

Speedway Car Assembly





A. Insert Body, Axles and Wheels.

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

Step 2. Select your **BODY** 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  in the Property Manager. This will place the Body origin at the assembly origin and fix the position of the Body so that it cannot move. This fixed component should have a **(f)** before its name in the Feature Manager  **(f) BODY<1>**.

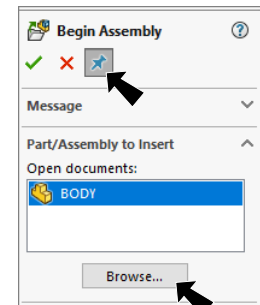




Fig. 1

Step 4. Click **Browse** in the Property Manager, **Fig. 1**.

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

Step 6. Position **Axle** near Front Axle hole, **Fig. 2**. When Axle snaps into place and cursor changes to indicate a Concentric mate , click to release Axle.

Step 7. Position **Axle** near Rear Axle hole, **Fig. 2**. When Axle snaps into place and cursor changes to indicate a Concentric mate , click to release Axle.

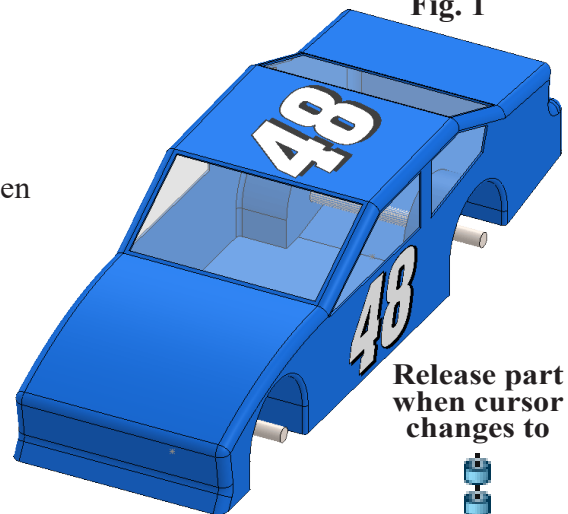




Fig. 2

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

Step 9. Select your **WHEEL** file and click Open.

Step 10. Position Wheel over Front Axle, **Fig. 3**. When Wheel snaps into place and cursor changes to indicate a Concentric mate , click to release Wheel. Click Add/Finish Mate , **Fig. 4**.

Step 11. Place **WHEEL** at Rear Axle, **Fig. 3**. Click Add/Finish Mate , **Fig. 4**.

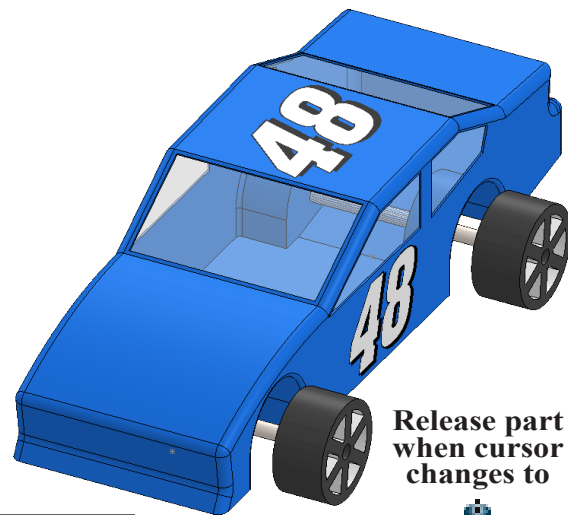


Fig. 3



Fig. 4

Step 12. Rotate view to view **right side of Assembly** as shown in **Fig. 5**. To rotate, hold down middle mouse button (wheel) and drag.

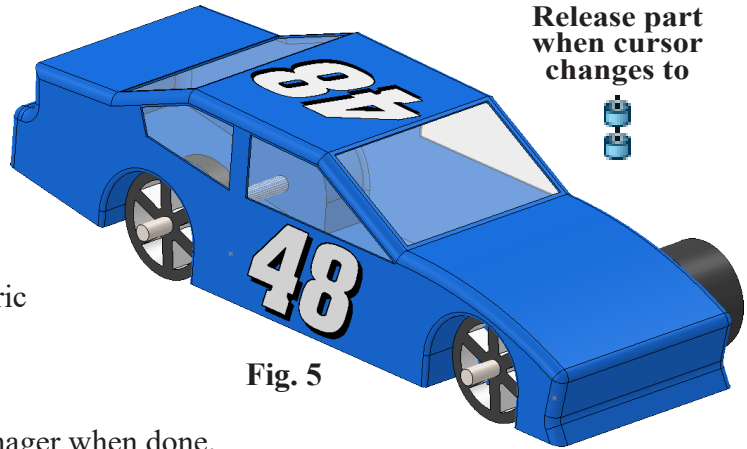



Fig. 5

Step 13. Place Wheels on right side Axles, **Fig. 5**. Release Wheel when cursor changes to indicate a Concentric mate .

Step 14. Click OK  in the Property Manager when done.

B. Save as "CAR ASSEMBLY".

Step 1. Click File Menu > Save As.

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

C. Mate: Wheels and Axles.


Step 1. Click **Filter Faces**  (X) on the **Selection Filter toolbar** at the bottom of the display, **Fig. 6**. If necessary, use **F5** key to display the toolbar.



Fig. 6

Step 2. Click **Mate**  on the Assembly toolbar.

