ME370: ADAMS LAB

Department of Mechanical Engineering,
IIT Bombay

Session 3 Report

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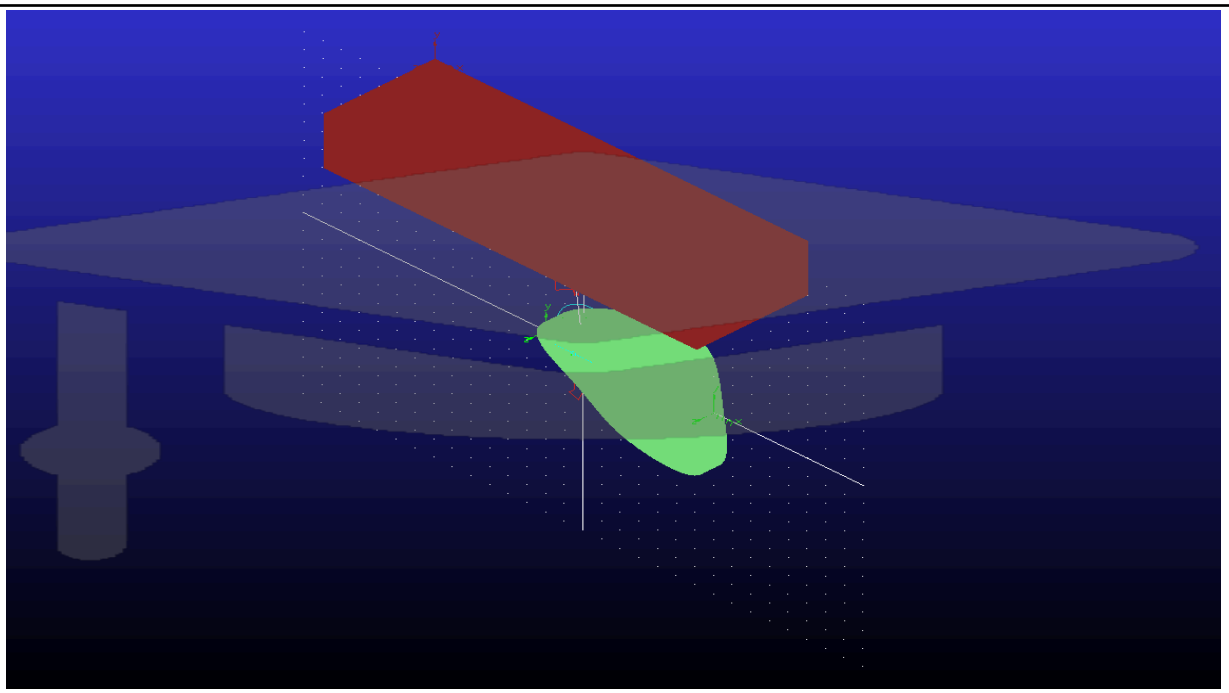
Roll Number: 210100166

