

Question 3:

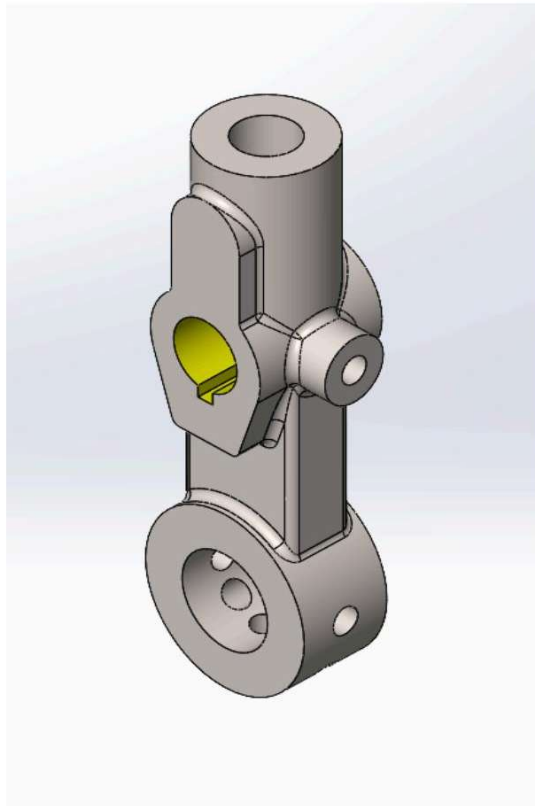
Unitary system: MMGS

Number of decimal places: 2

Configure function E4 to remove it in all configurations and

Select the second configuration of the part and determine the mass in grams. • **Part 3:** - Navigation between configurations.

- Creation of a derived configuration.
- Removal of a function in selected configurations.
- Modification of the part in a specified configuration.



3. Segment 3: Assembly RQ:

all the answers are at the end of the segment!

Unit system: MMGS Number of decimal places: 2 -Download

and unzip the S3ZIP folder containing the assembly parts.

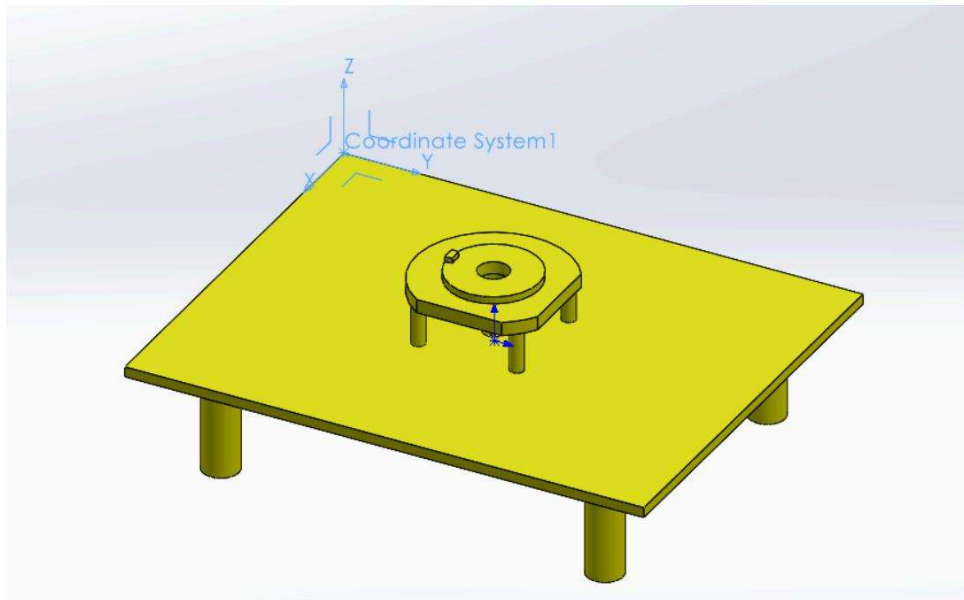
-Open the Base part and place it on the default origin of the assembly.

-Save the assembly under the name RA.

-Create a new coordinate system corresponding to the image below and name it CS I.

-Measure the center of mass of the assembly using the CSI coordinate system

X = 199.84
Y = 249.78
Z = -7.92

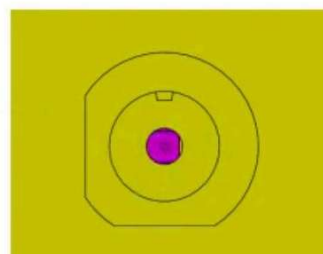
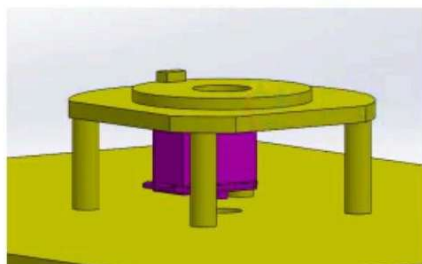
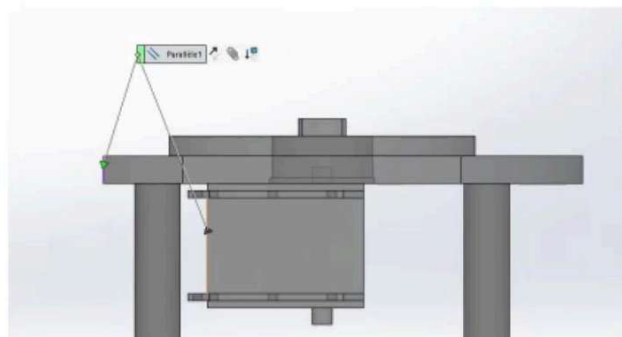
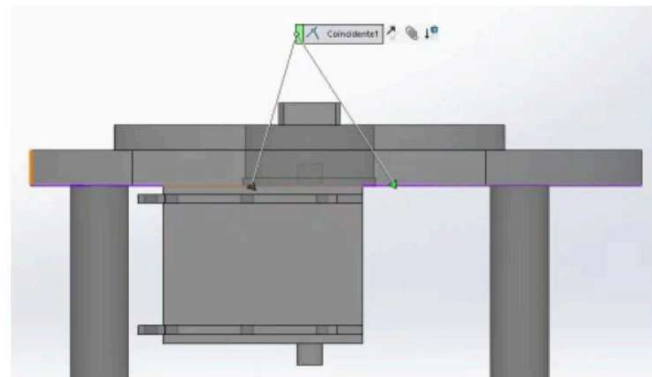


Question 2 :

- Insert the Actuator1 part into the assembly as shown in the images with the appropriate constraints.
- The inserted part must be completely constrained.

