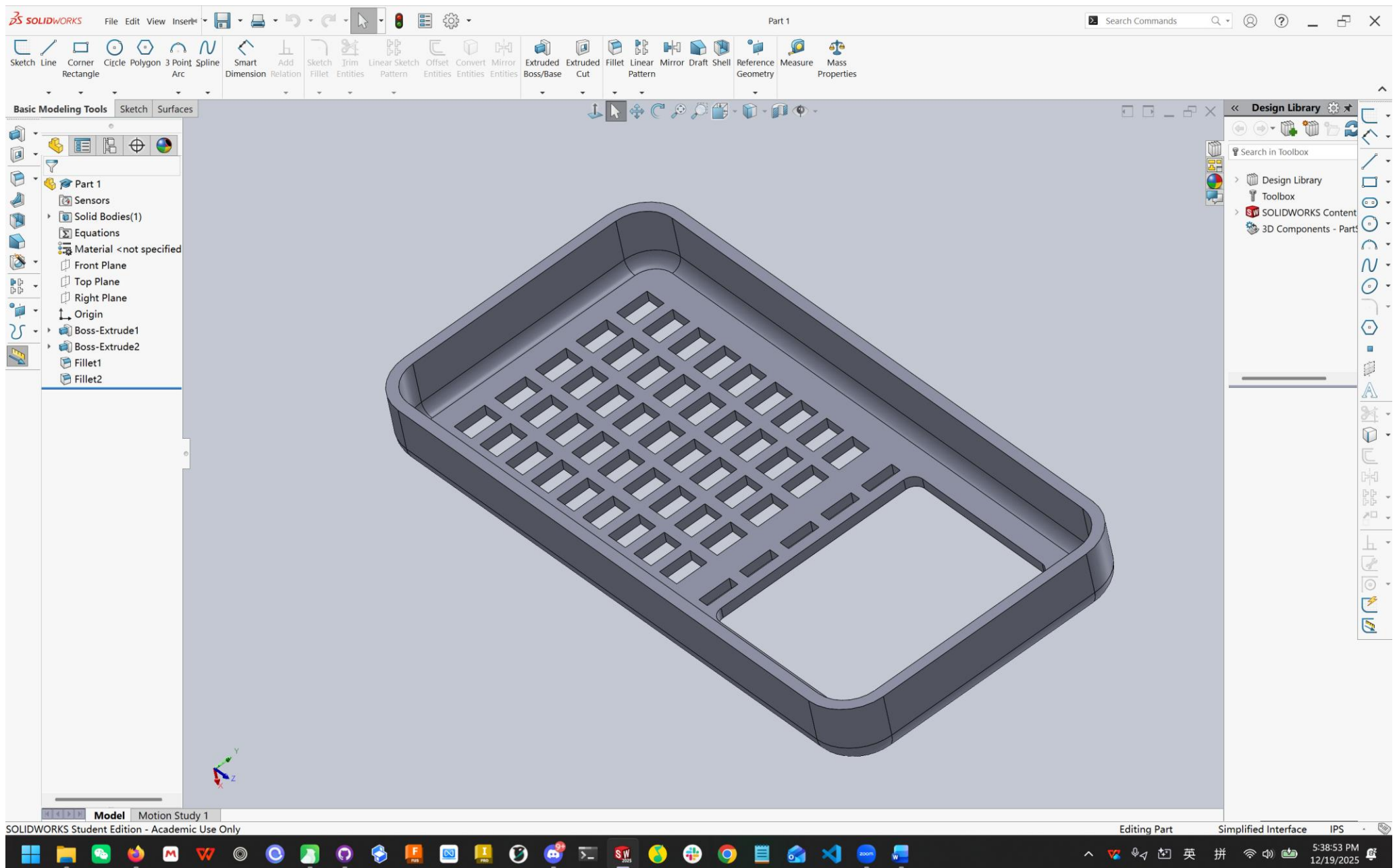


Part 1: 3.1975



SOLIDWORKS Part 1 Search Commands

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

Mass Properties

Part 1 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 Part 1
Configuration: Default
Coordinate system: -- default --

