EXPERIMENT-5

AIM: To create a Single Plate Clutch

SOFTWARE USED: Solidworks 2020

THEORY:

A Single Plate Clutch is defined as a type of friction clutch, which is made of a single clutch plate. The amount of frictional force that generates within the clutch plate due to the contact that takes place between the friction lining which is mounted on the clutch plate.

When the pressure from the clutch pedal is released, the clutch plate is said to be in engaged position and on the other hand this can be achieved by the pressure plate which is moved towards the left in the direction of spring force such that all these forces can help engaging the clutch for the transmission of power.

The components of Single Plate Clutch are as follows:-

1. Flywheel
2. Engine shaft
3. Clutch shaft
4. Bearing
5. Clutch Plate
6. Clutch Pedal.
7. Friction Lining
8. Pressure Plate
9. Clutch spring

COMMANDS USED:

1. Sketch
2. Mirror
3. Boss extrude
4. Extrude cut
5. Mate
6. Pattern
7. Revolve Boss

PROCEDURE:

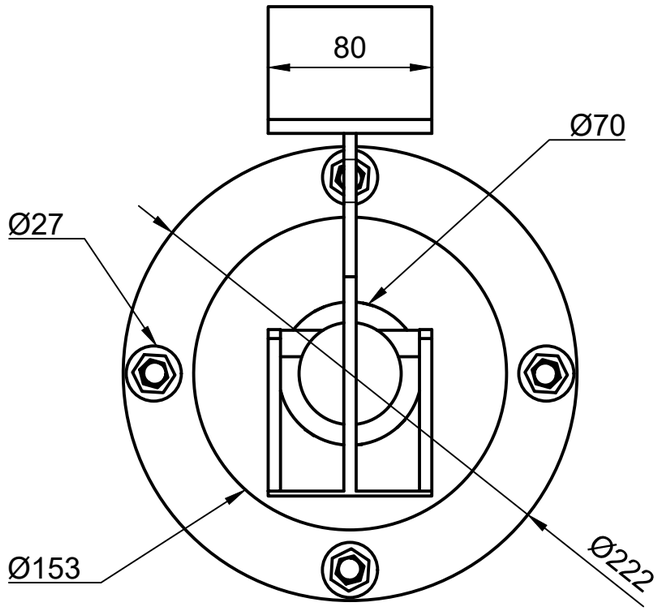
1. First separately make the different parts of the assembly like Flywheel, Engine shaft, Clutch shaft, Bearing, Clutch Plate, Clutch Pedal, Friction Lining, Pressure Plate, Clutch spring.

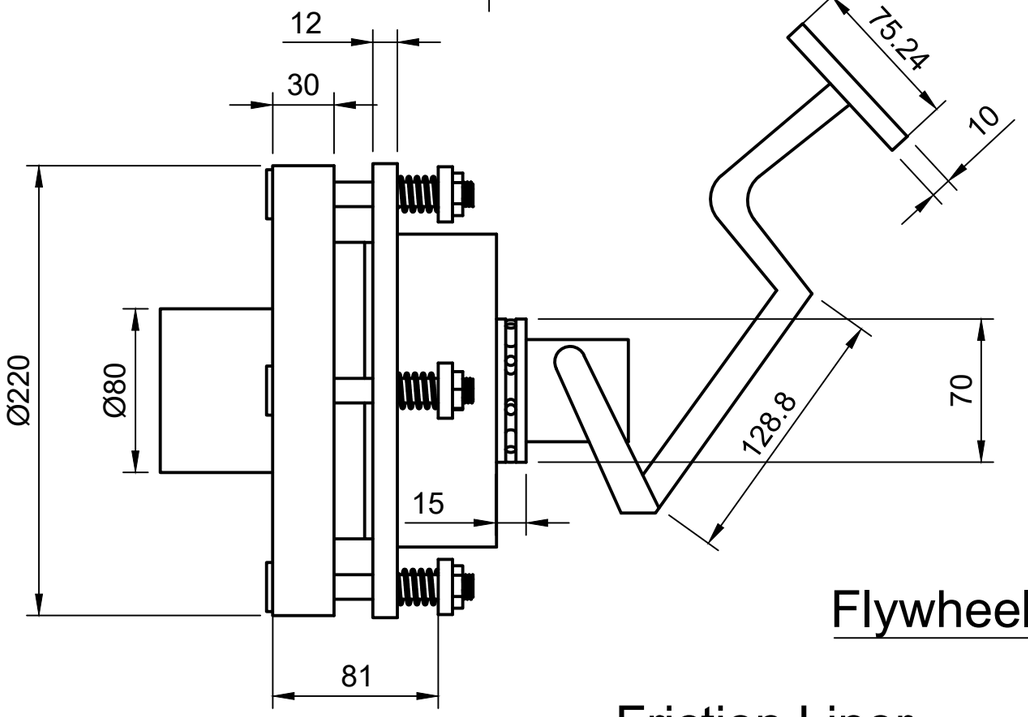
2. Take proper dimensions for all the parts of main drawing and use boss revolve to form all parts.

