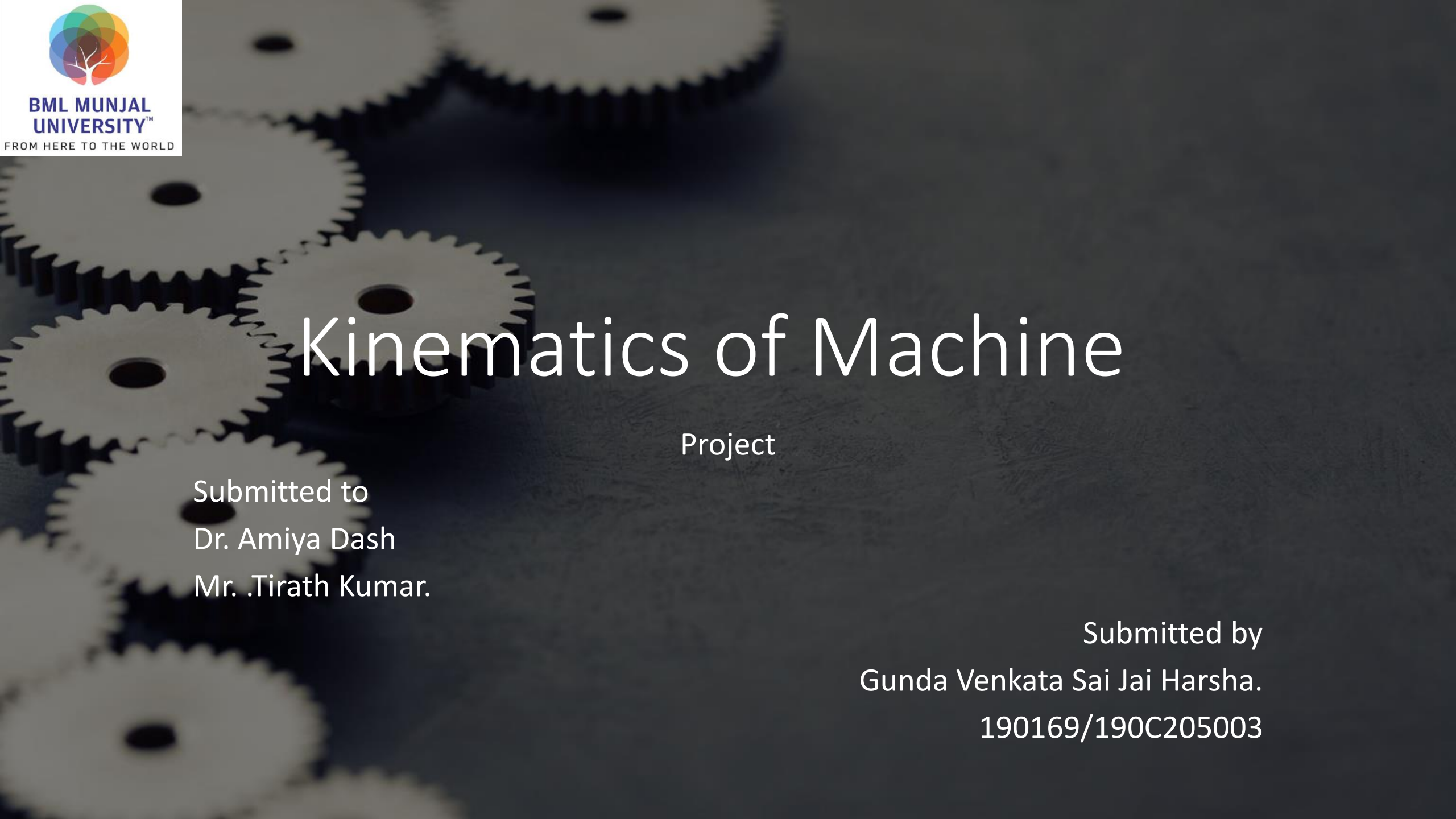


BML MUNJAL UNIVERSITY™
FROM HERE TO THE WORLD

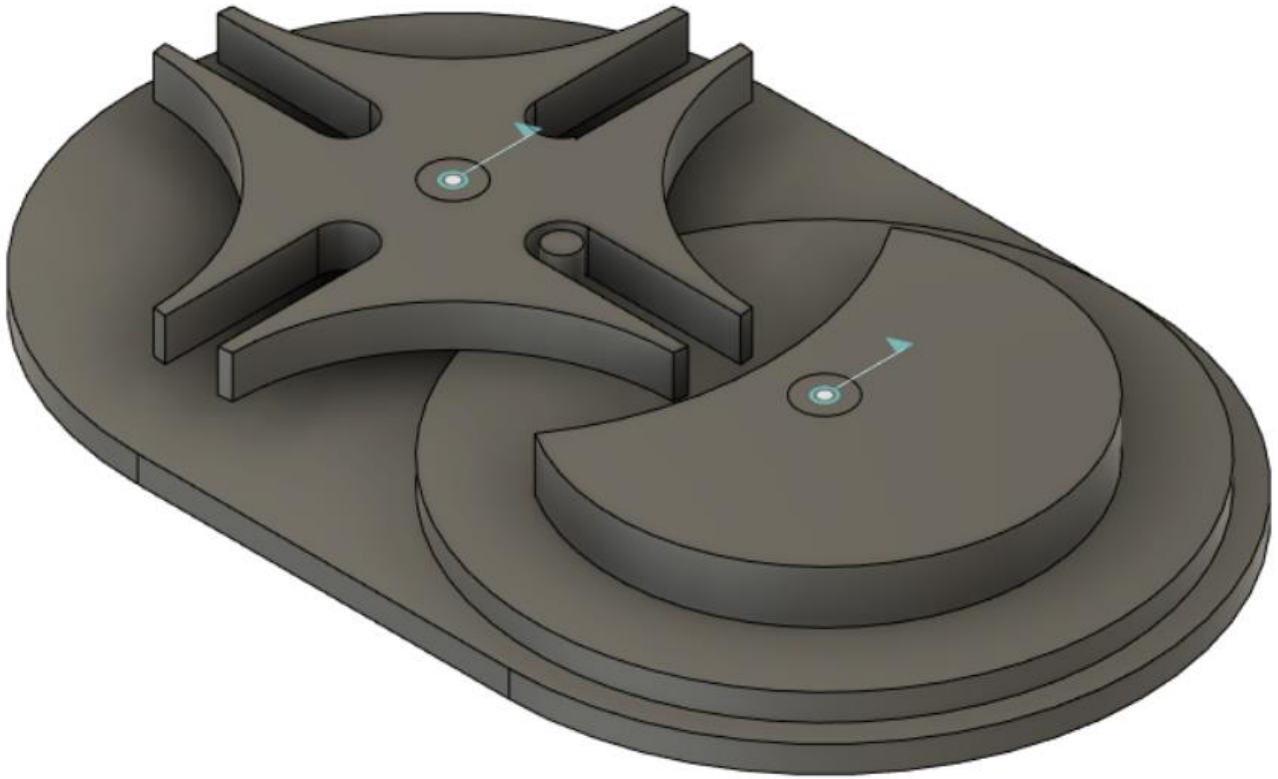
