**Process of creating a 3D object in Rhino**

Command: \_Rectangle

First corner of rectangle ( 3Point Vertical Center Rounded ):

Other corner or length ( 3Point Rounded ): 320

Width. Press Enter to use length ( 3Point Rounded ): 320

1 curve added to selection.

Command: \_Undo

Undoing Rectangle

Command: Rectangle

First corner of rectangle ( 3Point Vertical Center Rounded ):

Other corner or length ( 3Point Rounded ): 300300

Width. Press Enter to use length ( 3Point Rounded ):

Command: Rectangle

First corner of rectangle ( 3Point Vertical Center Rounded ):

Other corner or length ( 3Point Rounded ): 300

Width. Press Enter to use length ( 3Point Rounded ): 300

Command: Length

Select curves to measure ( Units=Model\_Units ):

Command: \_Polyline

Start of polyline ( PersistentClose=No ):

Next point of polyline ( PersistentClose=No Mode=Line Helpers=No Undo ):

Next point of polyline. Press Enter when done ( PersistentClose=No Mode=Line Helpers=No Length Undo ):

Command: \_Rectangle

First corner of rectangle ( 3Point Vertical Center Rounded ):

Other corner or length ( 3Point Rounded ): 150

Width. Press Enter to use length ( 3Point Rounded ): 150

Command: Line

Start of line ( BothSides Normal Angled Vertical FourPoint Bisector Perpendicular Tangent Extension ):

End of line ( BothSides ):

Command: Line

Start of line ( BothSides Normal Angled Vertical FourPoint Bisector Perpendicular Tangent Extension ): '\_Cancel

Start of line ( BothSides Normal Angled Vertical FourPoint Bisector Perpendicular Tangent Extension ):

2 curves added to selection.

Command: M

Command: \_Move

Point to move from ( Vertical=No ):

Point to move to:

1 curve added to selection.

Command: \_Delete

1 curve added to selection.

Command: \_Delete

1 curve added to selection.

1 curve added to selection.

Command: AreaCentroid

Calculating area centroid... Press Esc to cancel

Area Centroid = 150,150,0 (+/- 1e-07,1e-07,0)

1 curve added to selection.

1 curve added to selection.

Command: Rotate

Center of rotation ( Copy=No ):

Angle or first reference point ( Copy=No ):

Second reference point ( Copy=No ):

Command: Distance

First point for distance ( Units=Model\_Units ):

Second point for distance ( Units=Model\_Units Undo ):

CPlane angles and deltas: xy = -135.00 elevation = 0.00 dx = -106.07 dy = -106.07 dz = 0.00

World angles and deltas: xy = -135.00 elevation = 0.00 dx = -106.07 dy = -106.07 dz = 0.00

Distance = 150.00 millimeters

Command: \_Undo

Undoing Rotate

Command: Offset

Select curve to offset ( Distance=1.2 Corner=Sharp ThroughPoint Tolerance=0.01 BothSides InCPlane=No Cap=Flat ): 12.5

Select curve to offset ( Distance=12.5 Corner=Sharp ThroughPoint Tolerance=0.01 BothSides InCPlane=No Cap=Flat ):

Side to offset ( Distance=12.5 Corner=Sharp ThroughPoint Tolerance=0.01 BothSides InCPlane=No Cap=Flat ):

Curve offset into one closed curve.

Command: Distance

First point for distance ( Units=Model\_Units ):

Second point for distance ( Units=Model\_Units Undo ):

CPlane angles and deltas: xy = 0.00 elevation = 0.00 dx = 125.00 dy = 0.00 dz = 0.00

World angles and deltas: xy = 0.00 elevation = 0.00 dx = 125.00 dy = 0.00 dz = 0.00

Distance = 125.00 millimeters

1 curve added to selection.

Command: \_Delete

1 curve added to selection.

Command: Rotate

Center of rotation ( Copy=No ):

Angle or first reference point <45> ( Copy=No ):

Second reference point <45> ( Copy=No ):

1 curve added to selection.

Command: Rotate

Center of rotation ( Copy=No ):

Angle or first reference point <45> ( Copy=No ):

Second reference point <45> ( Copy=No ):

1 curve added to selection.

