Assembly Exercise.   Create a Contact Set

Applying a contact set to two assembled parts for realistic movement.

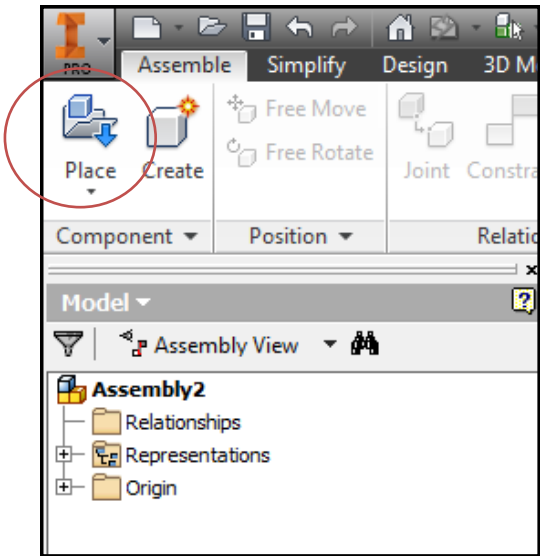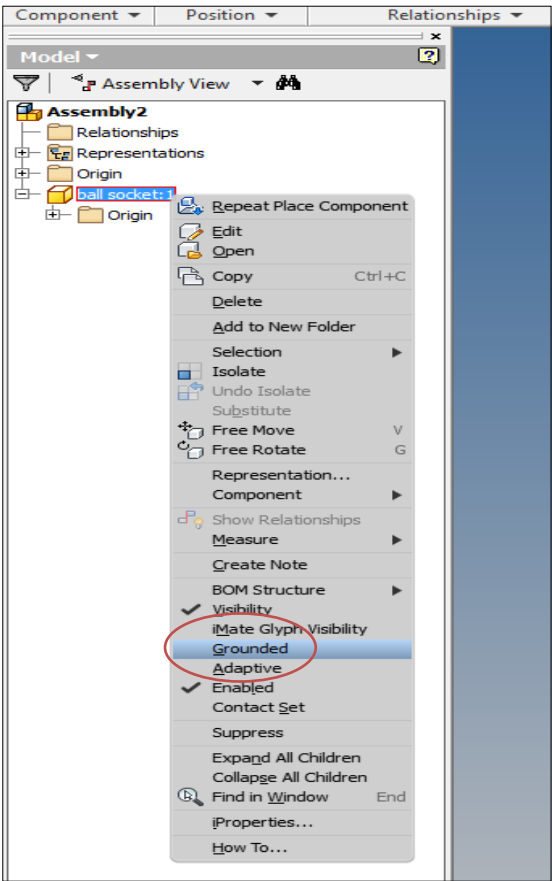**Step # 1**. From the New File dialog box , select the *Standard.iam* template.

FIG 1.0

Step # 2. On the Assemble tab select the *Place Command*.

In the place component dialog select Ball Socket.ipt and place one instance of the component in the assembly.

FIG 2.0

Step # 3. in the browser right click Ball Socket and select *Grounded*.

FIG 3.0

Step # 4. Repeat the place command , and select a second component, namely Ball Joint. Place one instance of Ball Joint into the assembly as shown in Fig 4.0
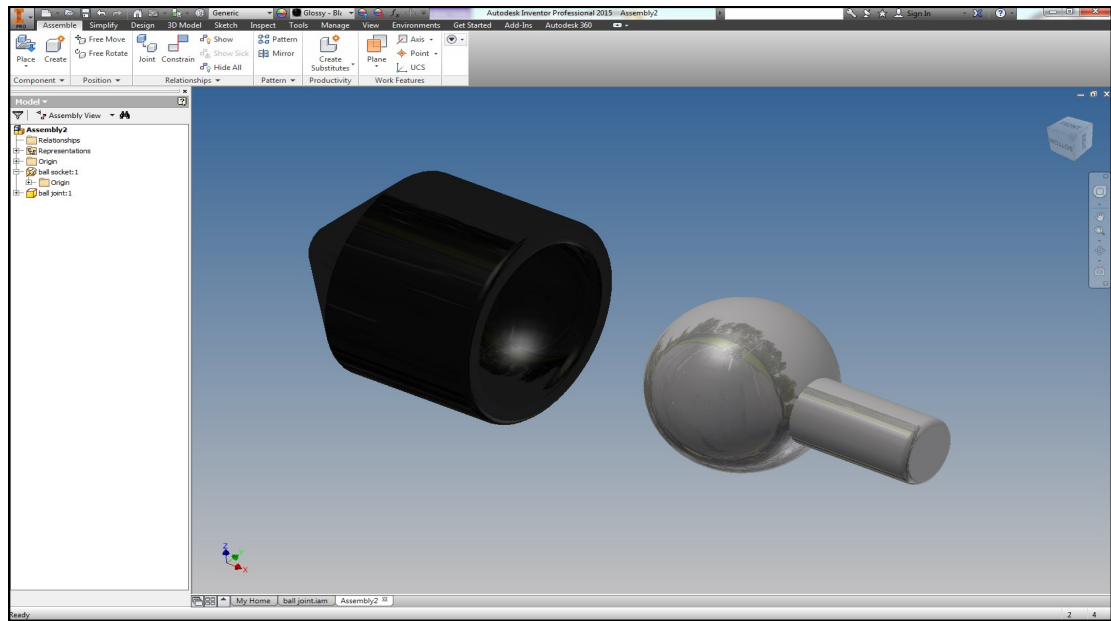