What is the center of mass of the assembly with the CS 1 system?

X = 207.97
Y = 249.85
Z = 1.41

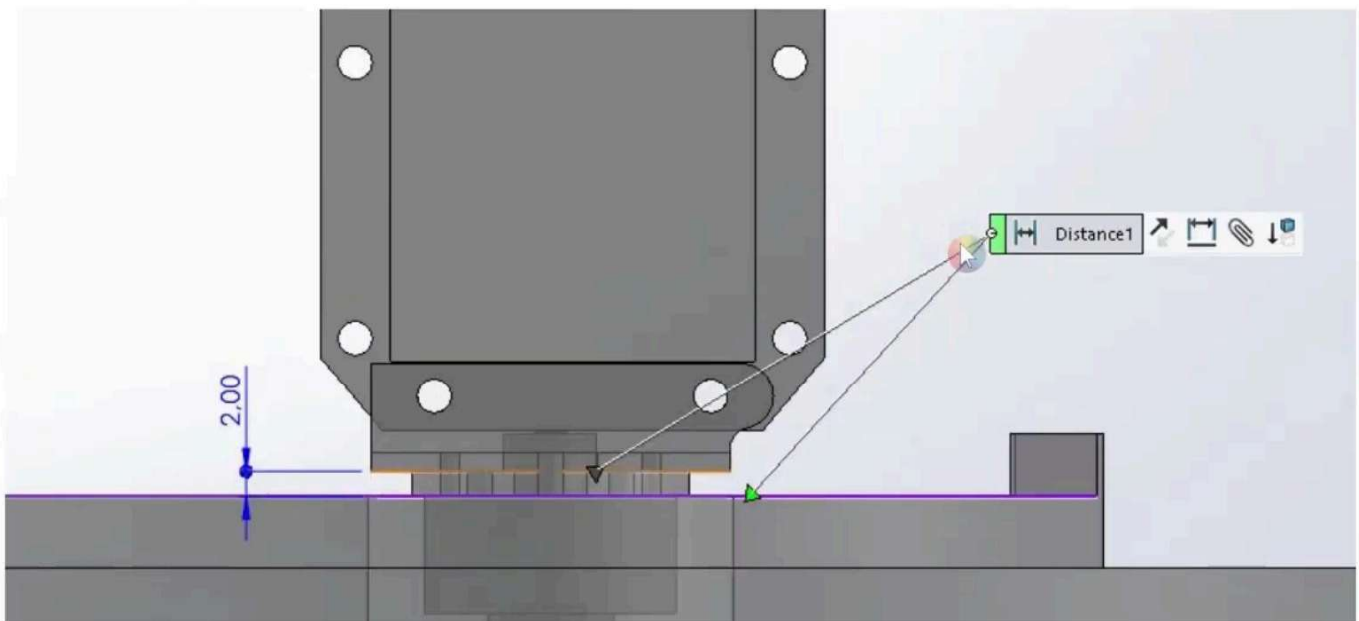
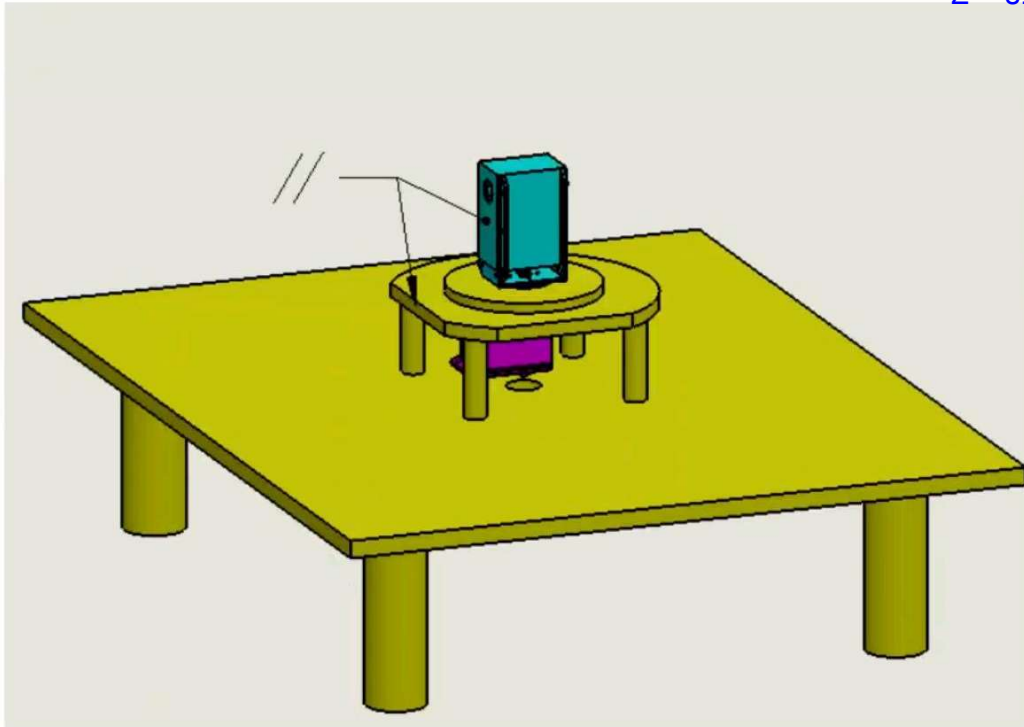


Question 3:

- Insert assembly XI into the main assembly RA with the constraints indicated on the images.

What is the center of mass with the CSI system?