Date: January 7,2024

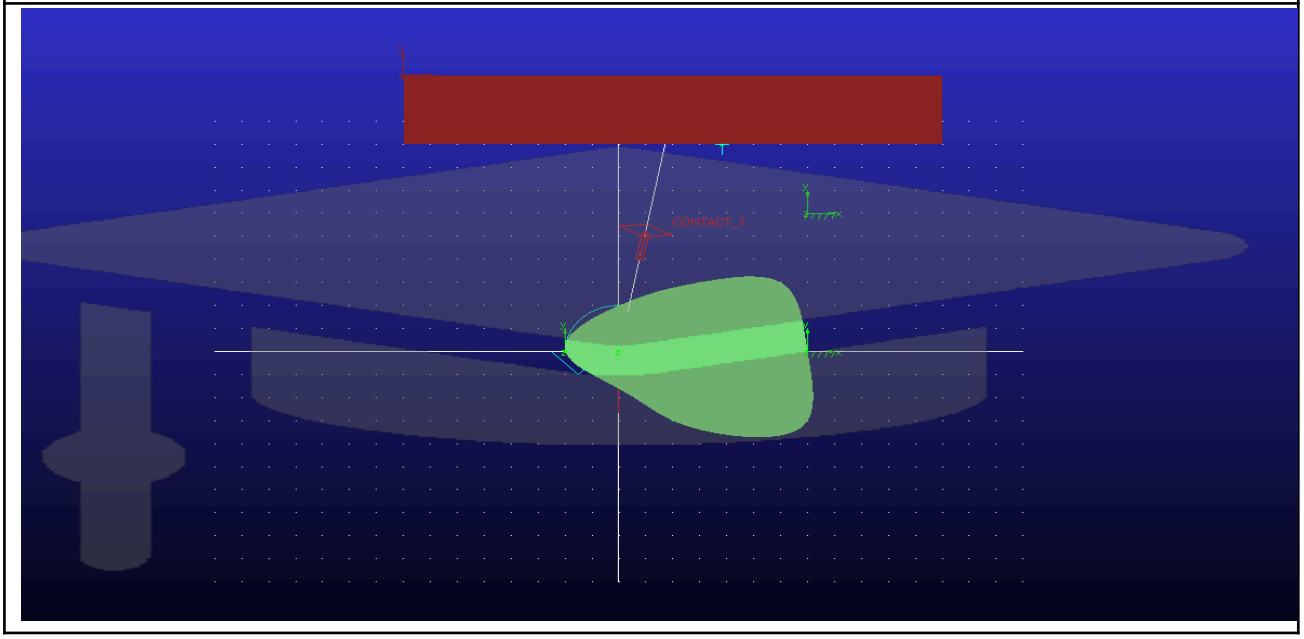
Given Information

Roll Number	X/Offset Ratio
210100166	1.8226

ISOMETRIC VIEW OF CAM-FOLLOWER SYSTEM



