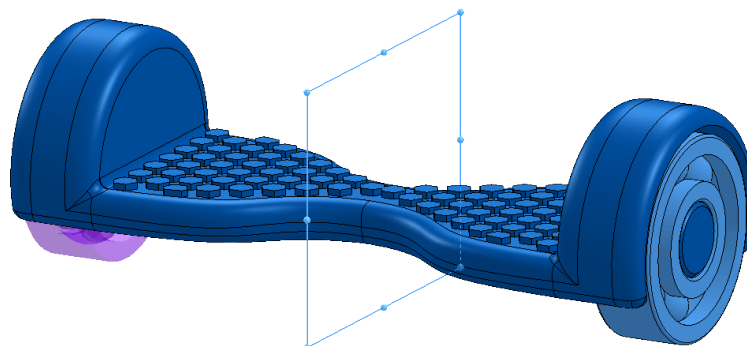
Step 5. Save. Use **Ctrl-S**.



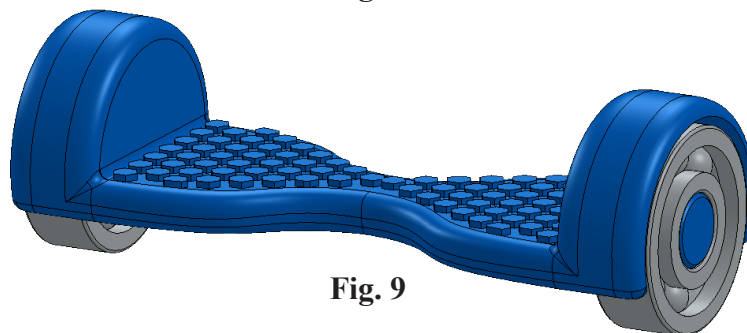
**Fig. 5**



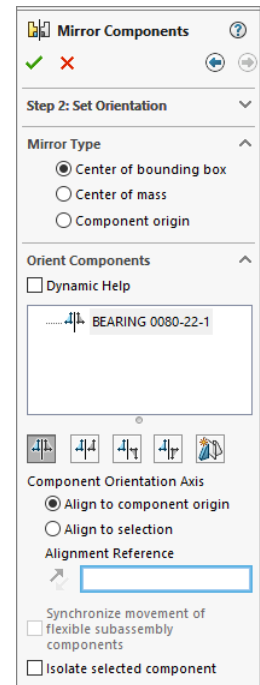
**Fig. 6**



**Fig. 8**



**Fig. 9**



**Fig. 7**