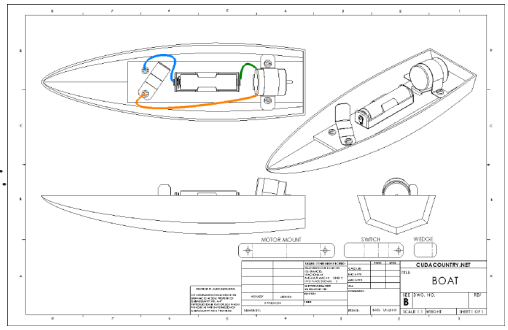
Chapter 13 Boat Drawing



A. Insert Top, Side and Back 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 **BOAT ASSEMBLY** file and click Open.

Step 5. In the Property Manager under **Orientation**:

click **Right**

check **Preview**

under **Scale**

click **Use custom scale** and set scale to **1:1**, **Fig. 1**.

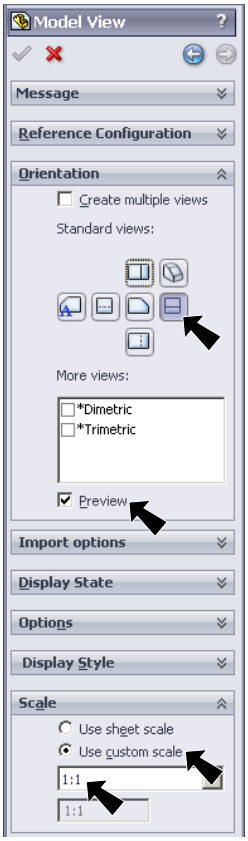


Fig. 1

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

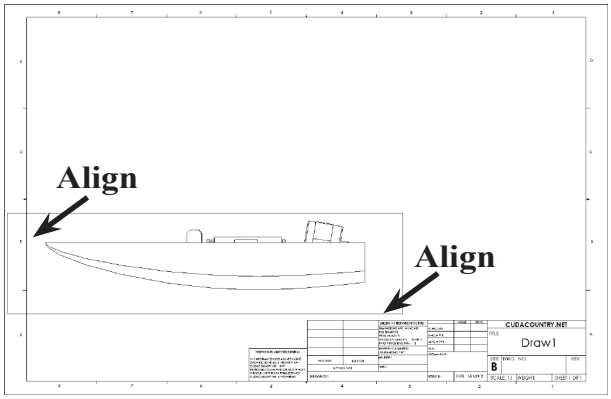


Fig. 2

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

Step 8. Move the cursor to the right of the side view. Center the preview between the side view and right border line. Click to place the top view as shown in **Fig. 4**.

Step 9. Click OK in the Property Manager.

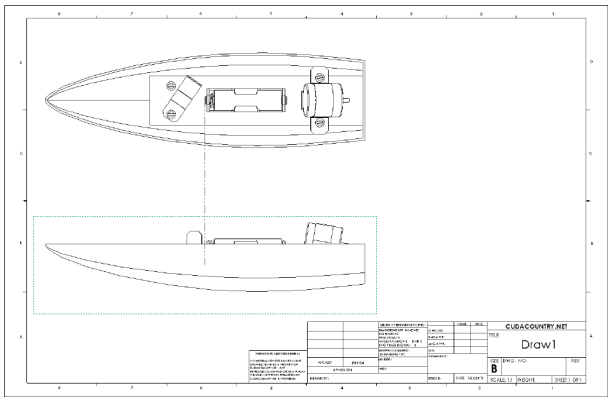


Fig. 3

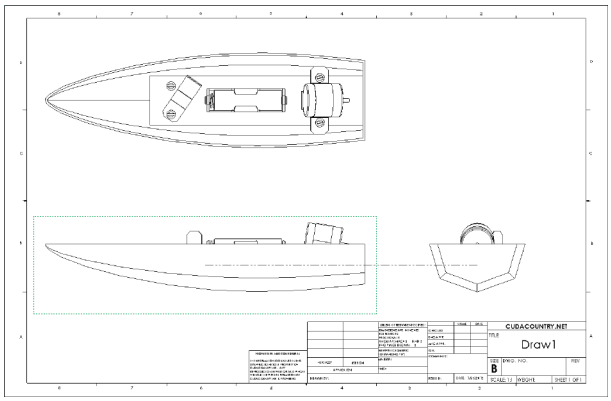


Fig. 4

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B. Save as "BOAT".