X = 209.10
Y = 247.56
Z = 31.55

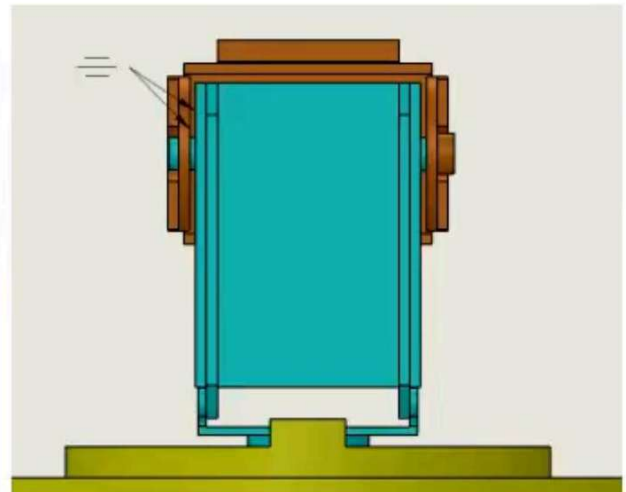
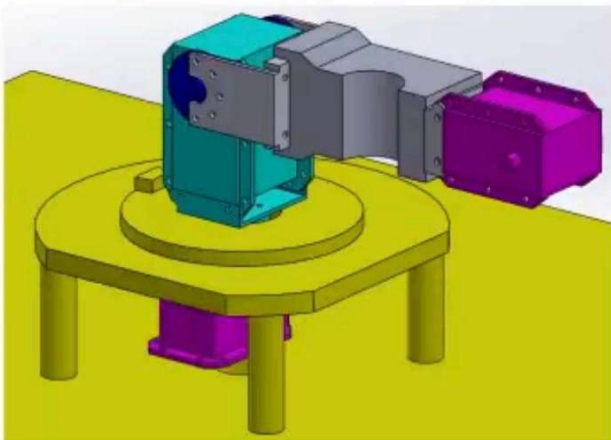
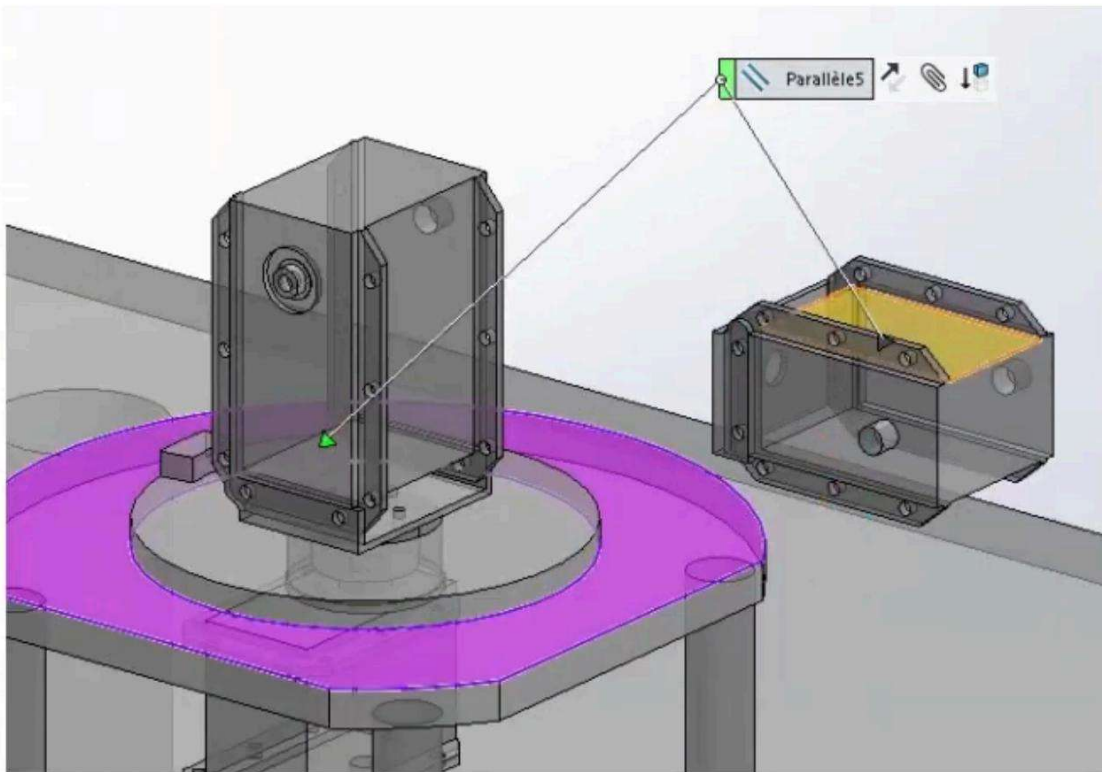


Question 4:

- Insert assembly X2 into the assembly from the previous question and apply the constraints as shown in the images. The part must be fully constrained.

X = 209.46
Y = 265.63
Z = 62.47

What is the center of mass with the CSI system?