Density = 0.0361 pounds per cubic inch

Mass = 0.1155 pounds

Volume = 3.1975 cubic inches

Surface area = 62.4152 square inches

Center of mass: (inches)
X = -0.2458
Y = 0.0000
Z = -0.1348

Principal axes of inertia and principal moments of inertia: (pounds * square inches)
Taken at the center of mass.
I_x = (-0.0048, 0.0000, 1.0000) P_x = 0.1998
I_y = (0.0000, -1.0000, 0.0000) P_y = 0.6126
I_z = (1.0000, 0.0000, 0.0048) P_z = 0.8007

Moments of inertia: (pounds * square inches)
Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation.)
L_{xx} = 0.8007 L_{xy} = 0.0000 L_{xz} = -0.0029
L_{yx} = 0.0000 L_{yy} = 0.6126 L_{yz} = 0.0000
L_{zx} = -0.0029 L_{zy} = 0.0000 L_{zz} = 0.1998

Moments of inertia: (pounds * square inches)
Taken at the output coordinate system. (Using positive tensor notation.)
I_{xx} = 0.8028 I_{xy} = 0.0000 I_{xz} = 0.0010
I_{yx} = 0.0000 I_{yy} = 0.6217 I_{yz} = 0.0000
I_{zx} = 0.0010 I_{zy} = 0.0000 I_{zz} = 0.2068

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Design Library Search in Toolbox
Design Library
Toolbox
SOLIDWORKS Content
3D Components - Parts