Step 1. Click File Menu > Save As.

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

C. Insert Isometric View.

Step 1. Click **View Layout**

on the Command Manager toolbar and **Model View**

on the View Layout toolbar.

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

Step 3. In the Property Manager, under **Orientation**:

click **Isometric**
under **Scale**

click **Use custom scale** and set scale to **1:1**, **Fig. 5**.

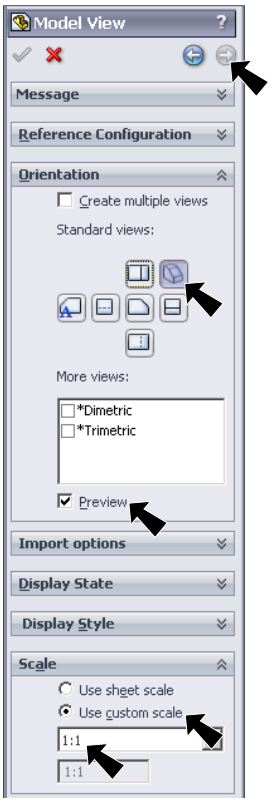


Fig. 5

Step 4. Move the cursor into the graphic area and click to place the isometric view as shown in **Fig. 6**.

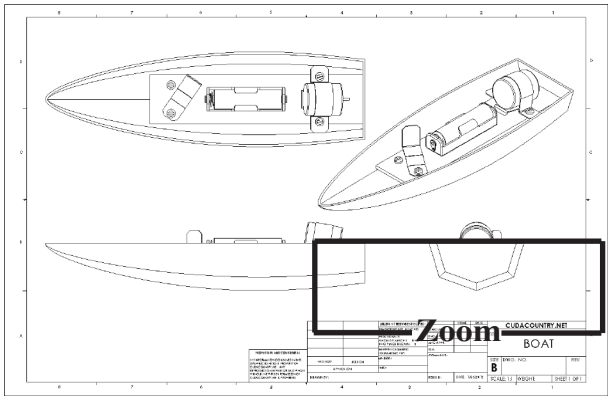


Fig. 6

Step 5. Click OK in the Property Manager.

D. Insert Motor Mount Flatten View.

Step 1. Use the **Zoom to Area** in the View toolbar to drag a zoom window around the **bottom of the back view**, **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.

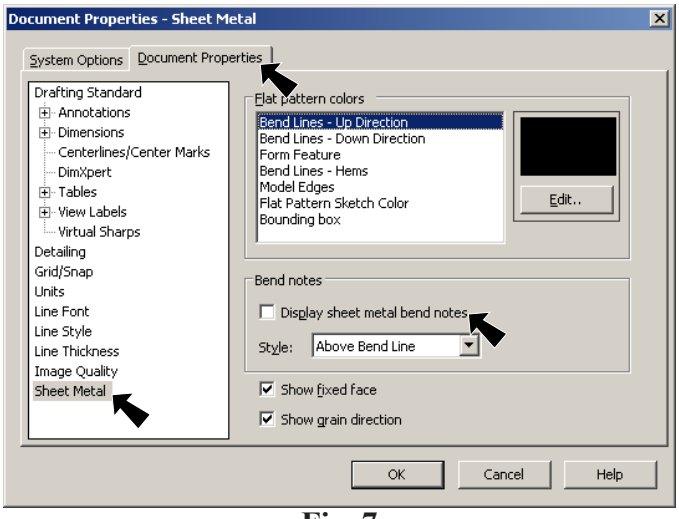
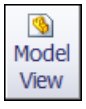


Fig. 7

Step 3. Click **Model View** 

on the Drawings toolbar.

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

Step 5. Click **Browse** and in the Open dialog box to view Assembly file, change **Files of type to All Files (*.*)**.

Step 6. Select your **MOTOR MOUNT** file and click Open.

Step 7. In the Property Manager,
under **Orientation More Views**:
check **Flat pattern**
check **Preview**
under **Scale**
click **Use sheet scale** (scroll way down), **Fig. 8**.