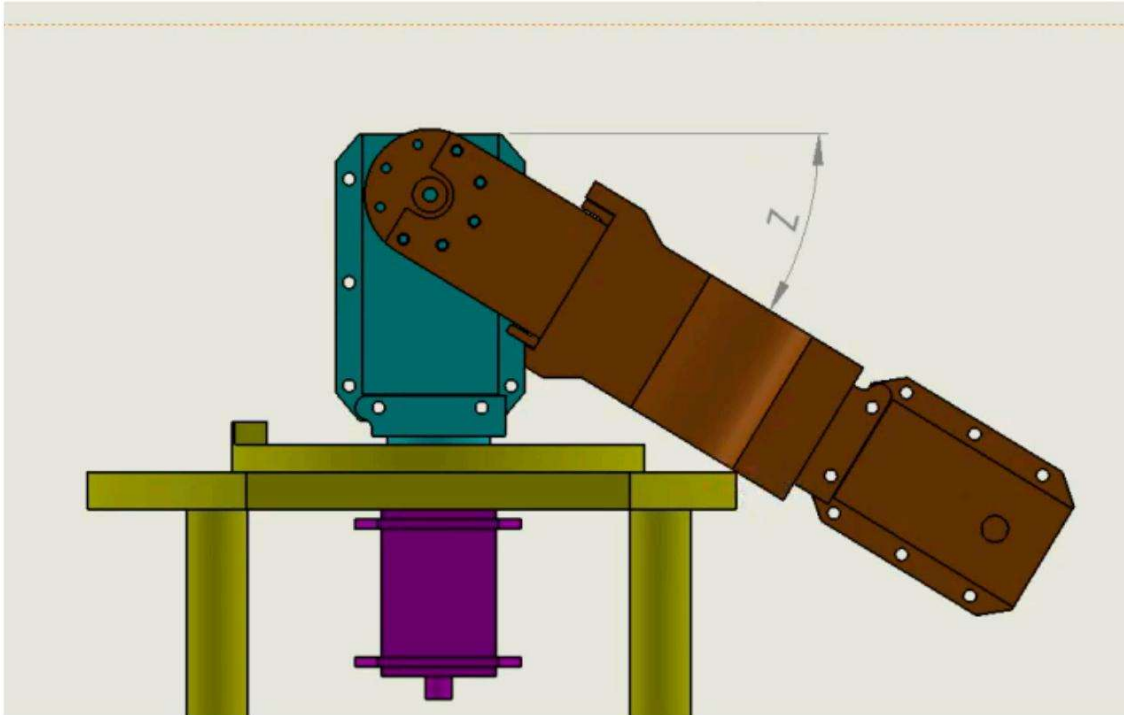


Question 5:

- Remove the constraints so that the X2 assembly can be rotated.
- With collision detection, rotate the X2 assembly until it collides with another assembly.

Measure the Z-angle of collision. The angle is between 0 and 90 degrees.

31.98



Question 6:

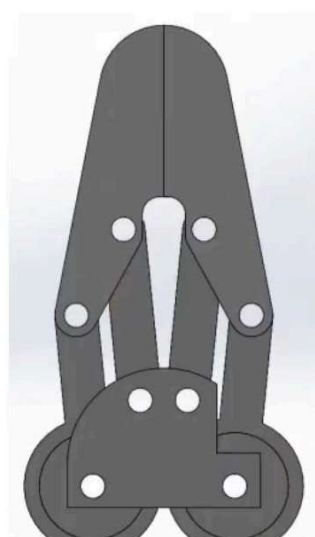
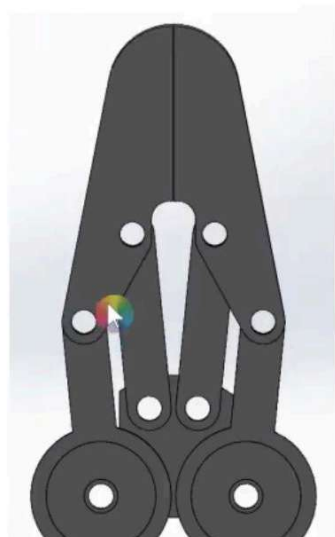
- Insert the Claw Start pre-assembly
- Create the Awl subassembly with the following parts: • Arm gear • Arm link