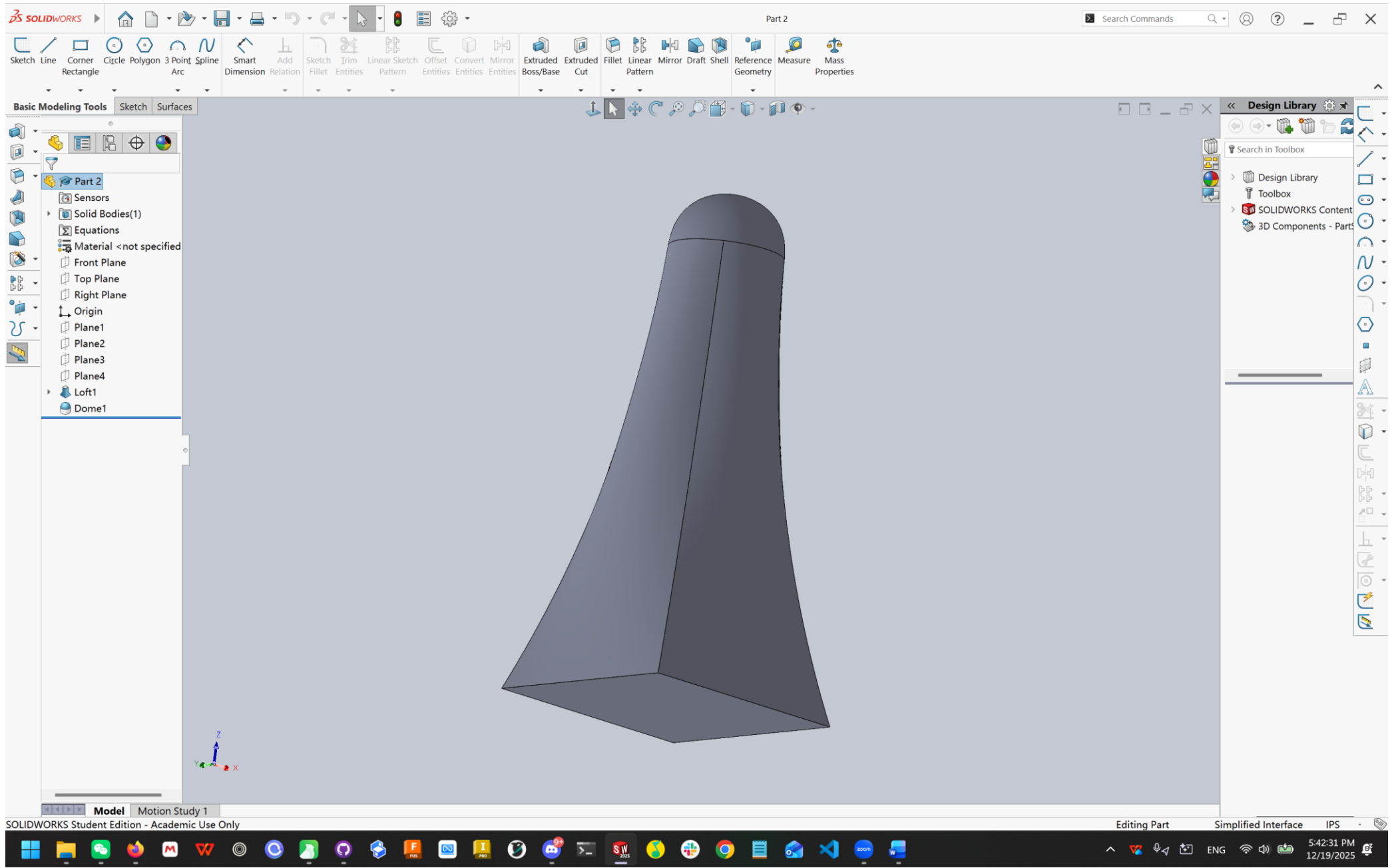
Model Motion Study 1

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Part 2: 0.1265



SOLIDWORKS Part 2 Search Commands

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

Basic Modeling Tools Sketch Surfaces

Part 2

- Sensors
- Solid Bodies(1)
- Equations
- Material <not specified>
- Front Plane
- Top Plane
- Right Plane
- Origin
- Plane1
- Plane2
- Plane3
- Plane4
- Loft1
- Dome1

Mass Properties

Part 2 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 Part 2
Configuration: Default
Coordinate system: -- default --

Density = 0.0361 pounds per cubic inch

Mass = 0.0046 pounds

Volume = 0.1265 cubic inches

Surface area = 1.6088 square inches

Center of mass: (inches)
X = 0.0000
Y = 0.0000
Z = 0.3900

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

$I_x = (0.0000, 0.0000, 1.0000)$	$P_x = 0.0001$
$I_y = (0.7071, -0.7071, 0.0000)$	$P_y = 0.0004$
$I_z = (0.7071, 0.7071, 0.0000)$	$P_z = 0.0004$

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

$L_{xx} = 0.0004$	$L_{xy} = 0.0000$	$L_{xz} = 0.0000$
$L_{yx} = 0.0000$	$L_{yy} = 0.0004$	$L_{yz} = 0.0000$
$L_{zx} = 0.0000$	$L_{zy} = 0.0000$	$L_{zz} = 0.0001$

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

$I_{xx} = 0.0011$	$I_{xy} = 0.0000$	$I_{xz} = 0.0000$
$I_{yx} = 0.0000$	$I_{yy} = 0.0011$	$I_{yz} = 0.0000$
$I_{zx} = 0.0000$	$I_{zy} = 0.0000$	$I_{zz} = 0.0001$