Kinematics of Machine

Project

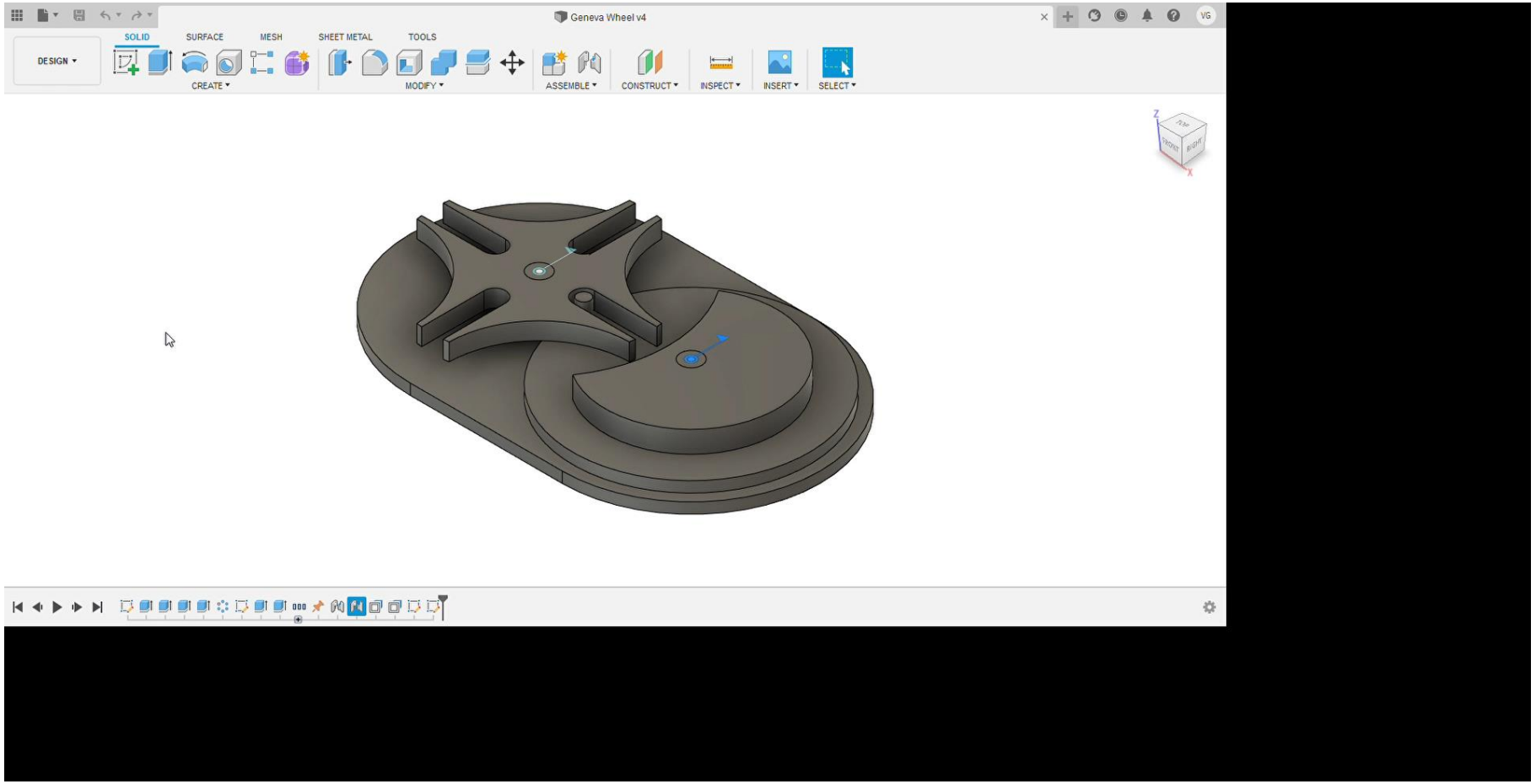
Submitted to
Dr. Amiya Dash
Mr. .Tirath Kumar.

