

# Tim's SketchUp Cheat Sheet

## What is SketchUp?

SketchUp is a versatile 3D model software for Landscape Architects and other design and construction professionals. Use to either quickly illustrate design or create beautiful complex renderings.

## Basic Setup

Sketchup starts with a very basic toolbar, click on **view** and then toolbars to enable more.

### Some vital toolbars:

Large Tool Set

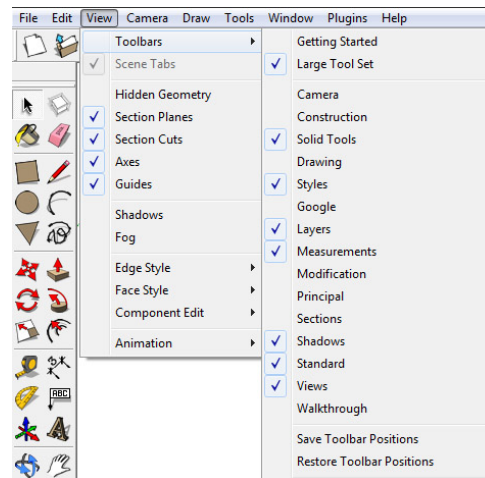
Styles

Layers

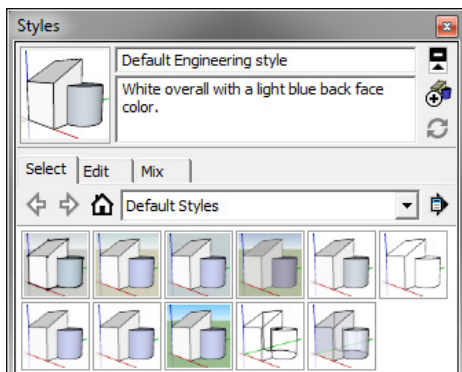
Measurements

Standard

Views



## Windows – Styles



The Styles Browser contains options used to alter how your model and the drawing area is displayed (its edge type face type, background colors, watermarks, and so on). Activate the Styles Browser from the Window menu.

## Units

To configure the units used for lengths in LayOut.

## Mouse

Click – Left click to select objects and materials

Right click – Context menu

Middle click, hold, and drag - To Orbit

Middle Scroll – To zoom in and out of the space

## How to start a model?

Import basemap if needed and scale to real scale. Basemap must be rastered image file format such as jpeg and png.

## Big to small

It is always easier to model from big to small.

Planning Level – The overall site, including parcels and roads.

Regional Level – Site specific details such as walks and special boundaries.

Spatial level – Design elements within the spaces.

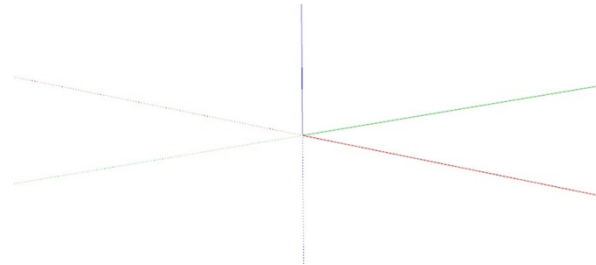
Groups and components – Detailed furnishings, trees, entourages, etc.

## Dimensions – x y z

View in 3D by using rotate, zooms, and pan.

Hold down shift will lock direction you're in

Hold down arrow keys will do so as well. Left is Red, Right is green, and up & down are the blue axis.



**Layers** – Group of objects. Can hide & delete.

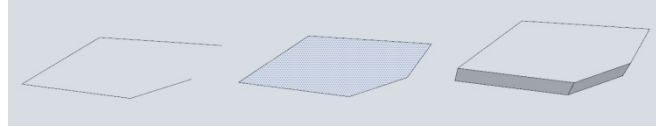
The Layers Manager displays all the layers and their associated visibility in the model. Every model has one layer, called Layer0, which will be visible the first time you activate the Layers dialog box.



## What are faces?

3 or more lines or arcs form a face/coplaner.  
You can draw onto these faces to pull/push,  
apply texture, etc.