Command: Copy

Point to copy from ( Vertical=No InPlace ):

Point to copy to: '\_Ortho

Ortho is on.

Point to copy to: 10

Point to copy to:

Point to copy to ( FromLastPoint=No UseLastDistance=No UseLastDirection=No ):

1 curve added to selection.

Command: M

Command: \_Move

Point to move from ( Vertical=No ):

Point to move to <436.21>: 55

Point to move to <436.21>:

Command: Loft

Select curves to loft ( Point ):

Select curves to loft ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Drag seam point to adjust. Press Enter when done ( Flip Automatic Natural ):

Command: Loft

Select curves to loft ( Point ):

Select curves to loft ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Command: Loft

Select curves to loft ( Point ):

Select curves to loft ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Drag seam point to adjust. Press Enter when done ( Flip Automatic Natural ):

Display mode set to "Shaded".

Creating meshes... Press Esc to cancel

Command: \_Undo

Undoing Loft

Command: \_Redo

Redoing Loft

Command: \_Save

File successfully written as C:\Users\admin\Desktop\laser\composite.3dm

Command: \_Undo

Undoing Loft

1 curve added to selection.

Command: Rotate

Center of rotation ( Copy=No ):

Angle or first reference point <45> ( Copy=No ):

Second reference point <45> ( Copy=No ): 45

Command: Loft

Select curves to loft ( Point ):

Select curves to loft ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Drag seam point to adjust. Press Enter when done ( Flip Automatic Natural ):

Creating meshes... Press Esc to cancel

1 polysurface added to selection.

Command: \_Twist

Start of twist axis:

End of twist axis:

Angle or first reference point ( Copy=No Rigid=No Infinite=No ):

Second reference point ( Copy=No Rigid=No Infinite=No ): 45

Twisting objects... Press Esc to cancel

Creating meshes... Press Esc to cancel

Command: \_Undo

Undoing Twist

1 polysurface added to selection.

Command: \_Redo

Redoing Twist

Command: \_Undo

Undoing Twist

1 curve added to selection.

Command: \_Twist

Start of twist axis:

End of twist axis:

Angle or first reference point ( Copy=No Rigid=No Infinite=No ):

Second reference point ( Copy=No Rigid=No Infinite=No ):

Twisting objects... Press Esc to cancel

Creating meshes... Press Esc to cancel

1 curve added to selection.

Command: PlanarSrf

Creating meshes... Press Esc to cancel

1 polysurface added to selection.

Command: \_Undo

Undoing PlanarSrf

Command: \_Undo

Undoing Twist

1 polysurface added to selection.

Command: Explode

Exploded a polysurface into 8 surfaces.

1 surface removed from selection.

1 surface removed from selection.

1 surface removed from selection.

1 surface removed from selection.

Command: \_BooleanUnion

Boolean union in progress... Press Esc to cancel

Creating meshes... Press Esc to cancel

1 polysurface added to selection.

Command: \_Twist

Start of twist axis:

End of twist axis:

Angle or first reference point ( Copy=No Rigid=No Infinite=No ):

Second reference point ( Copy=No Rigid=No Infinite=No ):

Twisting objects... Press Esc to cancel

Creating meshes... Press Esc to cancel

1 polysurface added to selection.

Command: M

Command: \_Move

Point to move from ( Vertical=No ):

Point to move to <55.00>:

Command: \_Undo

Undoing Move

Command: \_Undo

Undoing Twist

1 polysurface added to selection.

Command: DupEdge

Select edges to duplicate ( OutputLayer=Current ):

Select edges to duplicate. Press Enter when done ( OutputLayer=Current ):

Select edges to duplicate. Press Enter when done ( OutputLayer=Current ):

Select edges to duplicate. Press Enter when done ( OutputLayer=Current ):

Select edges to duplicate. Press Enter when done ( OutputLayer=Current ):

5 curves, 1 point added to selection.

Command: \_Join

Joining curves.

4 curves joined into one closed curve.

1 polysurface added to selection.

Command: Copy

Point to copy from ( Vertical=No InPlace ):

Point to copy to:

Point to copy to ( FromLastPoint=No UseLastDistance=No UseLastDirection=No ):

3 curves added to selection.

