

DESIGN LAB PROJECT

PANTOGRAPH

Submitted to

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Dr. Manish Agrawal

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Submitted on

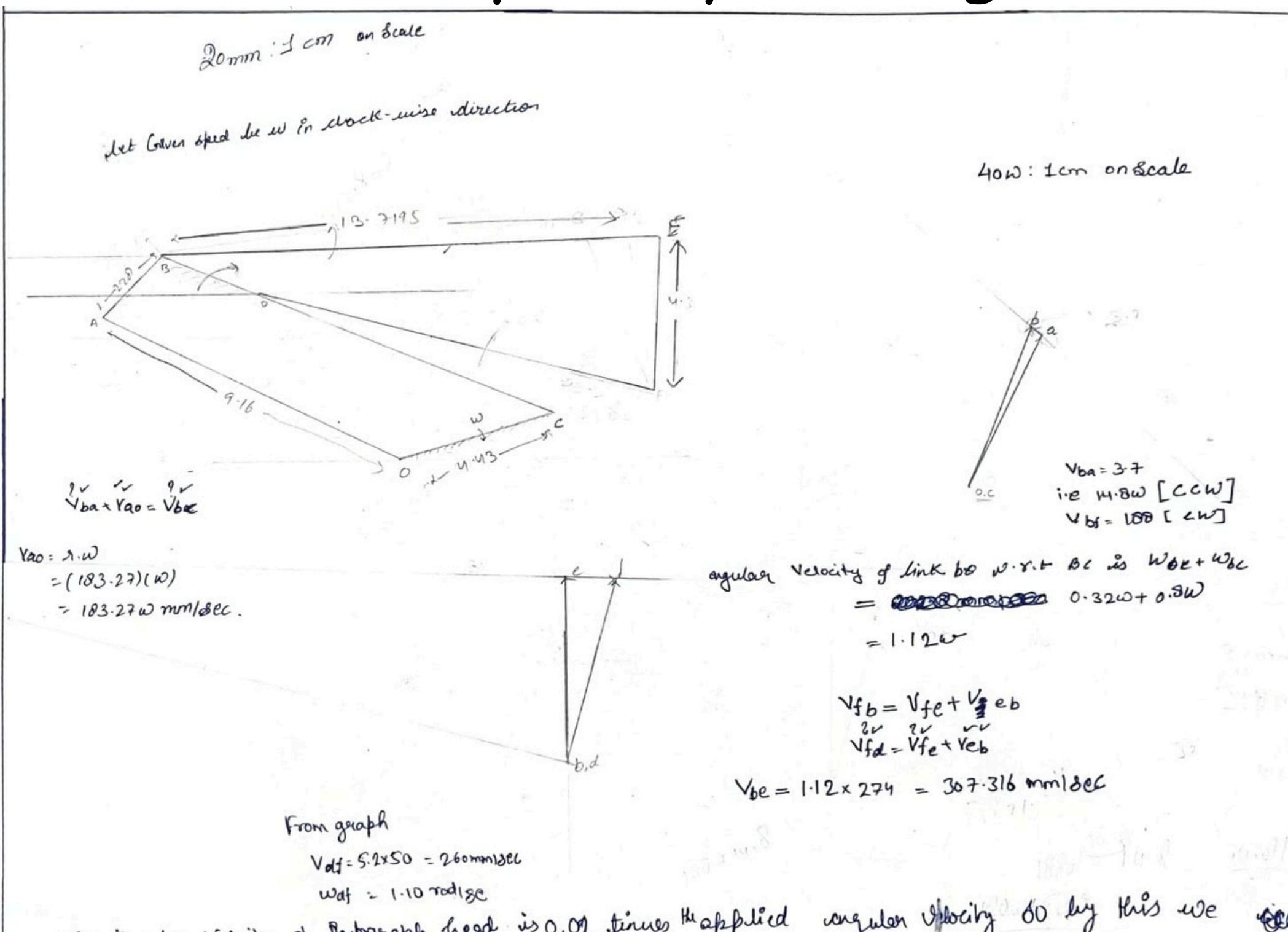