Submitted by
Gunda Venkata Sai Jai Harsha.
190169/190C205003

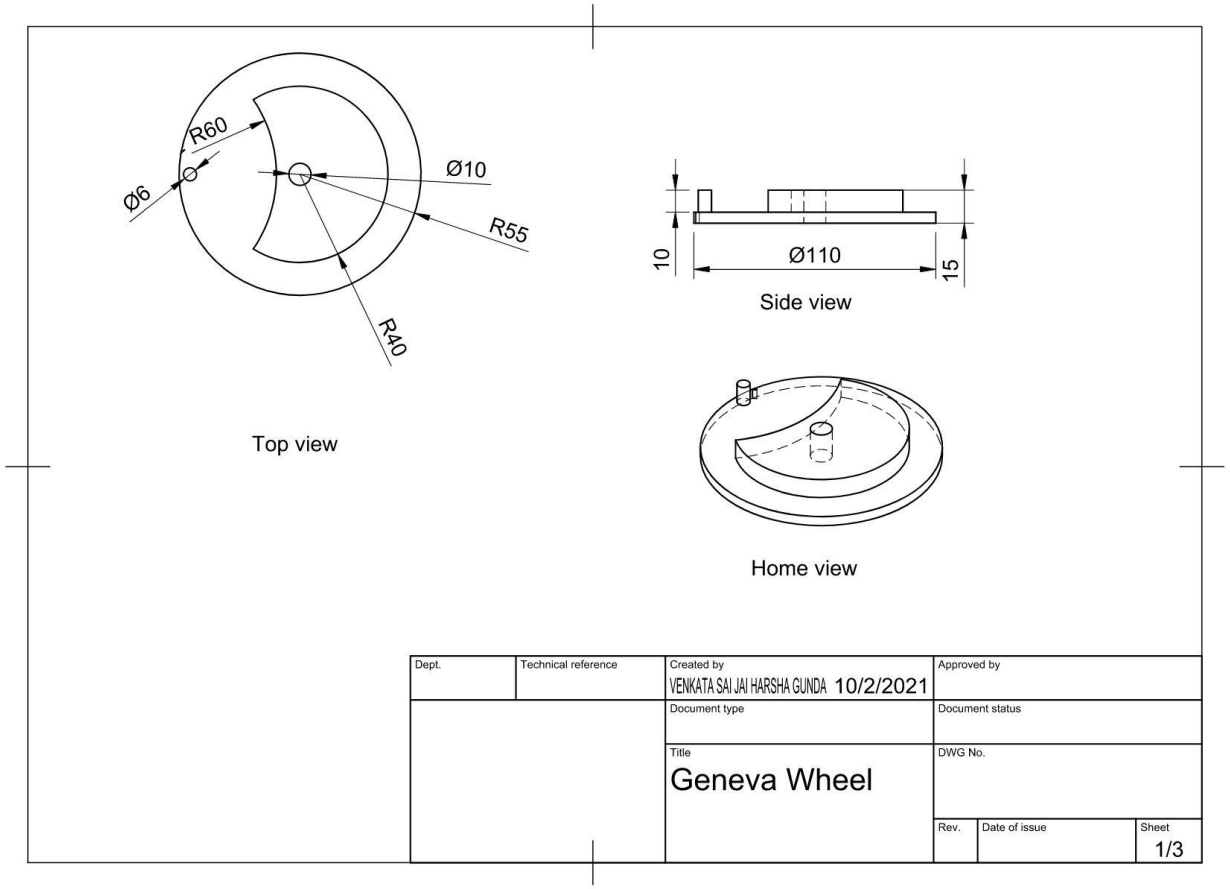
Geneva Mechanism



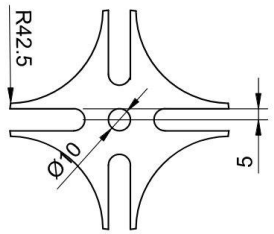
Animation


Geneva Wheel v4
DESIGN
SOLID
SURFACE
MESH
SHEET METAL
TOOLS
CREATE
MODIFY
ASSEMBLE
CONSTRUCT
INSPECT
INSERT
SELECT

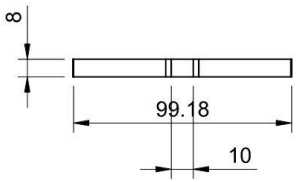
2D sketch's-Driver



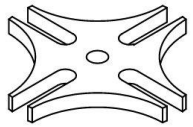
Geneva Wheel



Top View



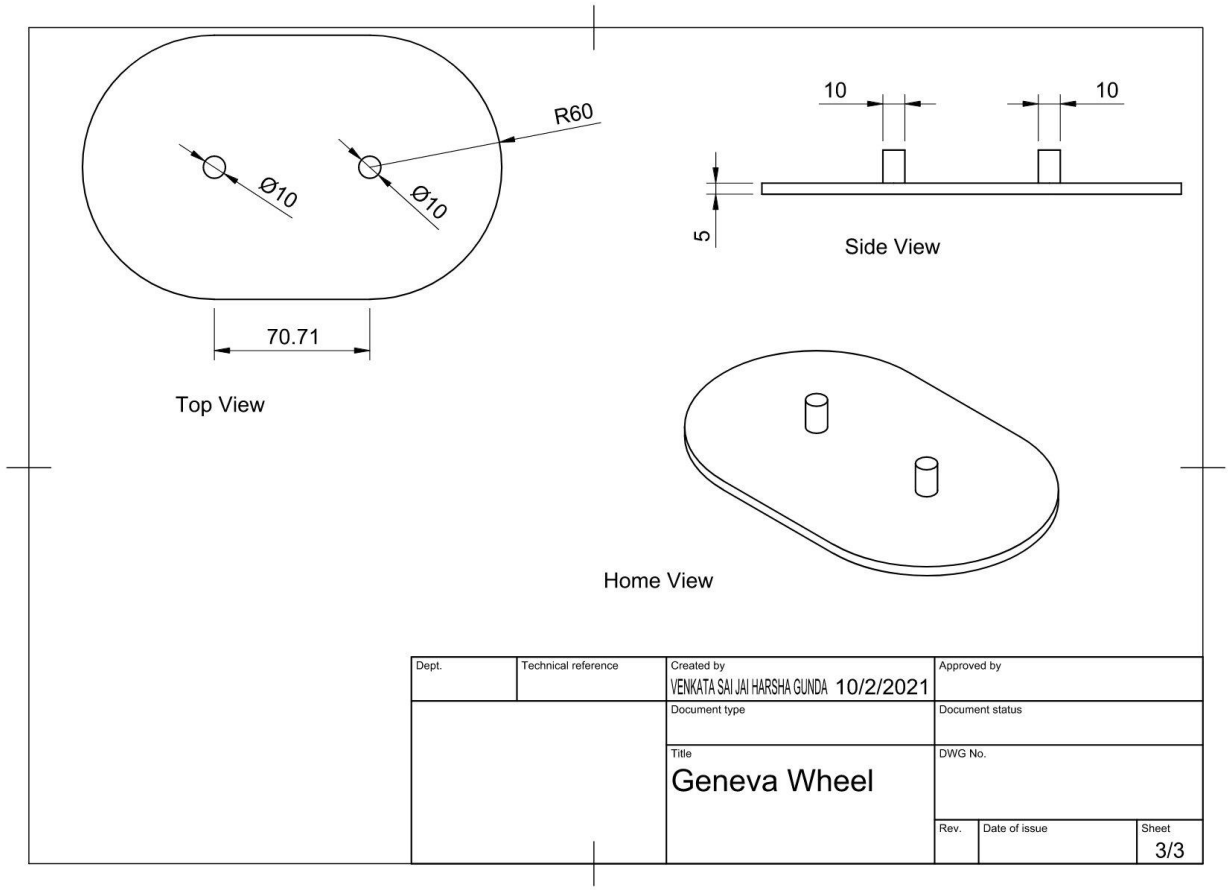
Side View



Home View

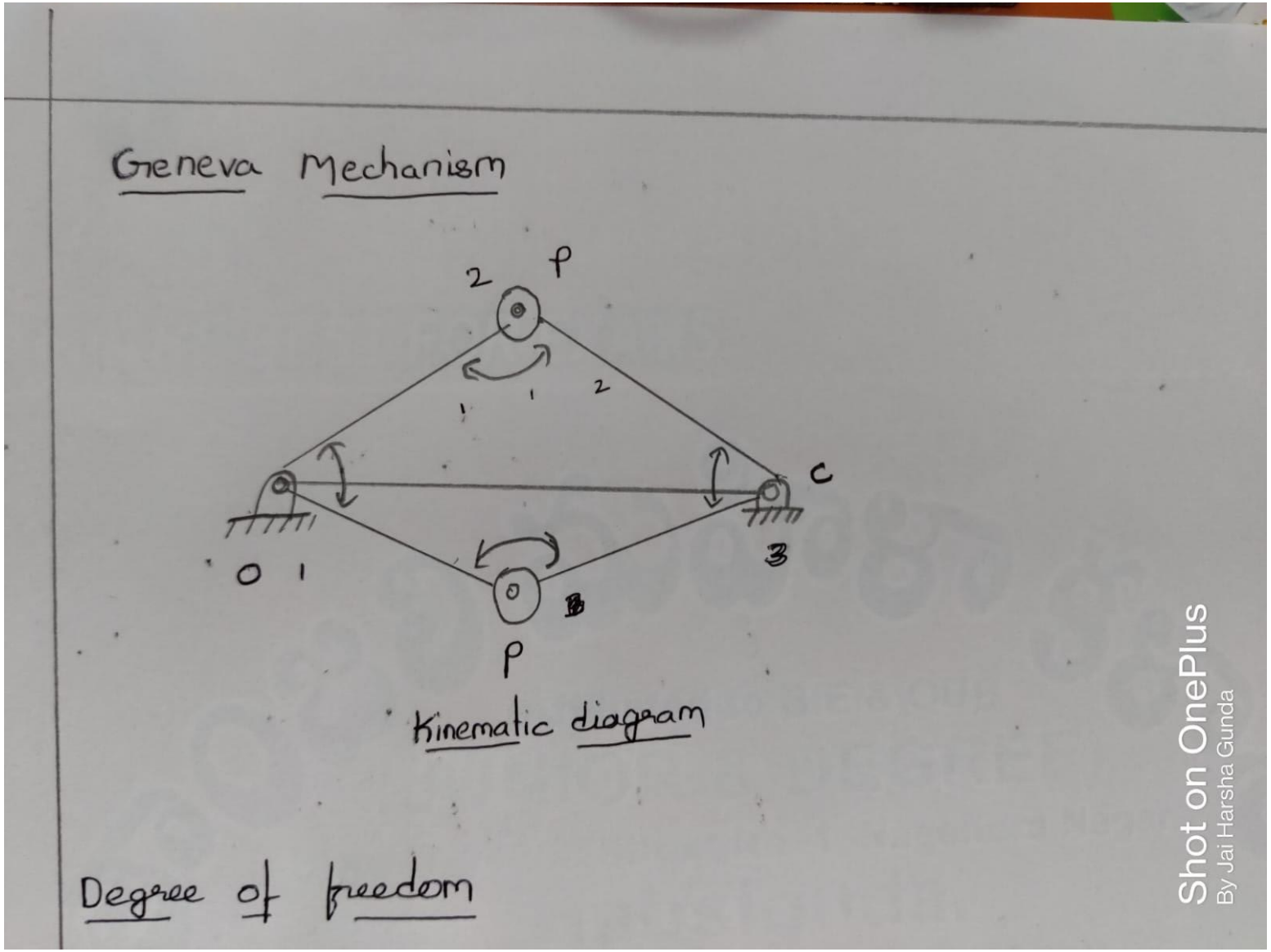
Dept.	Technical reference	Created by	Approved by
		VENKATA SAI JAI HARSHA GUNDA 10/2/2021	
		Document type	Document status
		Title: Geneva Wheel	DWG No.
			Rev. / Date of issue / Sheet: 2/3

Base Part


R60
Ø10
Ø10
70.71
Top View
10
10
5
Side View
Home View
Dept.
Technical reference
Created by
VENKATA SAI JAI HARSHA GUNDA 10/2/2021
Approved by
Document type
Document status
Title
Geneva Wheel
DWG No.
Rev.
Date of issue
Sheet
3/3

Kinematic Diagram.

Link 1 is the driver.
Link 2 is the
Geneva wheel.
Link 3 is ground.