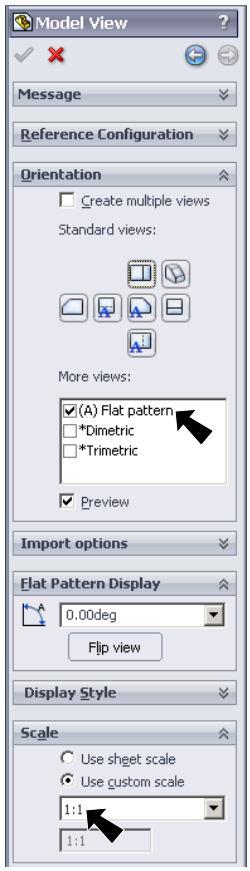


Fig. 8

Step 8. Move the cursor into the graphic area and click to place the Motor Mount flat pattern view as shown in **Fig. 9**.

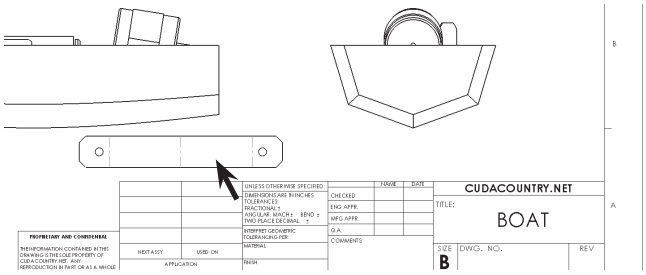


Fig. 9

Step 9. Click OK in the Property Manager.

E. Insert Switch Flatten View.

Step 1. Click **Model View**

on the Drawings toolbar.

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

Step 3. Select your **SWITCH** file and click Open.

Step 4. In the Property Manager,
under **Orientation More Views**
check **Flat Pattern**, **Fig. 10**
check **Preview**
under **Flat Pattern Display**
Angle **90º**
under **Scale**
Scale 1:1

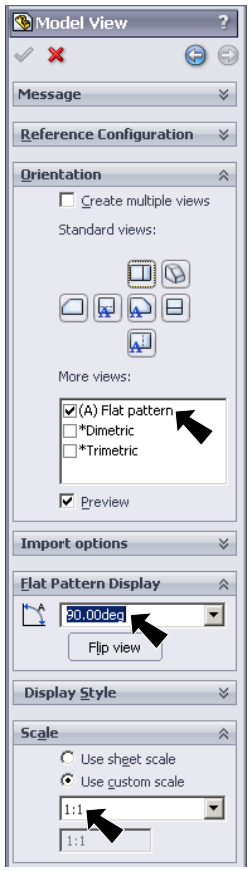


Fig. 10

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

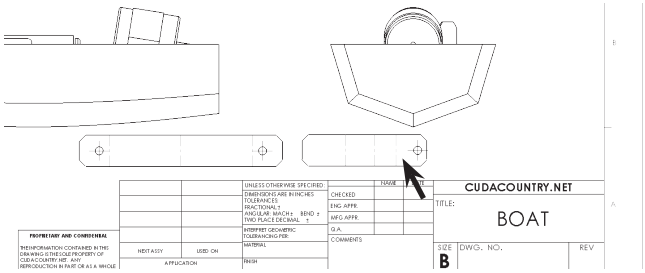


Fig. 11

Step 6. Click OK in the Property Manager.

F. Insert Wedge Flatten View.

Step 1. Click **Model View**

on the Drawings toolbar.

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

Step 3. Select your **WEDGE** file and click Open.

Step 4. In the Property Manager,
under **Orientation More Views**, **Fig. 12**
check **Flat pattern**
check **Preview**
under **Scale**
click **Use sheet scale**

Step 5. Move the cursor into the graphic area and click to place the Wedge flat pattern view as shown in **Fig. 13**.

Step 6. Click OK in the Property Manager.