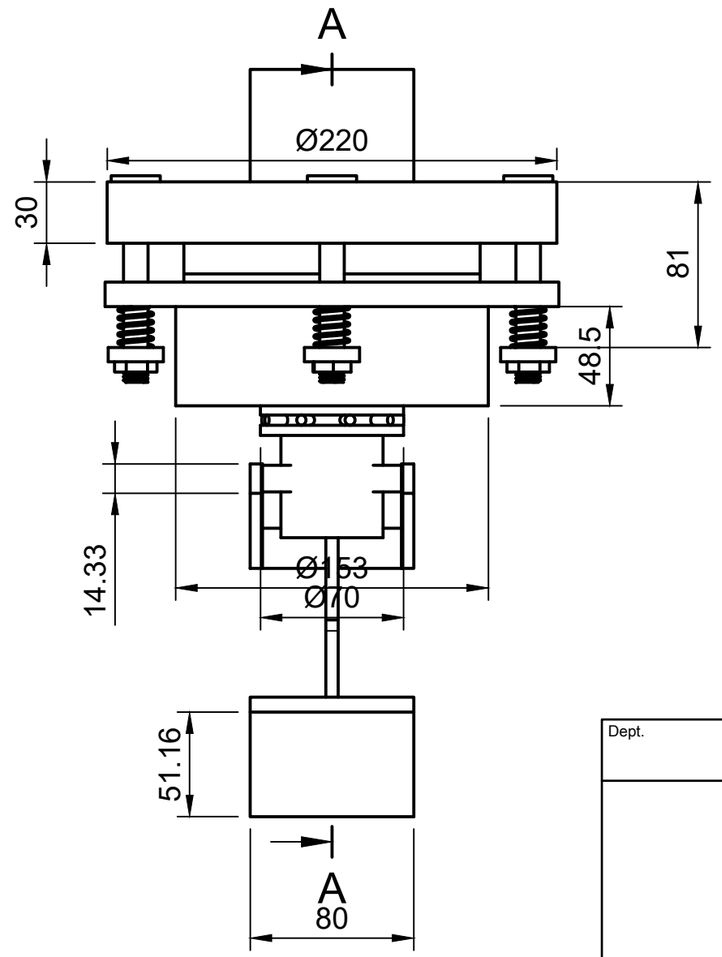
3. To make the clutch pedal use boss extrude command for the given dimensions in sketch.

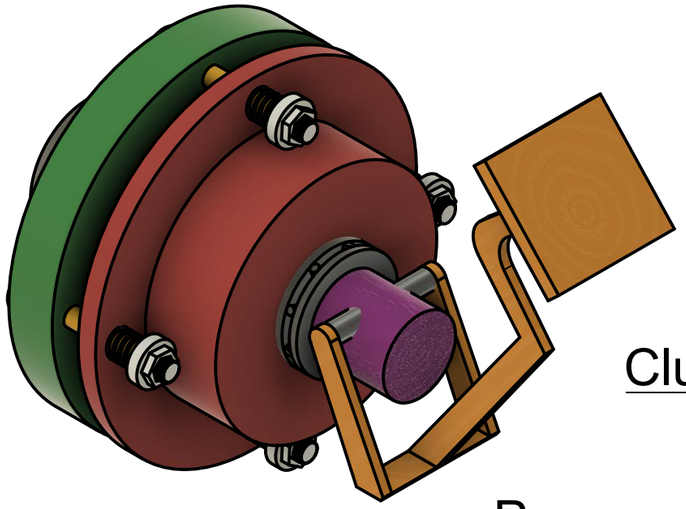
4. Then open main assembly and mate the all the nine drawn parts one by one according to the working model of the single plate clutch.

