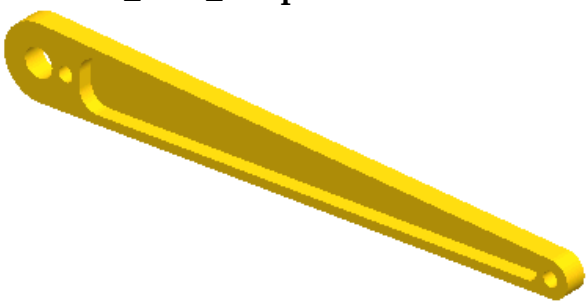
Instructions for Creating a custom drawing of a part for your robot

Task 1: Create a custom drawing

Objective: In this task you will create a 2D manufacturing drawing of a custom part used in the robot model but not part of the kit of parts.

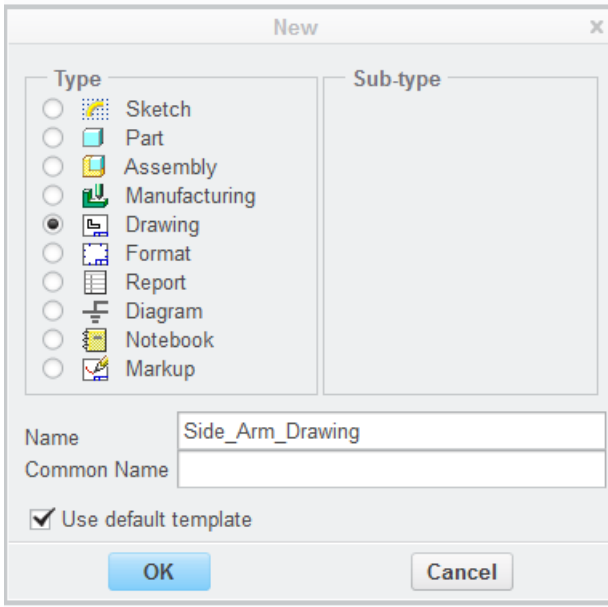
If there are any custom parts in the design of your robot, you will need to have them manufactured. In order for you to have them manufactured, you will need to have the custom parts fully documented in drawings. In this exercise, you will learn how to create a simple drawing.

1. Close the Exploded drawing and exploded model of the robot.
2. Open the model of the scoop arm called "**Side_Arm_Fea.prt**"

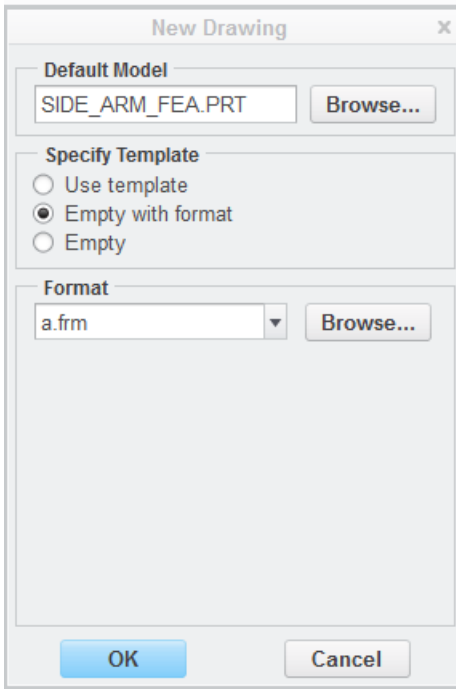


3. Now that you have the 3D model of the part open, create a new 2D drawing of the part by selecting **New** in the **File** menu and selecting **Drawing** and naming the

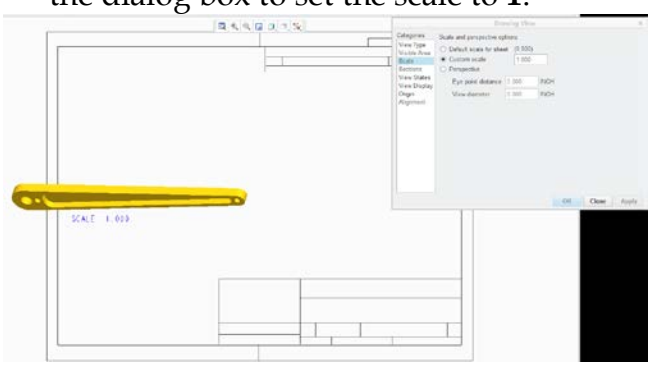
file "**Side_arm_Drawing**"



4. Choose **Empty with format** again and then **Browse** to find the **a.frm** file.

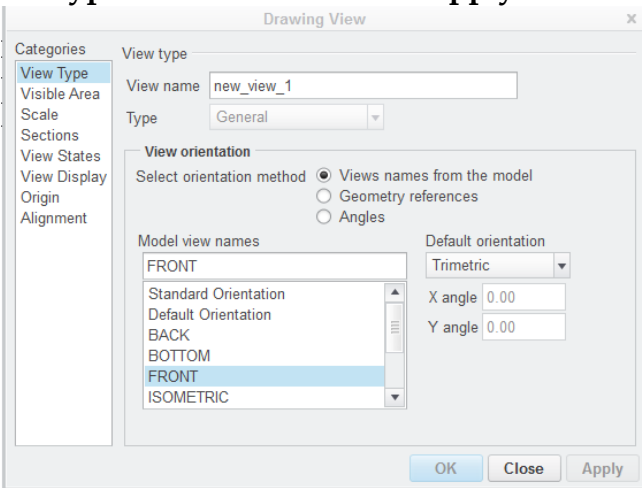


5. Insert a general view using the **General** icon in the top menu and then click the position for the view. Use the **Scale** tab in the dialog box to set the scale to **1**.