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

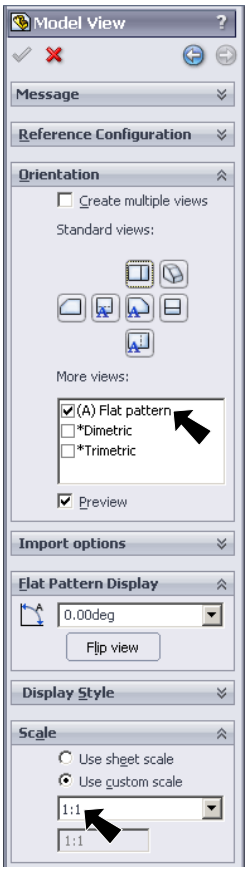


Fig. 12

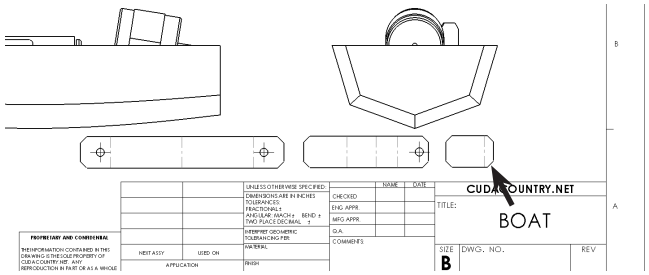
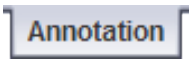
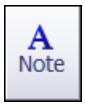


Fig. 13

G. Add Sheet Metal Notes.

Step 1. Click **Annotation** 

on the Command Manager toolbar.

Step 2. Click **Note** 

on the Annotation toolbar.

Step 3. In the Note Property Manger, under Leader:

click **NO Leader** **(red X)**, **Fig. 14**
click just above MOTOR MOUNT to place the note
lock the caps
key-in **MOTOR MOUNT**, **Fig. 15**
click OK in Property Manager.

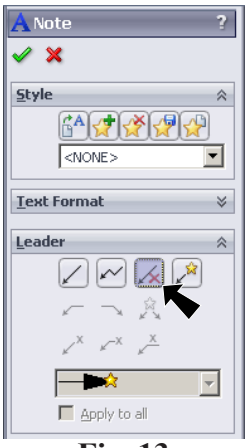
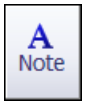


Fig. 13

Step 4. Click **Note** 

on the Annotation toolbar.

Step 5. In the Note Property Manger, under Leader:

click **NO Leader** **(red X)**, **Fig. 14**
click just above SWITCH to place the note
lock the caps
key-in **SWITCH**, **Fig. 16**

click OK in Property Manager.

Step 6. Repeat and label **WEDGE**, **Fig. 17**.

