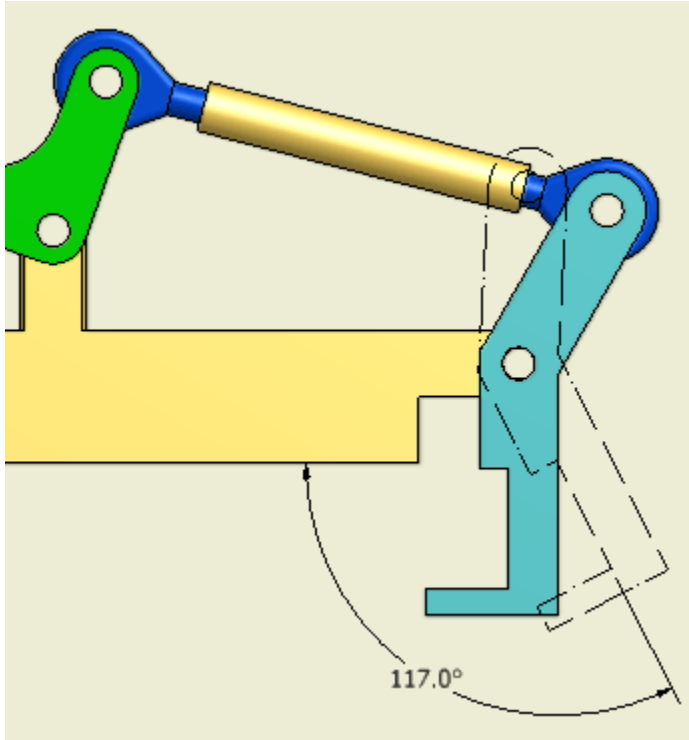
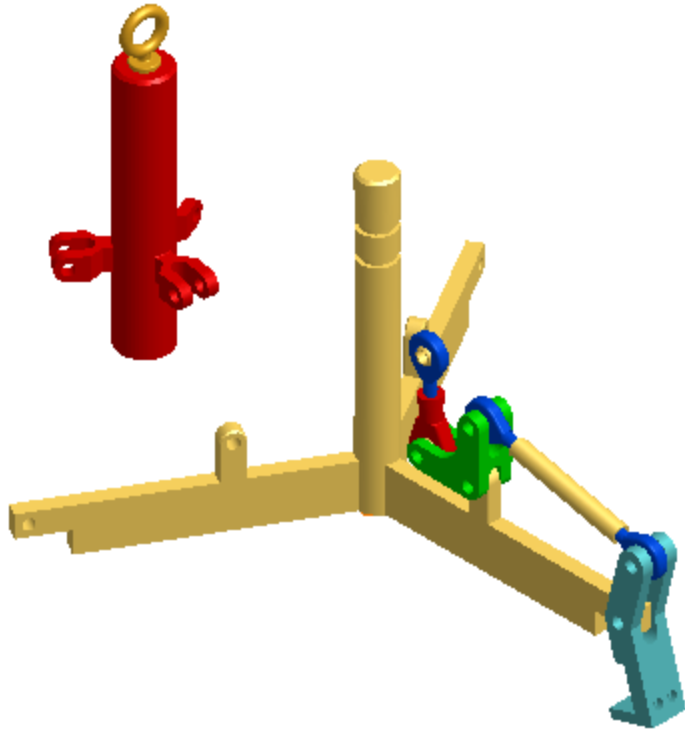