1 curve added to selection.

Command: AreaCentroid

Calculating area centroid... Press Esc to cancel

Area Centroid = 833,150,55 (+/- 1e-07,1e-07,1e-08)

Command: Rotate

Center of rotation ( Copy=No ):

Angle or first reference point <45> ( Copy=No ):

Second reference point <45> ( Copy=No ): 45

Command: L8in

Unknown Command: L8in

Command: Line

Start of line ( BothSides Normal Angled Vertical FourPoint Bisector Perpendicular Tangent Extension ):

End of line ( BothSides ):

Command: Line

Start of line ( BothSides Normal Angled Vertical FourPoint Bisector Perpendicular Tangent Extension ):

End of line ( BothSides ):

1 curve added to selection.

Command: Explode

Exploded a curve into 4 segments.

1 curve added to selection.

Command: \_Undo

Undoing Explode

Command: \_Undo

Undoing Line

Command: \_Undo

Undoing Line

Command: \_Undo

Undoing Rotate

1 curve added to selection.

Command: AreaCentroid

Calculating area centroid... Press Esc to cancel

Area Centroid = 833,150,10 (+/- 1e-07,1e-07,1e-08)

Command: Loft

Select curves to loft ( Point ):

Select curves to loft ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Drag seam point to adjust. Press Enter when done ( Flip Automatic Natural ):

Creating meshes... Press Esc to cancel

History updated 1 object.

Creating meshes... Press Esc to cancel

Command: \_Undo

Undoing GumballTransform

1 polysurface added to selection.

1 polysurface added to selection.

Command: \_Twist

Start of twist axis:

End of twist axis:

Angle or first reference point ( Copy=No Rigid=No Infinite=No ):

Second reference point ( Copy=No Rigid=No Infinite=No ):

Twisting objects... Press Esc to cancel

Creating meshes... Press Esc to cancel

Command: \_Undo

Undoing Twist

Command: \_Twist

Select objects to twist:

Command: \_Redo

Redoing Twist

Command: \_Undo

Undoing Twist

1 polysurface added to selection.

Command: \_Twist

Start of twist axis:

End of twist axis:

Angle or first reference point ( Copy=No Rigid=No Infinite=No ):

Second reference point ( Copy=No Rigid=No Infinite=No ):

Command: \_PointsOn

Cannot turn on points for polysurfaces.

Command: \_PointsOn

Cannot turn on points for polysurfaces.

Command: '\_Ortho

Ortho is off.

Command: '\_Ortho

Ortho is on.

Command: '\_Ortho

Ortho is off.

Command: \_Twist

Start of twist axis:

End of twist axis:

Angle or first reference point ( Copy=No Rigid=No Infinite=No ):

Second reference point ( Copy=No Rigid=No Infinite=No ): 15

Twisting objects... Press Esc to cancel

Creating meshes... Press Esc to cancel

Command: Loft

Select curves to loft ( Point ):

Select curves to loft ( Point ):

Display mode set to "Rendered".

1 polysurface added to selection.

Command: DupBorder

Duplicated 2 borders.

Command: Loft

Select curves to loft ( Point ):

Select curves to loft ( Point ):

Select curves to loft. Press Enter when done ( Point ):

Drag seam point to adjust. Press Enter when done ( Flip Automatic Natural ):

Creating meshes... Press Esc to cancel

1 curve added to selection.

Command: Explode

Exploded a curve into 4 segments.

Command: \_Delete

Command: PlanarSrf

Creating meshes... Press Esc to cancel

Command: \_Delete

1 curve added to selection.

Command: PlanarSrf

Creating meshes... Press Esc to cancel

Command: \_Delete

1 surface added to selection.

Command: \_BooleanUnion

Boolean union in progress... Press Esc to cancel

Creating meshes... Press Esc to cancel

1 polysurface added to selection.

Command: Cap

Created one cap, resulting in one closed polysurface.

Creating meshes... Press Esc to cancel

Command: Scale2D

Origin point ( Copy=No ):

1 polysurface added to selection.

Command: \_Polyline

Start of polyline ( PersistentClose=No ):

Next point of polyline ( PersistentClose=No Mode=Line Helpers=No Undo ):

Next point of polyline. Press Enter when done ( PersistentClose=No Mode=Line Helpers=No Length Undo ):

1 polysurface added to selection.