FRONT VIEW OF CAM FOLLOWER SYSTEM

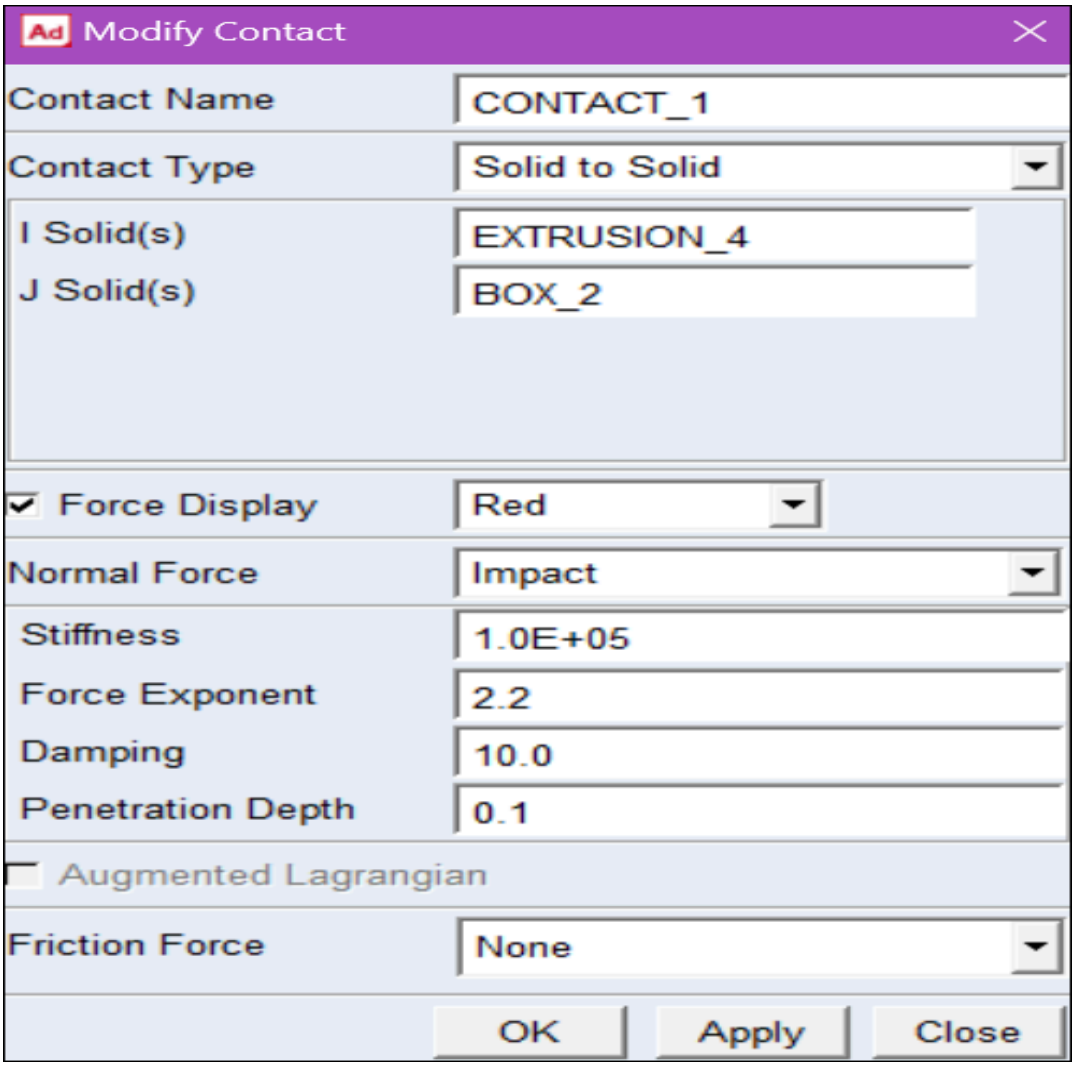


Question 1 (In the presence of Gravity)

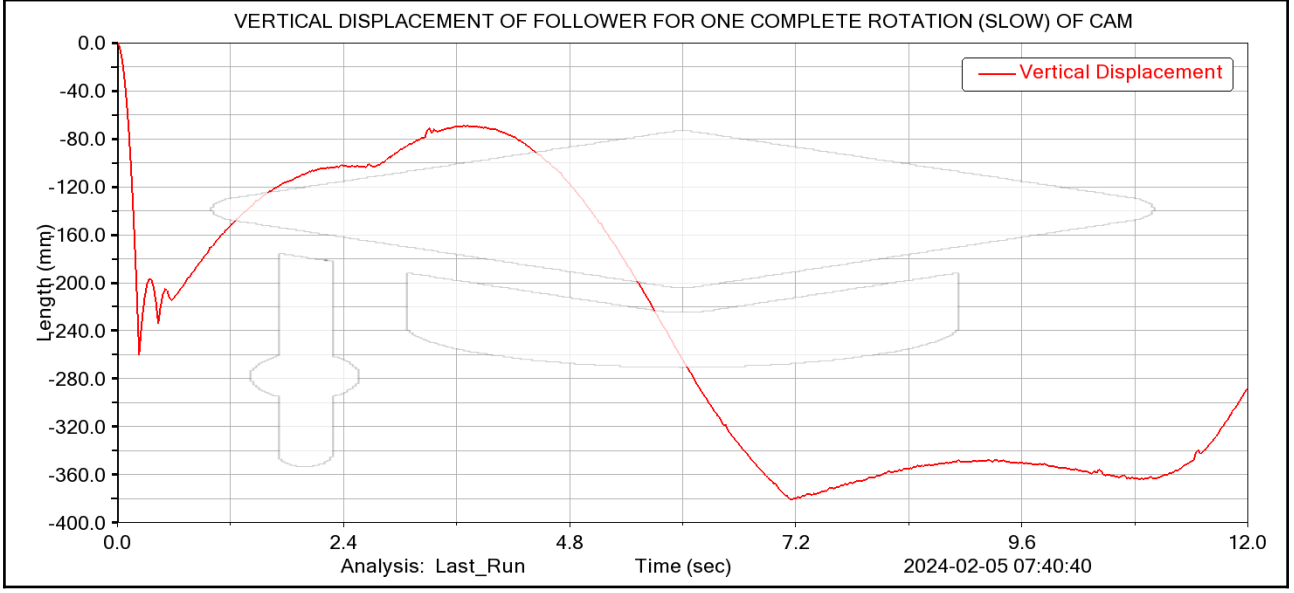
Contact Settings Used:

