

Power Cylinder

Adobe After Effects®



User Manual

version 1.11

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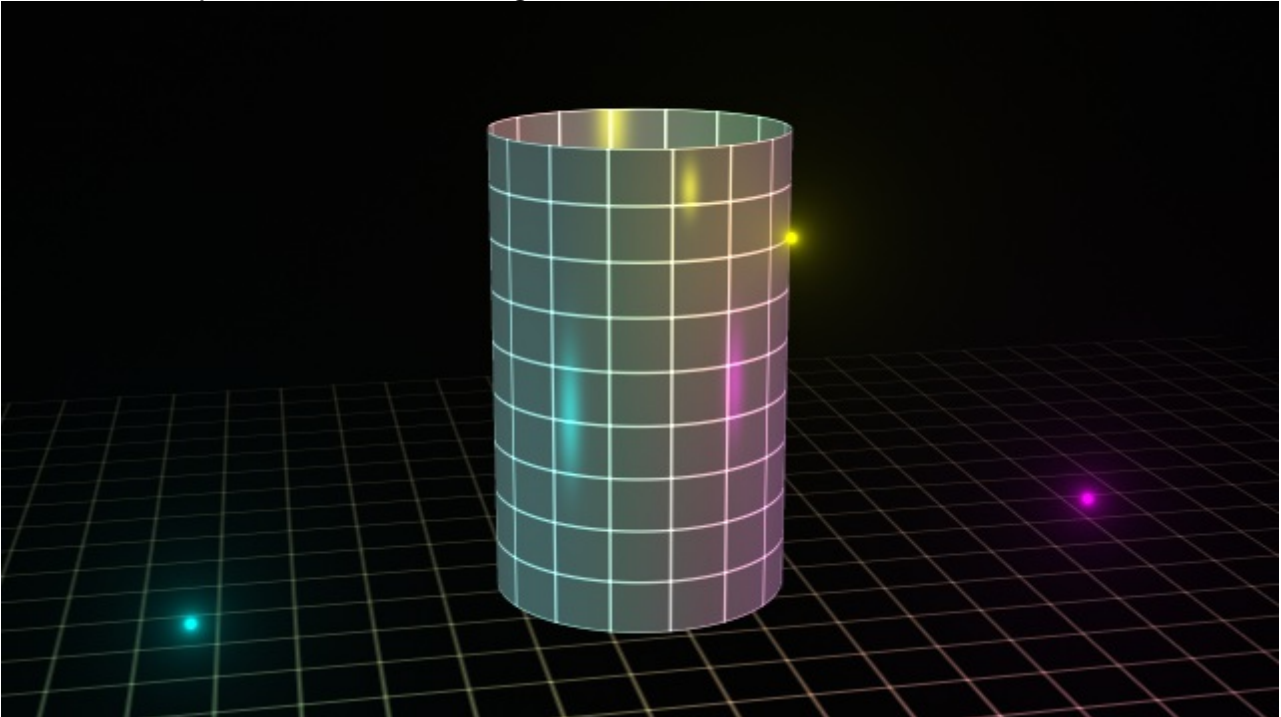
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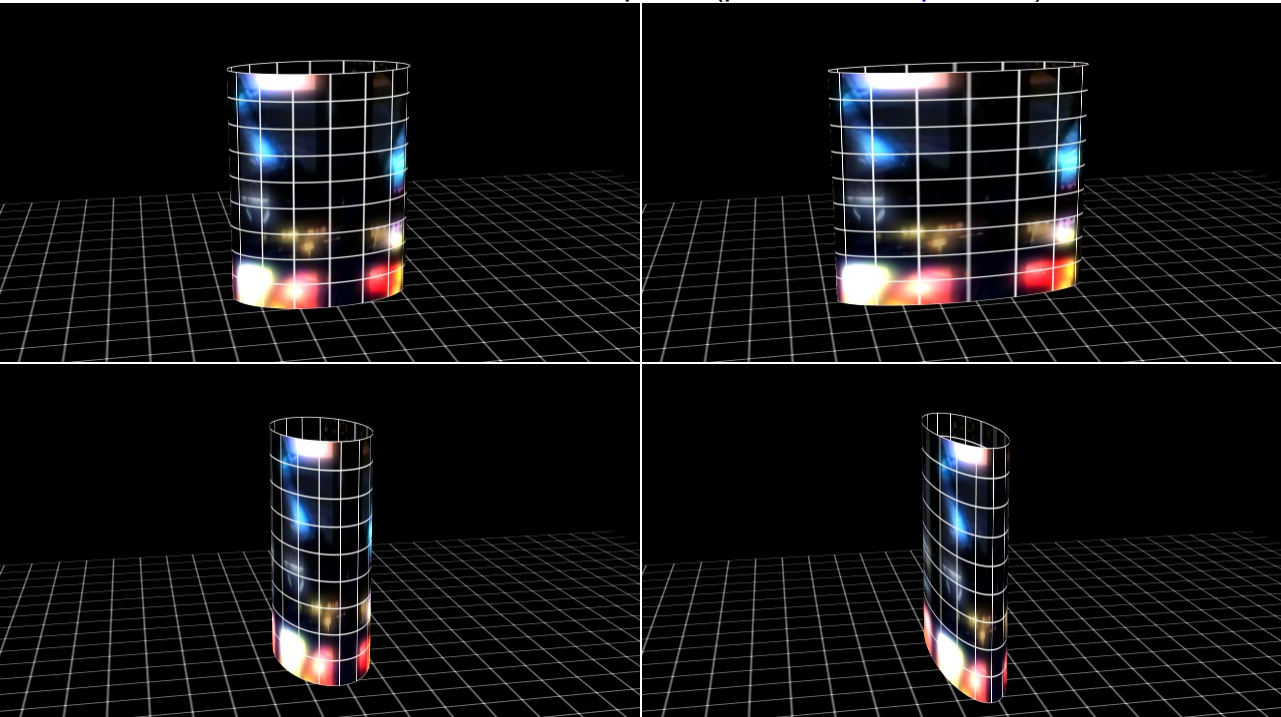
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Overview