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Design Library

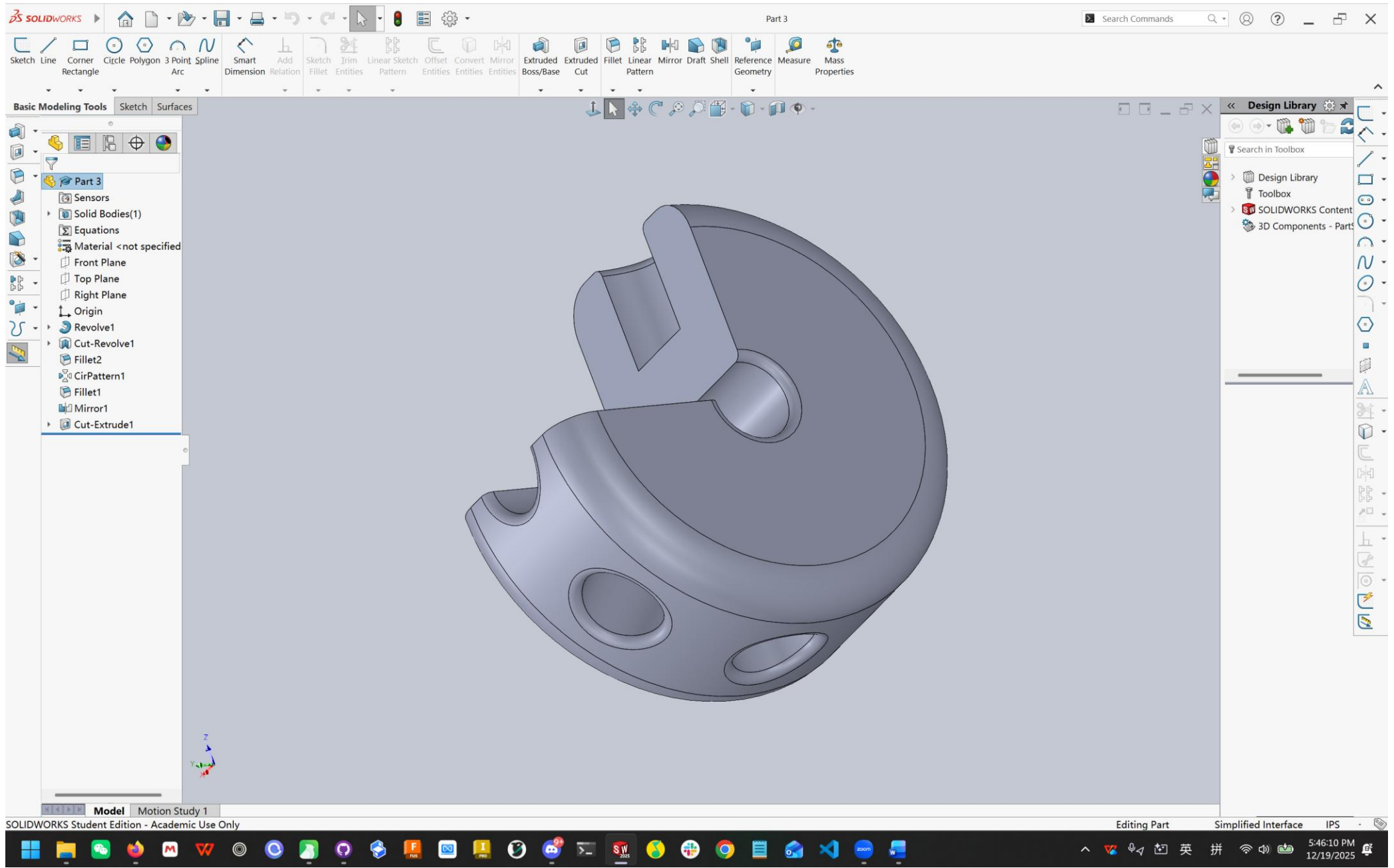
Search in Toolbox

- Design Library
- Toolbox
- SOLIDWORKS Content
- 3D Components - Parts

Model Motion Study 1

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Part 3: 1.8949



SOLIDWORKS Part 3 Search Commands

Sketch Line Corner Rectangle Circle Polygon 3 Point Spline Arc 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

Mass Properties

Part 3 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 Part 3
Configuration: Default
Coordinate system: -- default --

