

Sumo Car Drawing


A. Insert Top and Side Views.

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

Step 2. Click **Model View**  on the View Layout toolbar.

Step 3. Click **Browse** in the Property Manager.

Step 4. Select your **SUMO CAR ASSEMBLY** file and click Open.

Step 5. In the Property Manager set:
 under Orientation
 click **Right** 
 check **Preview**
 under Scale
 select **Use custom scale**
 set **Scale 1:1**, Fig. 1.

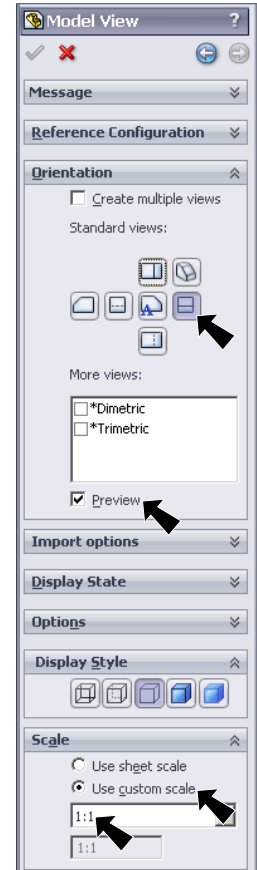
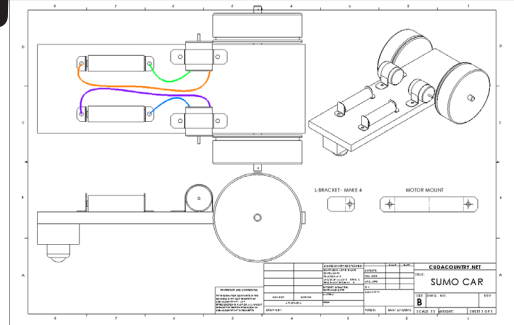


Fig. 1

Step 6. Move the cursor into the graphic area. Align the left edge of the preview with the left border line and align the bottom of the wheel with the top of the title block. Click to place the right side view as shown in Fig. 2.

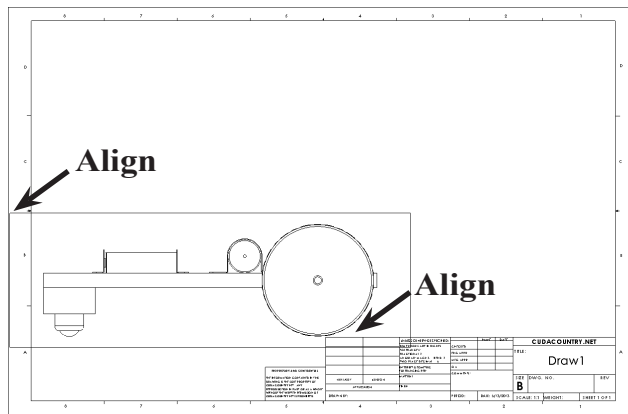


Fig. 2

Step 7. Move the cursor straight up. Center the preview between the side view you just placed and the top border line. Click to place the top view as shown in Fig. 3.

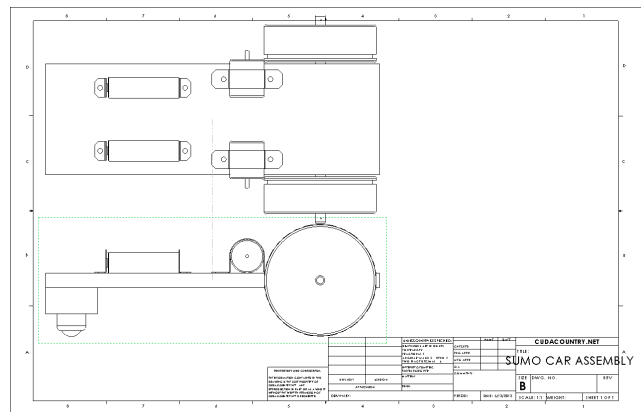
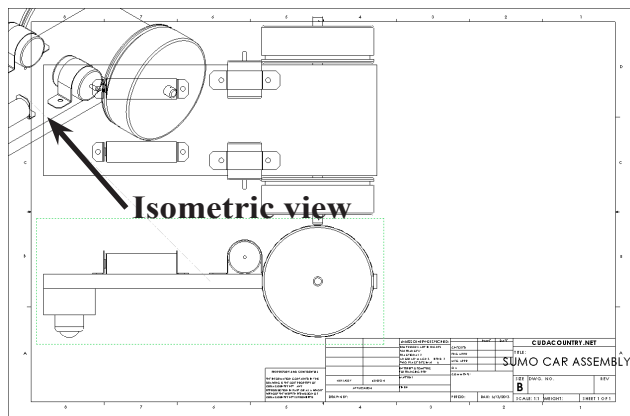


