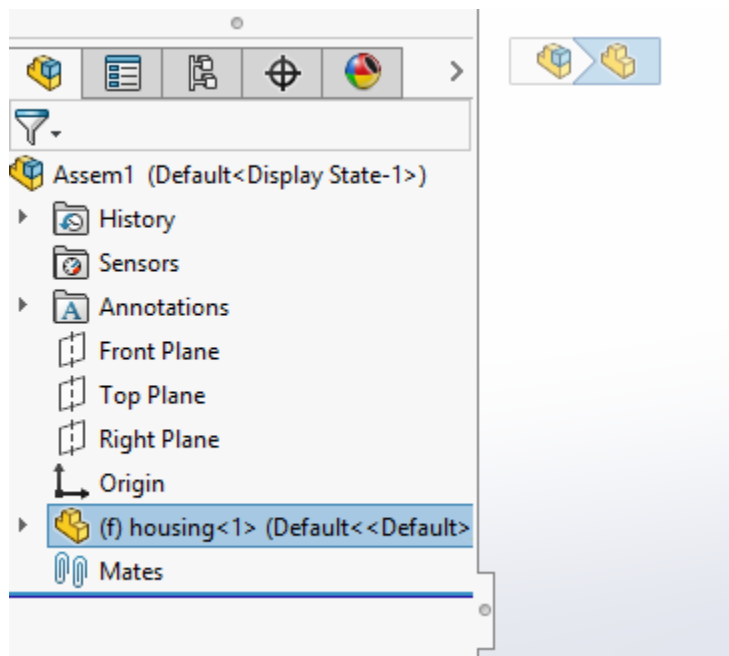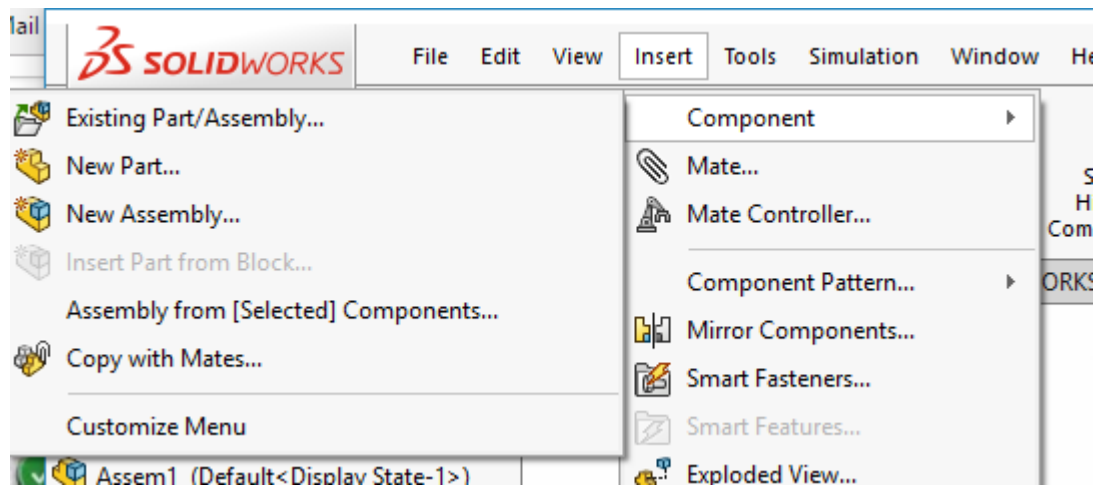**Creating Assemblies in SolidWorks 2017**
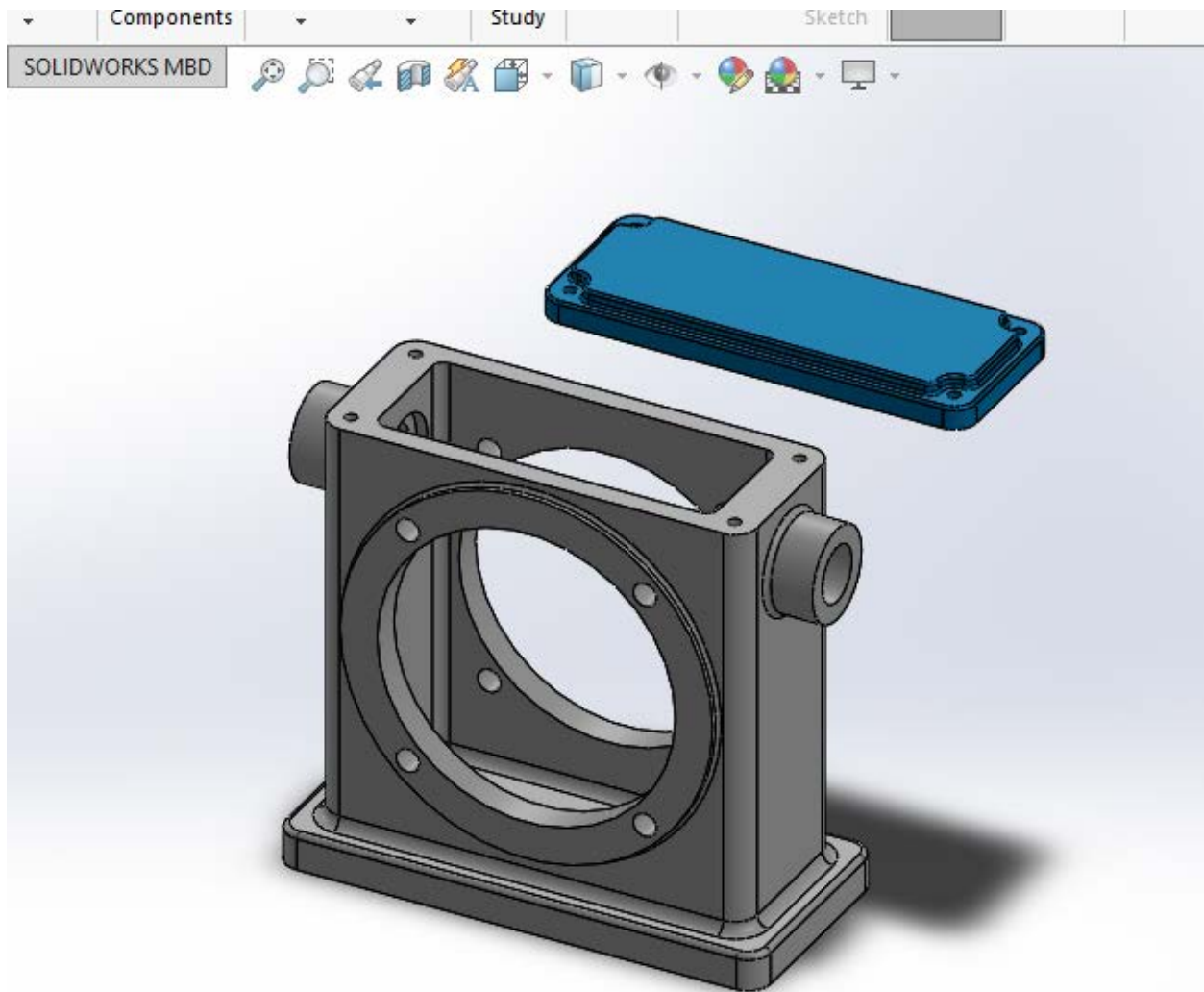
1. Open SolidWorks and open a new part project. Or open the file "Housing.sldprt"
2. Go to **File** and select **Make Assembly from Part.**
3. Now you can see a Begin assembly tree menu to your left side.
4. Scroll down and select **Graphics preview**