Slow : 30 Degrees per second

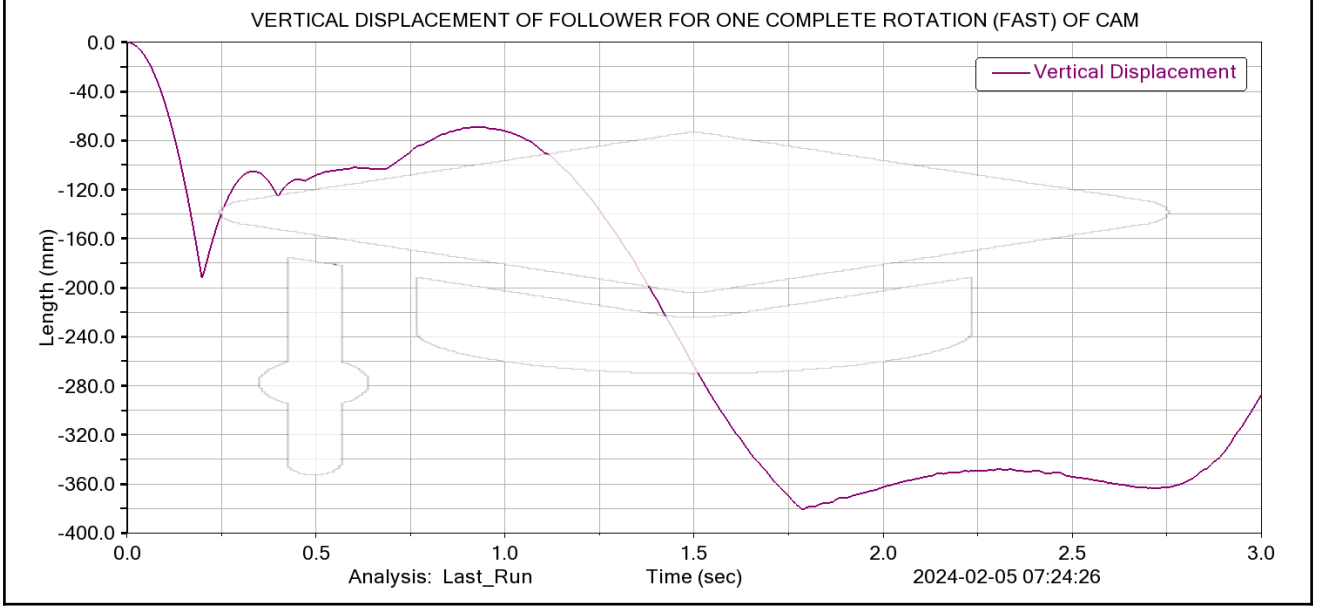
Fast : 120 Degrees per second



VERTICAL DISPLACEMENT OF FOLLOWER FOR ONE COMPLETE ROTATION (SLOW) OF CAM



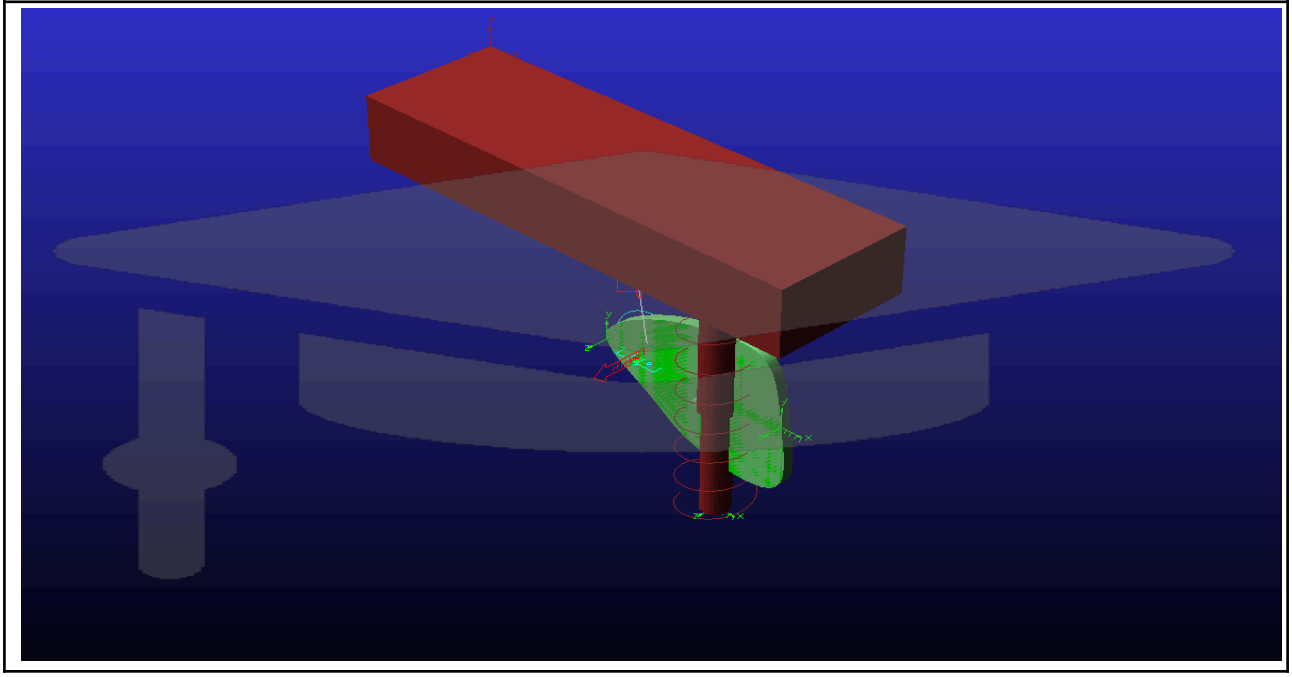
