

# Add Icosphere

## Reference

**Mode:**

Object Mode and Edit Mode

**Tool:**

Toolbar ► Add Icosphere

Interactively add an [Icosphere mesh object](#).

## Usage

First define the base of the object by dragging with **LMB**. Next, release **LMB** and move the mouse to define the height of the object. Finally, click **LMB** to confirm the shape of the object.

You can use the following hotkeys to temporarily change a setting (for as long as the key is held):

Ctrl	Toggles snapping.
Alt	Toggles the <i>Origin</i> setting.
Shift	Toggles the <i>Aspect</i> setting.

## Tool Settings

### Depth

The initial depth (from the screen into the scene) used when placing the object.

**Surface:**

Start placing on the surface under the mouse cursor. If there is no surface, this does the same as *Cursor Plane*.

**Cursor Plane:**

Start placing on a plane that goes through the [3D Cursor](#) and is aligned according to the *Orientation* and *Plane Axis*.

**Cursor View:**

Start placing on a plane that goes through the 3D Cursor and is aligned to the view.

### Orientation

The new object's orientation – a set of three axes, out of which *Plane Axis* chooses one.

**Surface:**

The object uses the normal orientation of the surface under the mouse cursor. If there is no surface, this does the same as *Default*.

**Default:**

The object uses the default [Transform Orientation](#).

### Snap To

The target to use while [Snapping](#).

**Geometry:**

Snap to all types of geometry (vertices, edges, and faces).

**Default:**

Snap to the target defined in the global snapping options.

### Plane Axis

Which of the three *Orientation* axes (X, Y or Z) is “up” for the object. The object's base will be perpendicular to this axis.

### Auto Axis

Rather than using the *Orientation* axis indicated by *Plane Axis*, use the one that's closest to the viewport's viewing direction (when not hovering over a surface).

over a surface).

## Base

### Origin

How the base is defined.

#### Edge:

The base is defined from one corner to the opposing corner.

#### Center:

The base is defined from the centerpoint to a corner.

### Aspect

Whether the base has a free or fixed aspect ratio.

#### Free:

The width and depth of the base can be chosen independently.

#### Fixed:

The width and depth of the base are forced to be equal.

## Height

### Origin

How the height is defined.

#### Edge:

The base becomes the bottom, after which you define the top.

#### Center:

The base becomes the center, after which you define the top.

### Aspect

Whether the side of the bounding box has a free or fixed aspect ratio.

#### Free:

The height can be chosen independently of the base.

#### Fixed:

The height is forced to be equal to the largest side of the base.

## Subdivisions

Influences how many vertices are used to define the sphere. At level 1 the icosphere is an icosahedron, a solid with 20 equilateral triangular faces. Each increase in the number of subdivisions splits each triangular face into four.

### Note

Subdividing an icosphere raises the vertex count very quickly even with few iterations (10 times creates 5,242,880 triangles). Adding such a dense mesh is a sure way to cause the program to crash.