5. This will show the original part that will be fixed to this assembly file.
6. This part won't move so it will be the reference part when other parts are inserted.
7. Place this original part anywhere in this plane.
8. Notice that your menu tree changes and now this part shows up with **(f)** housing<1>…..
9. This indicates that this part is being fixed to the plane so this part won't move.
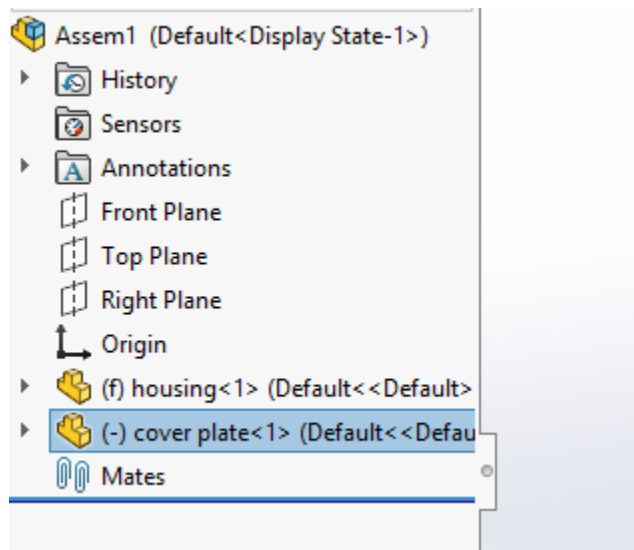