26th April,2024

Submitted by
TUE_GRP-B

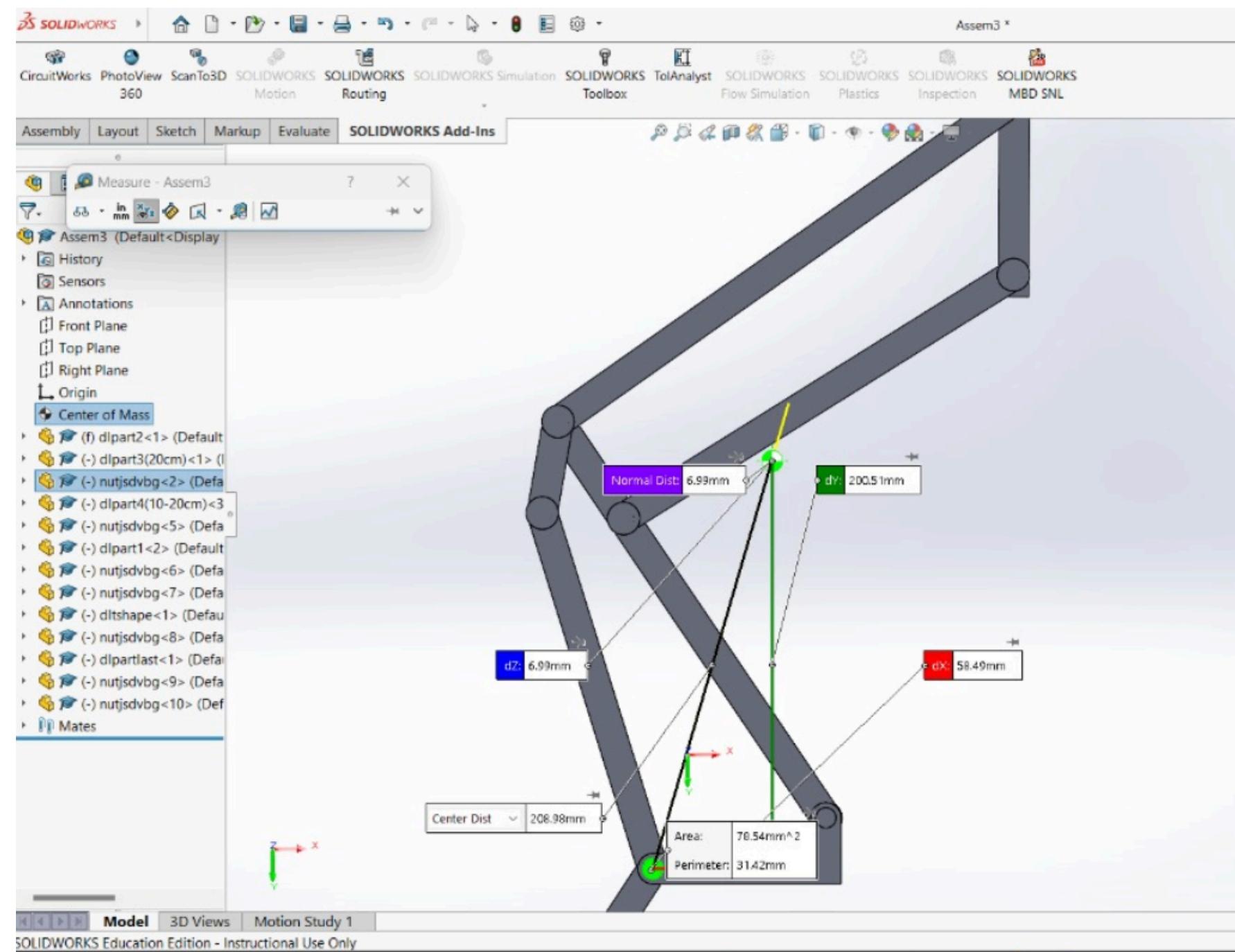
1. Dharmansh Vyas
2022meb1306
2. Dhruv Agarwal
2022meb1307
3. Gandhe Harshitha
2022meb1308
4. Ganesh Gurjar
2022meb1309
5. Haravath Shirisha
2022meb1311