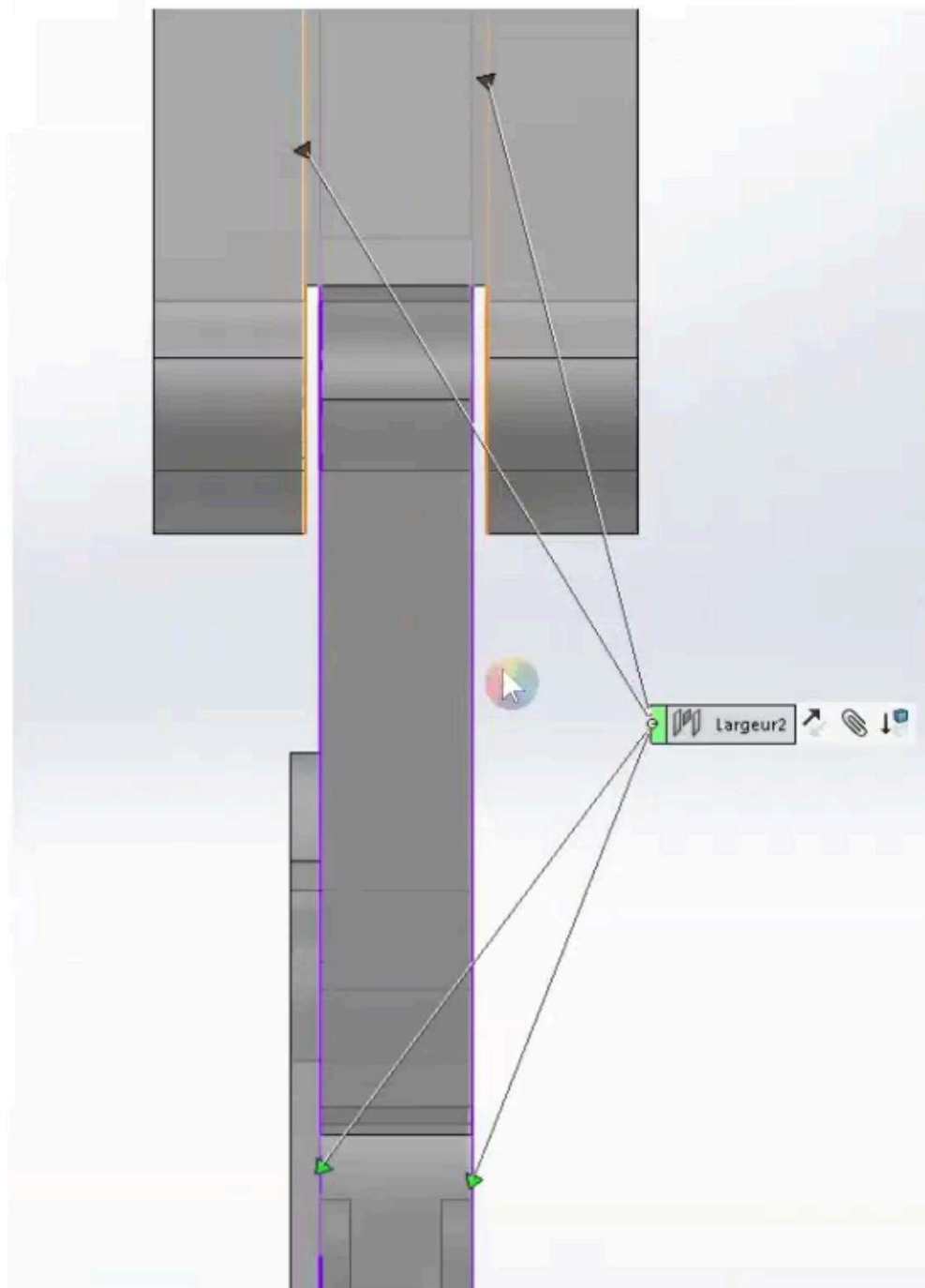
- Grip -

Save the assembly under Claw 1 - Position the grips so that they align as shown in the images.

What is the center of mass?

X = 16.42
Y = 64.75
Z = 33.80



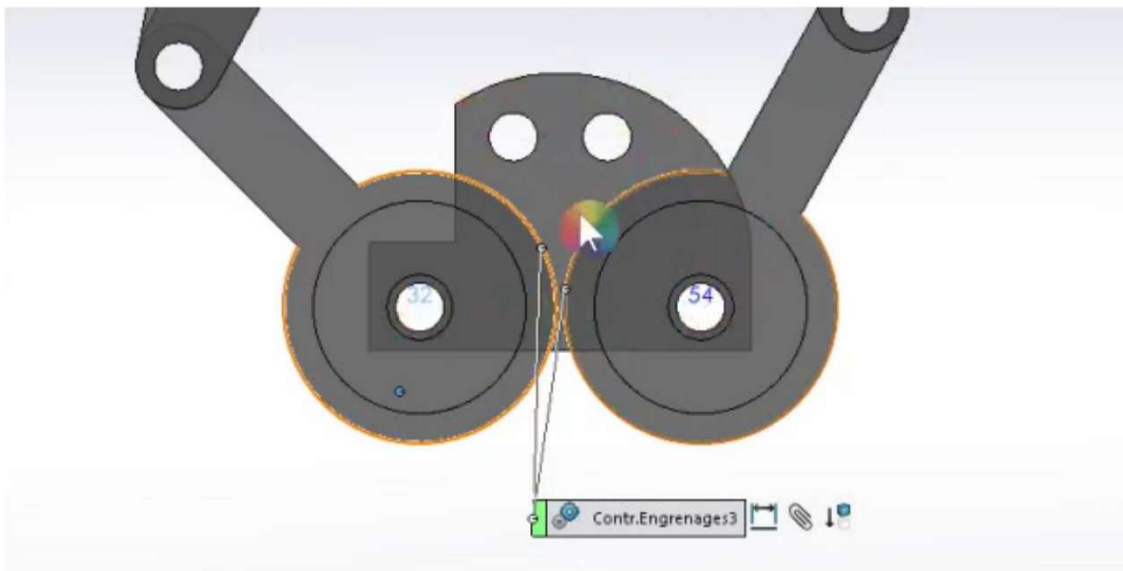
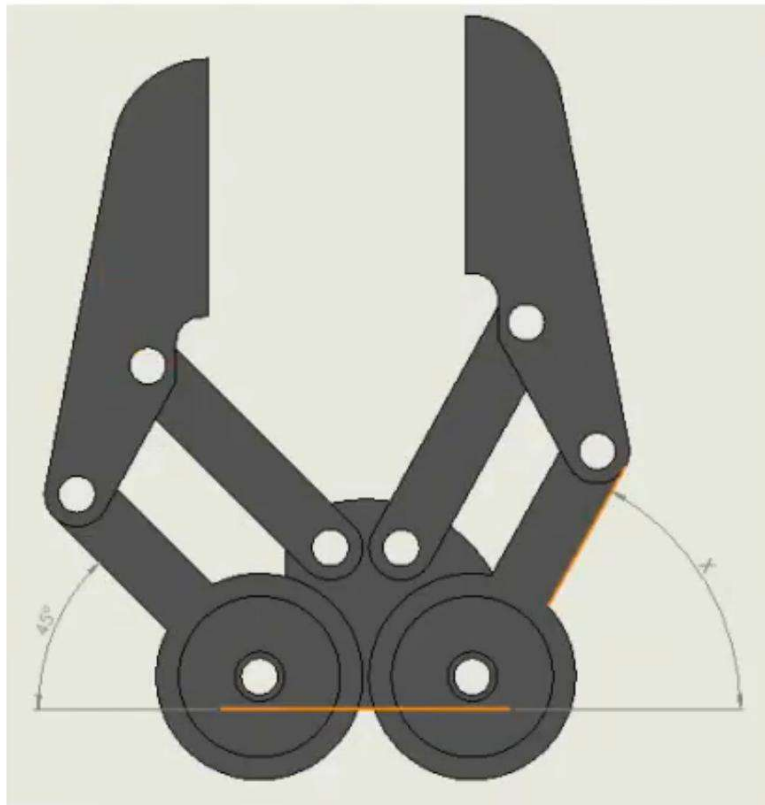


Question 7:

- Use the assembly from the previous question and remove, modify the existing constraints to make the clamps movable.
- The 2 Arm Gear pieces must move with a ratio of 32 mm and 54 mm as shown in the images.
- Save the assembly.