Density = 0.0361 pounds per cubic inch
Mass = 0.0685 pounds
Volume = 1.8949 cubic inches
Surface area = 13.9759 square inches

Center of mass: (inches)
X = 0.0000
Y = -0.1410
Z = -0.1410

Principal axes of inertia and principal moments of inertia: (pounds * square inches)
Taken at the center of mass.
Ixx = (0.0000, 0.7071, -0.7071) Px = 0.0166
Iyy = (0.0000, 0.7071, 0.7071) Py = 0.0266
Izz = (1.0000, 0.0000, 0.0000) Pz = 0.0307

Moments of inertia: (pounds * square inches)
Taken at the center of mass and aligned with the output coordinate system. (Using positive tensor notation)
Lxx = 0.0307 Lxy = 0.0000 Lxz = 0.0000
Lyx = 0.0000 Lyy = 0.0216 Lyz = -0.0050
Lzx = 0.0000 Lzy = -0.0050 Lzz = 0.0216

Moments of inertia: (pounds * square inches)
Taken at the output coordinate system. (Using positive tensor notation.)
Ixx = 0.0334 Ixy = 0.0000 Ixz = 0.0000
Iyx = 0.0000 Iyy = 0.0230 Iyz = -0.0036
Izx = 0.0000 Izy = -0.0036 Izz = 0.0230

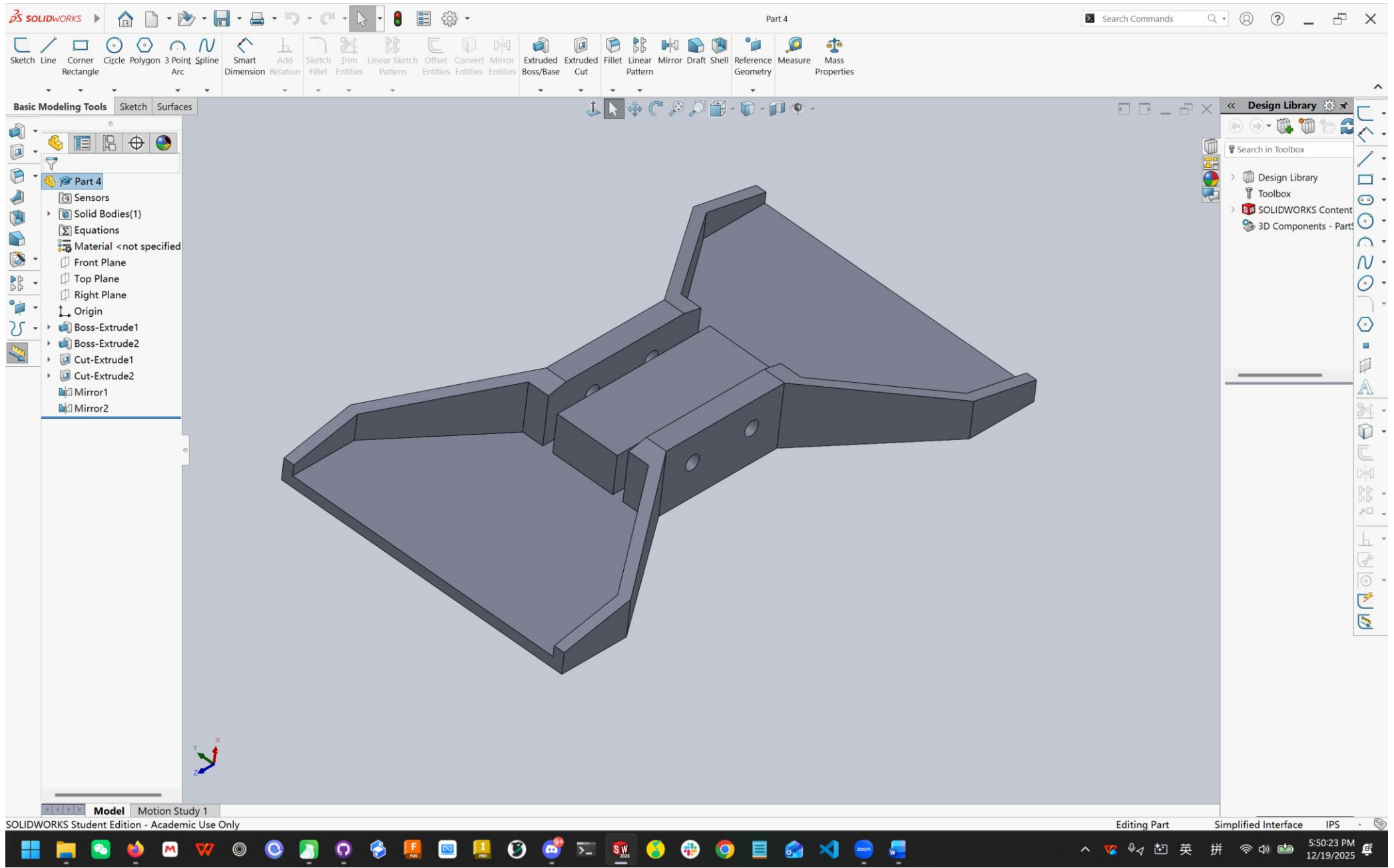
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Model Motion Study 1