Degree of Freedom

Degree of freedom

$DOF = 3(n-1) - 2J_p - \Sigma f_i$

Total no of links $n = 3$

Total no of joints $= J_p = 2$

$\Sigma f_i = 0$

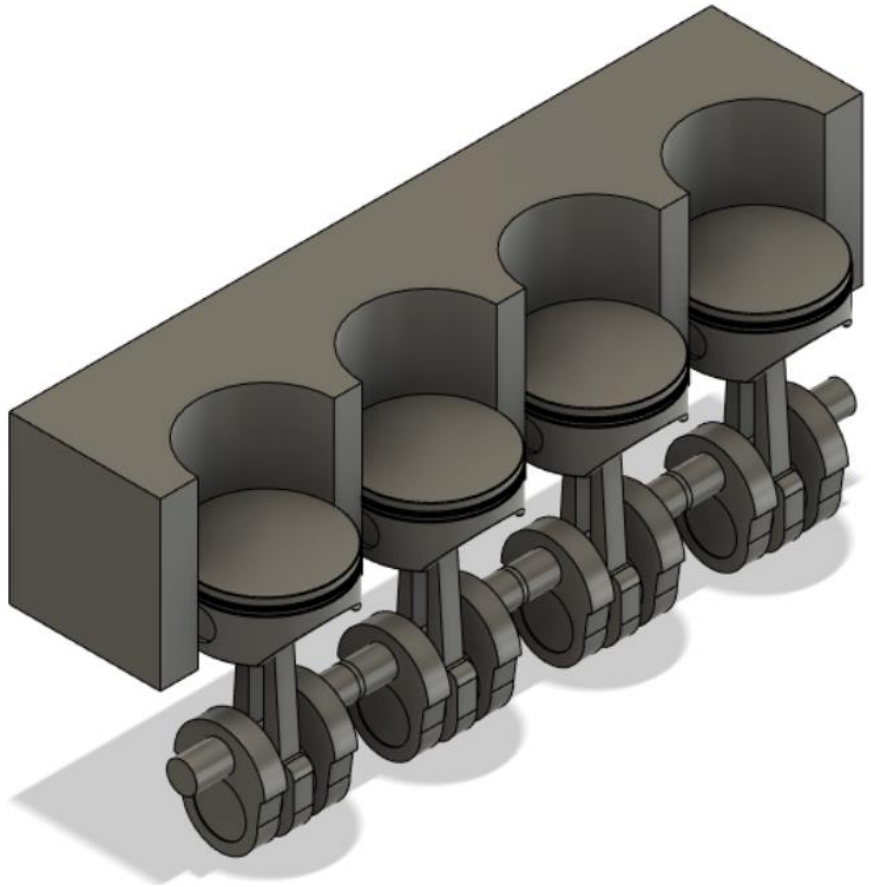
Degree of freedom $= 3(3-1) - 2(2) - 0$

$= 5 - 4$

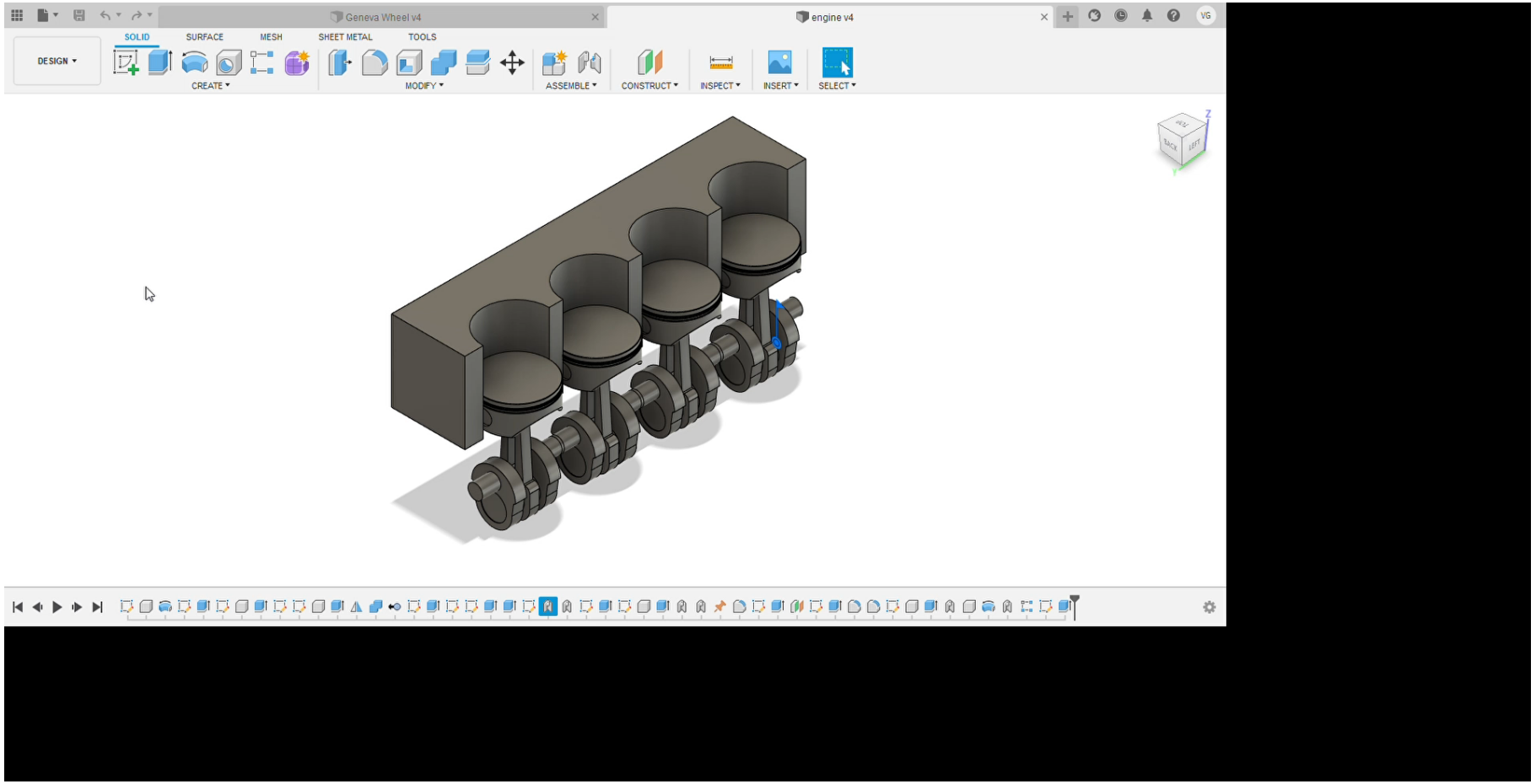
$DOF = 1$

