Sketchup Toolbars

Select — Eraser — Line — Arc — Shapes — Push/Pull — Offset — Move — Rotate — Scale — Measure — Text — Paint Bucket — Orbit — Pan — Zoom — Zoom — 3D Warehouse — Extension Warehouse — Layout — Extension Manager
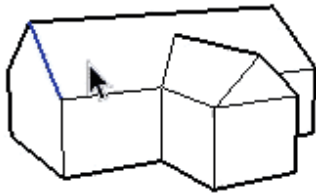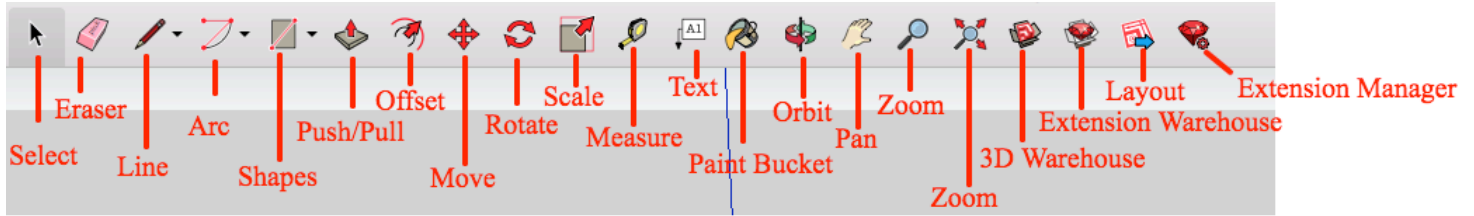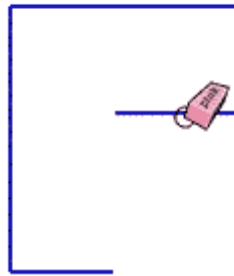
Select Tool
Select entities to modify when using other tools or commands.

Tool Operation
1. Click on an entity.

Modifier Keys
Option = Add an entity to set of selected entities
Shift+Option = Subtract an entity from set of selected entities
Shift = Toggle whether an entity is within set of selected entities
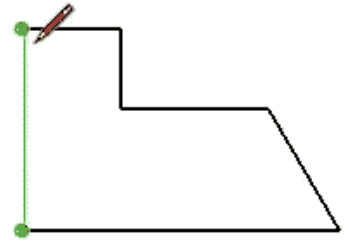Command+A = Select all visible entities in model

Eraser Tool
Erase entities.

Tool Operation
Click on entity to erase. Alternatively, hold down mouse button drag over entities. All entities are erased when mouse button is released.

Modifier Keys
Shift = Hide entities
Option = Soften and smooth entities
Shift+Option = Unsoften and unsmooth entities

Line Tool
Draw edges or Line entities.

Tool Operation
1. Click at starting point of line.
2. Move cursor.
3. Click at ending point of line.
4. (optional) Move cursor.
5. (optional) Click to create connected line.
6. (optional) Repeat step 4 to create connected lines, or return to starting point of first line to create a face.

Modifier Keys
Shift = Lock line to the current inference direction
Arrow keys = Lock line to specific inference direction (Up=Blue, Left=Green, Right=Red, Down=Parallel/Perpendicular)
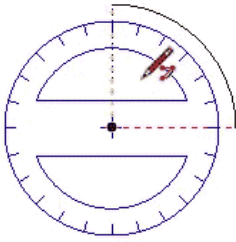
Arc Tool
Draw Arc entities.

Tool Operation
1. Click to define arc's center. Optionally, click and drag first point to set drawing plane.
2. Move cursor to define first arc point or enter radius.
3. Click to set first arc point.
4. Move cursor around the protractor guide or enter angle.
5. Click to set second arc point.
6. Esc = Cancel operation.

Tip: Click **Window** > **Model Info** > **Units** > **Angle Units** to change snapping angle.

Modifier Keys
Option '+' or Option '-' = Change the number of segments
Hold Shift = Lock inferences
Arrow keys (before 1st click) = Lock Protractor Rotation Axis direction (Up=Blue, Left=Green, Right=Red, Down=Parallel)
Arrow keys (after 1st click) = Lock drawing direction to specific inference direction (Up=Blue, Left=Green, Right=Red, Down=Parallel/Perpendicular)
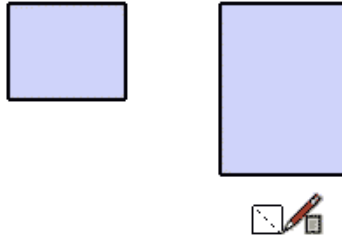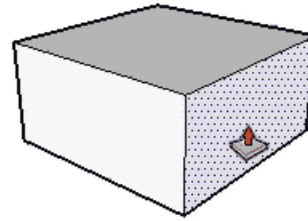
Rectangle Tool
Draw rectangular Face entities.

Tool Operation
1. Click to set first corner.
2. Move cursor diagonally.
3. Click to set second corner.
4. Esc = Cancel Operation.

Modifier Keys
Hold Shift = Lock inferences
Arrow keys = Lock Surface Normal (Up=Blue, Left=Green, Right=Red, Down=Parallel)

Push/Pull Tool
Push and pull Face entities to add or subtract volume from your 3d models.
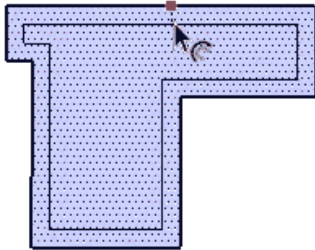
Tool Operation
1. Hover cursor to select a face.
2. Click on the face.
3. Move cursor to push or pull face into 3D form.
4. Click to finish push/pull operation.
5. Esc = Cancel operation.