Drawing View Overlay

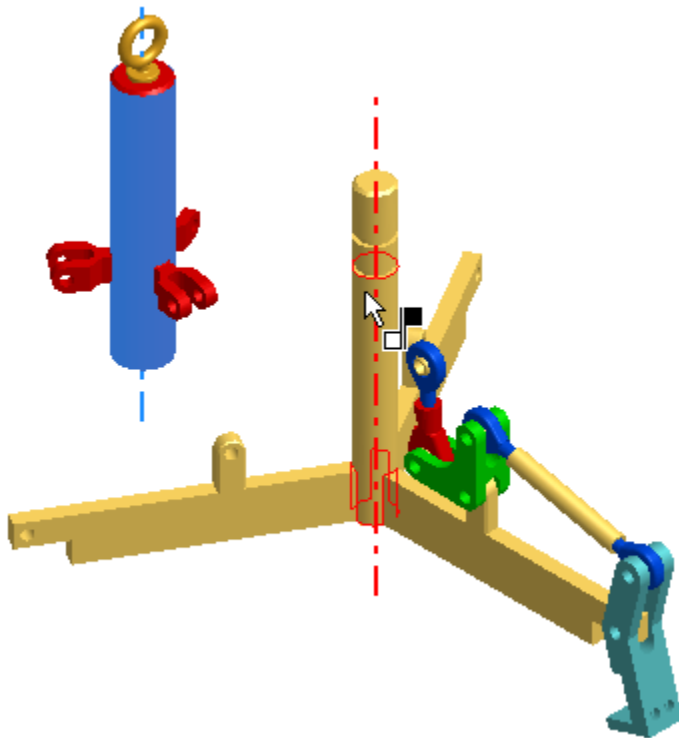


This Skill Builder demonstrates how to create and edit drawing view overlays. View overlays work in conjunction with positional representations to show an assembly in multiple positions in a single view. You can also modify a view overlay with design view representations. View Overlays were introduced in R10.

To begin, set your active project to tutorial_files, and then open remDOFs.iam. Save a copy of this assembly and use Overlay for the file name. Close remDOF.iam and then open Overlay.iam.

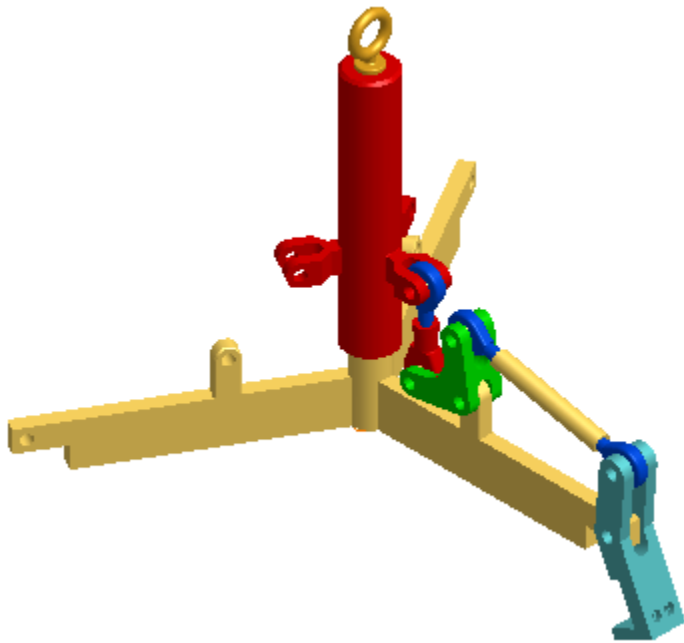
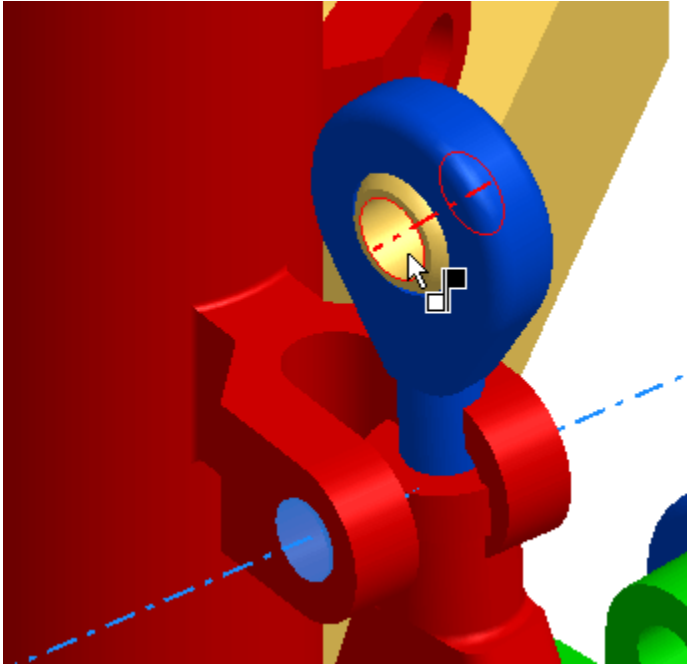


The model needs a couple more constraints to complete the mechanism. Press c on the keyboard, select the cylindrical face of the NewSleeve component, and then select the cylindrical face of the NewSpyder component.