What is the measure of angle X? (between 0 and 90 degrees)

61.8



Question 8:

Open the X3 Start pre-assembly

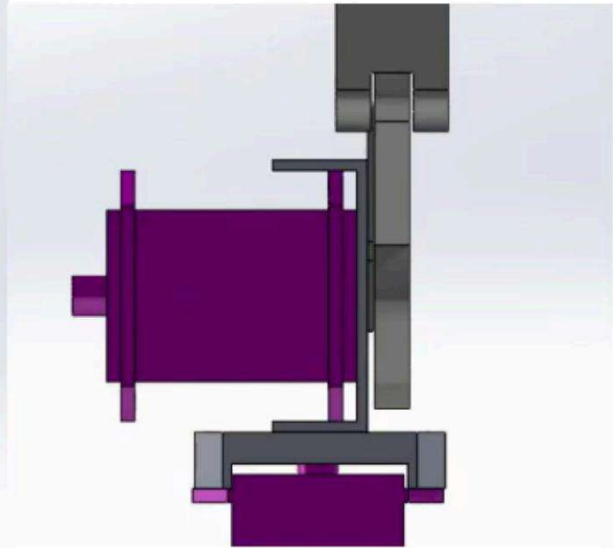
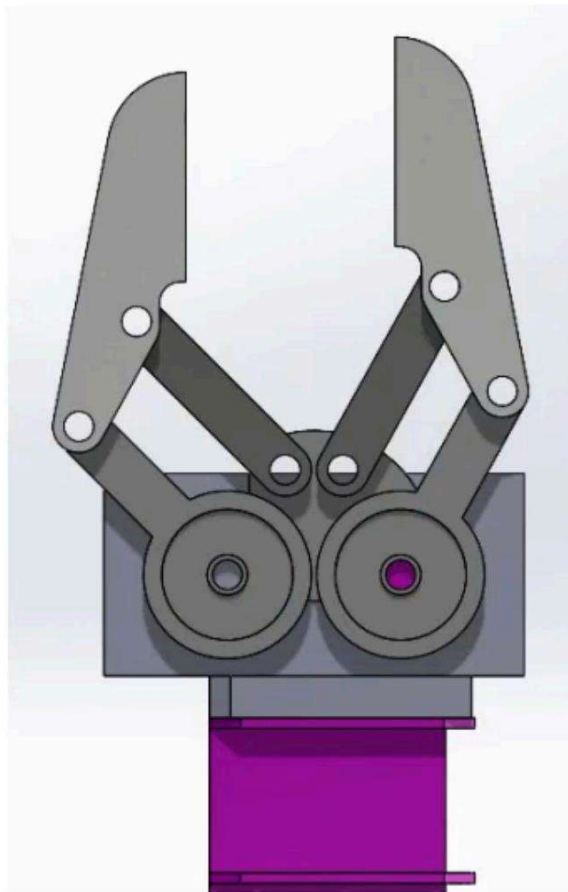
Save the assembly as X3

Insert the previous assembly Claw 1

Apply the constraints as shown in the images to fully constrain claw 1

What is the center of mass of the assembly?

