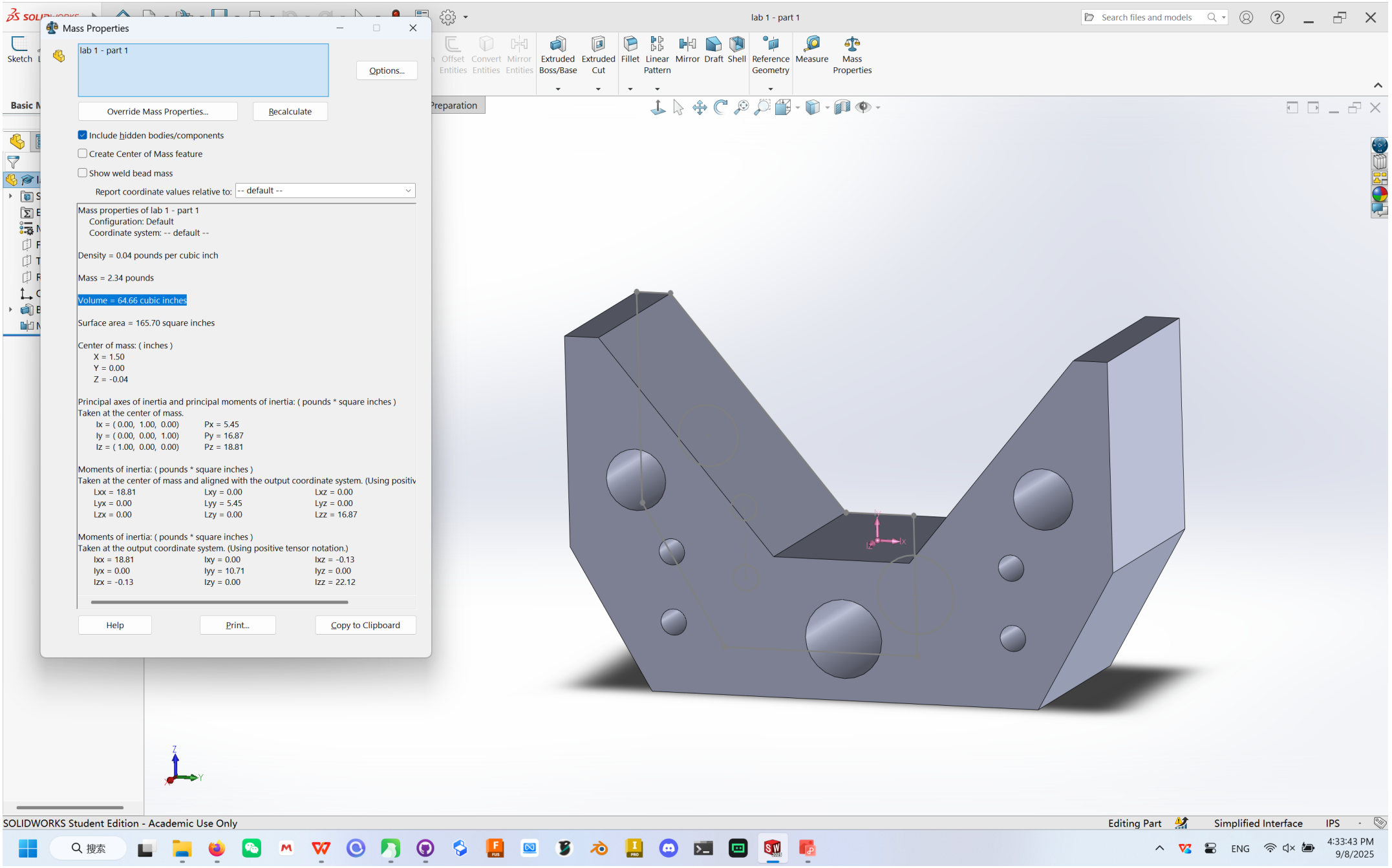
lab 1 - part 1
Search files and models
Sketch
Offset Entities
Convert Entities
Mirror Entities
Extruded Boss/Base
Extruded Cut
Fillet
Linear Pattern
Mirror
Draft
Shell
Reference Geometry
Measure
Mass Properties
Preparation
Mass Properties
lab 1 - part 1
Options...
Override Mass Properties...