VERTICAL DISPLACEMENT OF FOLLOWER FOR ONE COMPLETE ROTATION (FAST) OF CAM

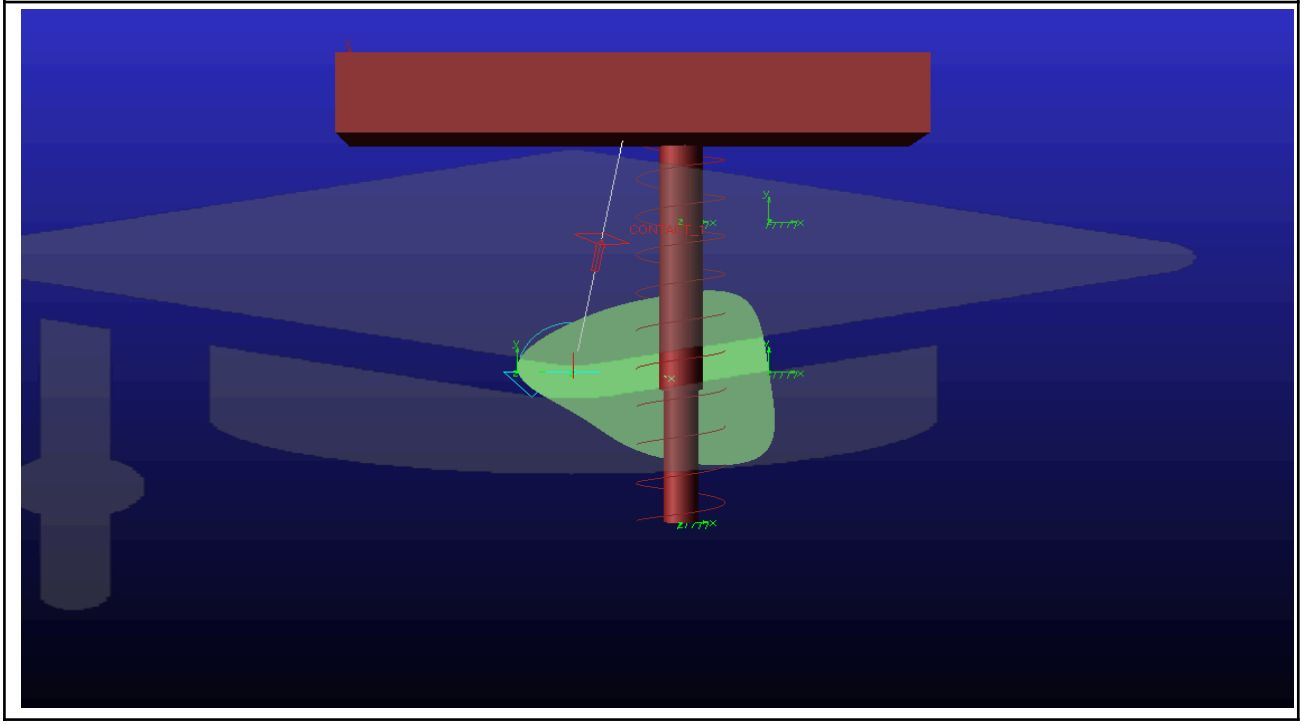


OBSERVATION:

At a fast rotation speed, the follower moves vertically upward
At a low rotation speed, the follower stays in touch with the CAM.

