

### 5.8.5.2 Modeling - Modifiers - Deform - Cast Modifier

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Cast Modifier

This modifier shifts the shape of a mesh, curve, surface or lattice to any of a few pre-defined shapes (sphere, cylinder, cuboid).

It is equivalent to the *To Sphere* tool in *Edit Mode* (Mesh ▸ Transform ▸ To Sphere or Alt-Shift-S) and what other programs call “Spherify” or “Spherize”, but, as written above, it is not limited to casting to a sphere.

Tip

The *Smooth modifier* is a good companion to *Cast*, since the cast shape sometimes needs smoothing to look nicer or even to fix shading artifacts.

Note

For performance reasons, this modifier only works with local coordinates. If the modified object looks wrong, you may need to apply its rotation (Ctrl-A), especially when casting to a cylinder.

#### Options



Cast Modifier

#### Cast Type

Menu to choose cast type (target shape): *Sphere*, *Cylinder* or *Cuboid*.

#### X, Y, Z

Toggle buttons to enable/disable the modifier in the X, Y, Z axes directions (X and Y only for *Cylinder* cast type).

#### Factor

The factor to control blending between original and cast vertex positions. It's a linear interpolation:  $0.0$  gives original coordinates (i.e. modifier has no effect),  $1.0$  casts to the target shape. Values below  $0.0$  or above  $1.0$  exaggerate the deformation, sometimes in interesting ways.

### Radius

If non-zero, this radius defines a sphere of influence. Vertices outside it are not affected by the modifier.

### Size

Alternative size for the projected shape. If zero, it is defined by the initial shape and the control object, if any.

### From radius

If activated, calculate *Size* from *Radius*, for smoother results.

### Vertex Group

A vertex group name, to restrict the effect to the vertices in it only. This allows for selective, real-time casting, by painting vertex weights.

### Control Object

The name of an object to control the effect. The location of this object's center defines the center of the projection. Also, its size and rotation transform the projected vertices.

#### Hint

Animating (keyframing) this control object also animates the modified object.

## Example



Top: Suzanne without modifiers. Middle: Suzanne with each type of Cast Modifier (Sphere, Cylinder and Cuboid). Bottom: Same as above, but now only X axis is enabled. Sample blend file