10. Now we can insert more components to this assembly.
11. You can click on **Insert** menu and then **Component** then **Existing Part /Assembly**

12. Now browse for the part called **cover plate** in the same folder of the parts I gave you.
13. This time you will place that part anywhere else in the editing area next to the fixed housing part.
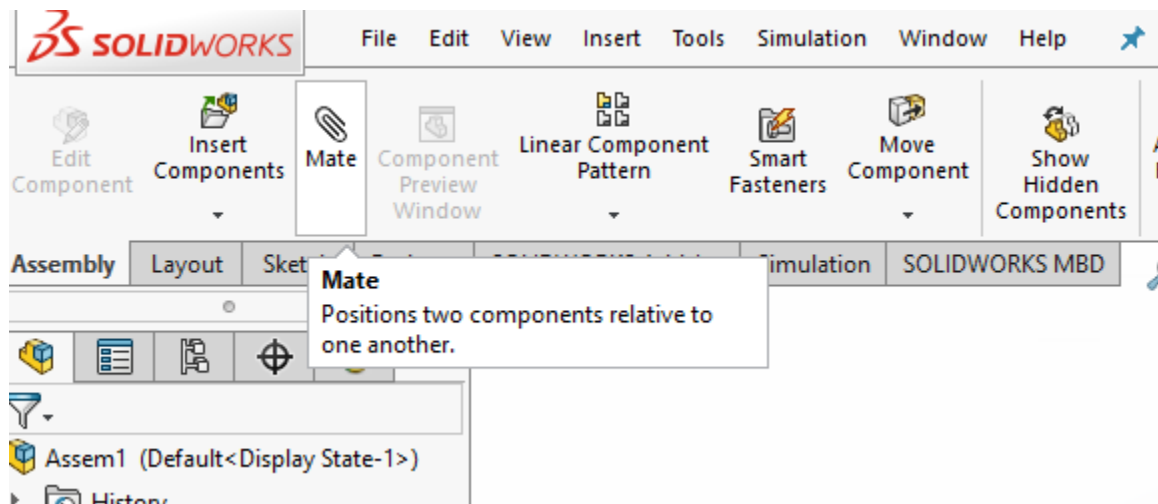14. Notice that you can freely move this part around the housing part.