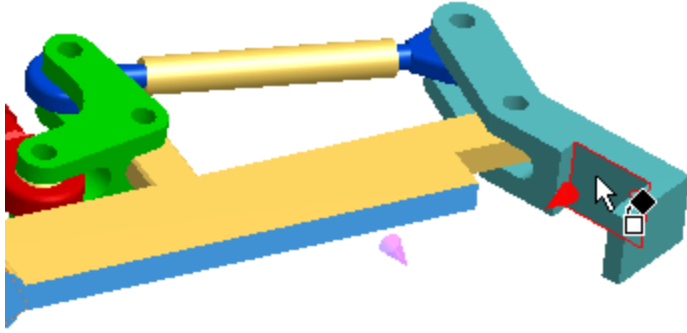
Click Apply.

Select the hole on the clevis, as shown, and then select the hole on the heim insert.



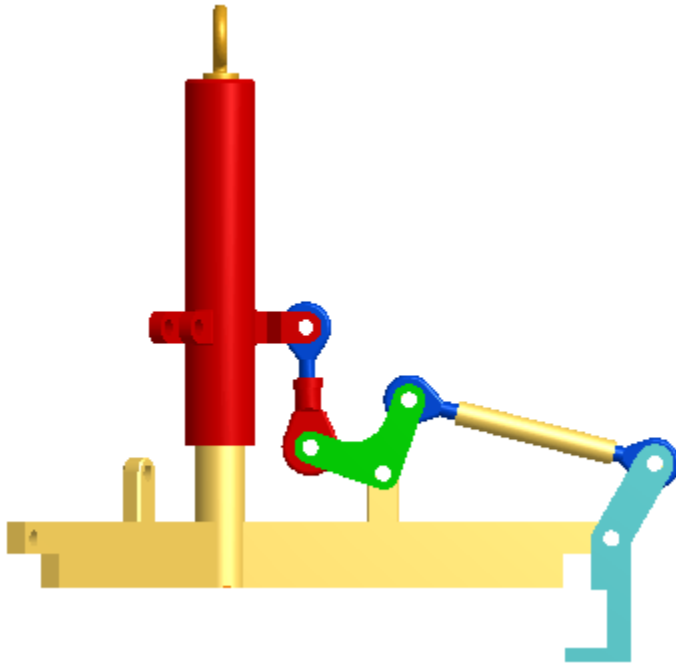
Next, we need a constraint to which the positional representations will refer.

Click the Angle constraint button . Select the face on the spyder, and then select the face on the claw.

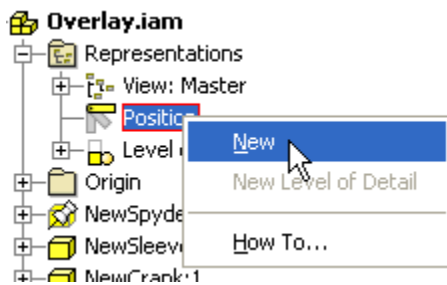


Enter 90 in the Angle field, and then click OK.

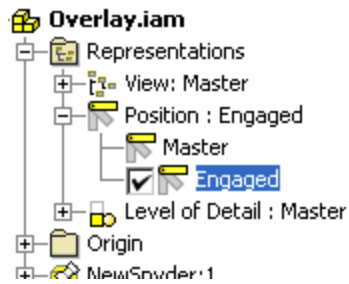
Orient the model, as shown.



In the browser, expand Representations. Right-click Position, and then click New.



Expand Position: Position1, and then slowly double-click Position1. The text should be highlighted and ready for renaming. Rename Position1 to Engaged.



Right-click Position: Engaged, and then select New. Rename this positional representation Disengaged.