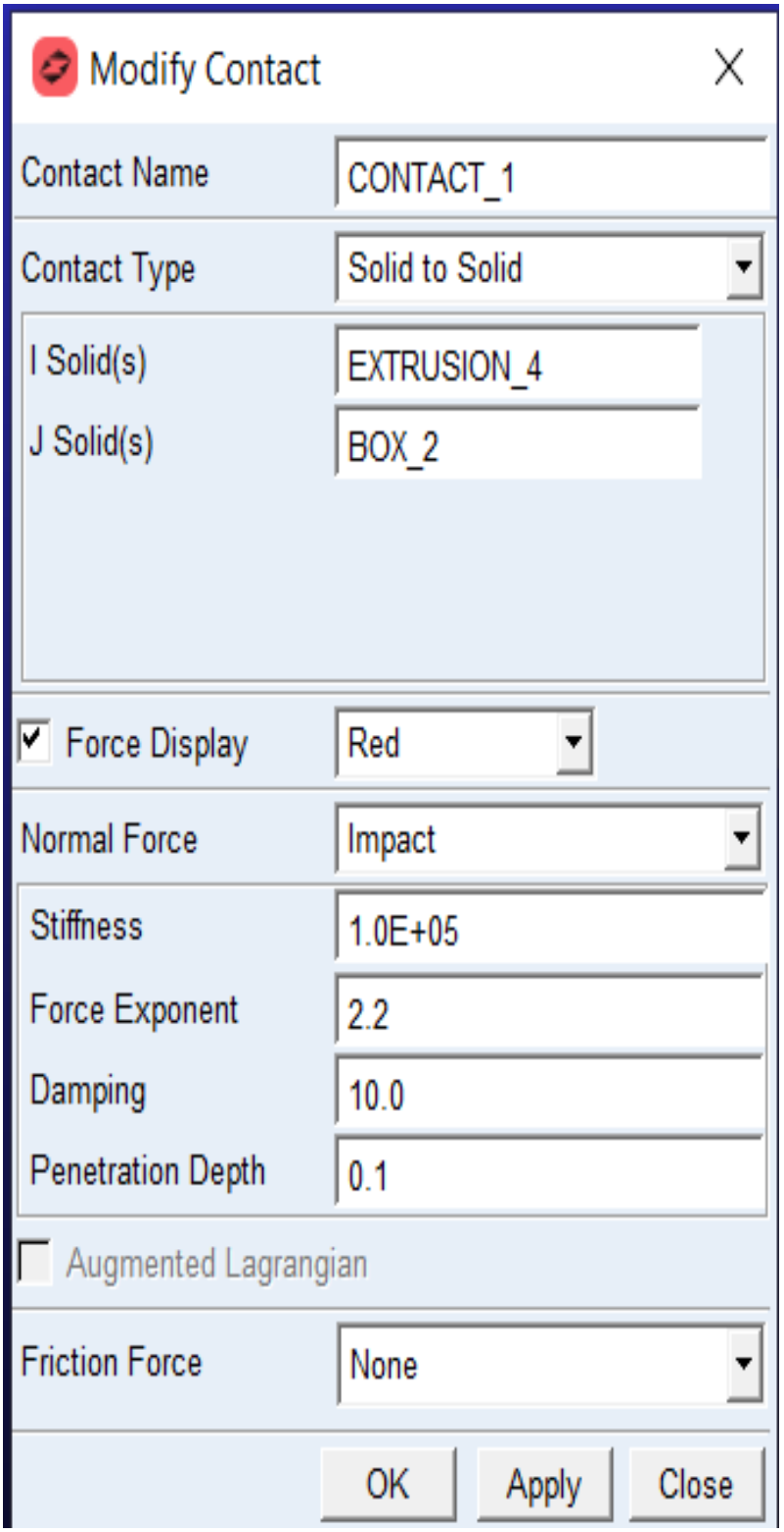
Question 2 (In the presence of Spring)