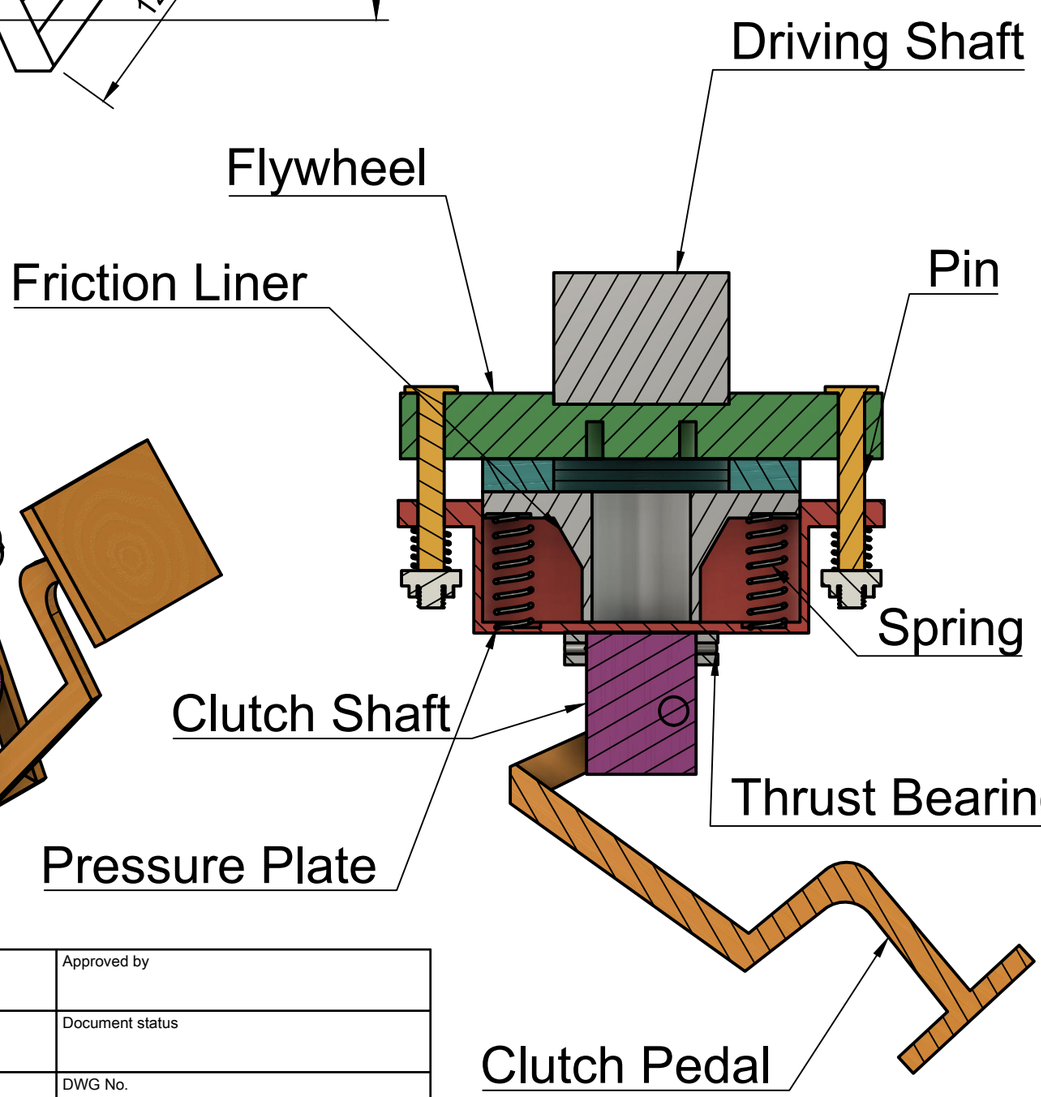
6. Mark the dimensions accordingly and the Single plate clutch is ready to view assembled.











Dept.	Technical reference	Created by	Approved by
		Utsav Walia	
		Document type	Document status
		Title: Single Plate Clutch	DWG No.: 5
			Rev. / Date of issue: 23/09/2020 / Sheet: 1/1