Recalculate
Include hidden bodies/components
Create Center of Mass feature
Show weld bead mass
Report coordinate values relative to: -- default --
Mass properties of lab 1 - part 1
Configuration: Default
Coordinate system: -- default --
Density = 0.04 pounds per cubic inch
Mass = 2.34 pounds
Volume = 64.66 cubic inches
Surface area = 165.70 square inches
Center of mass: (inches)
X = 1.50
Y = 0.00
Z = -0.04
Principal axes of inertia and principal moments of inertia: (pounds * square inches)
Taken at the center of mass.
Ix = (0.00, 1.00, 0.00) Px = 5.45
Iy = (0.00, 0.00, 1.00) Py = 16.87
Iz = (1.00, 0.00, 0.00) Pz = 18.81
Moments of inertia: (pounds * square inches)
Taken at the center of mass and aligned with the output coordinate system. (Using positiv
Lxx = 18.81 Lxy = 0.00 Lxz = 0.00
Lyx = 0.00 Lyy = 5.45 Lyz = 0.00
Lzx = 0.00 Lzy = 0.00 Lzz = 16.87
Moments of inertia: (pounds * square inches)
Taken at the output coordinate system. (Using positive tensor notation.)
Ixx = 18.81 Ixy = 0.00 Ixz = -0.13
Iyx = 0.00 Iyy = 10.71 Iyz = 0.00
Izx = -0.13 Izy = 0.00 Izz = 22.12
Help
Print...
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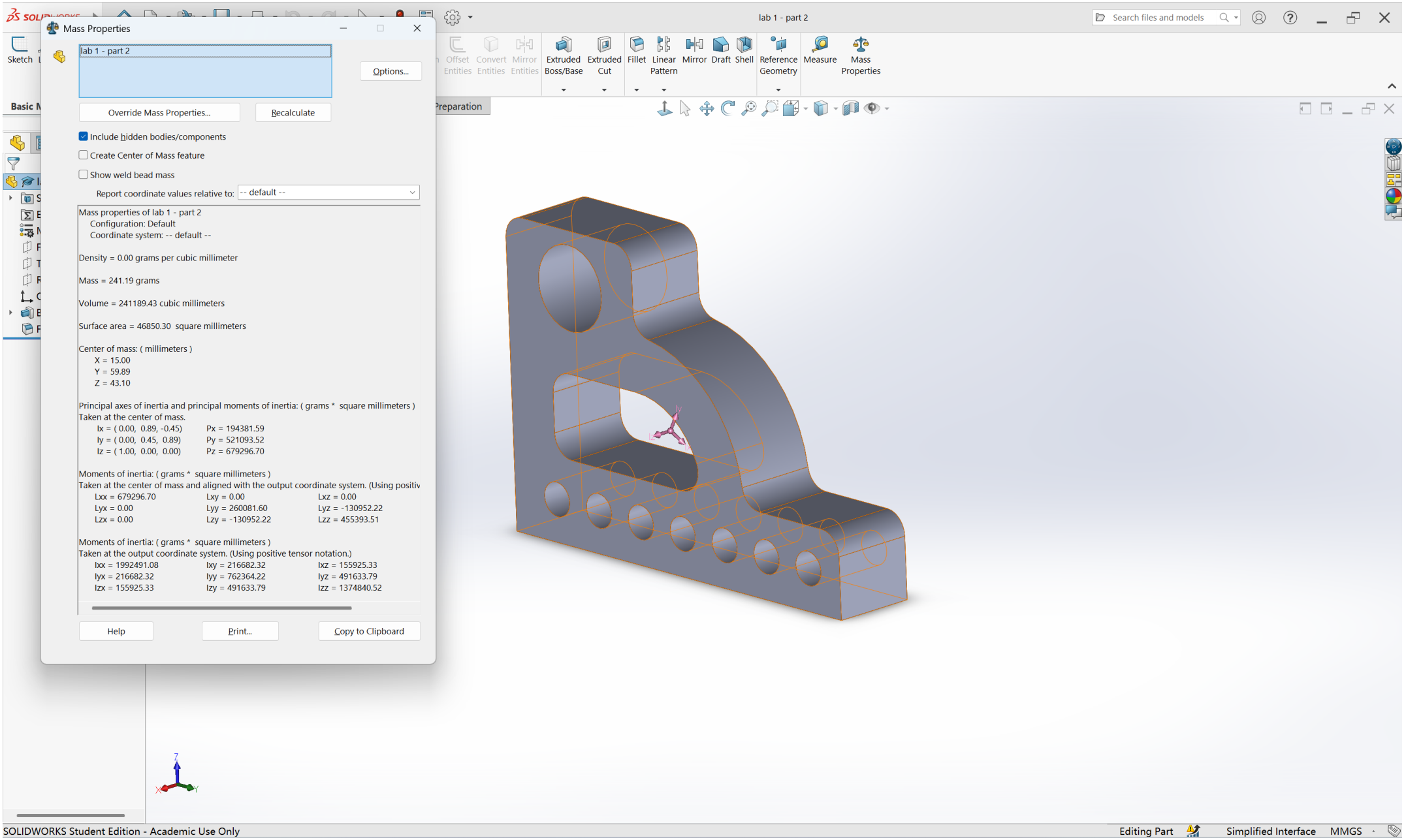
Simplified Interface
IPS
4:33:43 PM
9/8/2025


lab 1 - part 2
Search files and models
Sketch
Offset Entities
Convert Entities
Mirror Entities
Extruded Boss/Base
Extruded Cut
Fillet
Linear Pattern
Mirror
Draft
Shell
Reference Geometry
Measure
Mass Properties
Preparation
Mass Properties
