

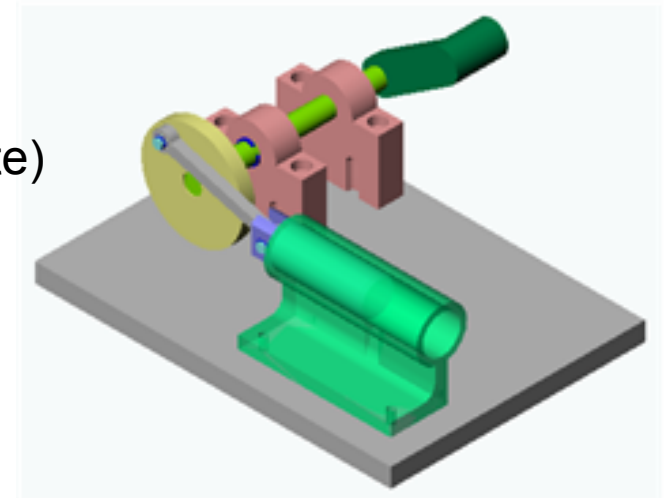
Assemblies in Solidworks

Simple Assembly

- Download *4_assembly_example.zip*
- Open a new assembly file (use tutorial template)
- Click **view, origins** (to show origin)

Insert 1st part into assembly

- **File, open** → open base plate.sldprt
- Tile windows horizontally
- Drag base plate part from part window to assembly window origin
(Because it is constrained not to move, there is an f next to base plate)
- Close part window
- Maximize assembly window.
- Click **isometric, hidden in gray** (may need to add Standard View toolbar under view menu)

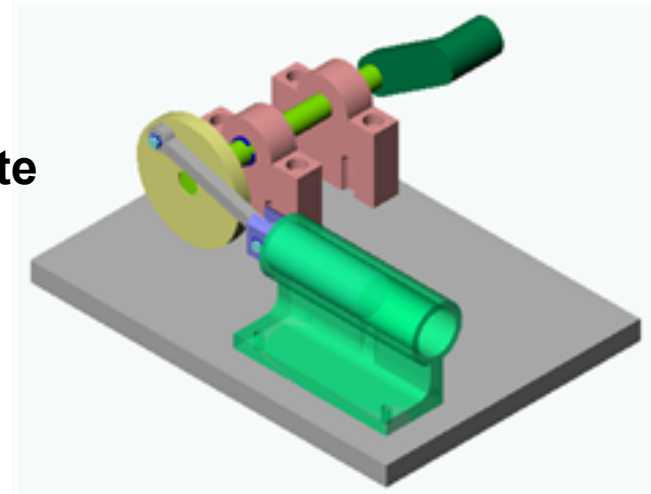


Assemblies in Solidworks

Simple Assembly

Bring more components into assembly

- Launch windows explorer
- Navigate to the simple assembly folder
- Click on the parts in windows explorer and drag into assembly window (bearing block, housing, piston). Notice the (-) in the feature manager next to unconstrained parts (these parts can be moved and rotated).
- Practice moving and rotating
- Make copy of bearing block → **edit, copy, paste**
- Save the assembly as simple assembly

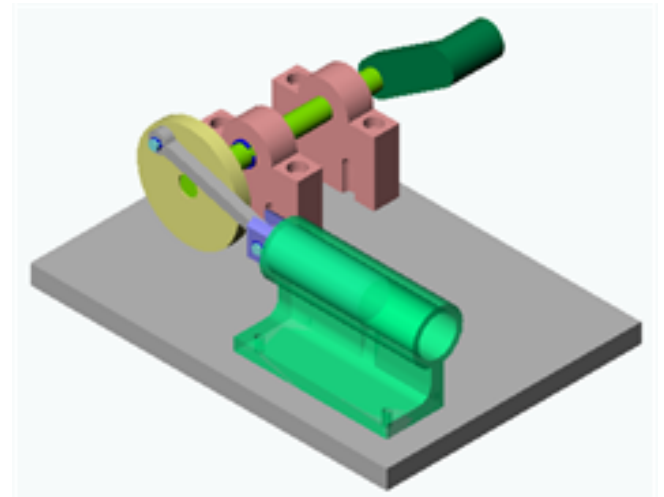


Assemblies in Solidworks

Simple Assembly

Mate bearing blocks to base plate

- **Mate** (paper clip) → **keep visible** (push pin)
- Select bottom hole (click near hole w/ right mouse → select other (right=n, left=y))
- Select hole on base (preview before committing)
- Assign concentric mate between hole and corresponding hole on base plate.
- Repeat for the other hole on bearing block and base plate.
- Close mate tool.
- Select keep visible option
- Mate bottom surface of bearing block to top surface of base plate
- Repeat process for the second bearing block



Assemblies in Solidworks

Simple Assembly

Housing to base plate

- Concentric mates between holes on base plate and housing
- Mate bottom surface of housing to top of base plate and enter a distance of 50mm. (If necessary click on flip direction).
- Now set distance to 0mm

Piston to housing

- Assign a concentric mate between piston and housing.