FIG 4.0

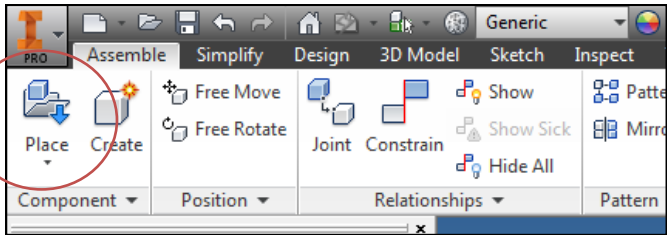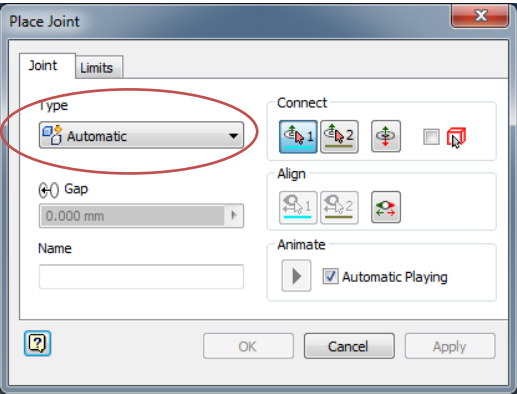**Step # 5**. On the Relationships Panel select Joint.

FIG 5.0

FIG 6.0

NOTE: Leave Type as automatic and all other settings as default

Step # 6. Select the centre of the ball joint and then the centre of the ball socket as shown in Fig 7.0 and Fig 7.0a
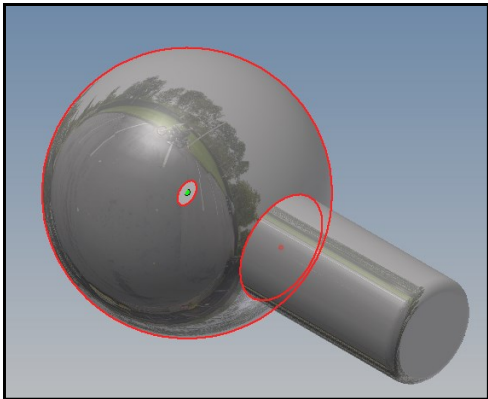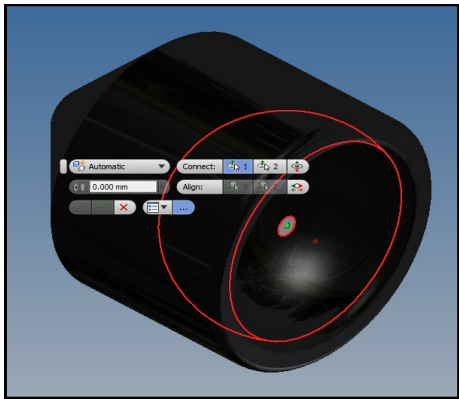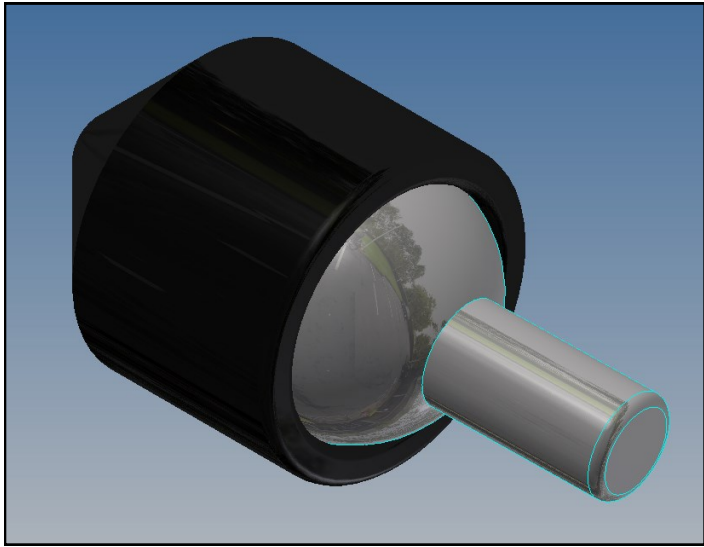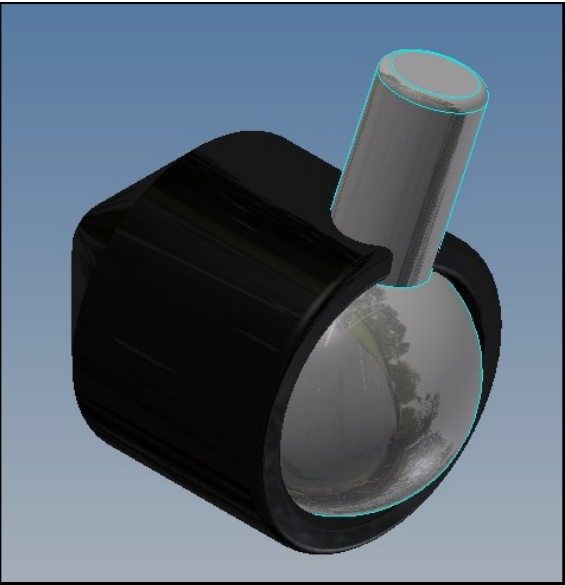