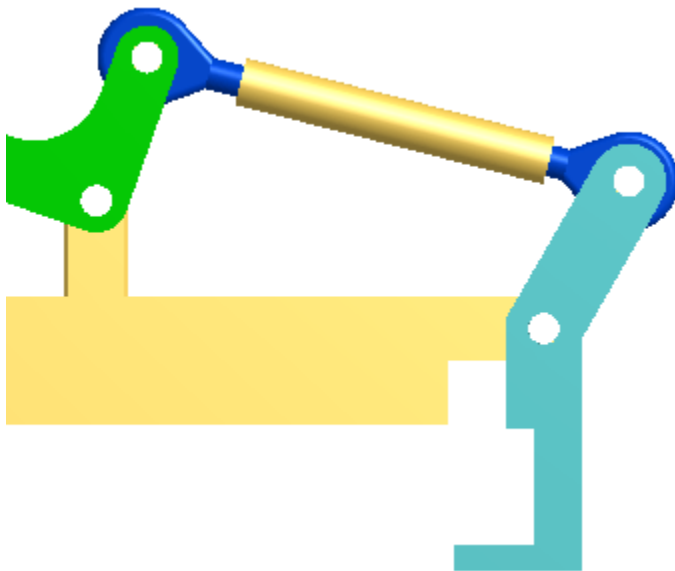
Currently, both these positional representations are identical. We'll override the angle constraint we created earlier to set Disengaged in the desired position.

Expand NewClaw, right-click the angle constraint, and then select Override.

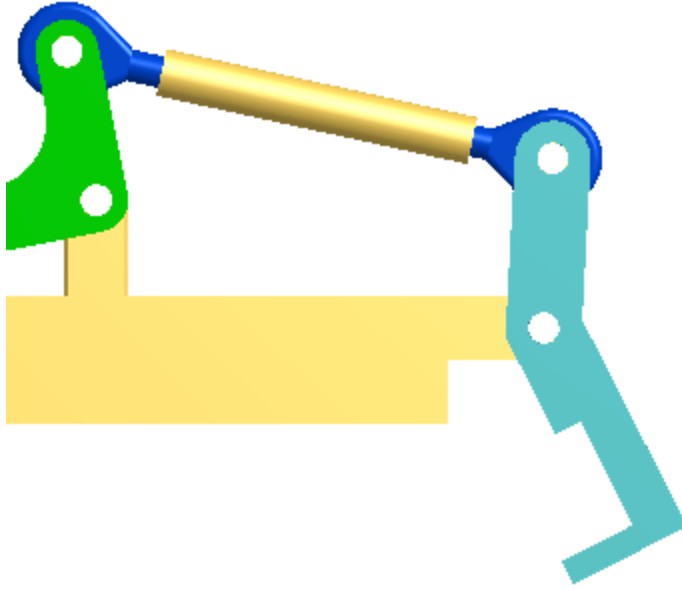
In the Override Object dialog box, ensure Disengaged is selected on the Positional Representation menu.

On the Constraint tab, select the Value option, and then enter 63 in the Edit field. Click OK.

To confirm the positional representations are working as expected, double-click Engaged.



Double-click Disengaged.



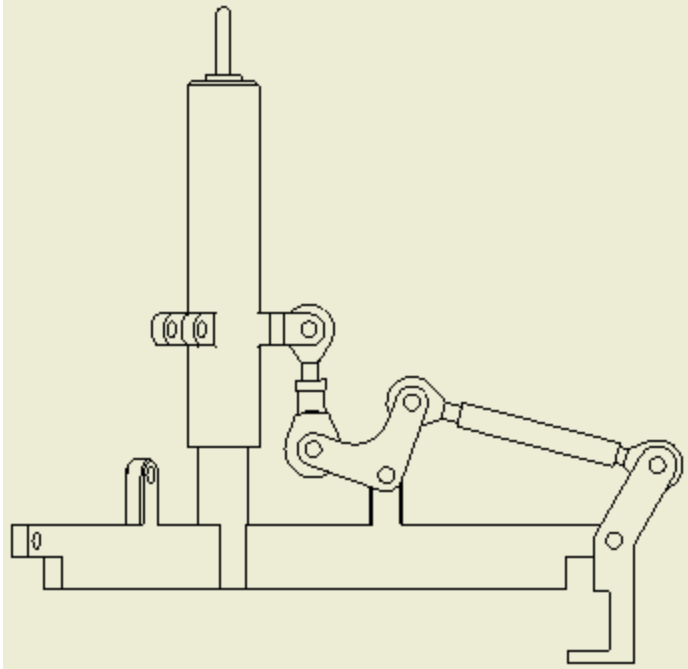
Save the assembly (the Master positional representation must be active). Double click Master, and then save the assembly.