Fig. 3

Step 8. Move the cursor to the top left corner of the drawing and click to place the Isometric view, **Fig. 4**.



Step 9. Click OK  in the Property Manager.

Step 10. Click the Isometric view to select it, **Fig. 4**.

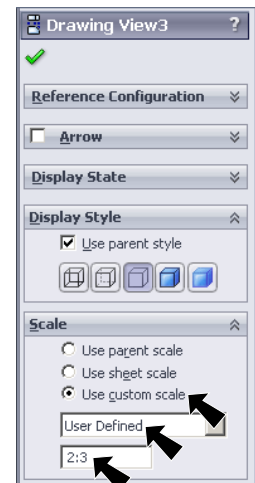




Fig. 5

Step 11. In the Property Manager under **Scale**
 select **Use custom scale**
 select **User Defined**
 key-in **2:3** for scale, **Fig. 5**.
 click OK 

Step 12. Grab any geometry of the Isometric view and move view to space right of Side and Top views, **Fig. 6**. Click OK .

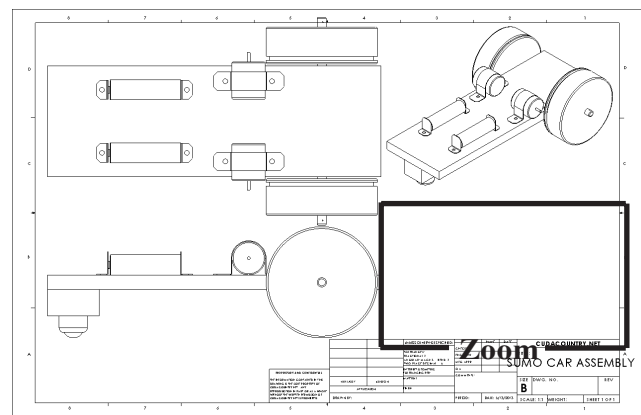



Fig. 6

B. Save as "SUMO CAR".

Step 1. Click File Menu > Save As.

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

C. Insert L-Bracket Flatten View.

Step 1. Use the **Zoom to Area**  in the View toolbar to drag a zoom window around the **bottom right corner of the drawing**, **Fig. 6**.

Step 2. Click Tools Menu > Options. Click **Documents Properties** tab at top of dialog box and click **Sheet Metal** in left panel, **Fig. 7**. Under Bend notes, **Uncheck Display sheet metal notes** and click OK.

Step 3. Click **View Layout**  on the Command Manager toolbar.