FIG 7.0

FIG 7.0a

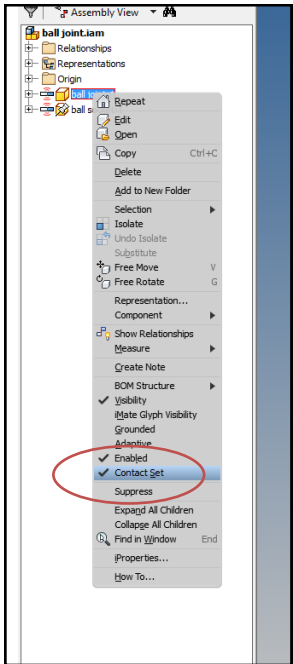The joined assembly can be seen in Fig 8.0

FIG 8.0

Step # 7. Joined or constrained parts in assemblies often require additional limits placed upon there freedom of movement. Without these extra limitations the assembled parts can move in an unnatural way. An example is shown in Fig 9.0

Here is an example of a part interfering with another.

FIG 9.0

Step # 8. Applying a contact set

In the browser right click on each of the parts of the assembly and select *Contact Set*. (Fig 10.0)

Then on the Inspect Tab, in the interference panel activate the *Contact Solver*. (Fig 11.0)
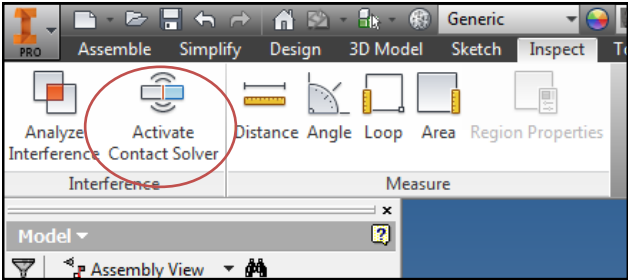

FIG 10.0

FIG 11.0

Now the assemble has a more natural movement set and will not interfere with other components in the contact set.
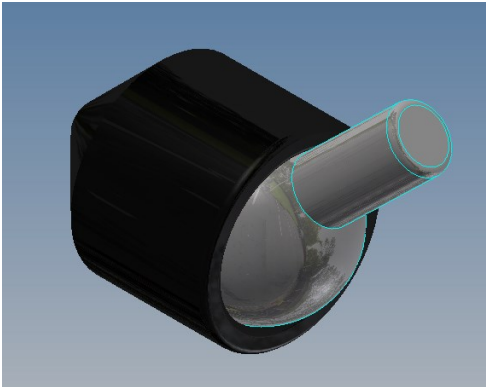

FIG 12.0