$X = 13.72$
 $Y = 72.49$
 $Z = -12.03$

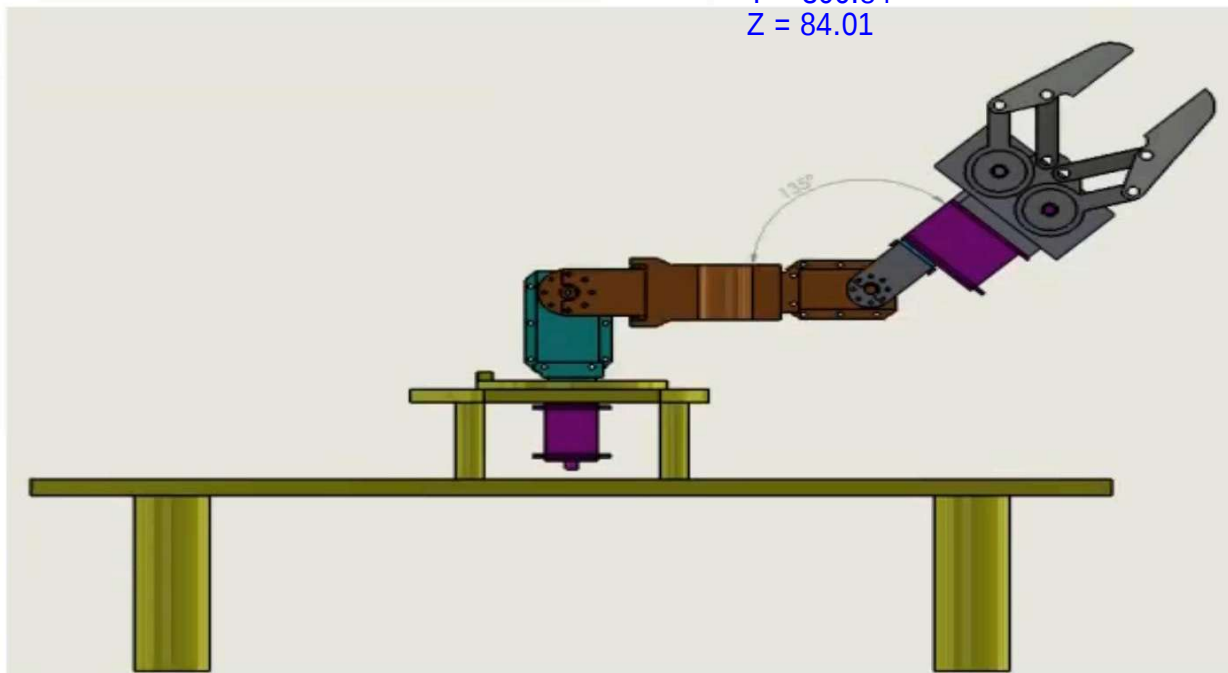


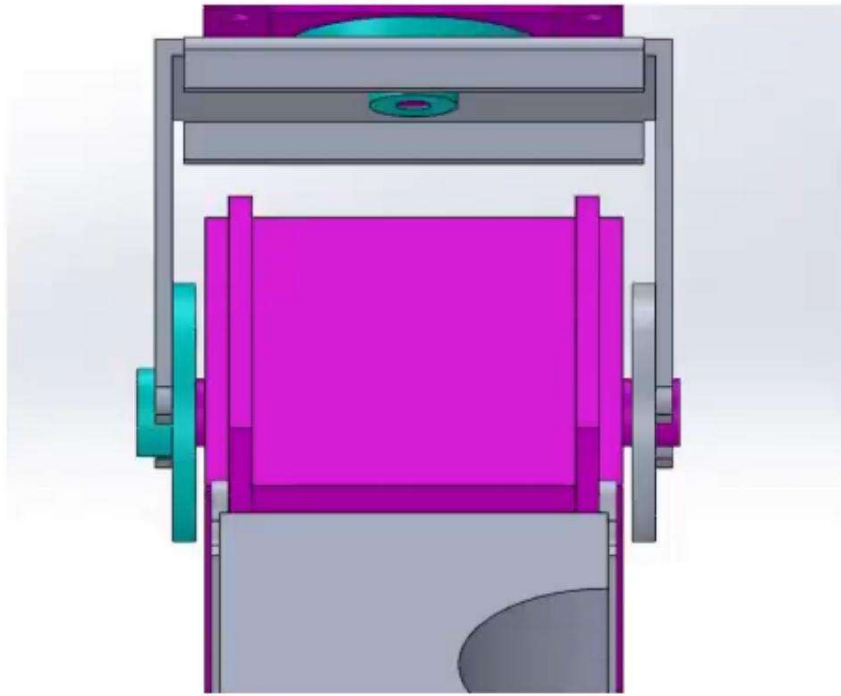
Question 9:

- Go back to the RA assembly and modify the constraints so that the arm parallel to the base... Insert the claw assembly and apply the constraints as shown in the images.

What is the center of mass with the CS1 system?

$X = 206.15$
 $Y = 306.84$
 $Z = 84.01$





Question 10:

Unitary system: MMGS

Number of decimal places: 2

- Remain in the assembly from the previous question and modify the mass properties of assembly X3 according to the data below:
- Mass = 2500 gr
- Center of mass: X = 5mm, Y = 25mm, Z = -45mm

X = 207.12
Y = 282.88
Z = 66.32

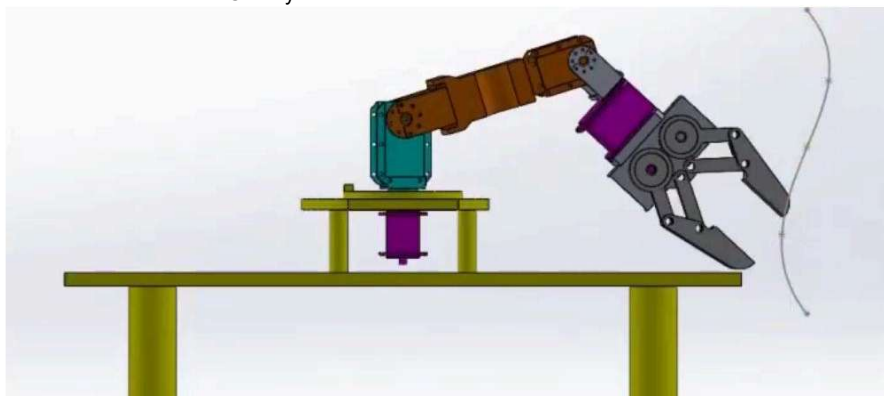
What is the center of mass of the main assembly with the CS1 system?

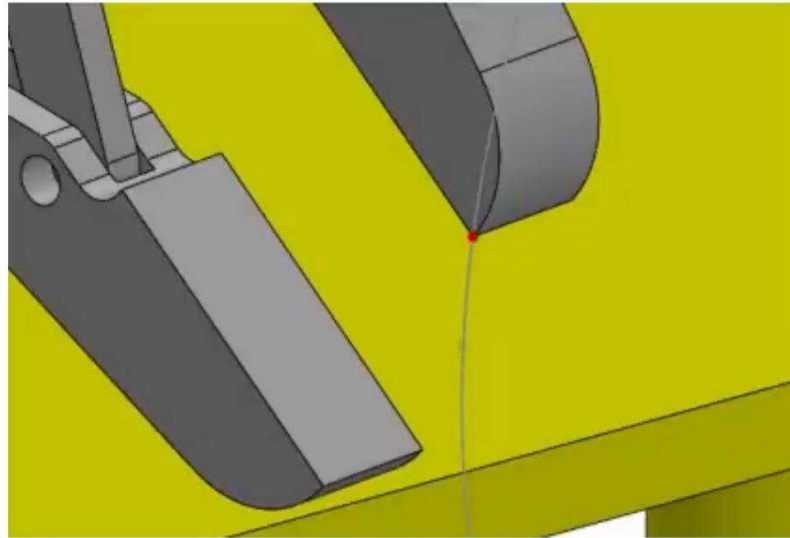
Question 11:

- Maintain the assembly from the previous question and display the created SI sketch in the first base of the original assembly.
- Remove the constraints so that the clamp arm can be rotated.
- Create a constraint between the clamp point and the SI trajectory and apply the following trajectory constraints: • Percentage of distance traveled on the trajectory: 68% • Pitch/Yaw control: Free • Roll control: Free

X = 203.41
Y = 277.08
Z = 66.94

What is the center of mass with the CS1 system?