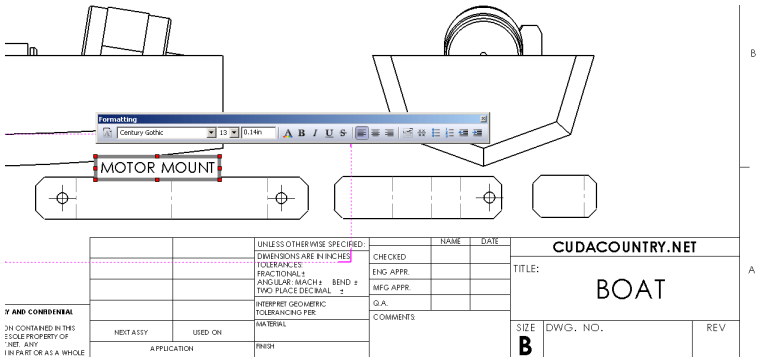


Fig. 15

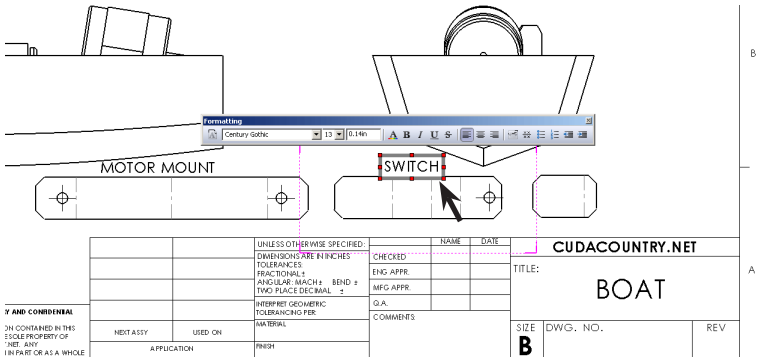


Fig. 16

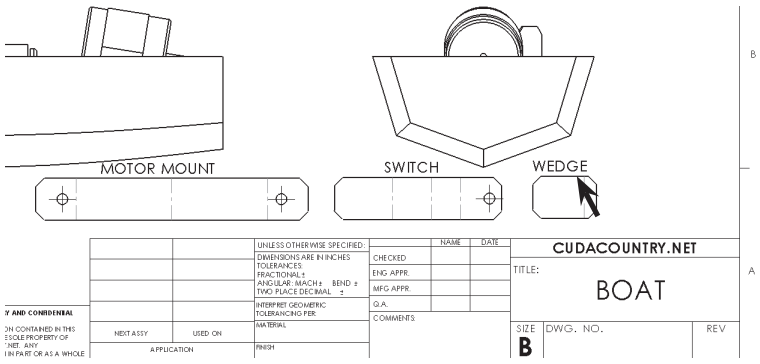


Fig. 17

H. 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. 18**.

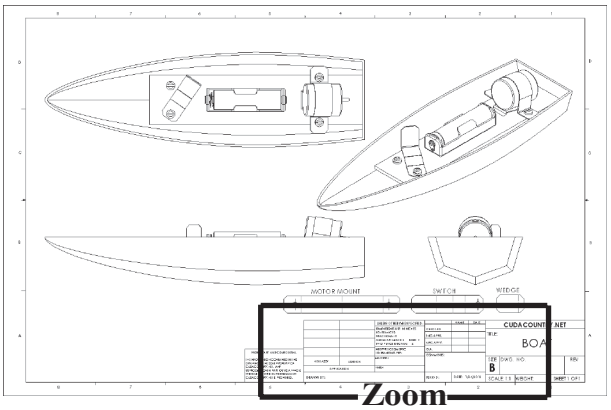
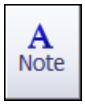


Fig. 18

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

Step 3. Click just to the right of DRAWN BY:, **Fig. 19**.

Step 4. Lock the Caps and key-in **your first and last names**, **Fig. 19**.

Step 5. Click OK in the Property Manager.

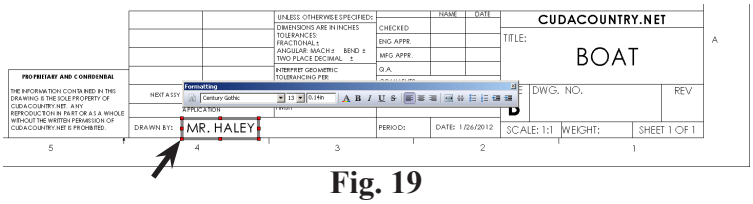
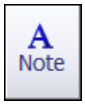


Fig. 19

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. 20**.

Step 8. Click OK in the Property Manager.

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

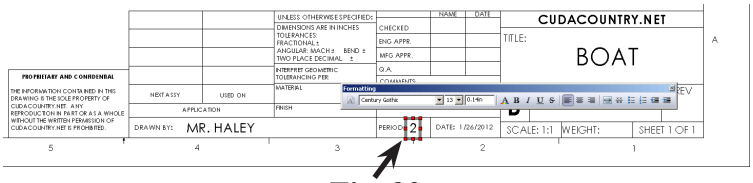


Fig. 20

I. 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 Switch in the top view**, **Fig. 21**.

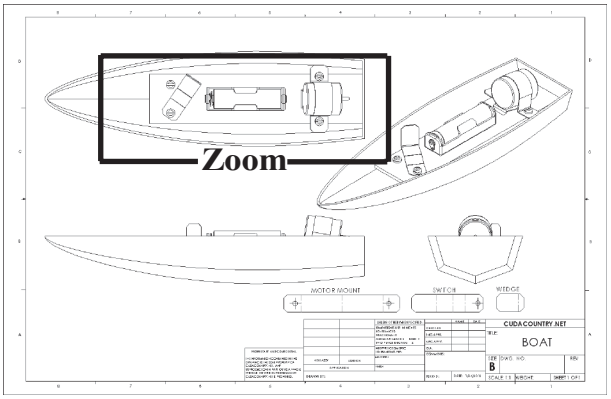


Fig. 21

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

Step 3. Click **Line Thickness** on the Line Format toolbar, **Fig. 22** and select the **.0197 thickness**, **Fig. 23**.