We've finished the preparation work, now we can create the view overlay.

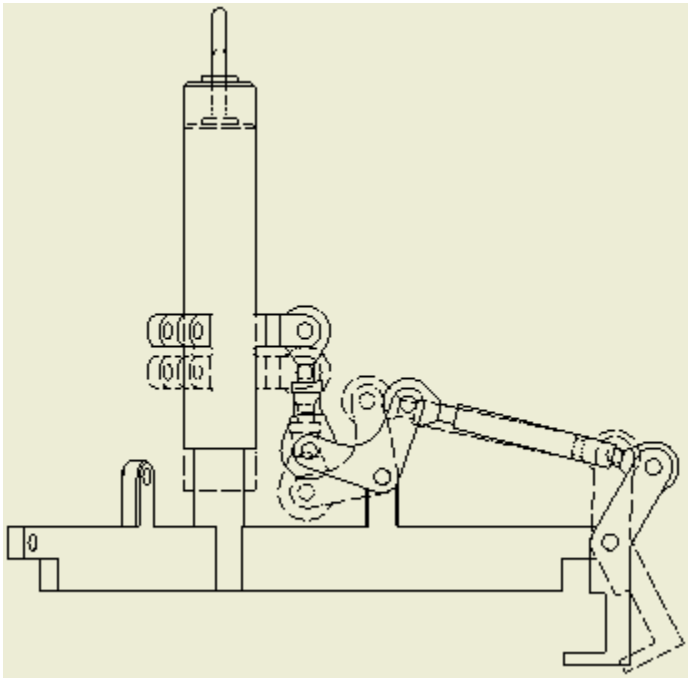
Start a new drawing using any template.

As the name implies, a view overlay “stacks” two or more views on a drawing sheet such that the views share the same sheet coordinates. First, you need a view to which you can add overlays. This view can be a base view, projected view, or auxiliary view.

Right-click on the sheet, and then select Base View. In the Drawing View dialog box, select Current from the Orientation field. In the Position field, select Engaged. Click on the sheet to place the view.



Click the Overlay tool , and then select the view. In the Overlay View dialog box, select Disengaged from the Positional Representation field. Click OK. The positional representation Disengaged is overlaid onto the base view.



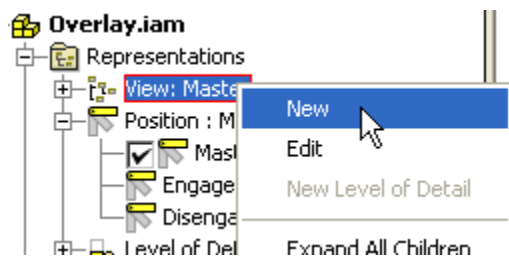
Any component subject to the positional representation is rendered according to the Overlay style object. In this example, a dotted-dashed line is used to show the overlay.

Keep in mind that with every view update, Drawing Manager redraws **every** assembly component; it's always a good idea to reduce geometry included in the view to the minimum needed. Let's assume that the claw part is the only item of interest in this overlay.

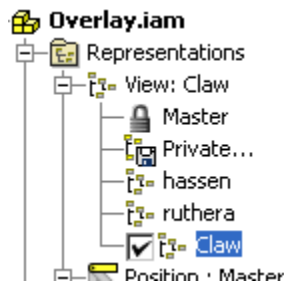
While you could turn off visibility of components in the drawing browser, most of the time it is much more efficient to create design view representations to deal with component visibility.

From the Window menu on the standard toolbar, select Overlay.iam.