15. Also, see that this part has a **(-)** next to its name in the tree menu. This means this part is not fixed.

New York City College of Technology   **Spring 2017**
Assembly Instructions in SolidWorks made by:
Professor. Mauricio Cardenas   **EMT2480L**

16. Now that we have this two parts we need to mate the bottom surface of the cover to the top face of the housing.
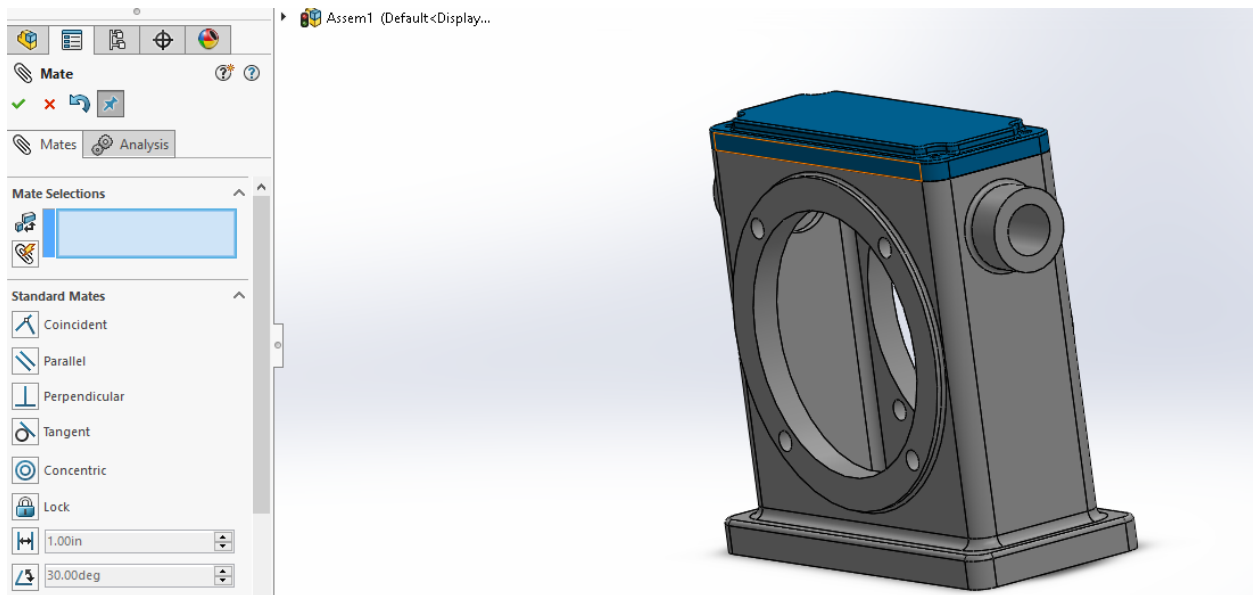17. So, we need two mates with coincident faces.
18. So, initiate the **Mate** mode by clicking in the paper clip icon **Mate**.
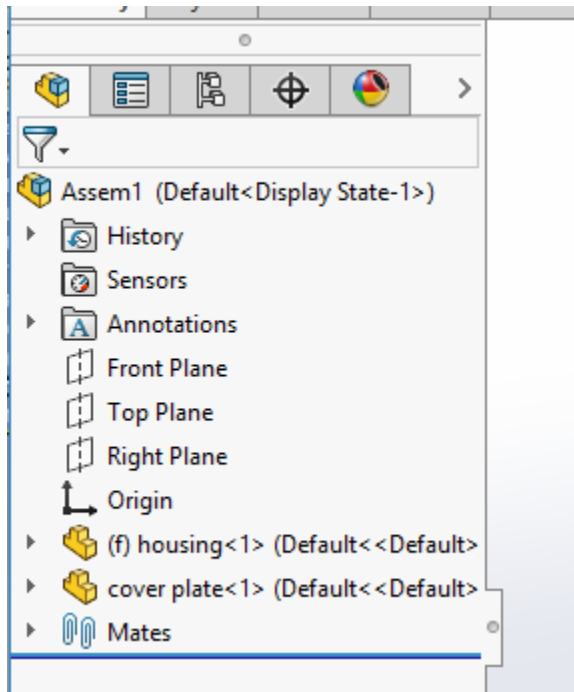

19. The Mate menu shows up. Now you will click on pairs of faces that you want to be touching each other.
20. At this point you will select the mates that you believe will be coincident so they are references to SolidWorks to joint these two objects together.