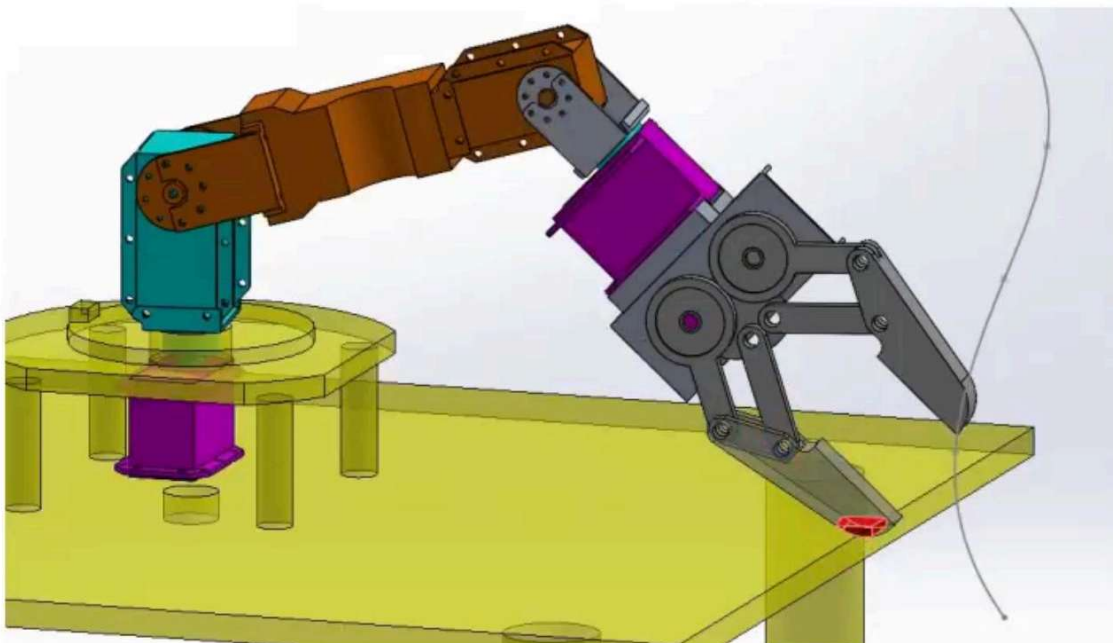




Question 12: _____

Modify the trajectory settings as follows: — Percentage of distance traveled on trajectory 72 % — Pitch/Yaw control: Free — Roll control: Free

Calculate the interference volume in mm³, between the clamp and the base of the main assembly. 31.97

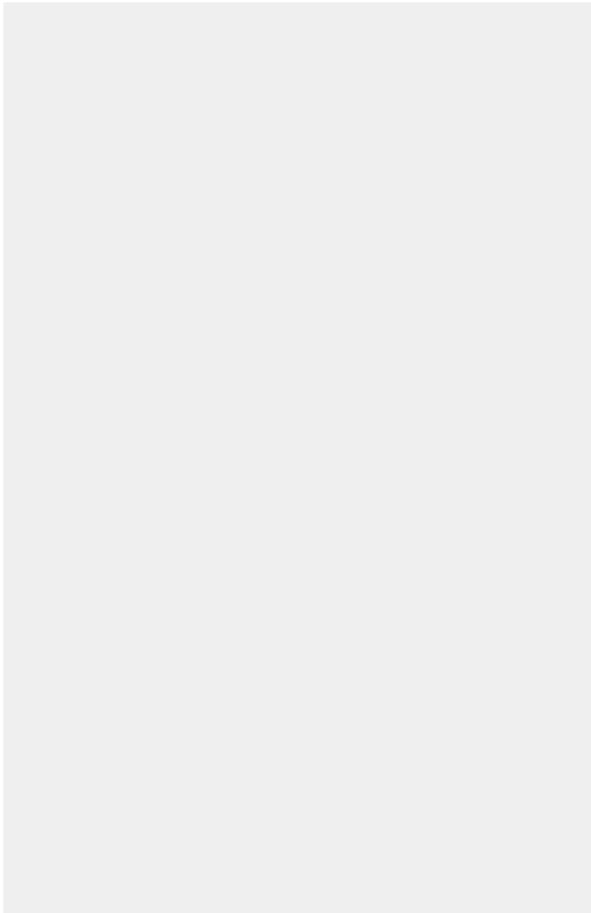
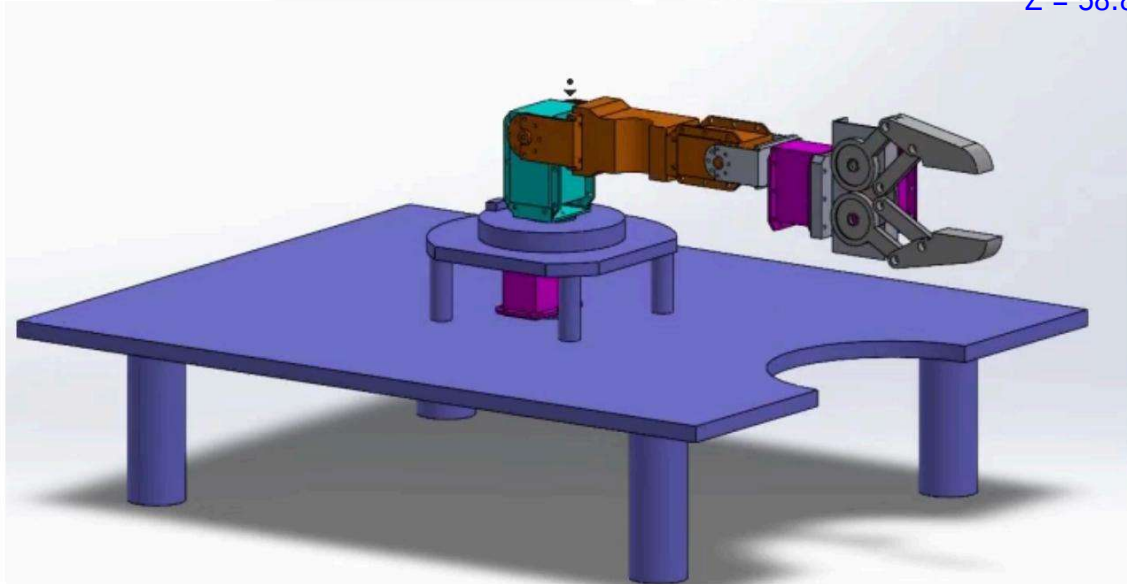


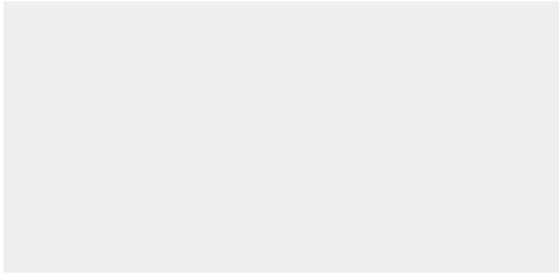
Question 13:

Remove all constraints as shown in the images and replace the original assembly base with part Base B.

What is the center of mass based on the CS1 system?

X = 206.80
Y = 275.68
Z = 58.89





Rabi maakom nes lkol yy!!