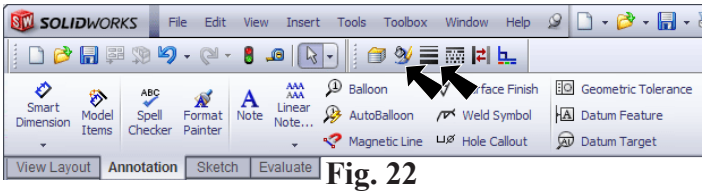


Fig. 22

Step 4. Click **Line Color** on the Line Format toolbar, **Fig. 22** and select **GREEN**, **Fig. 24**. Click OK.

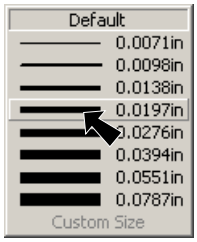


Fig. 23

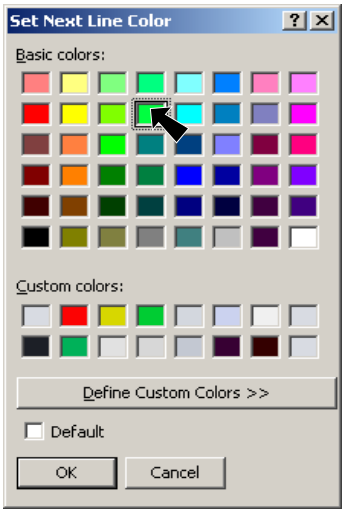


Fig. 24

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

Step 6. Click the 3 Points in **Fig. 25** to draw spline for wire between **Motor and closest Soldering Lug on Battery Holder**. Press **Escape key** 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 Points in **Fig. 26** to draw spline for **wire between Motor and Switch**. Press **Escape key** to end the spline.

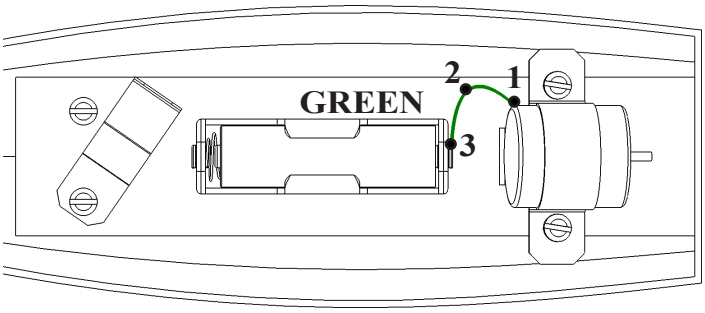


Fig. 25

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

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

Step 12. Click Points in **Fig. 27** to draw spline for **wire between Screw and Lug on Battery Holder**. Press **Escape key** to end the spline.

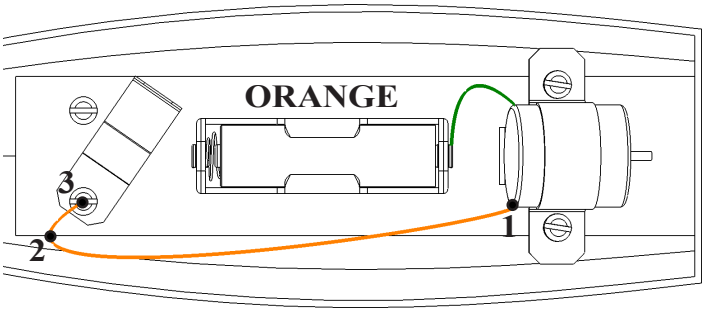


Fig. 26

Step 13. Save. Use **Ctrl-S**.

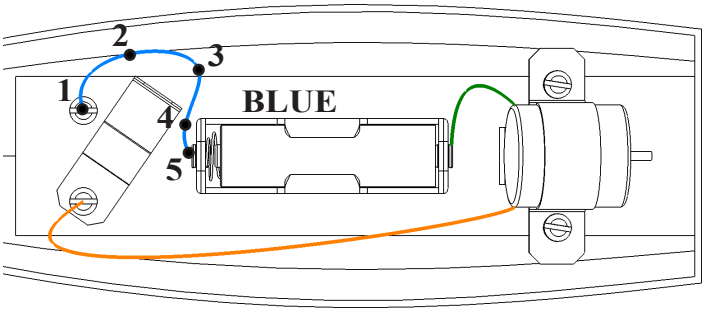


Fig. 27