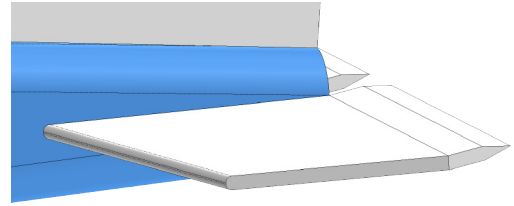


Airplane Elevator



A. Sketch.

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

Step 2. Click **Right Plane** in the Feature Manager and click **Sketch** on the context toolbar, **Fig. 1**.

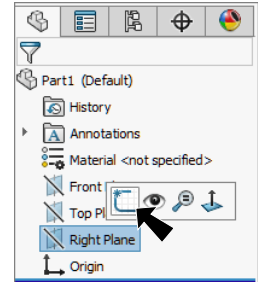


Fig. 1

Step 3. Click **Line** (L) on the Sketch toolbar.

Step 4. Sketch lines starting at Origin, **Fig. 2**.

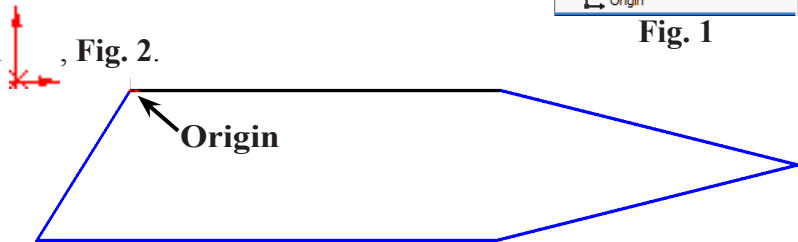


Fig. 2

Step 5. Click **Centerline** in the **Line flyout** on the Sketch toolbar.

Step 6. Sketch **vertical centerline down from Origin**, **Fig. 3**.



Fig. 3

Step 7. Click **Smart Dimension** (S) on the Sketch toolbar.

Step 8. Add dimensions, **Fig. 4**. Angle dimension is angle of Elevator to H Stab.

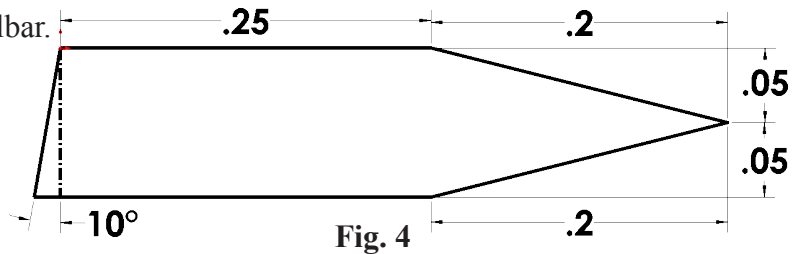
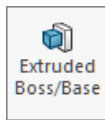


Fig. 4

Step 9. Click **Features** on the Command Manager toolbar.

Step 10. Click **Extruded Boss/Base** on the Features toolbar.



Step 11. In the Boss-Extrude Property Manager set: under Direction 1, **Fig. 5**

Depth D_1 3.2
click OK

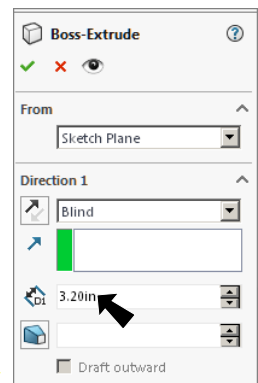


Fig. 5

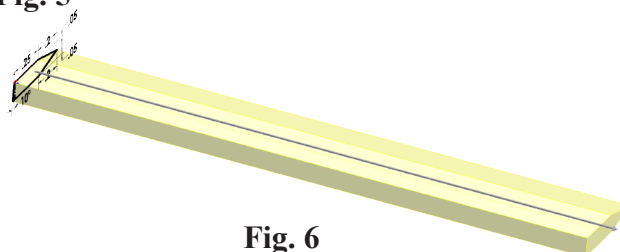


Fig. 6

B. Save as "ELEVATOR".

Step 1. Click File Menu > Save As.

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

C. Material PS HI (Polystyrene).

Step 1. Right click **Material**  in the Feature Manager and click **Edit Material**.

Step 2. **Expand Plastics** in the material tree and select **PS HI**. Click **Apply** and **Close**.

Step 3. Save. Use **Ctrl-S**.

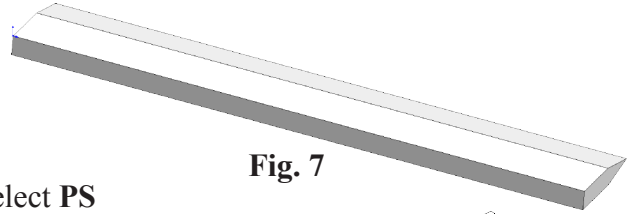
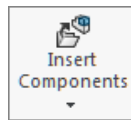


Fig. 7

D. Insert Elevator into Assembly.

Step 1. Open your ASSEMBLY file.