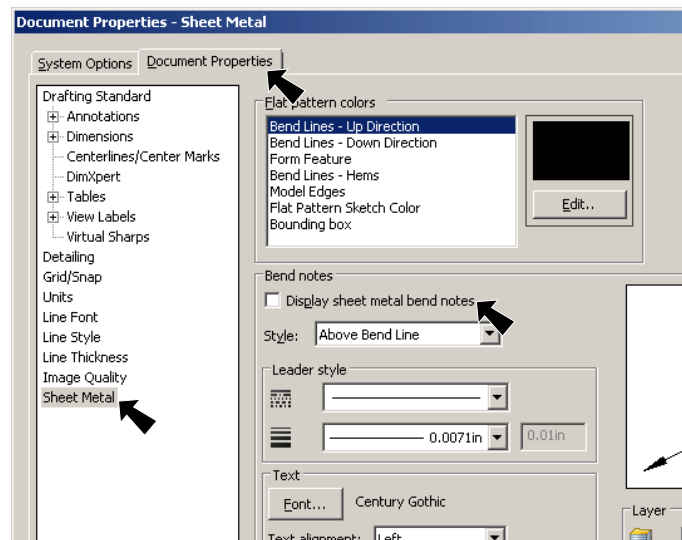



Fig. 7

Step 4. Click **Model View**  on the View Layout toolbar.

Step 5. Click **Browse** in the Property Manager, select your **L-BRACKET** file and click Open.

Step 6. In the Property Manager set:
 under Orientation More Views, **Fig. 8**
 check **Flat Pattern**
 check **Preview**
 under Flat Pattern Options
 Angle  **90°**
 under Scale
 Scale **1:1**

Step 7. Move the cursor into the graphic area and click to place the L-bracket flat pattern view as shown in **Fig. 9**.

Step 8. Click OK  in Property Manager.

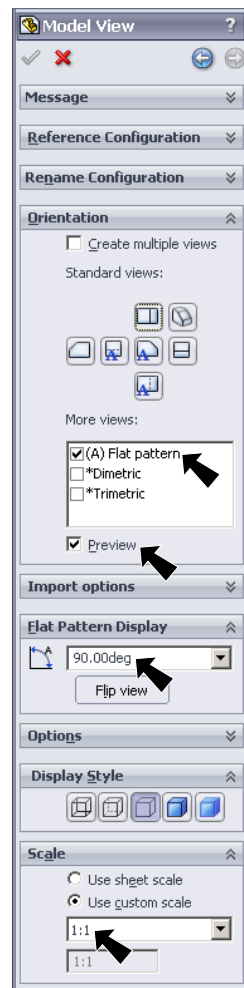


Fig. 8

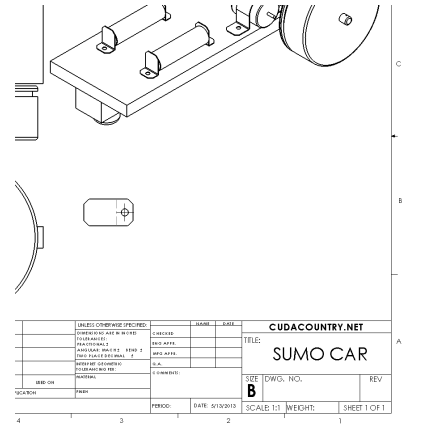




Fig. 9

D. Insert Motor Mount Flatten View.

Step 1. Click **Model View**  on the View Layout toolbar.

Step 2. Click **Browse** in the Property Manager.

Step 3. Select your **MOTOR MOUNT** file and click Open.

Step 4. In the Property Manager set:
 under Orientation More Views, **Fig. 10**
 check **Flat Pattern**
 check **Preview**
 under Flat Pattern Options
 Angle  **0°**
 under Scale
 Scale **1:1**

Step 5. Move the cursor into the graphic area and click to place the Motor Mount flat pattern view as shown in **Fig. 11**.

Step 6. Click OK  in the Property Manager.

