

SOLIDWORKS > Home Sketch Surfaces Simulation Analysis Preparation Part 1 Search Commands

Sketch Line Corner Circle Polygon 3 Point Spline Smart Dimension Relation Add Sketch Trim Linear Sketch Entities Pattern Offset Convert Mirror Extruded Boss/Base Extruded Cut Fillet Linear Mirror Draft Shell Reference Geometry Measure Mass Properties

Basic Modeling Tools Sketch Surfaces Simulation Analysis Preparation

Mass Properties

Part 1

Override Mass Properties... Recalculate Options...

Include hidden bodies/components
 Create Center of Mass feature
 Show weld bead mass

Report coordinate values relative to: -- default --

Mass properties of Part 1
Configuration: Default
Coordinate system: -- default --

Density = 0.04 pounds per cubic inch

Mass = 0.96 pounds

Volume = 26.51 cubic inches

Surface area = 427.88 square inches

Center of mass: (inches)
X = 0.00
Y = 0.00
Z = 4.53

Principal axes of inertia and principal moments of inertia: (pounds * square inches)
Taken at the center of mass.

Ix = (0.00, 0.00, 1.00)	Px = 7.72
Iy = (0.00, -1.00, 0.00)	Py = 14.00
Iz = (1.00, 0.00, 0.00)	Pz = 15.95

Moments of inertia: (pounds * square inches)
Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation.)

Lxx = 15.95	Lxy = 0.00	Lxz = 0.00
Lyx = 0.00	Lyy = 14.00	Lyz = 0.00
Lzx = 0.00	Lzy = 0.00	Lzz = 7.72

Moments of inertia: (pounds * square inches)
Taken at the output coordinate system. (Using positive tensor notation.)

Ixx = 35.64	Ixy = 0.00	Ixz = 0.00
Iyx = 0.00	Iyy = 33.69	Iyz = 0.00
Izx = 0.00	Izy = 0.00	Izz = 7.72

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Part 1

Sensors

Solid Bodies(1)

Combine1

Equations

Material <not specified>

Front Plane

Top Plane

Right Plane

Origin

Surface-Sweep1

Surface-Fill1

Thicken1

Thicken3

Combine1

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Analysis Library

Toolbox

SOLIDWORKS Content

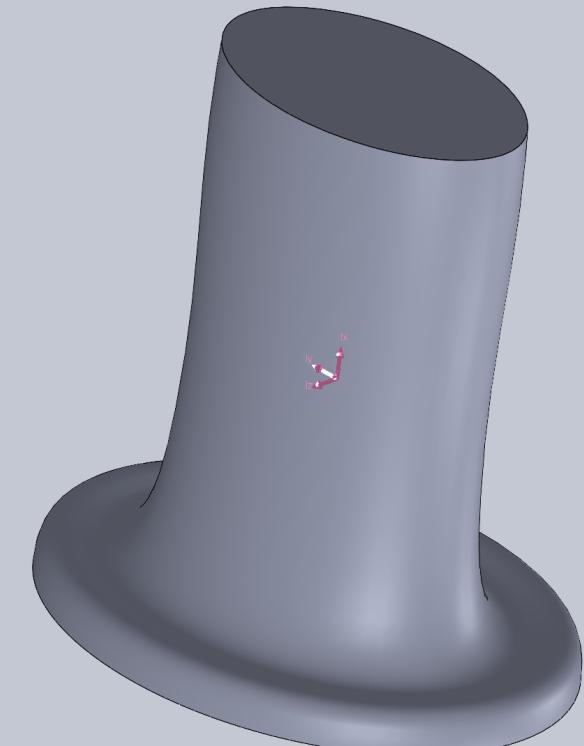
3D Components - Part

Model Motion Study 1

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3:46:11 PM 10/16/2025



SOLIDWORKS part 2

curve

Basic Modeling Tools Sketch Surfaces Simulation Analysis Preparation

Mass Properties

part 2

Override Mass Properties... Recalculate Options...

Include hidden bodies/components

Create Center of Mass feature

Show weld bead mass

Report coordinate values relative to: -- default --

Mass properties of part 2
Configuration: Default
Coordinate system: -- default --

Density = 0.04 pounds per cubic inch

Mass = 0.00 pounds

Volume = 0.01 cubic inches

Surface area = 0.97 square inches

Center of mass: (inches)
X = 0.06
Y = 0.00
Z = 0.00

Principal axes of inertia and principal moments of inertia: (pounds * square inches)
Taken at the center of mass.
Ix = (0.00, 0.86, -0.50) Px = 0.00
Iy = (0.00, 0.50, 0.86) Py = 0.00
Iz = (1.00, 0.00, 0.00) Pz = 0.00

Moments of inertia: (pounds * square inches)
Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation.)
Lxx = 0.00 Lxy = 0.00 Lxz = 0.00
Lyx = 0.00 Lyy = 0.00 Lyz = 0.00
Lzx = 0.00 Lzy = 0.00 Lzz = 0.00

Moments of inertia: (pounds * square inches)
Taken at the output coordinate system. (Using positive tensor notation.)
Ixx = 0.00 Ixy = 0.00 Izx = 0.00
Iyx = 0.00 Iyy = 0.00 Iyz = 0.00
Izx = 0.00 Izy = 0.00 Izz = 0.00

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Sketch Line Corner Circle Polygon 3 Point Spline Smart Dimension Relation Add Sketch Trim Linear Sketch Entities Pattern Offset Convert Mirror Extruded Boss/Base Cut Fillet Linear Mirror Draft Shell Reference Geometry Measure Mass Properties

Front Plane Top Plane Right Plane Origin Sketch1 Plane2 Sketch2 Curve1 Sweep1

Model Motion Study 1

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搜索

3:57:31 PM 10/16/2025

SOLIDWORKS part 3

Search Commands

Basic Modeling Tools Sketch Surfaces Simulation Analysis Preparation

Mass Properties Options...

part 3

Override Mass Properties... Recalculate

Include hidden bodies/components

Create Center of Mass feature

Show weld bead mass

Report coordinate values relative to: -- default --

Mass properties of part 3
Configuration: Default
Coordinate system: -- default --

Density = 0.04 pounds per cubic inch

Mass = 0.04 pounds

Volume = 1.08 cubic inches

Surface area = 26.20 square inches

Center of mass: (inches)
X = -0.60
Y = 1.05
Z = 1.30

Principal axes of inertia and principal moments of inertia: (pounds * square inches)
Taken at the center of mass.
Ix = (-0.48, 0.88, -0.04) Px = 0.05
Iy = (-0.58, -0.29, 0.76) Py = 0.13
Iz = (0.65, 0.39, 0.65) Pz = 0.15

Moments of inertia: (pounds * square inches)
Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation.)
Lxx = 0.12 Lxy = -0.04 Lxz = -0.01
Lyx = -0.04 Lyy = 0.07 Lyz = -0.01
Lzx = -0.01 Lzy = -0.01 Lzz = 0.14

Moments of inertia: (pounds * square inches)
Taken at the output coordinate system. (Using positive tensor notation.)
lxx = 0.23 lxy = -0.06 lxz = -0.04
lyx = -0.06 lyy = 0.15 lyz = 0.04
lzx = -0.04 lzy = 0.04 lzz = 0.19

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