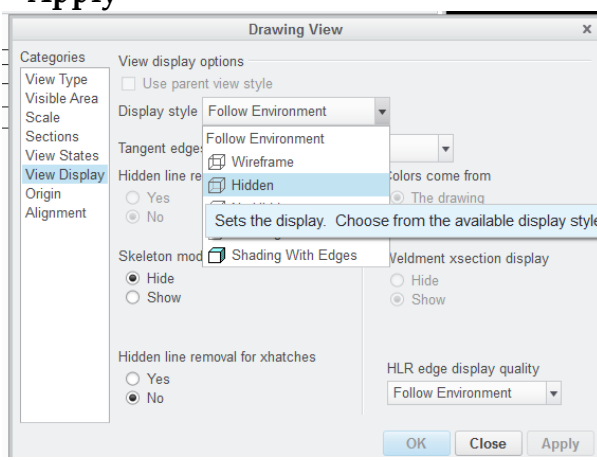


6. This time, we will want to have three

views showing the front, right, and top views projected. To do this, set the **View Type** to **FRONT** and click **Apply**.

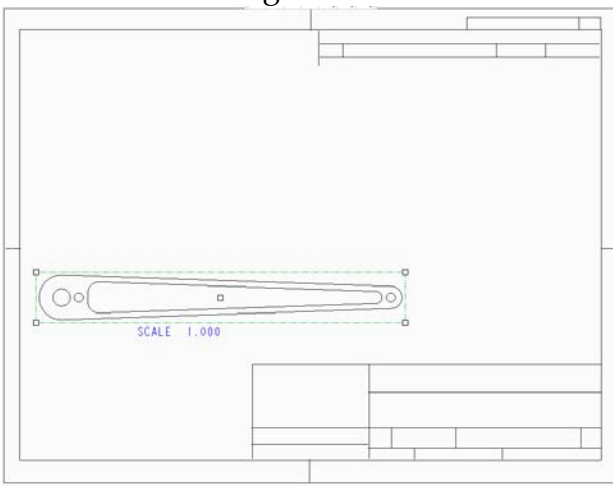


7. Now set the View Display to **Hidden** and **Apply**

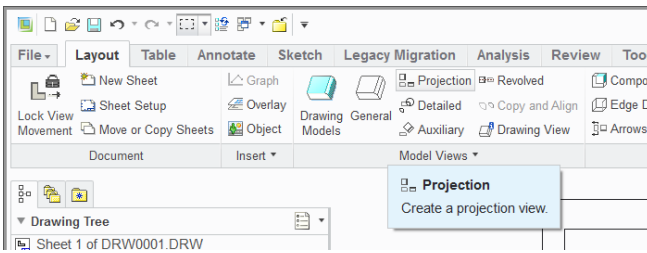


8. Close the view dialog box and then unlock the view so that you can reposition it by

right clicking on the green border around the view and unchecking the **Lock View Movement** box. Now position the view so that two other views can be projected from it to the right and above.

