

**SOLIDWORKS** Part1 wrap

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

Basic Modeling Tools Sketch Surfaces Simulation Analysis Preparation

**Mass Properties**

Part1

Options...

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 Part1  
Configuration: Default  
Coordinate system: -- default --

Density = 0.04 pounds per cubic inch

Mass = 0.21 pounds

**Volume = 5.75 cubic inches**

Surface area = 18.28 square inches

Center of mass: ( inches )  
X = 0.00  
Y = 0.00  
Z = 0.63

Principal axes of inertia and principal moments of inertia: ( pounds \* square inches )  
Taken at the center of mass.  
I<sub>x</sub> = ( 0.00, 1.00, 0.00 ) Px = 0.07  
I<sub>y</sub> = ( -1.00, 0.00, 0.00 ) Py = 0.17  
I<sub>z</sub> = ( 0.00, 0.00, 1.00 ) Pz = 0.20

Moments of inertia: ( pounds \* square inches )  
Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation.)  
L<sub>xx</sub> = 0.17 L<sub>xy</sub> = 0.00 L<sub>xz</sub> = 0.00  
L<sub>yx</sub> = 0.00 L<sub>yy</sub> = 0.07 L<sub>yz</sub> = 0.00  
L<sub>zx</sub> = 0.00 L<sub>zy</sub> = 0.00 L<sub>zz</sub> = 0.20

Moments of inertia: ( pounds \* square inches )  
Taken at the output coordinate system. (Using positive tensor notation.)  
l<sub>xx</sub> = 0.25 l<sub>xy</sub> = 0.00 l<sub>xz</sub> = 0.00  
l<sub>yx</sub> = 0.00 l<sub>yy</sub> = 0.15 l<sub>yz</sub> = 0.00  
l<sub>zx</sub> = 0.00 l<sub>zy</sub> = 0.00 l<sub>zz</sub> = 0.20

Help Print... Copy to Clipboard

Design Library

Search in Toolbox

> Design Library

> Analysis Library

> Toolbox

> SOLIDWORKS Content

> 3D Components - Part

Model Motion Study 1

SOLIDWORKS Student Edition - Academic Use Only

Editing Part Simplified Interface IPS

**SOLIDWORKS** Part2 wrap

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

Basic Modeling Tools Sketch Surfaces Simulation Analysis Preparation

**Mass Properties**

Part2

Options...

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 Part2  
Configuration: Default  
Coordinate system: -- default --

Density = 0.04 pounds per cubic inch

Mass = 0.50 pounds

**Volume = 13.81 cubic inches**

Surface area = 554.62 square inches

Center of mass: ( inches )  
X = 5.25  
Y = -3.50  
Z = -0.77

Principal axes of inertia and principal moments of inertia: ( pounds \* square inches )  
Taken at the center of mass.  
I<sub>x</sub> = ( 1.00, 0.00, 0.00 ) Px = 4.68  
I<sub>y</sub> = ( 0.00, 1.00, 0.00 ) Py = 8.18  
I<sub>z</sub> = ( 0.00, 0.00, 1.00 ) Pz = 12.51

Moments of inertia: ( pounds \* square inches )  
Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation.)  
L<sub>xx</sub> = 4.68 L<sub>xy</sub> = 0.00 L<sub>xz</sub> = 0.00  
L<sub>yx</sub> = 0.00 L<sub>yy</sub> = 8.18 L<sub>yz</sub> = 0.00  
L<sub>zx</sub> = 0.00 L<sub>zy</sub> = 0.00 L<sub>zz</sub> = 12.51

Moments of inertia: ( pounds \* square inches )  
Taken at the output coordinate system. (Using positive tensor notation.)  
l<sub>xx</sub> = 11.08 l<sub>xy</sub> = -9.17 l<sub>xz</sub> = -2.01  
l<sub>yx</sub> = -9.17 l<sub>yy</sub> = 22.22 l<sub>yz</sub> = 1.34  
l<sub>zx</sub> = -2.01 l<sub>zy</sub> = 1.34 l<sub>zz</sub> = 32.37

Help Print... Copy to Clipboard

Design Library

Search in Toolbox

- > Design Library
- > Analysis Library
- > Toolbox
- > SOLIDWORKS Content
- > 3D Components - Part

Model Motion Study 1

SOLIDWORKS Student Edition - Academic Use Only

Editina Part Simplified Interface IPS

**SOLIDWORKS** Part3 wrap

Basic Modeling Tools Sketch Surfaces Simulation Analysis Preparation

Mass Properties

Part3

Options...

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 Part3  
Configuration: Default  
Coordinate system: -- default --

Density = 0.04 pounds per cubic inch  
Mass = 0.40 pounds  
Volume = 11.02 cubic inches  
Surface area = 42.10 square inches

Center of mass: ( inches )  
X = -2.54  
Y = 0.00  
Z = 0.00

Principal axes of inertia and principal moments of inertia: ( pounds \* square inches )  
Taken at the center of mass.  
I<sub>x</sub> = ( 1.00, 0.00, 0.00 ) P<sub>x</sub> = 0.09  
I<sub>y</sub> = ( 0.00, 0.00, -1.00 ) P<sub>y</sub> = 3.30  
I<sub>z</sub> = ( 0.00, 1.00, 0.00 ) P<sub>z</sub> = 3.30

Moments of inertia: ( pounds \* square inches )  
Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation.)  
L<sub>xx</sub> = 0.09 L<sub>xy</sub> = 0.00 L<sub>xz</sub> = 0.00  
L<sub>yx</sub> = 0.00 L<sub>yy</sub> = 3.30 L<sub>yz</sub> = 0.00  
L<sub>zx</sub> = 0.00 L<sub>zy</sub> = 0.00 L<sub>zz</sub> = 3.30

Moments of inertia: ( pounds \* square inches )  
Taken at the output coordinate system. (Using positive tensor notation.)  
l<sub>xx</sub> = 0.09 l<sub>xy</sub> = 0.00 l<sub>xz</sub> = 0.00  
l<sub>yx</sub> = 0.00 l<sub>yy</sub> = 5.87 l<sub>yz</sub> = 0.00  
l<sub>zx</sub> = 0.00 l<sub>zy</sub> = 0.00 l<sub>zz</sub> = 5.87

Help Print... Copy to Clipboard

Model Motion Study 1

SOLIDWORKS Student Edition - Academic Use Only

Editing Part Simplified Interface IPS

Appearances, Scenes, and Decals

Appearances(color)

Scenes

Basic Scenes

Studio Scenes

Presentation Scenes

Backgrounds

Decals

Logos

Default Appearance: color

Drag and drop appearances onto ...

color texture