In the browser, right-click View: Master, and then select New.



Expand the View:View1 node. The new design view representation is set to Active automatically. Rename View1 to Claw.



Right-click the NewClaw component, and then select Isolate.

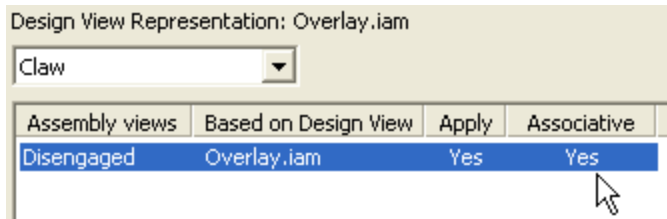
Return to the drawing.

In the browser, expand VIEW1:Overlay.iam.

Right-click Disengaged:Overlay.iam, and then select Apply Design View.

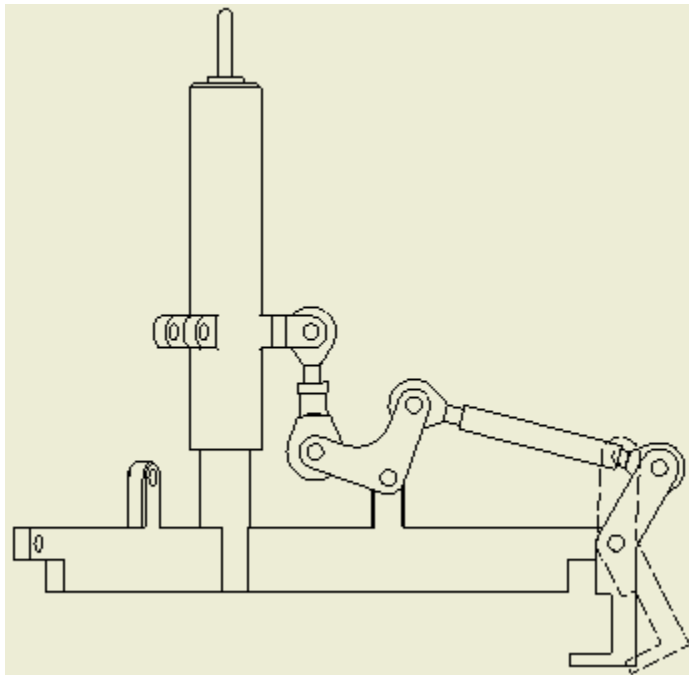
In the Apply Design View Representation dialog box, ensure Claw is selected on the drop-down menu.

In the list of assembly views (there should be only one in this example) in the lower portion of the dialog box, notice that the Associative column is set to No (you may need to resize the columns). Click the No text to switch this setting to Yes. When set to Yes, changes to the design view are automatically picked up by the drawing.



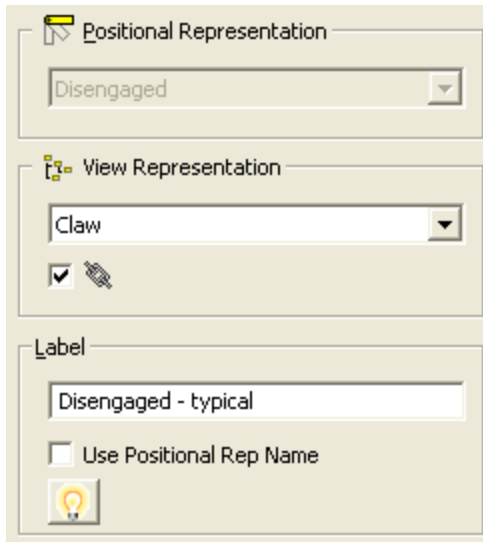
This is the same as selecting the Associative option in the View Representation field of the Overlay View dialog box.

Click OK. The design view representation Claw is applied to the view overlay.