∴ It is 4 bar mechanism so the degree of freedom is 1

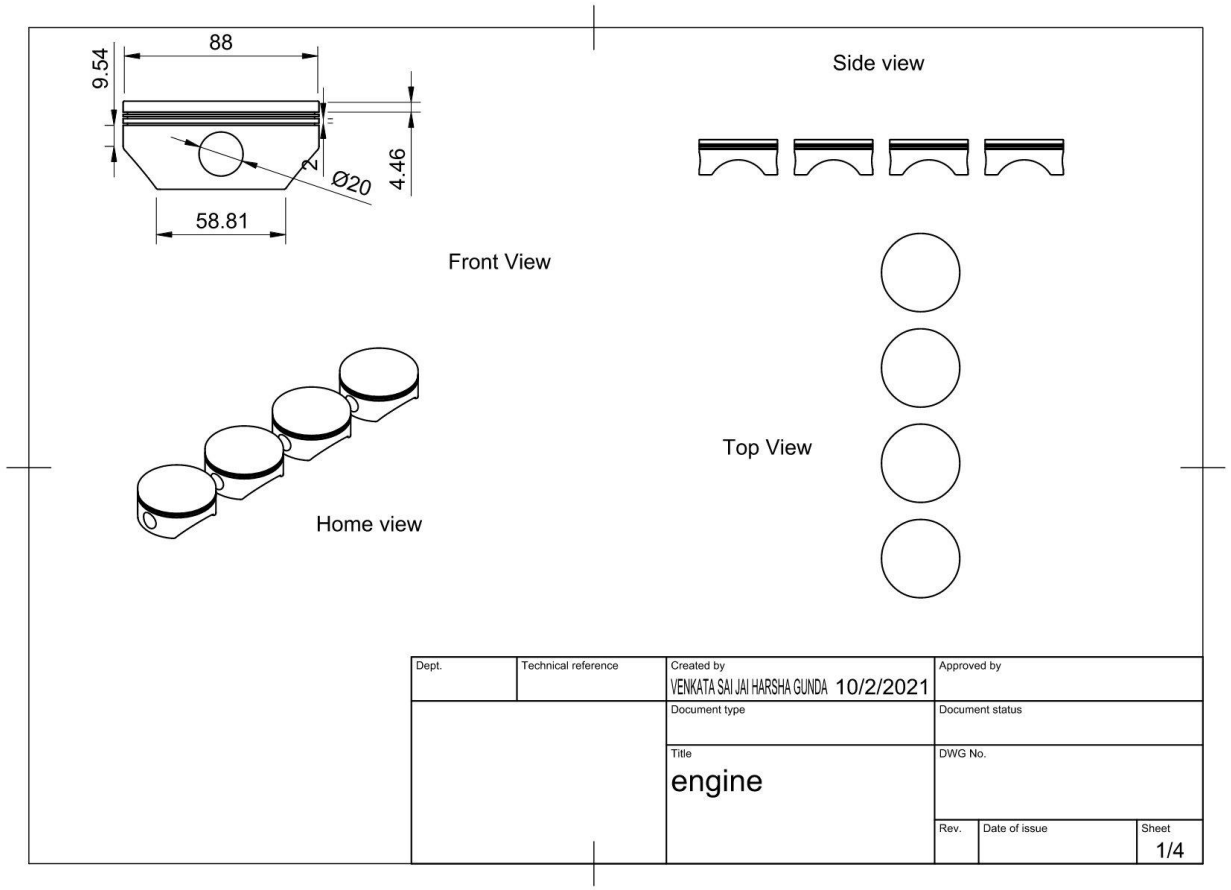
Multi Cylinder Engine



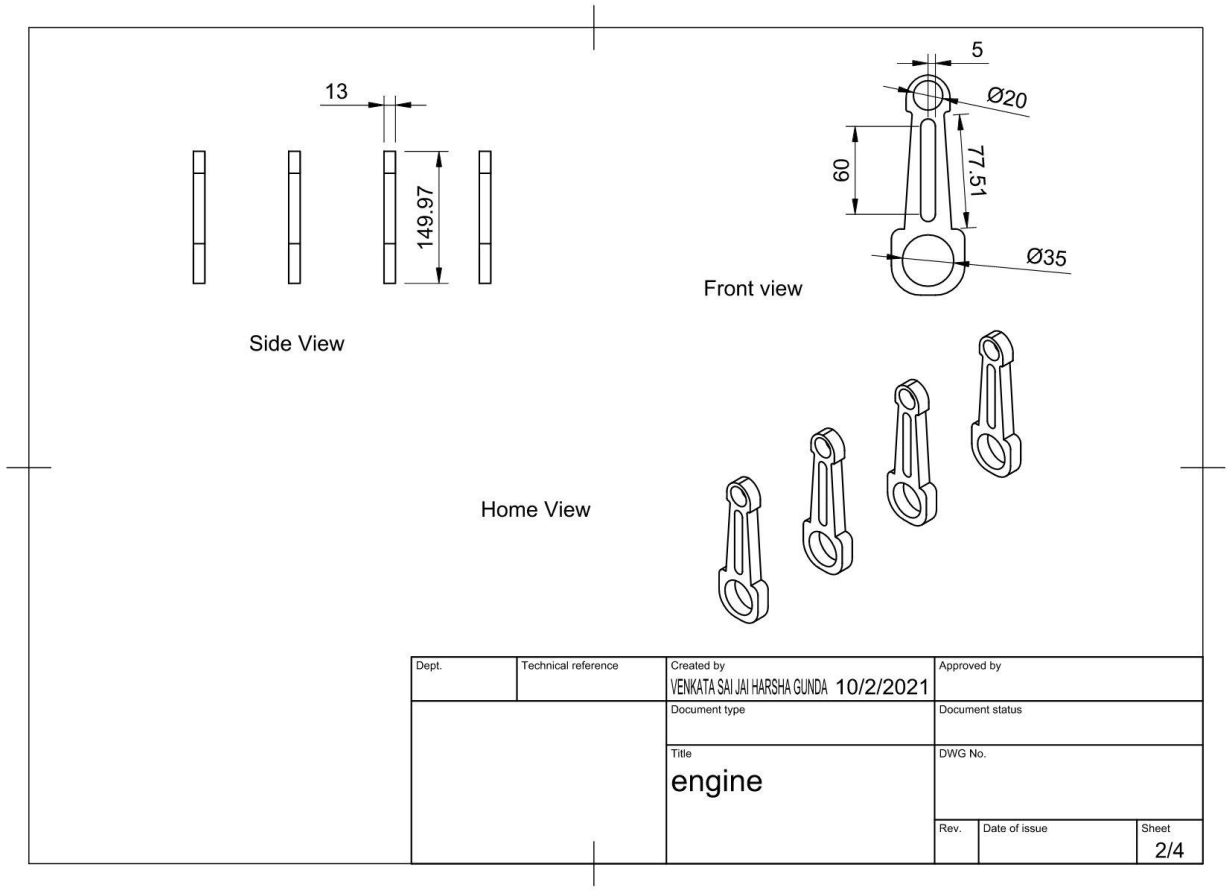
Animation


Geneva Wheel v4
engine v4
SOLID
SURFACE
MESH
SHEET METAL
TOOLS
DESIGN
CREATE
MODIFY
ASSEMBLE
CONSTRUCT
INSPECT
INSERT
SELECT

