OpenSCAD CheatSheet v2015.03

Syntax

var = value;

module name(…) { … }
name();

function name(…) = …
name();

include <….scad>

use <….scad>

2D

circle(radius | d=diameter)

square(size,center)

square([width,height],center)

polygon([points])

polygon([points],[paths])

text(t, size, font,
halign, valign, spacing,
direction, language, script)

3D

sphere(radius | d=diameter)

cube(size, center)

cube([width,depth,height], center)

cylinder(h,r|d,center)

cylinder(h,r1|d1,r2|d2,center)

polyhedron(points, triangles, convexity)

Transformations

translate([x,y,z])

rotate([x,y,z])

scale([x,y,z])

resize([x,y,z],auto)

mirror([x,y,z])

multmatrix(m)

color("colorname")

color([r,g,b,a])

offset(r|delta,chamfer)

hull()

minkowski()

Boolean operations

union()

difference()

intersection()

Modifier Characters

*	disable
!	show only
#	highlight / debug
%	transparent / background

Mathematical

abs

sign

sin

cos

tan

acos

asin

atan

atan2

floor

round

ceil

ln

len

let

log

pow

sqrt

exp

rands

min

max

Functions

concat

lookup

str

chr

search

version

version_num

norm

cross

parent_module(idx)

Other

echo(…)

for (i = [start:end]) { … }

for (i = [start:step:end]) { … }

for (i = […,…,…]) { … }

intersection_for(i = [start:end]) { … }

intersection_for(i = [start:step:end]) { … }

intersection_for(i = […,…,…]) { … }

if (…) { … }

assign (…) { … }

import("….stl")

linear_extrude(height,center,convexity,twist,slices)

rotate_extrude(convexity)

surface(file = "….dat",center,convexity)

projection(cut)

render(convexity)

children([idx])

List Comprehensions

Generate [for (i = *range*|*list*) i]

Conditions [for (i = …) if (condition(i)) i]

Assignments [for (i = …) let (assignments) a]

Special variables

$fa	minimum angle
$fs	minimum size
$fn	number of fragments
$t	animation step
$vpr	viewport rotation angles in degrees
$vpt	viewport translation
$vpd	viewport camera distance
$children	number of module children

Links: Official website | Code | Issues | Manual | MCAD library | Forum | Other links

Edit me on GitHub!