lab 1 - 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 lab 1 - part 2
Configuration: Default
Coordinate system: -- default --
Density = 0.00 grams per cubic millimeter
Mass = 241.19 grams
Volume = 241189.43 cubic millimeters
Surface area = 46850.30 square millimeters
Center of mass: (millimeters)
X = 15.00
Y = 59.89
Z = 43.10
Principal axes of inertia and principal moments of inertia: (grams * square millimeters)
Taken at the center of mass.
Ix = (0.00, 0.89, -0.45) Px = 194381.59
Iy = (0.00, 0.45, 0.89) Py = 521093.52
Iz = (1.00, 0.00, 0.00) Pz = 679296.70
Moments of inertia: (grams * square millimeters)
Taken at the center of mass and aligned with the output coordinate system. (Using positiv
Lxx = 679296.70 Lxy = 0.00 Lxz = 0.00
Lyx = 0.00 Lyy = 260081.60 Lyz = -130952.22
Lzx = 0.00 Lzy = -130952.22 Lzz = 455393.51
Moments of inertia: (grams * square millimeters)
Taken at the output coordinate system. (Using positive tensor notation.)
Ixx = 1992491.08 Ixy = 216682.32 Ixz = 155925.33
Iyx = 216682.32 Iyy = 762364.22 Iyz = 491633.79
Izx = 155925.33 Izy = 491633.79 Izz = 1374840.52
Help
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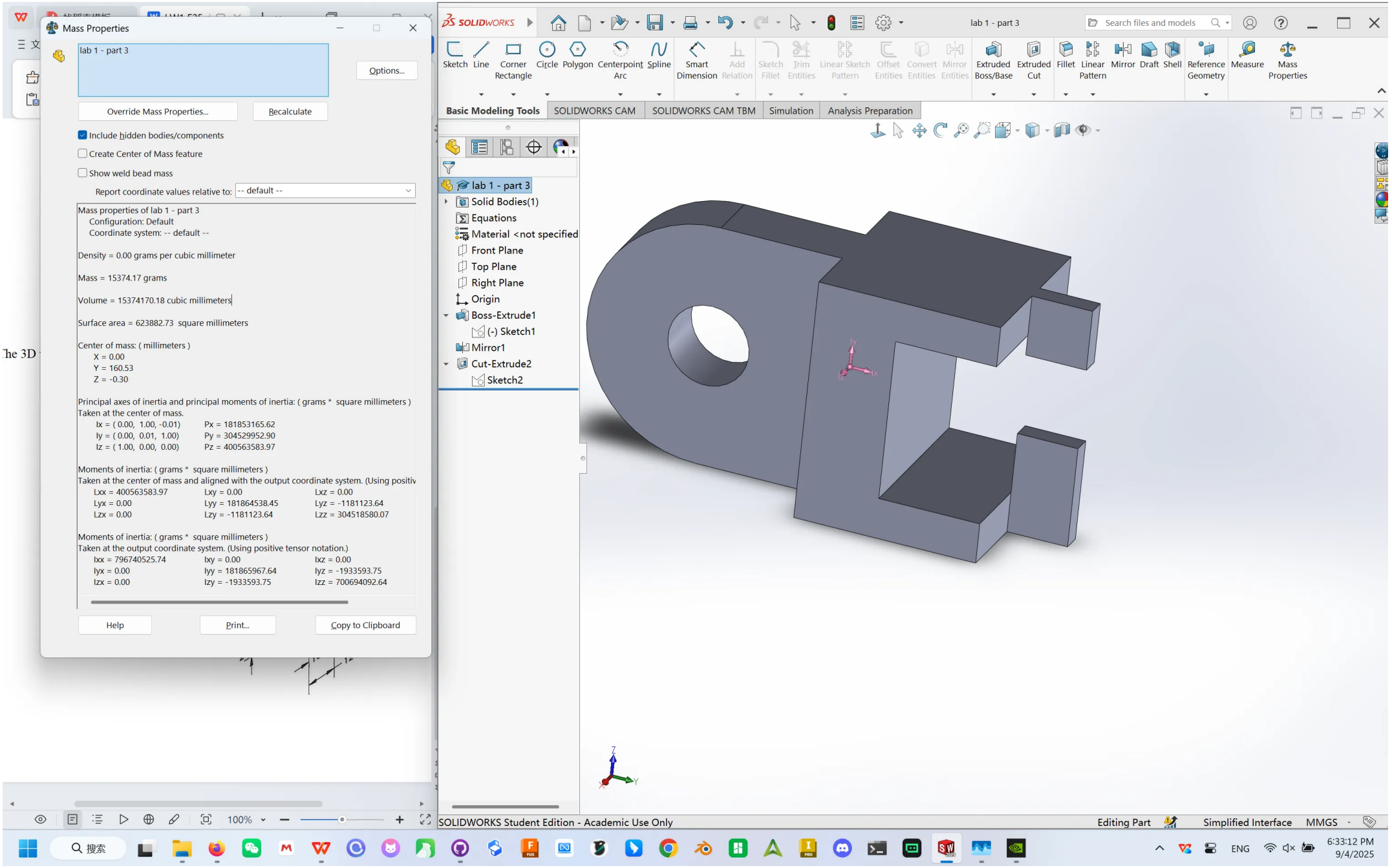
Mass Properties
lab 1 - part 3
Options...
Override Mass Properties...
Recalculate
Include hidden bodies/components
Create Center of Mass feature
Show weld bead mass
Report coordinate values relative to: -- default --
Mass properties of lab 1 - part 3
Configuration: Default
Coordinate system: -- default --