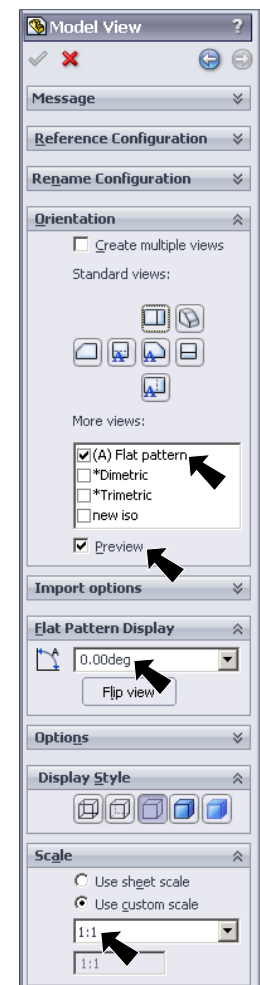


Fig. 10

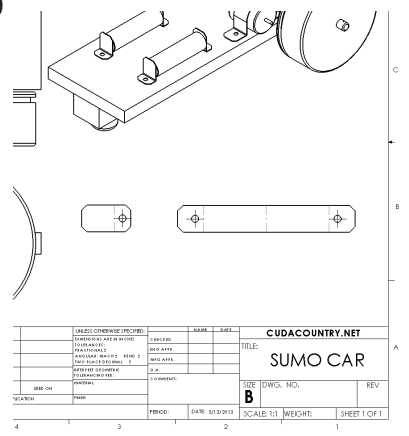
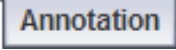


Fig. 11

E. Add Sheet Metal Notes.

Step 1. Click **Annotation**  on the Command Manager toolbar.

Step 2. Click **Note**  on the Annotation toolbar.

Step 3. Click just above the **L-bracket** flatten pattern to place the note, **Fig. 12**.

Step 4. Lock the caps and key-in **L-BRACKET - MAKE 4**

Step 5. Click OK  in the Property Manager.

Step 6. Click **Note**  on the Annotation toolbar.

Step 7. Click just above the **Motor Mount** flatten pattern to place the note, **Fig. 13**.

Step 8. Lock the caps and Key-in **MOTOR MOUNT**, **Fig. 13**.

Step 9. Click OK  in the Property Manager.

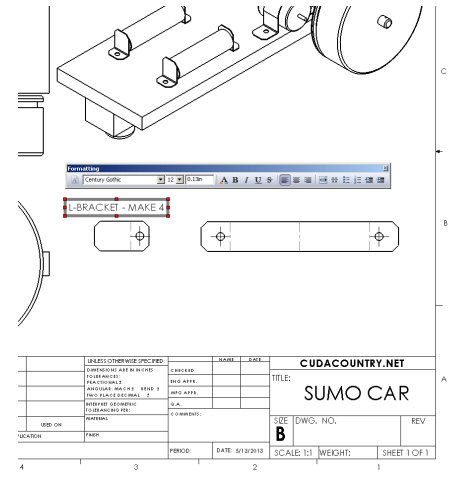


Fig. 12

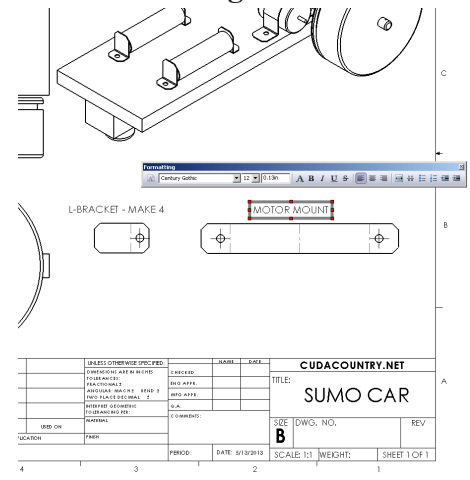




Fig. 13


F. Draw Splines for Wires.

Step 1. Use **F** key on keyboard to **fit** drawing. Use the **Zoom**

to Area  in the View toolbar to drag a zoom window around the **Motor and L-brackets in the top view**, **Fig. 14**.

Step 2. Click **Sketch**  on the Command Manager toolbar.

Step 3. Click **Line Thickness**  on the Line Format toolbar and select the **.0197 thickness**, **Fig. 15**.

Step 4. Click **Line Color**  on the Line Format toolbar and select **GREEN**. Click OK, **Fig. 16**.

