Contact sets are an incredibly useful feature to be aware of when creating and working with assemblies in Inventor. Essentially, when activated, this tool will not allow selected parts to occupy the same space; not a behaviour typical of part interactions within Inventor assemblies. Ordinarily, as I'm sure most of you are aware, parts placed into an assembly will happily overlap and protrude through each other as you go about constraining and creating your model.

Without contact sets activated, you can see how the two halves of this simple hinge assembly are allowed to clash and pass through each other. By default all Inventor assemblies will operate in this way.

When working with a fully constrained, static assembly, the use of contact sets is going to be somewhat unnecessary. That said when working with dynamic assemblies that feature moving and/or interlocking parts, their utility should not be underestimated. In such cases contact sets are an excellent way of visualising and testing ranges of motion, detecting clashes and simulating the workings of mechanisms.

With contact sets applied the hinge behaves in a more true to life manner as clashes between the hinge components are prevented.

Applying contact sets is incredibly simple, and can be done using the following steps:

1. Either in the graphics area or in the feature tree selects the parts you want to apply a contact set to. Right click you selection and enable the contact set using the context menu.
2. Under the 'Inspect' tab you will find the interference panel. The interference panel is where you will find the 'Activate Contact Solver' command; click the icon as seen in the image below, it will turn blue to show that the contact solver has been turned on.
3. Clicking this icon toggles your contact sets (the ones applied in step 1) on and off for the entire assembly, allowing you to quickly activate and deactivate them as you work.
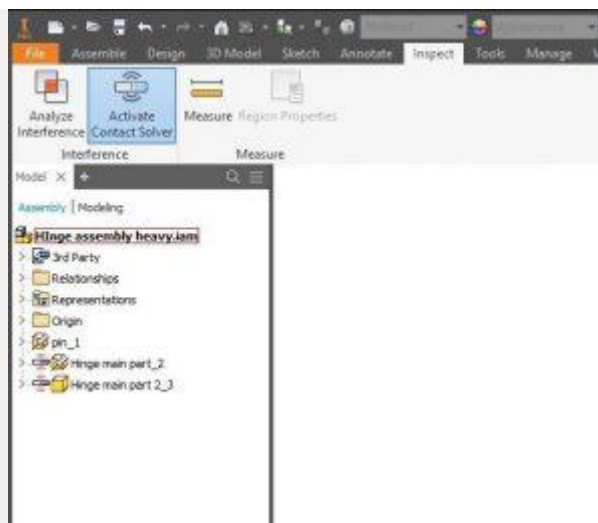
It really is that simple, but is nonetheless a great function to be aware of as you start to need to test your assemblies in more real world way.

If you have a project you need assistance with then **get in contact** with one of our specialist team today for a quote!