Step 2. Click **Insert Components** on the Assembly toolbar.



Step 3. Browse and place **ELEVATOR** as positioned in Fig. 8.

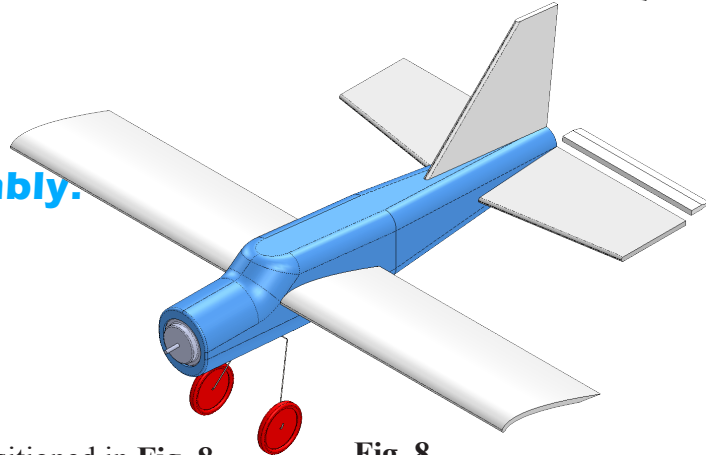


Fig. 8

E. Mate: Elevator.

Step 1. Rotate view to view rear of Fuselage, Fig. 9. Hold down middle mouse button (wheel) and drag.

Step 2. Zoom in on rear of Fuselage at Elevator, Fig. 9. To zoom, place the cursor over rear of Fuselage at Elevator and spin the wheel on mouse back. While spinning the wheel keep cursor on rear of Fuselage.

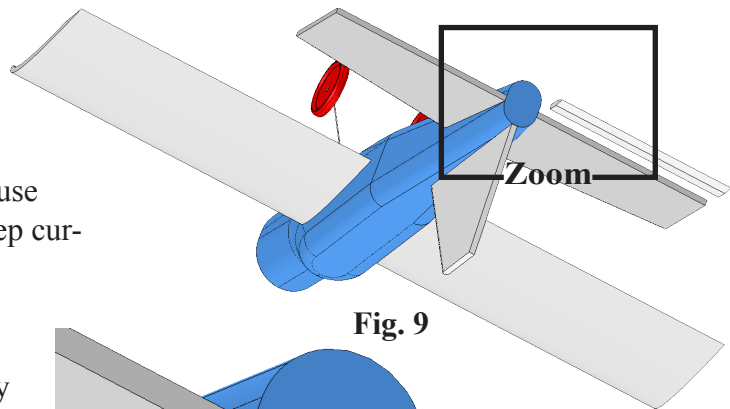




Fig. 9

Step 3. Click **Mate**  on the Assembly toolbar.

Step 4. Click **end (root) edge of H Stab at Fuselage** and **end edge of Elevator**, Fig. 10.

Step 5. Click **Add/Finish Mate**  in Mate pop-up toolbar to add a **Coincident** mate.

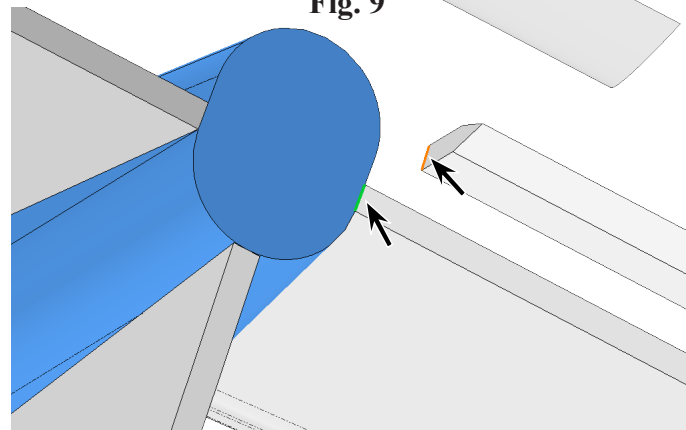


Fig. 10

Step 6. Click **top edge H Stab** and **top edge of Elevator**, **Fig. 11**.

Step 7. Click Add/Finish Mate  in Mate pop-up toolbar to add a **Coincident** mate, **Fig. 12**.

Step 8. Click OK  in the Property Manager.

