

Include a Center of Gravity Feature in Your Robot Model

The steps below calculate the position of your robot model's center of gravity and displays it as a point in the graphic area and as a mass property feature in the model tree.





		Mass Properties X
		Analysis Feature Solid geometry Quilt:
		Coordinate system: Select items
4. Set the p menu tha displays (select Fe	ull-down at is currently Quick and ature .	Density: 1.000000e+00 Accuracy: 0.00001000 Image: Computed Assigned VOLUME = 1.8541982e+03 INCH*3 SURFACE AREA = 1.7011265e+03 INCH*2 AVERAGE DENSITY = 7.6407550e-03 POUND MASS = 1.4167474e+01 POUND CENTER OF GRAVITY with respect to _SYSTEN X Y Z 0.000000e+00 4.2853827e+00 3.0! Image: Teature Teature Mass_Prop_1
		Mass Properties × Analysis Feature Regenerate Always
5. Click the the Mass	Feature tab at the top of Properties window.	Parameters Create Name Description Image: Volume Amount of the second se
6. In the Da next to C create a	itums field, check the box SYS_COG and PNT_COG to coordinate system and	SURF_AREA model surface area MASS model mass INERTIA_1 principal inertia (s INERTIA_2 principal inertia (in
datum po	oint at the center of	Datums Create Name Description Image: CSYS_COG CSYS at CG, axe
gravity.		

PNT_COG in your model at the point representing the system center of gravity.



As you change the position of mechanisms, the center of gravity will move (after the model is regenerated) as the mass is repositioned.



ptc academic program

Questions or ideas? Drop us a note at <u>FIRST@ptc.com</u>. Twitter: @PTC_FIRST Facebook: @ptcfirst