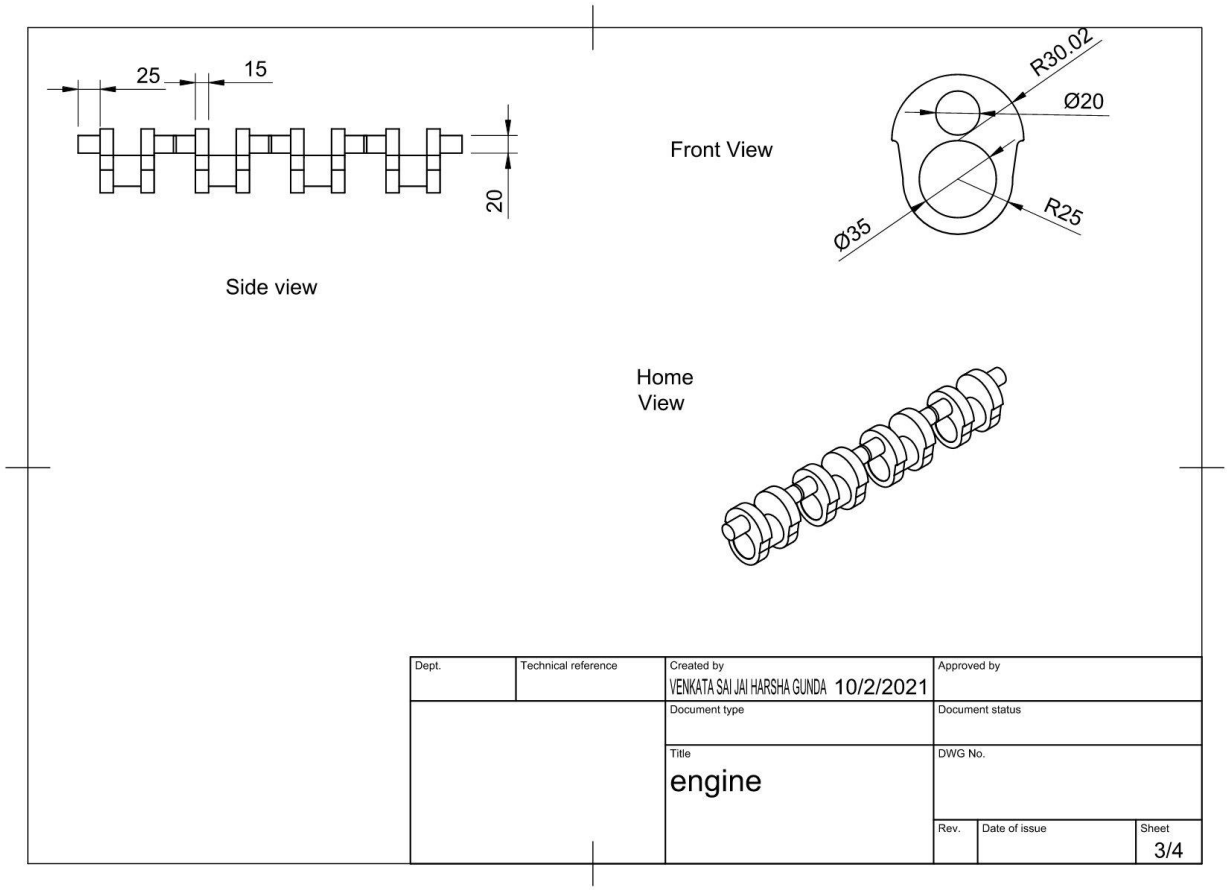
2D sketch’s- Piston



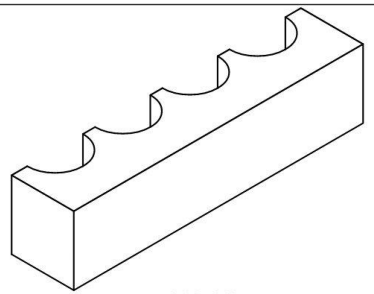
Crank Shaft


13
149.97
Side View
5
Ø20
60
77.51
Ø35
Front view
Home View
Dept.
Technical reference
Created by
VENKATA SAI JAI HARSHA GUNDA 10/2/2021
Approved by
Document type
Document status
Title
engine
DWG No.
Rev.
Date of issue
Sheet
2/4

