

Align: allows you to align objects to an existing reference line to get it on the plane that you want

Array: automatically copies and pastes lines equally spaced apart

BooleanDifference: allows you to subtract a solid shape from another solid leaving a fully intact solid without the material from the subtracted shape behind – note in order to do this the objects must be fully closed solids and the two objects must intersect each other

BooleanUnion: allows you to join two solids with no overlapping edges internally- note in order to do this the objects must be fully closed solids and the two objects must intersect each other

Boolean2Objects: lets you run through the full list of boolean commands until you find the one you want to use – note in order to do this the objects must be fully closed solids and the two objects must intersect each other

ExtrudeCrv: gives height to a curve

ExtrudeSrf: gives a thickness to a surface

Explode: makes a joined/grouped object or polyline explode into individual parts

Cap: closes an object that you've split or extruded to form a solid – not only works when the surfaces are planar

ClippingPlane: shows you a cut through of a particular part of an object without actually splitting it in the model; for a specific view port, click on the plane and use "EnableClippingPlane" to turn it on and "DisableClippingPlane" to turn it off in that viewport

CloseCrv: closes a curve; we suggested that you only use it if you can't figure out where the curve is open yourself

Copy: allows you to copy an object from a specific spot multiple times

Curve: draws a spline

Distance: measures the distance between two things

DupEdge: duplicates the edge of an object

Fillet: makes an angle or edge rounded

FlowAlongSrf: Flow a pattern or an object along an irregular surface

Group/Ungroup: joins/unjoins multiple objects or curves

Helix: makes a spiral (useful for slinkies, screws, coils)

Join: joins multiple connected units

Loft: creates a surface between two lines or shapes

Make2D: creates a basic line drawing of your 3D model; in the options you can choose to show lines hidden by the solid form of the object, to keep lines separated by layer, or to make lines tangent which helps to join some of them when they're made 2D; this is useful when you export to Illustrator for linework

Mirror: mirrors an object or drawing across a reference line

PictureFrame: places a picture in your model

Polyline: creates a continuous string of straight lines

Point: creates a point (on a line or to use to join with a line)

PointsOn: allows you to edit a curve or shape that you've already made

PlanarSrf: gives a surface to a closed curve

Project: projects curves or surfaces along an irregular surface; make sure that the curve/surface is directly above or below the surface to which you want to project; “ProjecttoCPlane” is useful in flattening lines you didn’t realize were on different planes to a flat layer

Rotate: rotates an object

Rotate3D: rotates an object in 3D

Offset: allows you to offset a line or shape a certain distance away

Section: creates section cuts through an object – great for laser cutting topographies

SelDup: selects duplicates in the model (similar to overkill in AutoCAD)

Show/Hide: show makes objects visible, hide makes them invisible

Scale: proportionally scales things larger or smaller

Scale1D: scales something in one direction only

Split: splits apart surfaces, lines

Sweep (1 & 2): creates a thickness by “sweeping” a shape along a curve

Text: creates text

Trim: allows you to trim intersecting lines

Turntable: automatically rotates your object

Units: changes the units that you work in (Imperial/Metric)

UnrollSrf: explodes a closed object into multiple planes – great for making laser cutting files!

ZS: zooms one object in one view

ZSA: zooms in on one object in all 4 views