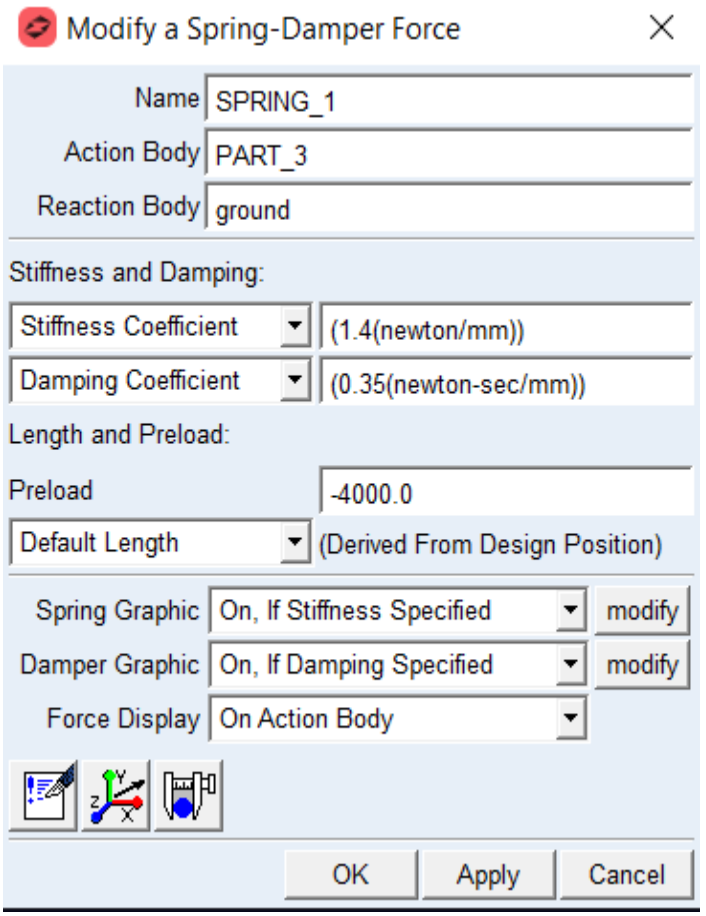
ISOMETRIC VIEW OF CAM-FOLLOWER SYSTEM


FRONT VIEW OF CAM FOLLOWER SYSTEM


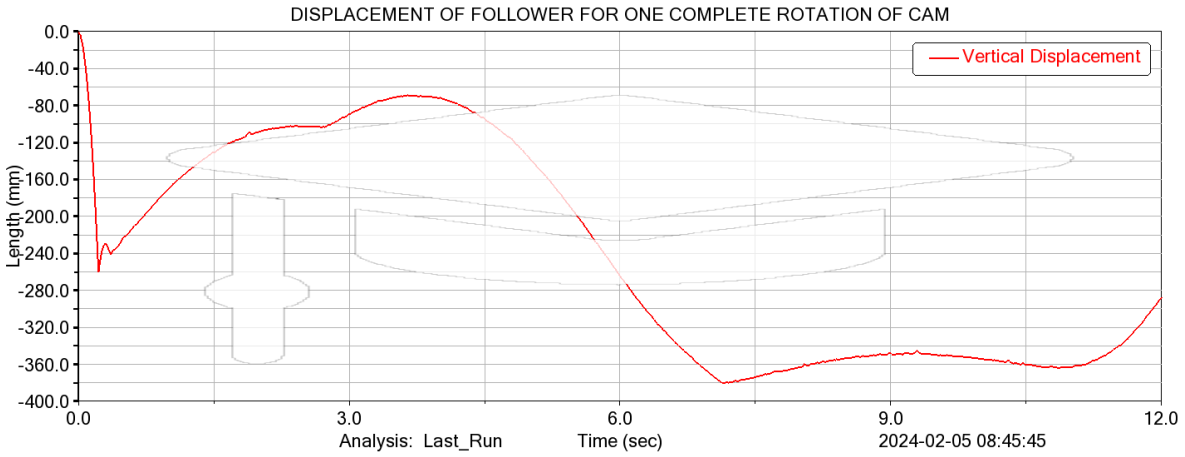
Contact Settings and spring properties Used:

Speed: 30 Degrees per second





VERTICAL DISPLACEMENT OF FOLLOWER FOR ONE COMPLETE ROTATION OF CAM



—X—X—X—X— X—X—X — X—**END**— X—X— X—X— X—X— X—X—