Pre-Pick Tool Operation
1. Use Select tool to select a face.
2. Activate Push/Pull tool.
3. Click once to set start point of Push/Pull.
4. Click to finish push/pull.
5. Esc = Cancel operation and clear selection.

Modifier Keys
Option = Toggles creating new starting face
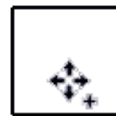Command = Push/Pull while stretching attached faces

Offset Tool
Create copies of lines at a uniform distance from originals.

Tool Operation
1. Click on a face.
2. Move cursor.
3. Click to finish offset operation.
4. Esc = Cancel operation.

Modifier Keys
Command = Toggle Allow/Trim Overlap

Move Tool
Move, stretch, or copy entities.

Tool Operation
1. Click on entity. Alternatively, pre-select multiple entities with Select tool.
2. Move cursor to new location.
3. Click to finish move operation.

Modifier Keys
Shift = Lock move to the current inference direction
Option = Toggles copy of selection
Command =Toggles autofold of selection
Arrow keys = Lock line to specific inference direction (Up=Blue, Left=Green, Right=Red, Down=Parallel/Perpendicular)
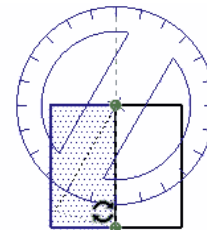
Rotate Tool
Rotate, stretch, distort, or copy entities along a rounded path.

Tool Operation
1. Click on entity. Optionally, click and drag first point to set rotation plane.
2. Move cursor in circle until it is at staring point of rotation.
3. Click to set starting point of rotation.
4. Move cursor in circle until it is at ending point of rotation.
5. Click to complete rotation.

Modifier Keys
Hold Shift = Lock inferences
Option = Toggles rotated copy of selection
Arrow keys (before 1st click) = Lock Protractor Rotation Axis direction (Up=Blue, Left=Green, Right=Red, Down=Parallel)
Arrow keys (after 1st click) = Lock drawing direction to specific inference direction (Up=Blue, Left=Green, Right=Red, Down=Parallel/Perpendicular)
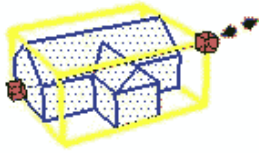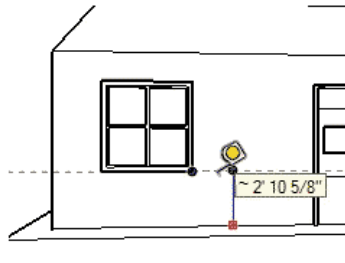
Scale Tool

Resize and stretch portions of geometry relative to other entities in model.

Tool Operation

1. Click on an entity (lines cannot be scaled).
2. Click on a scaling grip.
3. Move cursor to scale entity.
4. Click to finish offset operation.

Modifier Keys

Shift = Scale uniformly
Option = Scale about the geometry's center

Tape Measure Tool

Measure distances, create guide lines or points, or scale a model.

Tool Operation

1. Click at starting point of measurement.
2. Move cursor.
3. Click at ending point of measurement.

Modifier Keys

Option = Toggles create guide lines or guide points
Shift = Lock tape measure to current inference direction
Arrow keys = Lock line to specific inference direction (Up=Blue, Left=Green, Right=Red, Down=Parallel/Perpendicular)
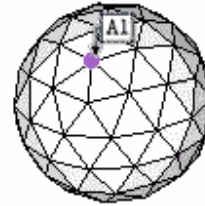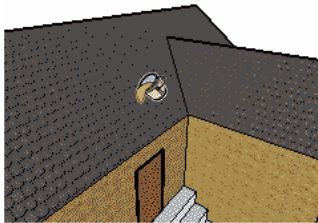
Text Tool

Place Text entities.

Tool Operation

1. Click on an entity to indicate ending point of leader line (location where leader will point).
2. Move cursor to position text.
3. Click to place text.
4. (optional) Click in text box.
5. (optional) Enter text in text box.
6. Click outside text box to complete operation.
7. Esc = Cancel operation.

Paint Bucket Tool

Assign materials and colors to entities.

Tool Operation

1. Select a materials library using drop down list in Materials Browser.
2. Select a material from materials library.
3. Click on faces to paint.

Modifier Keys

Shift = Paint all faces with matching materials
Option = Paint all connected faces with matching materials
Shift+Option = Paint all faces on the same object with matching materials
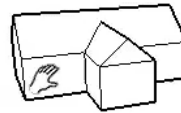Command = Sample material for painting
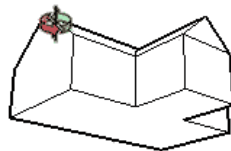
Orbit Tool

Rotate camera about model.

Tool Operation

1. Click anywhere in drawing area.
2. Move cursor in any direction to rotate around center of drawing area.

Modifier Keys

Shift = Pan Tool
Option = Suspend gravity (do not try to keep vertical edges up and down)
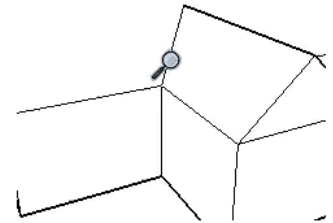
Pan Tool

Move camera (your view) vertically or horizontally.

Tool Operation

1. Click anywhere in the drawing area.
2. Move cursor in any direction to pan.

Modifier Keys

Esc = Enable previously selected tool

Zoom Tool

Move camera (your view) in or out.

Tool Operation

1. Click and hold anywhere in drawing area.
2. Drag cursor up to zoom in (closer to model) and down to zoom out (farther from model).

Modifier Keys

Shift = Change field of view degrees
Esc = Enable previously selected tool