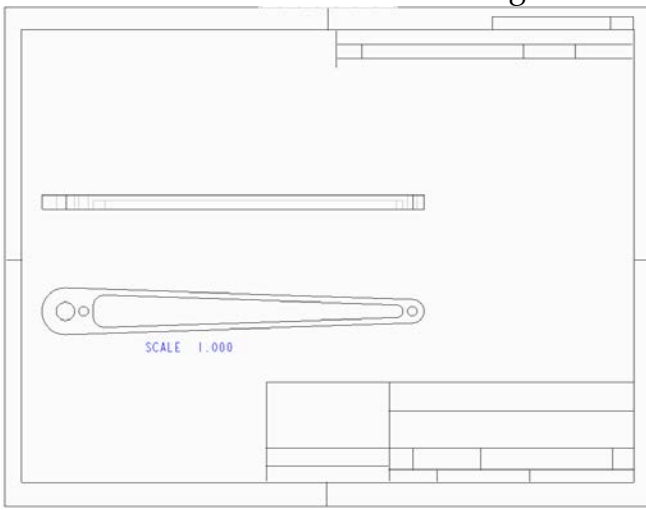


9. Now project a view from this first view by selecting **Projection** in the upper dashboard.

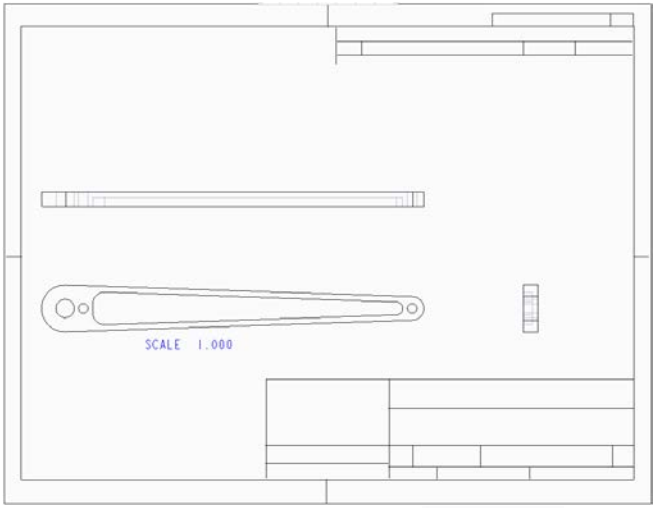


10. You will see the outline of the projected view as you move your mouse above and to the right of the first view. Click a posiiton above the first view and a new

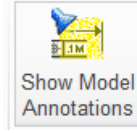
view will be created. Select the green border and right click and select **Properties**. Now set the **View Display** to **Hidden** and close the view dialog box.



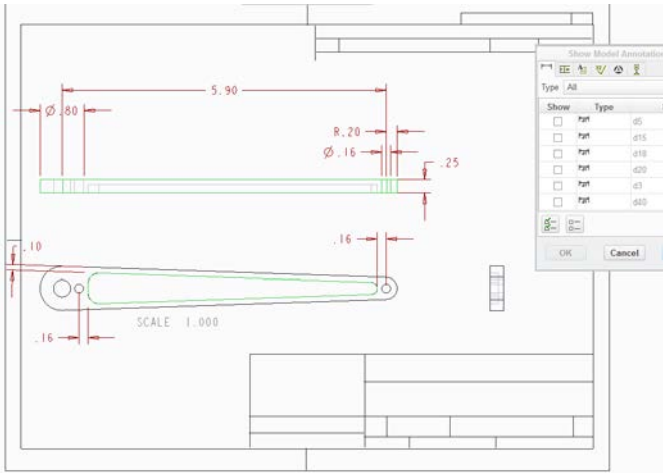
11. Add another view using the same method but to the right of the first view.



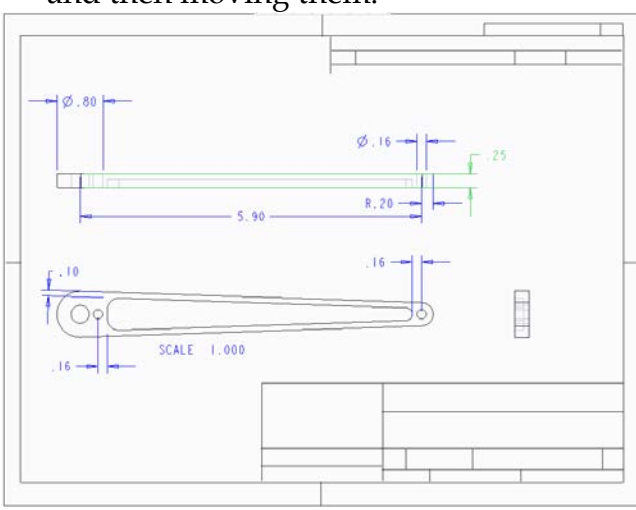
12. You are now ready to add dimensions.



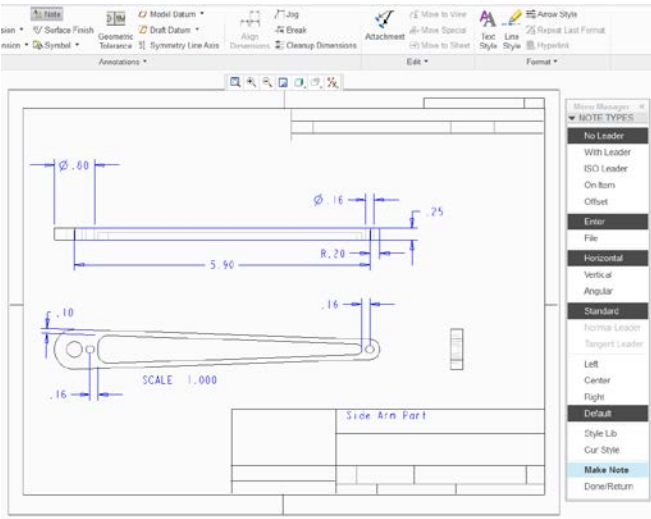
13. Select all the views where you would like the dimensions to appear. A dialog box will appear that will allow you to show or not show dimensions. Select the dimensions you want and click **Apply**. Then close the dialog box.



14. You can change the positioning of the dimensions simply by clicking on them and then moving them.



15. Now finish the drawing by filling in the information about the drawing in the format boxes using the **Note** tool.



Congratulations! You have completed the custom drawing of the side arm model of the robot.