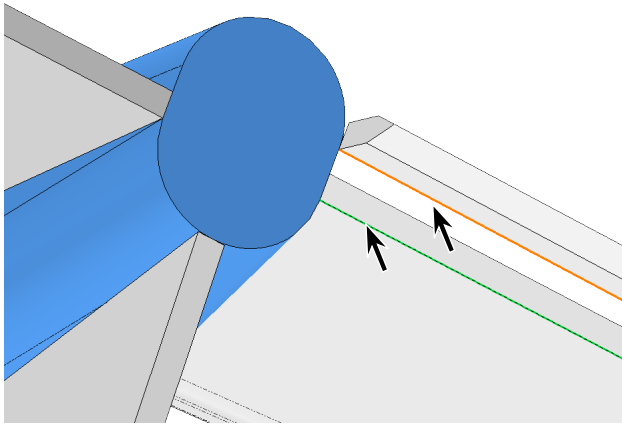


Fig. 11

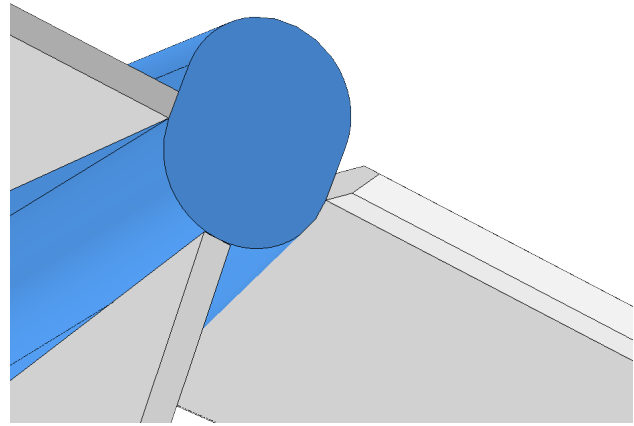




Fig. 12

F. Mirror Elevator.

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

Step 2. **Ctrl click** the **Right Plane**  and **ELEVATOR** in the Feature Manager to select both, **Fig. 13**.

Step 3. Click Insert Menu > Mirror Components.

Step 4. In the Mirror Property Manager:
 click **Next**  , **Fig. 14**
 click **OK**  , **Fig. 15**.

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

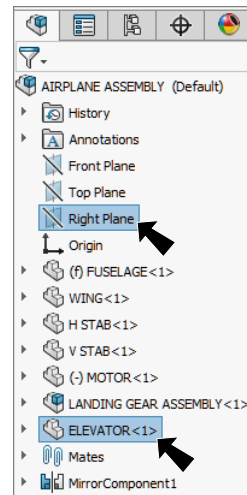


Fig. 13

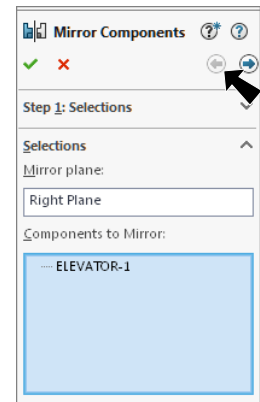


Fig. 14

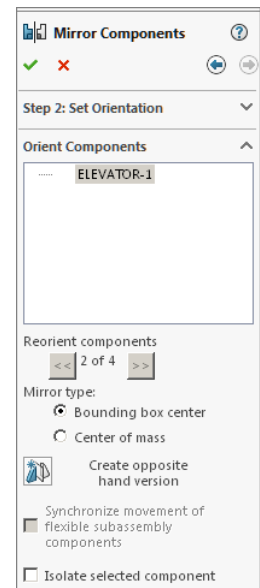


Fig. 15

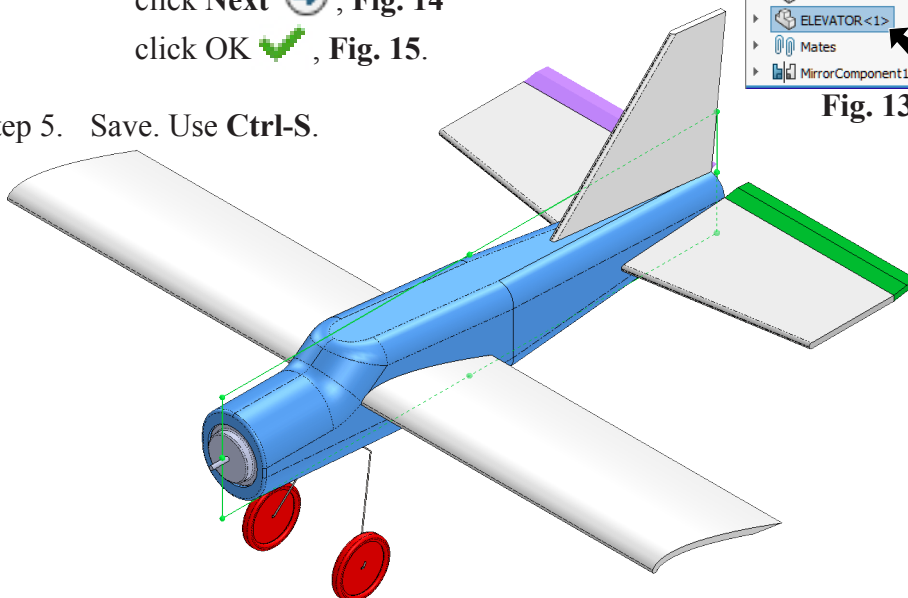


Fig. 16