Can be achieved by drawing connecting lines,  
connecting arcs, rectangle tool, circle, or  
trapezoid.



## Push/Pull

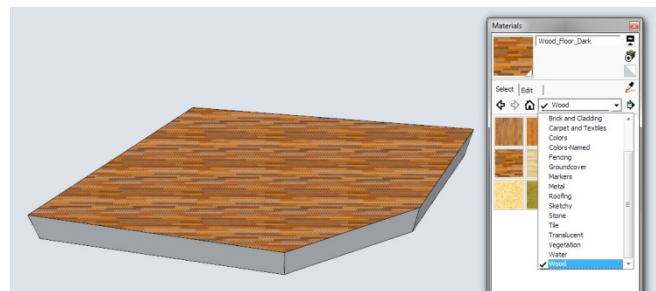
Pushes or pull a face to form 3D geometry.

## Manipulating connected faces

Geometry in SketchUp can be manipulated (skewed, distorted, or folded) by selecting an edge or face and moving the edge or face with the Move tool (causing all entities attached or 'stuck' to the edge or face to move too).

## Paintbucket

To texture a surface or object.



## Creating a group

Groups are useful for combining entities to perform a quick operation such as copy or move operations.

## Creating a component

Components are useful for creating reusable models to be placed within other models.

Advantage of components is that if you edit a component, it applies to the same objects in the entire model.

## Resources

Sketchup 3D Warehouse – For libraries of user uploaded models

Sketchup Extensions Warehouse – For libraries of user uploaded models

[www.CGTextures.com](http://www.CGTextures.com) – For more detailed texture files

## **Keyboard Shortcuts**

Arc Tool (**A**)

Paint Bucket Tool (**B**)

Circle Tool (**C**)

Eraser Tool (**E**)

Offset Tool (**F**)

Pan Tool (**H**)

Line Tool (**L**)

Move Tool (**M**)

Orbit Tool (**O**)

Push/Pull Tool (**P**)

Rotate Tool (**Q**)

Rectangle Tool (**R**)

Scale Tool (**S**)

Select Tool (**Spacebar**)

Tape Measure Tool (**T**)

Zoom Tool (**Z**)

Zoom Extents Tool (**Shift+Z**)

New (**Ctrl+N**)

Open (**Ctrl+O**)

Save (**Ctrl+S**)

Cut (**Ctrl+X**)

Copy (**Ctrl+C**)

Paste (**Ctrl+V**)

Print (**Ctrl+P**)

Redo(**Ctrl+Y**)

Undo (**Ctrl+Z**)

## Useful Extensions

Sketchup provides a large variety of mostly open source contributions of Extension to further enhance the basic software, below are some useful extensions for site design:

**S4U Make Face** – A handy tool to create coplanar faces from lines through automated recognition of enclosed lines in drawing or imported cad lineworks.

**Fredo Tools** – Very power set of tools to create complex models through data inputs.

**Memory Copy** - Memory Copy allows you to copy not only geometry, but also transformations such as the resizing or rotation of said geometry — the tool can “remember” your last move and duplicate it.

**Draw pipes from lines** – Draws pipes from simple lines, useful for handrails, etc.

**Soap Skin & Bubble** – Handy to create curvilinear coplanars, such as tensile shades, mounds, etc.

**Weld** - This plugin takes selected line segments and groups them as one item. This is a great tool to use if you want to connect a long string of line segments that make a curved or spiraling shape. With the weld tool, you can easily extrude or use the “follow me” tool along a curved path without having to select every line segment.

**Mirror** – Easy one click solution to mirror objects.

**Vali Architect Plugins** – Very useful set of plugins for purchase, I personally use the tools for mainly roads, fencing and rails. See link for more information: [https://valiarchitects.com/sketchup\\_scripts](https://valiarchitects.com/sketchup_scripts)

**Rendering Plugins** – There are a variety of robust rendering tools. Vray is the most robust and widely used rendering plugin. Shaderlight is another rendering software with a more user-friendly interface but less customization than Vray.