

Landing Gear Sub-Assembly



A. Make Assembly.

Step 1. If necessary, **Open** your **WHEEL WIRE** file.

Step 2. Click File Menu > **Make Assembly from Part**.

Step 3. Click **Assembly** in the New SolidWorks Documents dialog box and OK.

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

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

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

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

Step 8. Click approximately where Wheels are positioned in **Fig. 2**. Click OK  in the Property Manager when done.

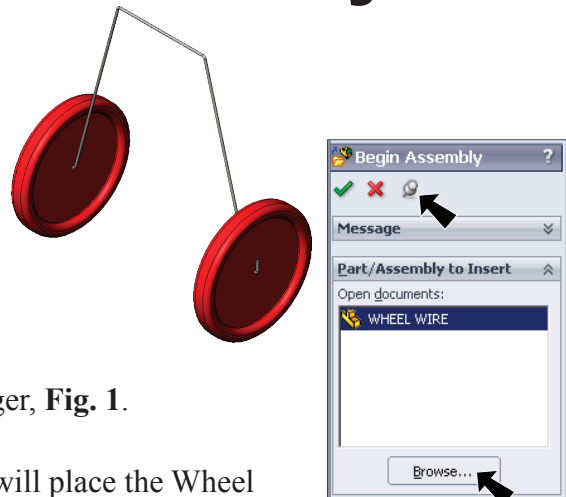


Fig. 1

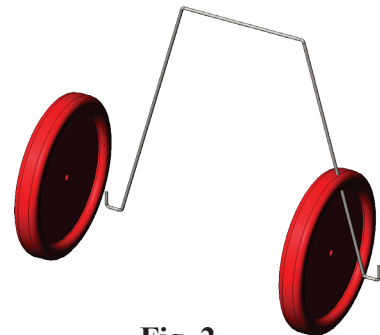


Fig. 2


B. Save as "LANDING GEAR ASSEMBLY".

Step 1. Click File Menu > Save As.

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

C. Mate: Wheel.

Step 1. Zoom in around **wheel hole and end of wire**, **Fig. 3**. To **zoom**, hold down **Shift** key and drag with middle mouse button (wheel). To **pan**, hold down **Ctrl** key and drag with middle mouse button (wheel).

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

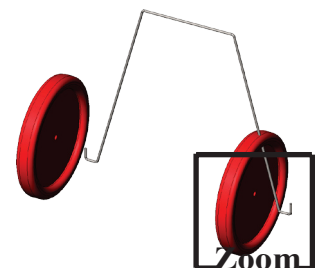


Fig. 3

Step 3. Click **cylindrical inside face of wheel hole** and **cylindrical face of horizontal section of wire**, Fig. 4.

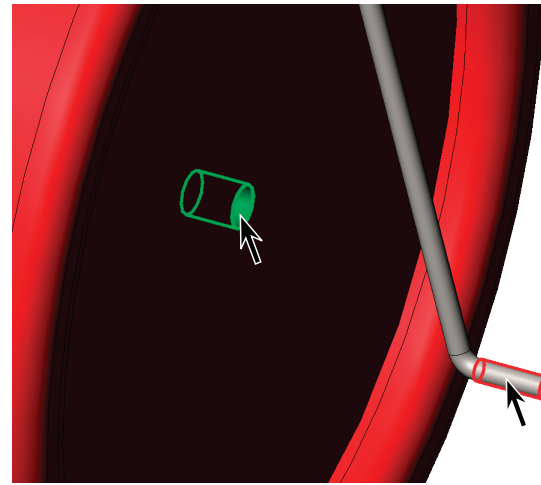


Fig. 4

Step 4. If you select the wrong face, **right click** the Mate Selection in the Mate Property Manager and click Delete, Fig. 5.

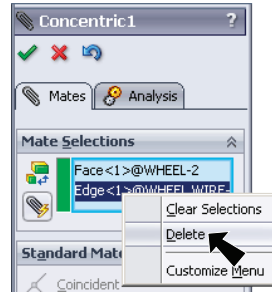


Fig. 5


Step 5. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Concentric** mate, Fig. 6.



Fig. 6

Step 6. Click **side face of wheel** and **edge of horizontal section of wire**, Fig. 7.



Fig. 7

Step 7. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Coincident** mate, Fig. 8.



Fig. 8

D. Mate: Left Wheel.

Step 1. Click Zoom to Fit  (F) on the View toolbar.

Step 2. Zoom in around **left wheel hole and end of wire**, Fig. 9. To **zoom**, hold down **Shift** key and drag with middle mouse button (wheel). To **pan**, hold down **Ctrl** key and drag with middle mouse button (wheel).