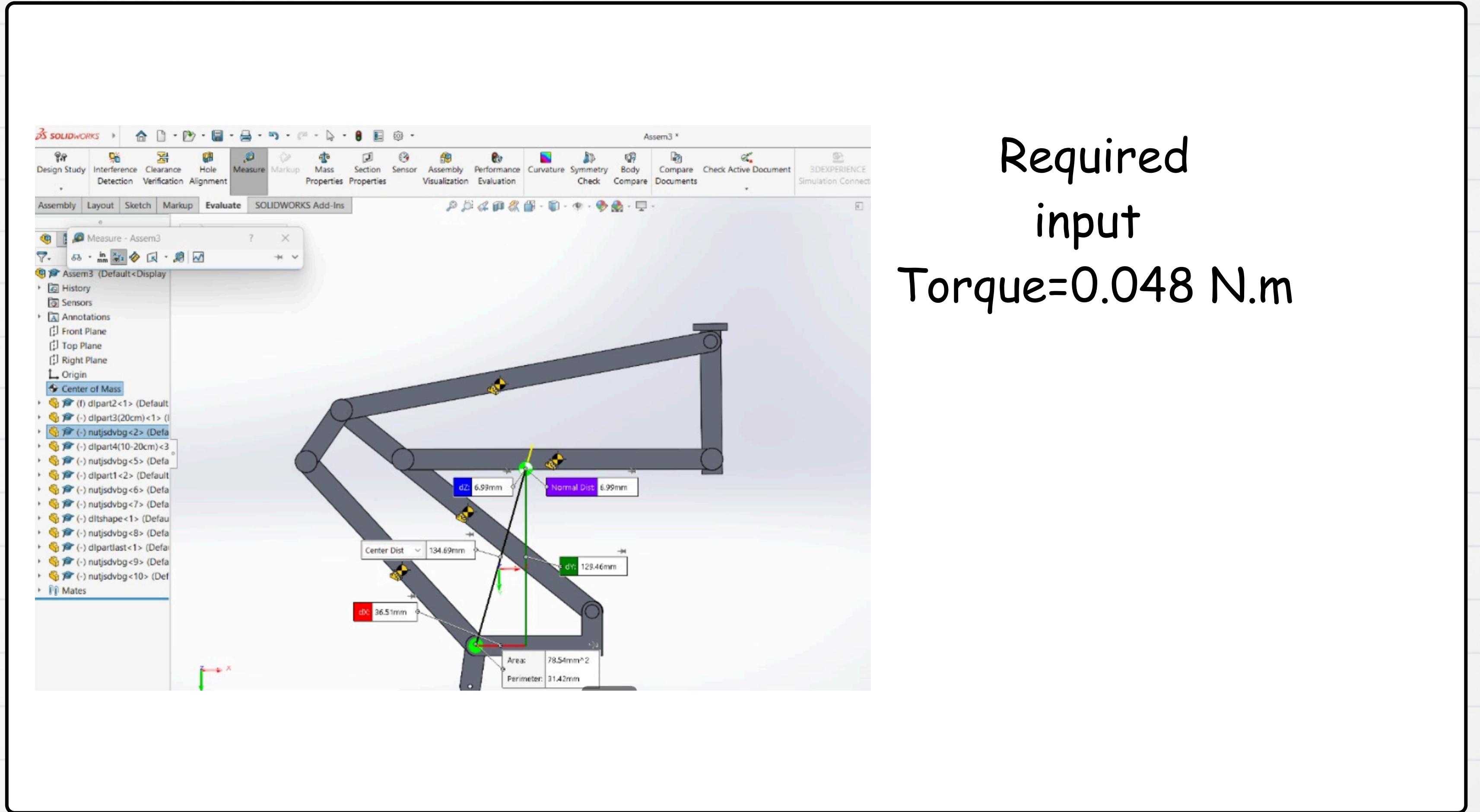
Velocity Analysis Diagram



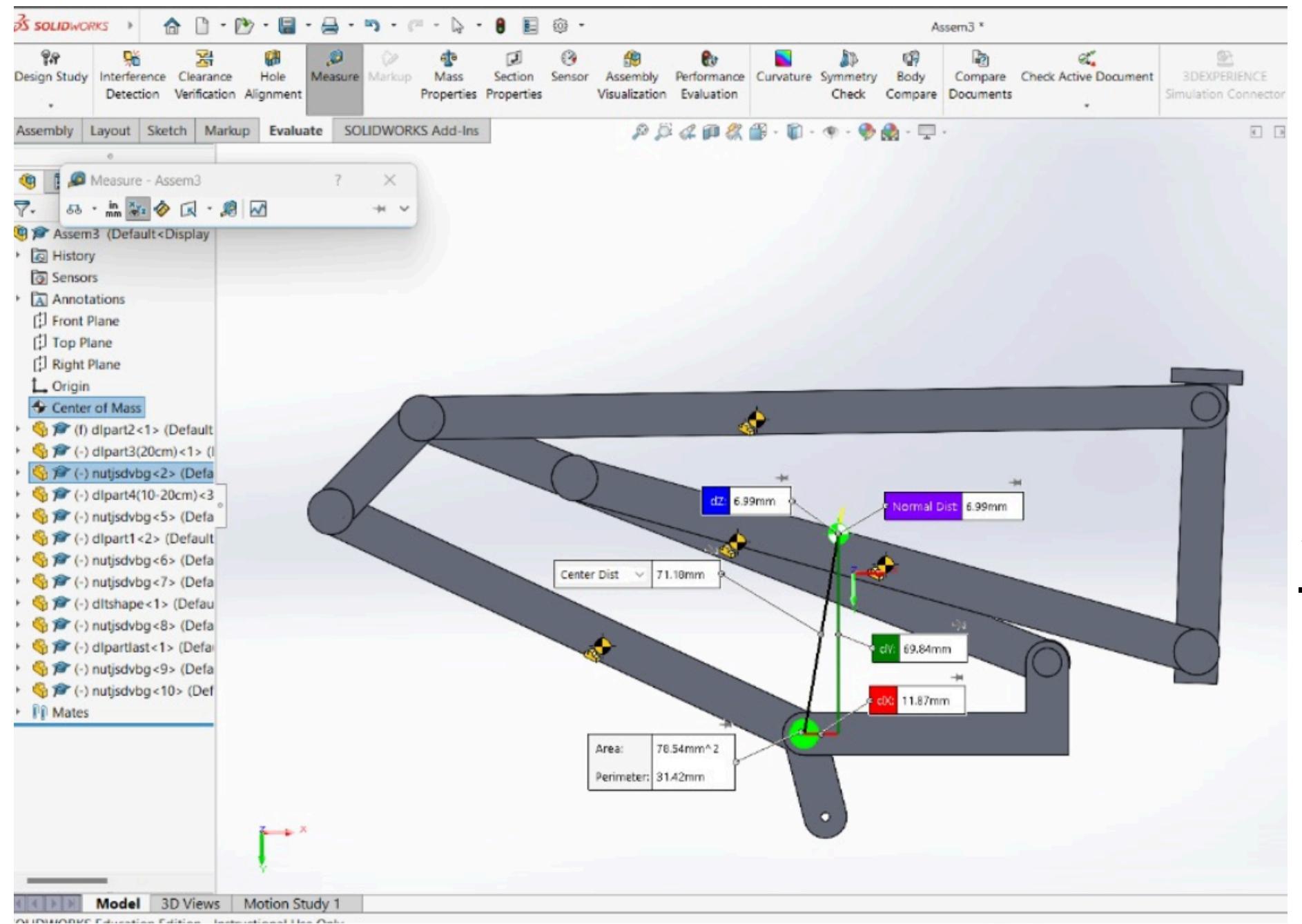
Torque Calculations



Required
input
Torque=0.07688 N.m



Required
input
Torque=0.048 N.m



Required
input

Torque=0.0156 N.cm

The torque of the servo motor we used was 0.85 N.m
It is easily visible that our tool is capable of lifting the mechanism.

CONTRIBUTION:

Dharmansh Vyas and Dhruv agarwal:

- Velocity Analysis, Selection of materials, Complete manufacturing of model

Gandhe Harshitha :

- Made the CAD model & synthesized the mechanism, ensuring collector head remains always straight throughout motion.

Ganesh Gujar :

- Selection of design, making CAD model & arduino code

Haravath Sirisha:

- Torque calculations

Thank you