Command: Scale2D

Origin point ( Copy=No ):

Scale factor or first reference point <1.00> ( Copy=No ):

1 polysurface added to selection.

Command: DupEdge

Select edges to duplicate ( OutputLayer=Current ):

Command: DupBorder

Select surfaces, polysurfaces, meshes, or hatches for duplicate border ( OutputLayer=Current ):

Select surfaces, polysurfaces, meshes, or hatches for duplicate border. Press Enter when done ( OutputLayer=Current ):

No Borders duplicated.

1 polysurface added to selection.

Command: DupBorder

No Borders duplicated.

1 polysurface added to selection.

Command: DupBorder

No Borders duplicated.

1 polysurface added to selection.

Command: Explode

Exploded a polysurface into 6 surfaces.

1 surface added to selection.

1 surface added to selection.

1 surface added to selection.

1 surface added to selection.

1 surface added to selection.

1 surface added to selection.

Command: Scale1D

Origin point ( Copy=No ):

Scale factor or first reference point <1.00> ( Copy=No ):

Second reference point ( Copy=No ): 151

Command: Scale1D

Origin point ( Copy=No ):

Scale factor or first reference point <1.01> ( Copy=No ):

Second reference point ( Copy=No ): 151

Command: \_Undo

Undoing Scale1D

Command: \_Undo

Undoing Scale1D

Command: Scale1D

Origin point ( Copy=No ):

Scale factor or first reference point <1.01> ( Copy=No ):

Second reference point ( Copy=No ): 170

Command: Scale1D

Origin point ( Copy=No ):

Scale factor or first reference point <1.13> ( Copy=No ): \_Undo

Scale factor or first reference point <1.13> ( Copy=No ):

Scale factor or first reference point <1.13> ( Copy=No ):

Command: \_Undo

Undoing Scale1D

Command: Scale1D

Select objects to scale:

6 surfaces, 3 curves, 1 point added to selection.

1 surface removed from selection.

1 surface removed from selection.

1 surface added to selection.

1 surface added to selection.

Command: Scale1D

Origin point ( Copy=No ):

Scale factor or first reference point <1.13> ( Copy=No ):

Second reference point ( Copy=No ): 160

Command: Scale1D

Origin point ( Copy=No ):

Scale factor or first reference point <1.07> ( Copy=No ):

Second reference point ( Copy=No ): 160

4 curves, 1 polysurface, 4 surfaces, 1 point added to selection.

Command: \_Delete

1 point added to selection.

Command: \_Delete

Command: SelSrf

7 surfaces added to selection.

Command: \_Hide

1 polysurface added to selection.

Command: \_Hide

3 curves, 1 point added to selection.

Command: \_Delete

Command: Show

Showing 8 hidden objects.

Creating meshes... Press Esc to cancel

7 surfaces, 1 polysurface added to selection.

Command: \_BooleanUnion

Boolean union in progress... Press Esc to cancel

Boolean union failed.

1 surface added to selection.

1 polysurface added to selection.

1 polysurface added to selection.

1 surface added to selection.

Command: \_BooleanUnion

Boolean union in progress... Press Esc to cancel

Boolean union failed.

Command: '\_SelAll

1 polysurface, 7 surfaces added to selection.

1 polysurface removed from selection.

1 surface removed from selection.

Command: \_BooleanUnion

Boolean union in progress... Press Esc to cancel

Creating meshes... Press Esc to cancel

1 polysurface added to selection.

1 surface added to selection.

Command: \_Join

Surface join in progress... Press Esc to cancel

2 surfaces or polysurfaces joined into one open polysurface.

Creating meshes... Press Esc to cancel

Command: Cap

Created one cap, resulting in one closed polysurface.

Creating meshes... Press Esc to cancel

1 polysurface added to selection.

1 polysurface added to selection.

2 polysurfaces added to selection.

Command: \_BooleanUnion

Boolean union in progress... Press Esc to cancel

Creating meshes... Press Esc to cancel

1 polysurface added to selection.

Display mode set to "Shaded".

Command: \_Save