Density = 0.00 grams per cubic millimeter
Mass = 15374.17 grams
Volume = 15374170.18 cubic millimeters
Surface area = 623882.73 square millimeters
Center of mass: (millimeters)
X = 0.00
Y = 160.53
Z = -0.30
Principal axes of inertia and principal moments of inertia: (grams * square millimeters)
Taken at the center of mass.
Ix = (0.00, 1.00, -0.01) Px = 181853165.62
Iy = (0.00, 0.01, 1.00) Py = 304529952.90
Iz = (1.00, 0.00, 0.00) Pz = 400563583.97
Moments of inertia: (grams * square millimeters)
Taken at the center of mass and aligned with the output coordinate system. (Using positiv
Lxx = 400563583.97 Lxy = 0.00 Lxz = 0.00
Lyx = 0.00 Lyy = 181864538.45 Lyz = -1181123.64
Lzx = 0.00 Lzy = -1181123.64 Lzz = 304518580.07
Moments of inertia: (grams * square millimeters)
Taken at the output coordinate system. (Using positive tensor notation.)
Ixx = 796740525.74 Ixy = 0.00 Ixz = 0.00
Iyx = 0.00 Iyy = 181865967.64 Iyz = -1933593.75
Izx = 0.00 Izy = -1933593.75 Izz = 700694092.64
Help
Print...
Copy to Clipboard
SOLIDWORKS
lab 1 - part 3
Search files and models
Sketch
Line
Corner Rectangle
Circle
Polygon
Centerpoint 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
SOLIDWORKS CAM
SOLIDWORKS CAM TBM
Simulation
Analysis Preparation
lab 1 - part 3
Solid Bodies(1)
Equations
Material <not specified
Front Plane
Top Plane
Right Plane
Origin
Boss-Extrude1
(-) Sketch1
Mirror1
Cut-Extrude2
Sketch2
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ENG
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