

### Large Tool Set

- Select (Spacebar) Lasso
- Paint Bucket (B) Eraser (E)
- Make Component Tag
- 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

- Flip Field of View
- 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)

### Sandbox (Terrain)

- From Contours From Scratch
- Smooove Stamp
- Drape Add Detail
- Flip Edge

### Standard Views

- Iso
- Front
- Back
- Top
- Right
- Left

### Style

- X-Ray
- Wireframe
- Shaded
- Monochrome
- Back Edges
- Hidden Line
- Shaded with Textures

### Dynamic Components

- Interact
- Configurator Tool
- Component Attributes

### Location

- Add Location
- Toggle Terrain

### Warehouse

- 3D Warehouse
- Share Component
- Send to LayOut (Pro)
- Extension Warehouse
- Share Model
- Classifier (Pro)

**Middle Button (Wheel)**


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

Tool	Operation	Instructions
<b>2 Point Arc (A)</b>	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
<b>3 Point Arc</b>	Alt + Arrows	use Option '+' or Option '-' to change the number of segments. lock direction: up = blue, right = red, left = green, and down = parallel/perpendicular
<b>Circle (C)</b>	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
<b>Eraser (E)</b>	Ctrl	soften/smooth (use on edges to make adjacent faces appear curved)
	Shift	hide
	Alt	unsoften/unsmooth
<b>Field of View</b>		drag the mouse or manually enter a value using the Field of View box
<b>Follow Me</b>	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

<b>Flip</b>		click the plane to control the direction of the flip operation
	Ctrl	toggle between flip and copy
<b>Lasso</b>	Shift	add/subtract from selection
	Alt	add to selection
	Shift+Alt	subtract from selection
<b>Line (L)</b>	Alt	lock in current inference direction
	Arrows	lock direction; up = blue, right = red, left = green, and down = parallel/perpendicular
	Length	specify length by typing a number and Enter
<b>Look Around</b>	Eye Height	specify eye height by typing a number and Enter
<b>Move (M)</b>	Ctrl	toggle copy mode, allows multiple consecutive
	Shift	hold down to lock in current inference direction
	Alt	auto-fold (allow move even if it means adding extra edges and faces)
	Arrows	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	X copies in a row: move first copy, type a number, the X key, and Enter
	Internal Copy Array	X copies in between: move first copy, type a number, the / key, and Enter
<b>Offset (F)</b>	Alt	allow results to overlap
	Distance	specify an offset distance by typing a number and Enter
<b>Orbit (O)</b>	Alt	hold down to disable "gravity-weighted" orbiting
	Shift	hold down to activate Pan tool
<b>Paint Bucket (B)</b>	Ctrl	fill material – paint all matching adjacent faces
	Shift	replace material – paint all matching faces in the model
	Ctrl+Shift	replace material on object – paint all matching faces on the same object
	Alt	hold down to sample material
<b>Protractor</b>	Ctrl	toggle guide creation
	Arrows	toggle lock rotation plane
<b>Push/Pull (P)</b>	Ctrl	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
<b>Rectangle (R)</b>	Alt	start drawing from center
	Dimensions	specify dimensions by typing length, width and Enter ( <i>ie. 20,40</i> )
<b>Rotated Rectangle</b>	Shift	lock in current direction/plane
	Alt	lock drawing plane for first edge (after first click)
	Dimensions, Angle	click to place first two corners, then type width, angle and Enter ( <i>ie. 90,20</i> )
<b>Rotate (Q)</b>	Ctrl	rotate a copy
	Angle	specify an angle by typing a number and Enter
	Slope	specify an angle as a slope by typing a rise, a colon (:), a run, and Enter ( <i>ie. 3:12</i> )
<b>Scale (S)</b>	Ctrl	hold down to scale about center
	Shift	hold down to scale uniformly (don't distort)
	Amount	specify a scale factor by typing a number and Enter ( <i>ie. 1.5 = 150%</i> )
	Length	specify a scale length by typing a number, a unit type, and Enter ( <i>ie. 10m</i> )
<b>Search (Shift+S)</b>		search SketchUp command list for tools or commands
<b>Select (Spacebar)</b>	Ctrl	add to selection
	Shift	add/subtract from selection
	Ctrl+Shift	subtract from selection
<b>Tape Measure (T)</b>	Ctrl	toggle create guide or measure only
	Arrows	lock direction; up = blue, right = red, left = green, and down = parallel/perpendicular
	Resize	resize model: measure a distance, type intended size, and Enter
<b>Zoom (Z)</b>	Shift	hold down and click-drag mouse to change Field of View