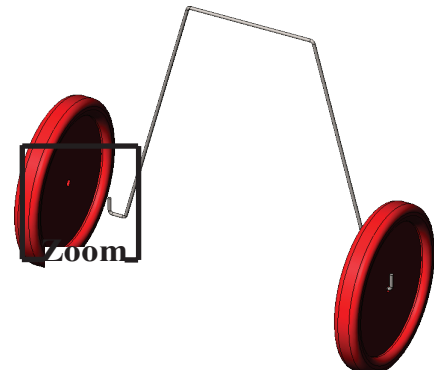


Fig. 9

Step 3. Repeat mates on left wheel.
To repeat mates, click **cylindrical inside face of wheel hole** and **cylindrical face of horizontal section of wire**, Fig. 10.

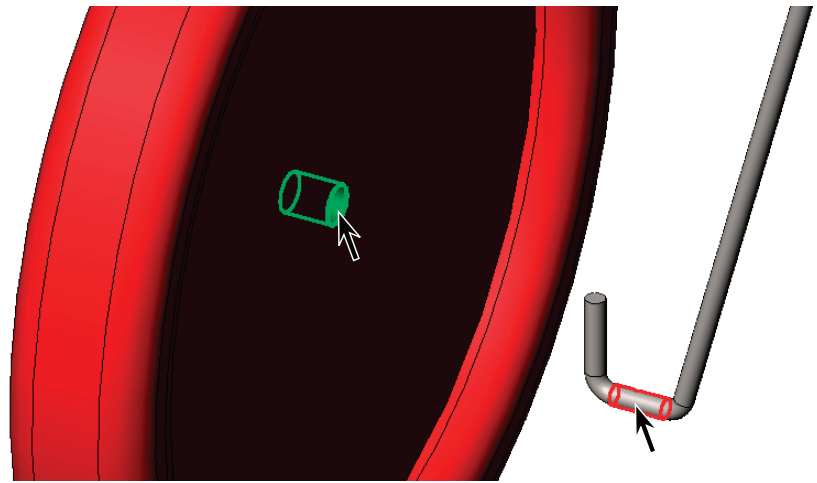



Fig. 10

Step 4. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Concentric** mate.

Step 5. Click **side face of wheel** and **edge of horizontal section of wire**, Fig. 11.

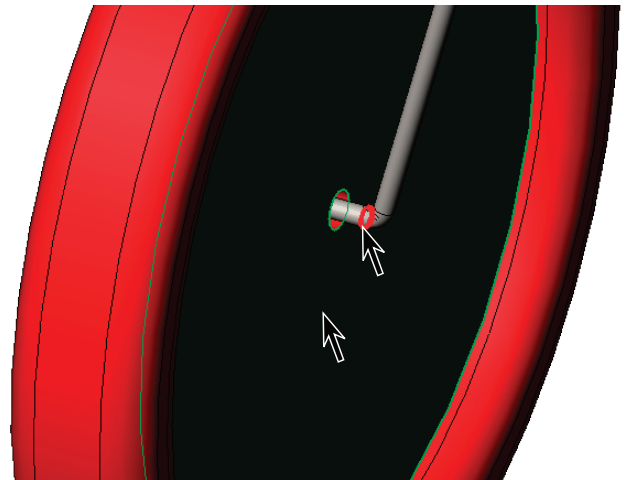





Fig. 11

Step 6. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Coincident** mate, Fig. 8.

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

Step 8. Click Zoom to Fit  (F) on the View toolbar.

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

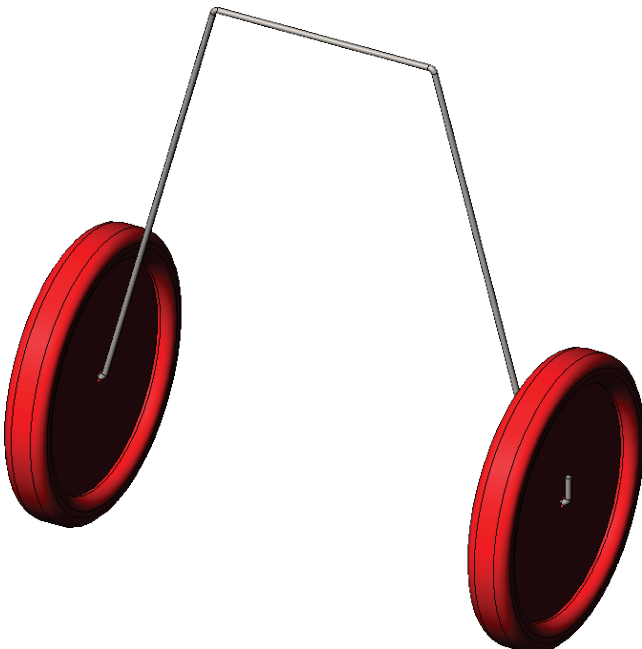


Fig. 12