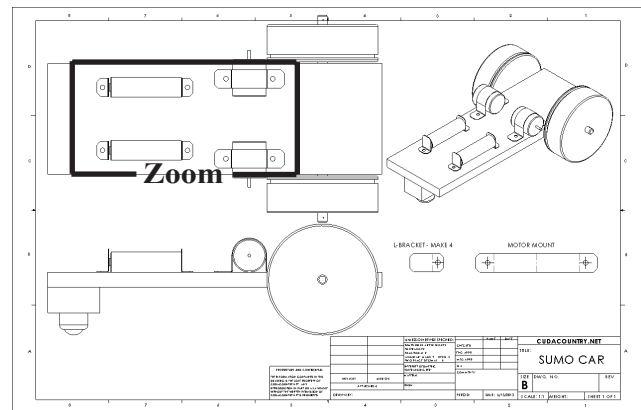


Fig. 14

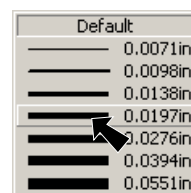



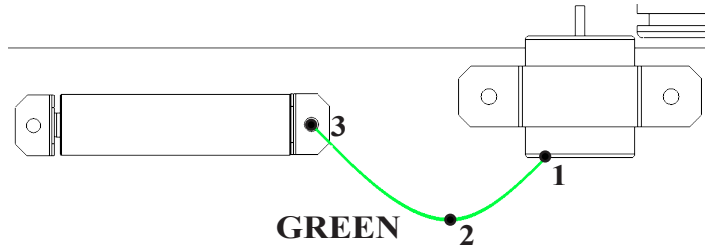
Fig. 15




Fig. 16


Step 5. Click **Spline**  on the Sketch toolbar.

Step 6. Click the 3 Points in **Fig. 17**. To draw spline for wire between **front of motor and closest L-bracket**. Press **Escape** key or click **Spline**  to end the spline.



Step 7. Click **Line Color**  on the Line Format toolbar and select **ORANGE**. Click OK.

Step 8. Click **Spline**  on the Sketch toolbar.

Step 9. Click the Points in **Fig. 18** to draw spline for wire between the **rear of motor and front L-bracket**. Keep the spline from touching the first spline. Press **Escape** key or click **Spline**  to end the spline.

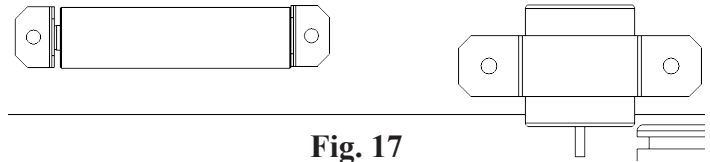
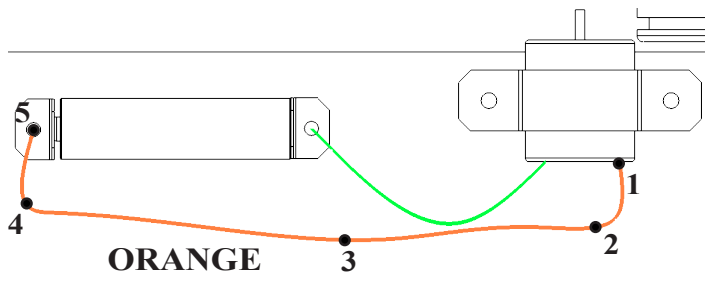



Fig. 17



Step 10. Click **Line Color**  on the Line Format toolbar and select **PURPLE**. Click OK.

Step 11. Click **Spline**  on the Sketch toolbar.

Step 12. Draw **PURPLE** spline between **front of other motor and closest L-bracket**, **Fig. 19**.

Step 13. Draw **BLUE** spline between **rear of motor and front L-bracket**, **Fig. 19**.

Step 14. Save. Use **Ctrl-S**.