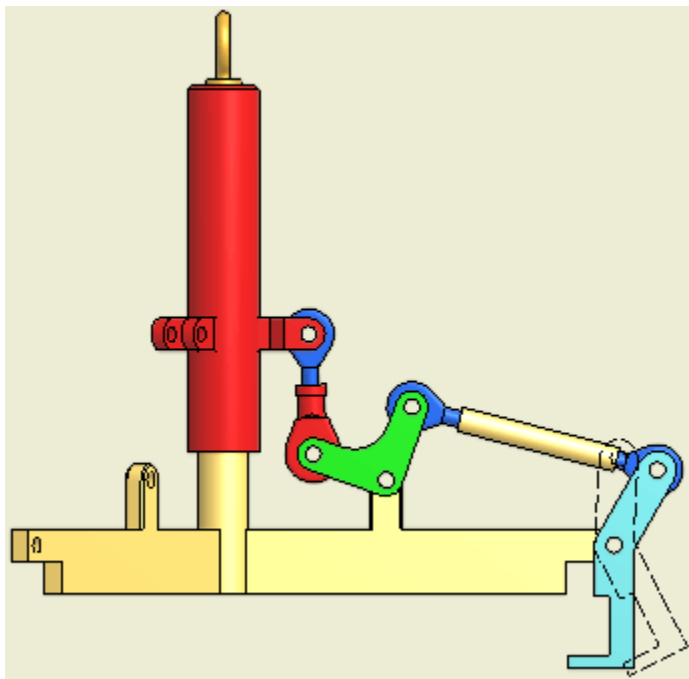
You can apply a label to the overlay view. In the browser, right-click Disengaged:Overlay.iam, and then select Edit View. Click the Toggle Label Visibility button.

By default, the label is the same as the name of the positional representation. Remove the check mark next to Use Positional Rep Name, and then type Disengaged – typical. Click OK.

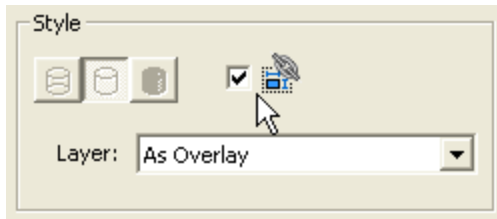


By default, the view overlay does not inherit changes to the style characteristics of the parent view.

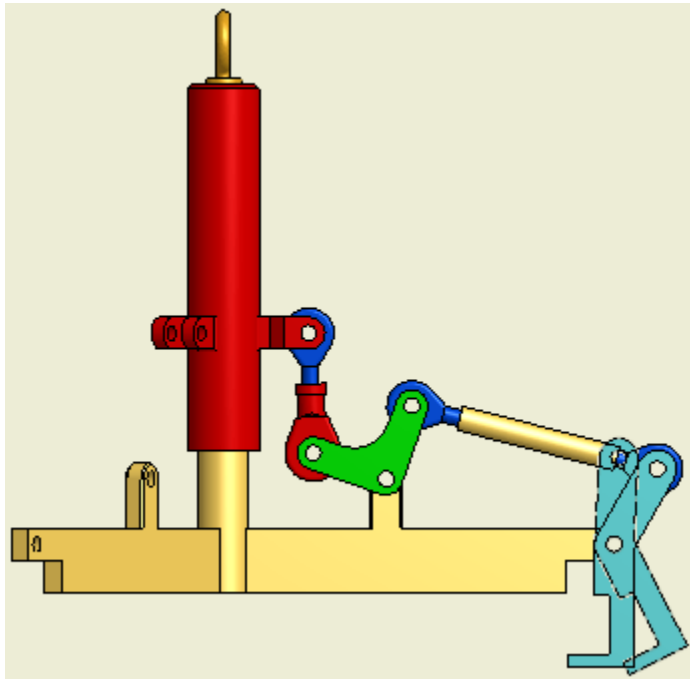
Right-click the parent view on the drawing sheet, and then select Edit View. Change the style to Shaded and then click OK. The overlay remains set to Hidden Line Removed.



Make the overlay style associative to the parent view. In the browser, right-click Disengaged – typical:Overlay.iam, and then select Edit View. Select the Style From Base option.



Click OK.



Finally, you can set the overlay to display as part style rather than overlay style.

Right-click Disengaged – typical:Overlay.iam and then select Edit View. Set the Layer menu to As Parts. Click OK. The overlay style is not used and the components in the overlay display according to the part style.