21. Notice that this two objects have two coincident sides that are touching each other. This time the blue cover has a yellow margin around its front view. This side is coincident to the front view of the housing.
22. Accept the Mates changes by selecting the green check mark.
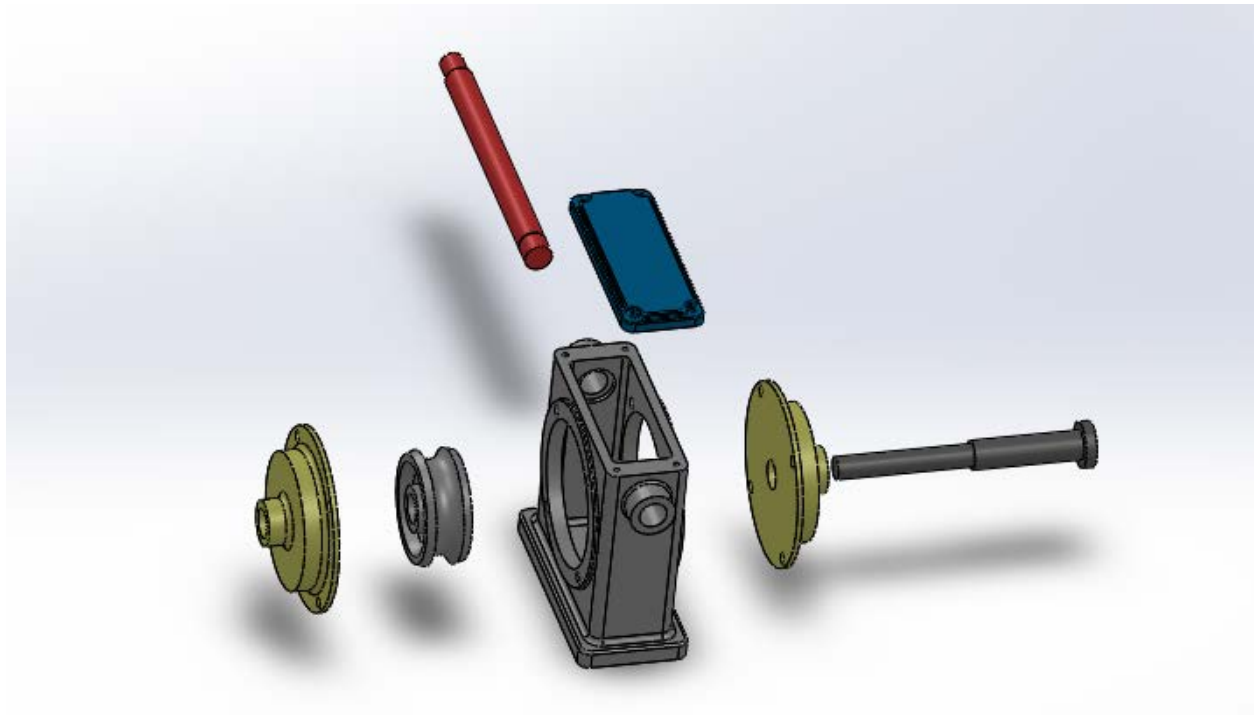23. Now this assembly is fully defined. This assembly won't move anymore.
24.

25. Notice that the **(-)** of cover plate disappear indicating this part is indeed fully defined.
26. Your simple assembly is done.

Assignment:

1. Add the rest of the parts of this assembly by inserting all the components given in this folder.

2. Submit a PDF file with the finalized assembly including professional template.
3. Submit both the PDF and SolidWorks files.