Step 3. Click **side face Front Wheel** and **end face of Front Axle**, **Fig. 7**.

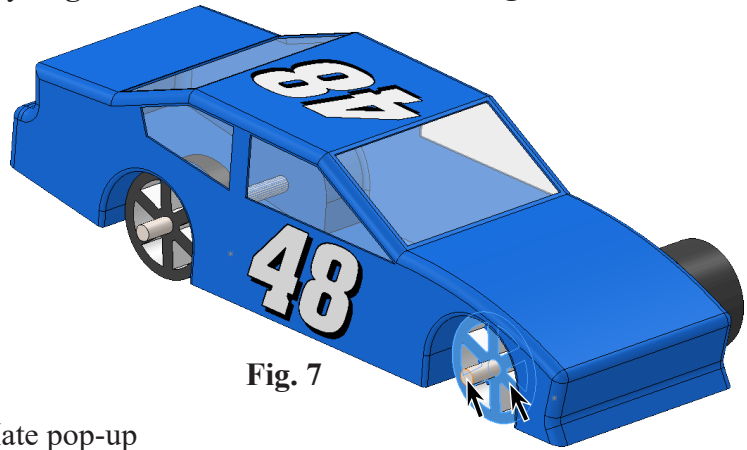


Fig. 7

Step 4. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Coincident** mate, **Fig. 8**.

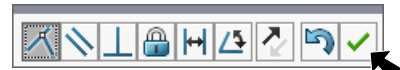



Fig. 8

Step 5. Click **side face Rear Wheel** and **end face of Rear Axle**, **Fig. 9**.

Step 6. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Coincident** mate.

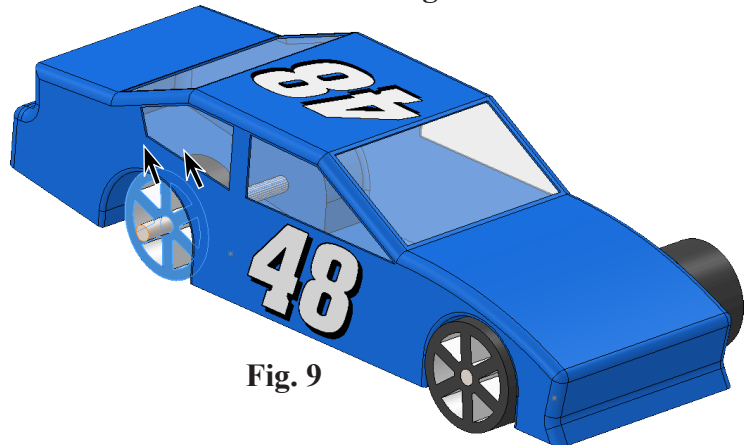




Fig. 9

Step 7. Click **Trimetric**  on the Standard Views toolbar.

Step 8. Mate the **side face of Wheels** and to **end face of Axles**, **Fig. 10** and **Fig. 11**. You might have to move the Wheel. Grab the Wheel and move it. Don't click Wheel and try to move Wheel.

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

Step 10. Click **Filter Faces**  (X) to **turn OFF** on the **Selection Filter** toolbar at the bottom of the display, **Fig. 12**. If necessary, use **F5** key to display the toolbar.

Step 11. Save. Use **Ctrl-S**.

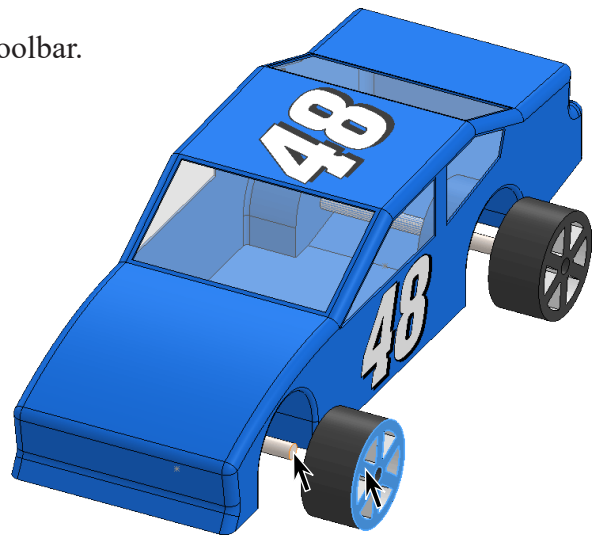


Fig. 10



Fig. 12

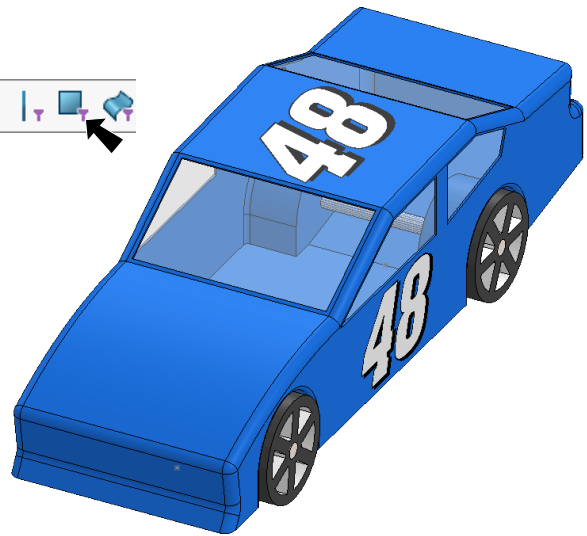


Fig. 11