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Part 4: 28.3314



The image is a screenshot of the SolidWorks CAD software interface. The main window displays a 3D model of a mechanical part, which appears to be a bracket or a support structure, rendered in a dark gray color. The part has a complex shape with multiple surfaces and edges. The interface includes a top toolbar with various modeling tools, a left sidebar with a feature tree, and a right sidebar with a design library. A 'Mass Properties' dialog box is open in the foreground, displaying the following information:

Part 4

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 Part 4
Configuration: Default
Coordinate system: -- default --

Density = 0.0361 pounds per cubic inch

Mass = 1.0235 pounds

Volume = 28.3314 cubic inches

Surface area = 194.2737 square inches

Center of mass: (inches)
X = 0.1654
Y = 0.0000
Z = 0.0000

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

$I_x = (0.0000, 0.0000, 1.0000)$	$P_x = 2.8776$
$I_y = (0.0000, -1.0000, 0.0000)$	$P_y = 10.5575$
$I_z = (1.0000, 0.0000, 0.0000)$	$P_z = 13.1333$

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

$L_{xx} = 13.1333$	$L_{xy} = 0.0000$	$L_{xz} = 0.0000$
$L_{yx} = 0.0000$	$L_{yy} = 10.5575$	$L_{yz} = 0.0000$
$L_{zx} = 0.0000$	$L_{zy} = 0.0000$	$L_{zz} = 2.8776$

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

$I_{xx} = 13.1333$	$I_{xy} = 0.0000$	$I_{xz} = 0.0000$
$I_{yx} = 0.0000$	$I_{yy} = 10.5855$	$I_{yz} = 0.0000$
$I_{zx} = 0.0000$	$I_{zy} = 0.0000$	$I_{zz} = 2.9056$

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Drawing - Part 4

SOLIDWORKS Drawing for Part 4 - Sheet1

Model Projected Section Auxiliary Detail Standard Break Crop Smart Note Balloon Surface Center Centerline Area Bill of Edit View View View View View View View Dimension Finish Mark Hatch/Fill Materials Sheet Format

Basic Drawing Tools

Drawing for Part 4

- Sheet1
 - Sheet Format1
 - Drawing View1
 - Drawing View2
 - Drawing View3

Design Library

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

UNLESS OTHERWISE SPECIFIED:

NAME	DATE
DRAWN	
CHECKED	
ENG APPR.	
MFG APPR.	
Q.A.	
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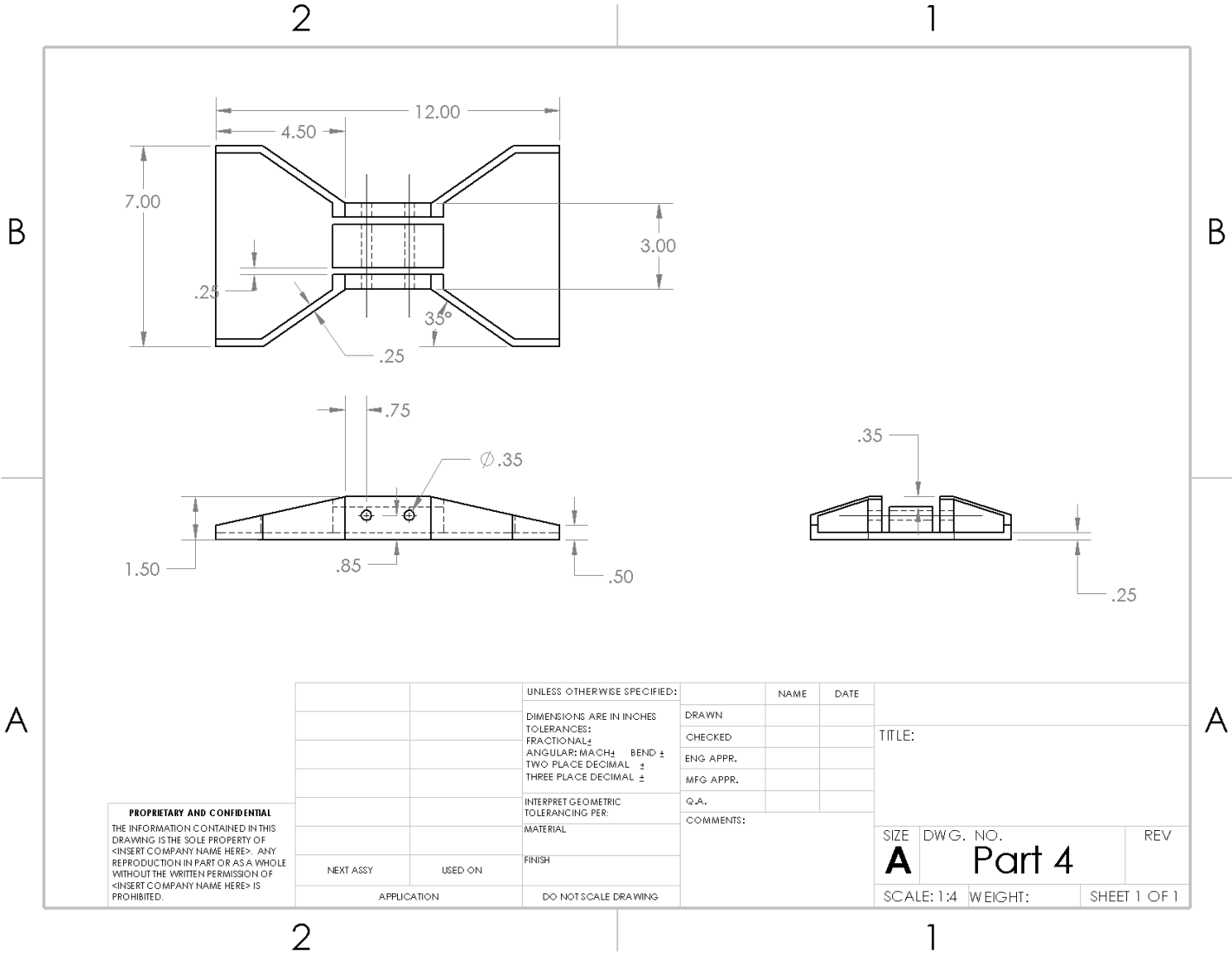
A Part 4

SCALE: 1:4 WEIGHT: SHEET 1 OF 1

13.02in 4.71in 0in Under Defined Editing Sheet1 1:4

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