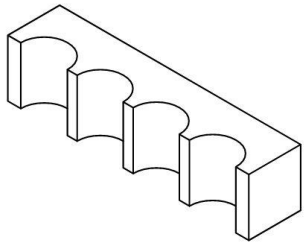
Connecting Rods



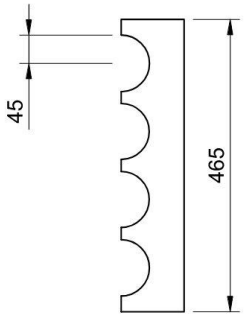
Back Case



Side View



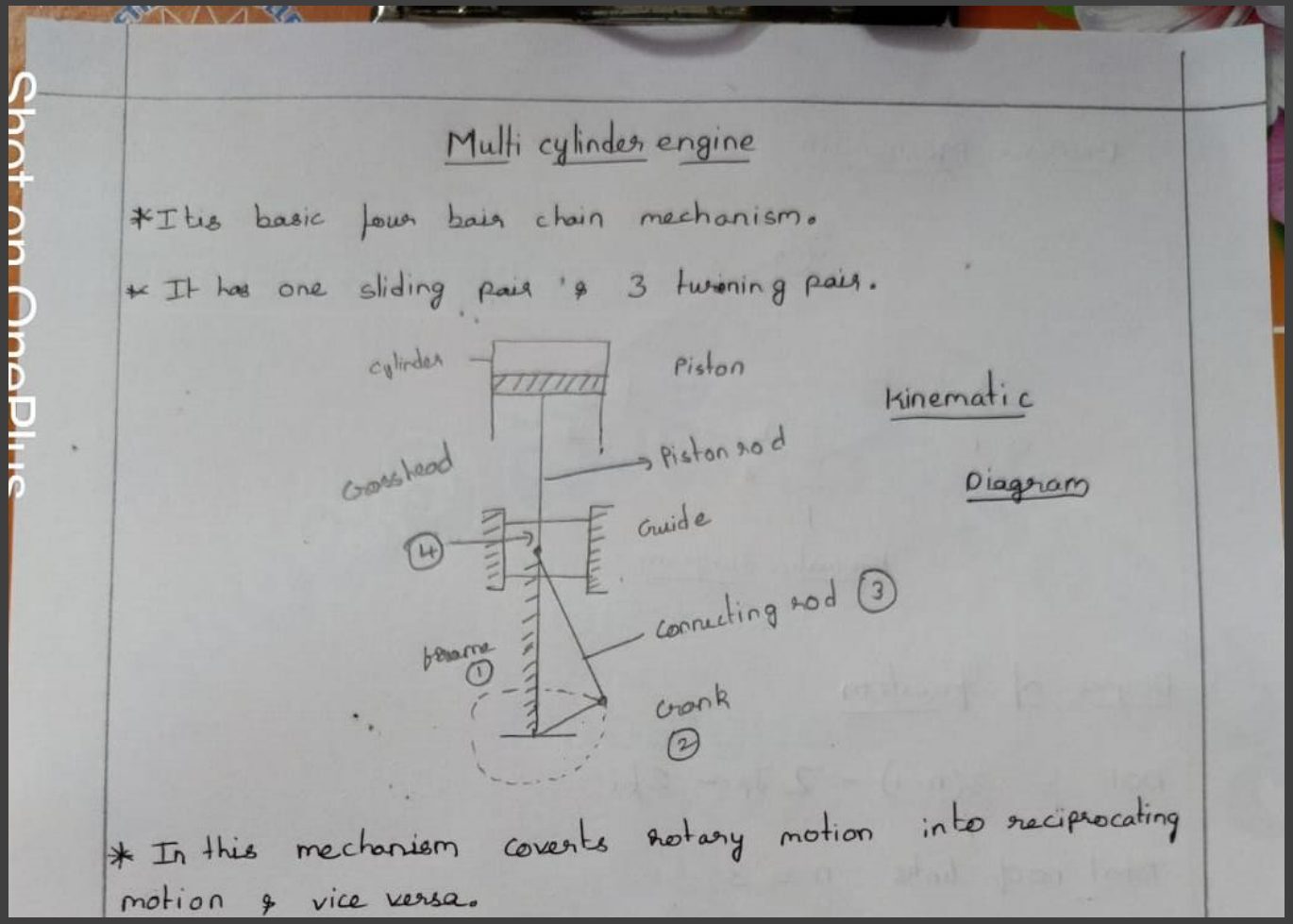
Home View

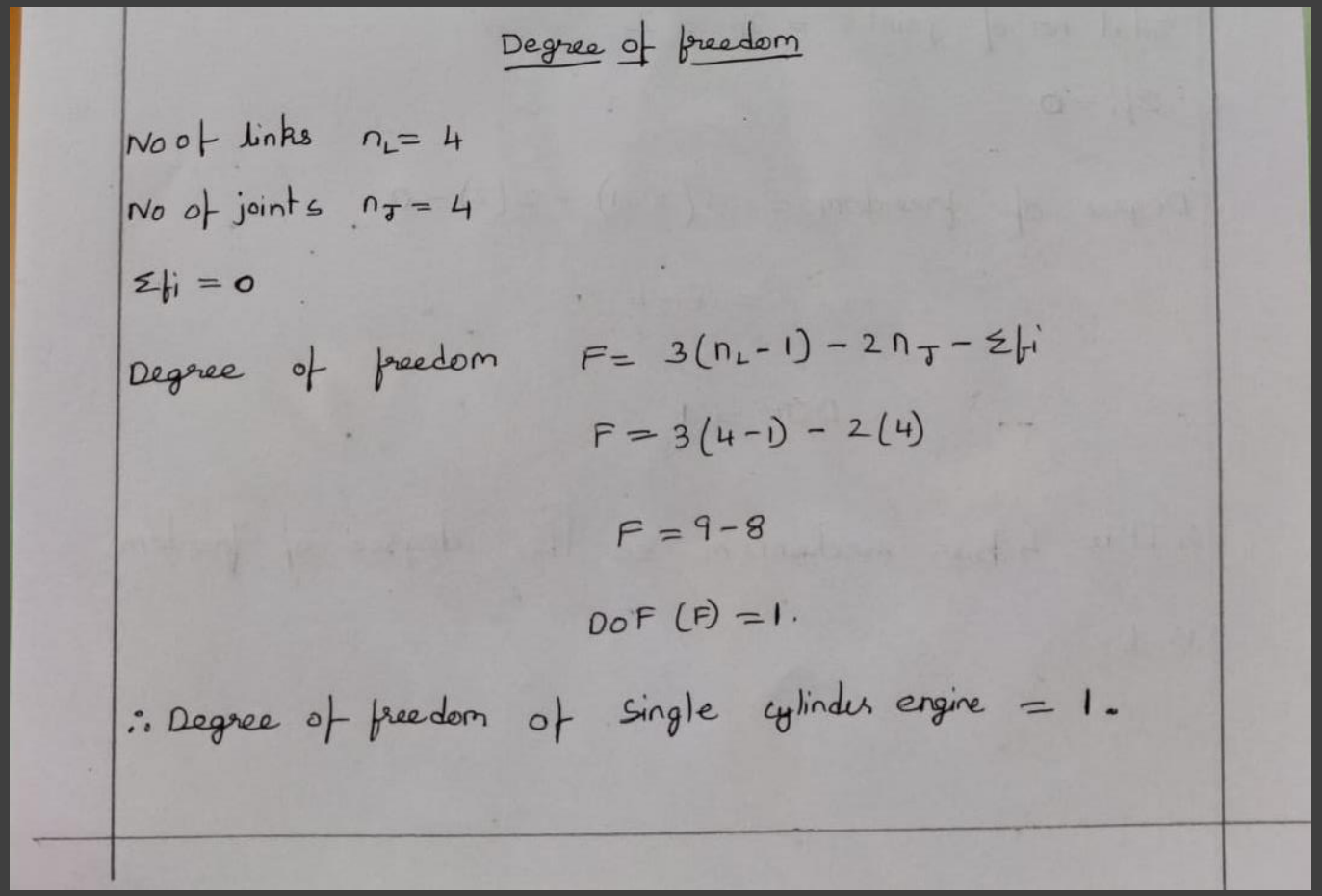


Top View

Dept.	Technical reference	Created by VENKATA SAI JAI HARSHA GUNDA 10/2/2021	Approved by
		Document type	Document status
		Title: engine	DWG No.
			Rev. / Date of issue / Sheet: 4/4

Kinematic Diagram





Degree of Freedom

Thank You