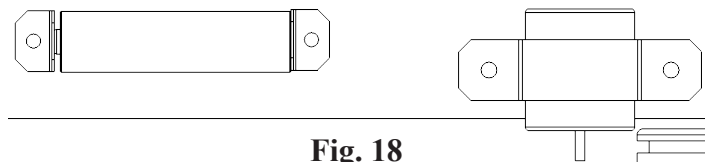


Fig. 18

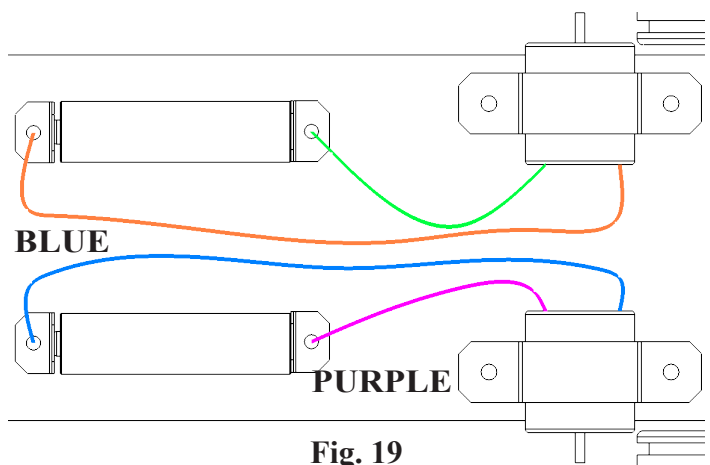



Fig. 19

G. Add Your Name and Period to Title Block.

Step 1. Use **F** key on keyboard to **fit** drawing.

Use the **Zoom to Area**  in the View toolbar to drag a zoom window around the **DRAWN BY** and **PERIOD** in the title block, **Fig. 20**.

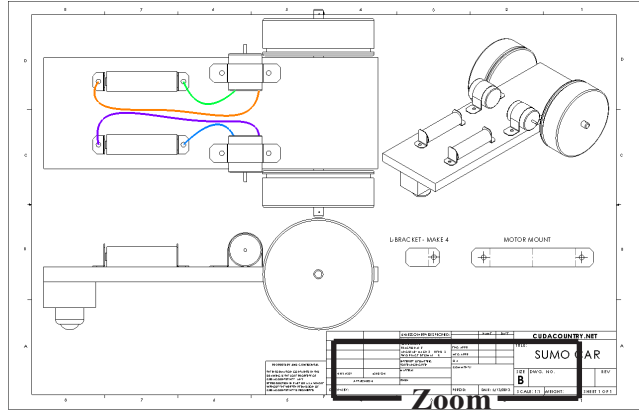



Fig. 20

Step 2. Click **Note**  on the Annotation toolbar.

Step 3. Click just to the right of **DRAWN BY**., **Fig. 21**.

Step 4. Lock the Caps and key-in **your first and last names**, **Fig. 21**.

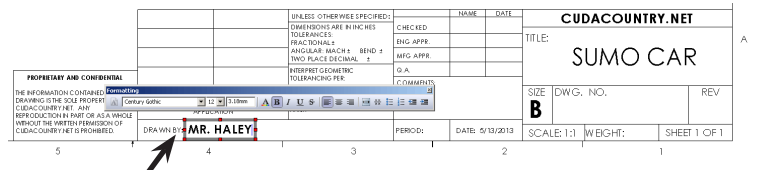


Fig. 21

Step 5. Click **OK**  in the Property Manager.

Step 6. Click **Note**  on the Annotation toolbar.

Step 7. Click just to the right of **PERIOD**., click and key-in **your Period number**, **Fig. 22**.

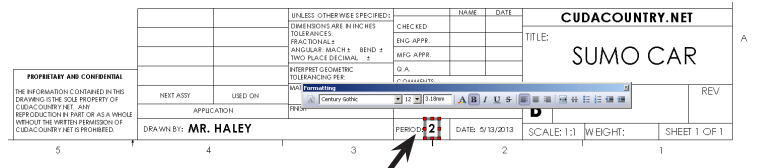


Fig. 22

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

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