

Large Tool Set

Select (Spacebar) Make Component

Paint Bucket (B) Eraser (E)

Line (L) Freehand

Rectangle (R) Rotated Rectangle

Circle (C) Polygon

Arc 2 Point Arc (A)

3 Point Arc Pie

Move (M) Push/Pull (P)

Rotate (Q) Follow Me

Scale (S) Offset (F)

Tape Measure (T) Dimensions

Protractor Text

Axes 3D Text

Orbit (O) Pan (H)

Zoom (Z) Zoom Window

Zoom Extents Previous

Position Camera Walk

Look Around Section Plane

Solid Tools

Outer Shell Intersect (Pro)

Union (Pro) Subtract (Pro)

Trim (Pro) Split (Pro)

Dynamic Components

Interact Component Options

Component Attributes

Sandbox (Terrain)

From Contours From Scratch

Smoove Stamp

Drape Add Detail

Flip Edge

Standard Views

Iso Top

Front Right

Back Left

Style

X-Ray Back Edges

Wireframe Hidden Line

Shaded Shaded with Textures

Monochrome

Location

Add Location... Toggle Terrain

Warehouse

3D Warehouse... Share Model...

Share Component... Extension Warehouse...

Send to LayOut (Pro) Classifier (Pro)

Middle Button (Wheel)

- Scroll Zoom
- Click-Drag Orbit
- Shift+Click-Drag Pan
- Double-Click re-center view

Tool	Operation	Instructions
2 Point Arc (A)	Bulge	specify bulge amount by typing a number and Enter
	Radius	specify radius by typing a number, the R key, and Enter
	Segments	specify number of segments by typing a number, the S key, and Enter
Circle (C)	Shift	lock current inferences
	Radius	specify radius by typing a number and Enter
	Segments	specify number of segments by typing a number, the S key, and Enter
Eraser (E)	Ctrl	toggle soften/smooth (use on edges to make adjacent faces appear curved)
	Shift	toggle hide
	Alt	toggle unhide/unsmooth
Follow Me	Alt	use face perimeter as extrusion path
	<i>Expert Tip!</i>	first Select path, then choose the Follow Me tool, then click on the face to extrude
Line (L)	Alt	toggle linear inferences (all on/off)
	Arrows	toggle lock direction; up = blue, right = red, left = green, and down = parallel/perpendicular
	Length	specify length by typing a number and Enter
Look Around	Eye Height	specify eye height by typing a number and Enter
Move (M)	Ctrl	toggle copy mode, allows multiple consecutive
	Shift	hold down to lock in current inference direction
	Alt	autofold (allow move even if it means adding extra edges and faces)
	Arrows	toggle lock direction; up = blue, right = red, left = green, and down = parallel/perpendicular
	Distance	specify move distance by typing a number and Enter
	External Copy Array Internal Copy Array	n copies in a row: move first copy, type a number, the X key, and Enter n copies in between: move first copy, type a number, the / key, and Enter
Offset (F)	Alt	allow results to overlap
	Distance	specify an offset distance by typing a number and Enter
Orbit (O)	Ctrl	hold down to disable "gravity-weighted" orbiting
	Shift	hold down to activate Pan tool
Paint Bucket (B)	Ctrl	fill material – paint all connected faces
		replace material – paint all matching faces in the model
	Ctrl+Shift	replace material on object - paint all matching faces on the same object
Protractor	Alt	toggle sample material (untoggles after first use)
	Ctrl	toggle guide creation
	Arrows	toggle lock rotation plane
Push/Pull (P)	Ctrl	toggle push/pull a copy of the face (leaving the original face in place)
	Double-Click	apply last push/pull amount to this face
	Distance	specify a push/pull amount by typing a number and Enter
Rectangle (R)	Alt	toggle stretch (move face perpendicular to its drawing plane)
	Ctrl	start drawing from center
Rotated Rectangle	Dimensions	specify dimensions by typing length, width and Enter ie. 20,40
	Shift	lock in current direction/plane
	Alt	lock drawing plane for first edge (after first click)
Rotate (Q)	Dimensions, Angle	click to place first two corners, then type width, angle and Enter ie. 90,20
	Ctrl	toggle 'rotate a copy' mode
	Angle	specify an angle by typing a number and Enter
Scale (S)	Slope	specify an angle as a slope by typing a rise, a colon (:), a run, and Enter ie. 3:12
	Ctrl	toggle scale about center
	Shift	toggle scale uniformly (don't distort)
Select (Spacebar)	Amount	specify a scale factor by typing a number and Enter ie. 1.5 = 150%
	Length	specify a scale length by typing a number, a unit type, and Enter ie. 10m
	Ctrl	add to selection
Tape Measure (T)	Shift	add/subtract from selection
	Ctrl+Shift	subtract from selection
	Ctrl	toggle create guide or measure only
Zoom (Z)	Arrows	lock direction; up = blue, right = red, left = green, and down = parallel/perpendicular
	Resize	resize model: measure a distance, type intended size, and Enter
	Shift	hold down and click-drag mouse to change Field of View