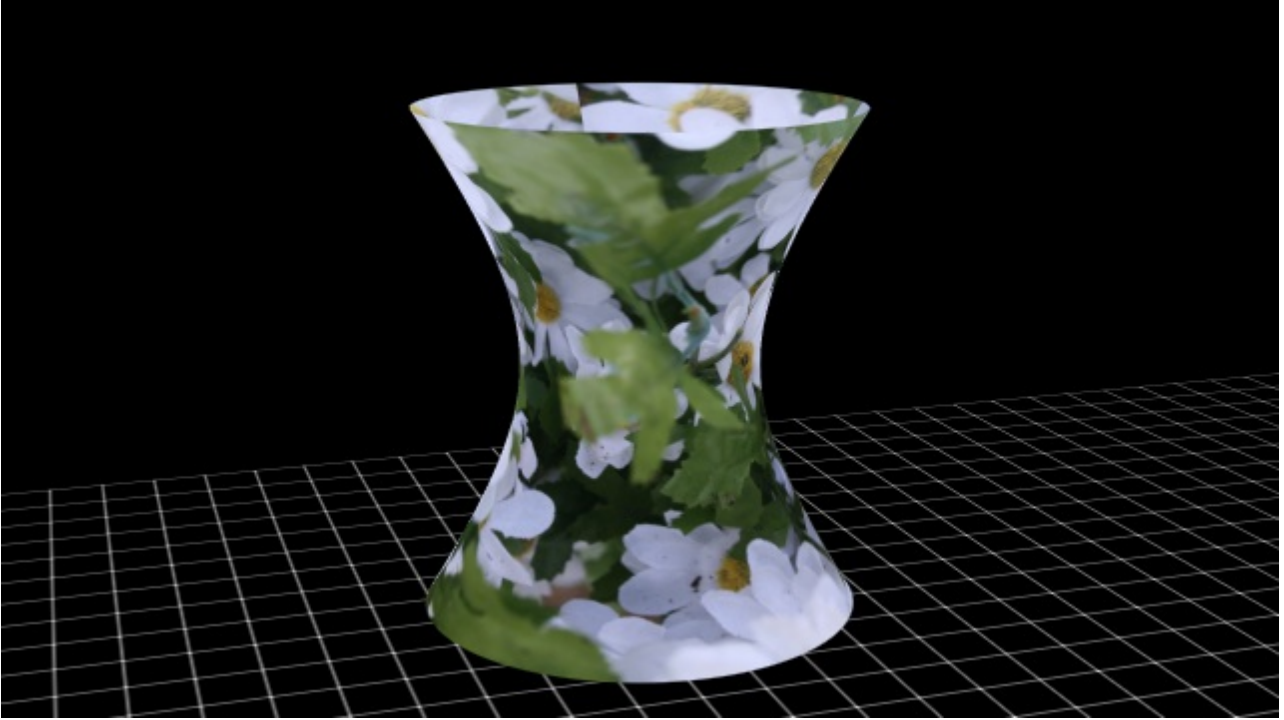
Power Cylinder is plugin of Adobe After Effects®. It renders a fully controllable 3D cylinder that reacts to composition camera and lights.



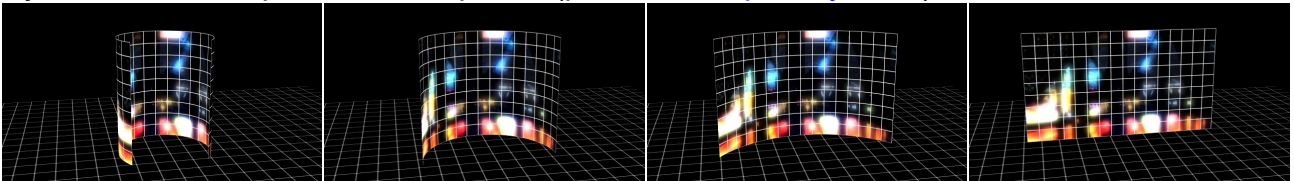
Cylinder can be controlled and deformed in 3D space. (parameter: [Ellipse X/Y](#))



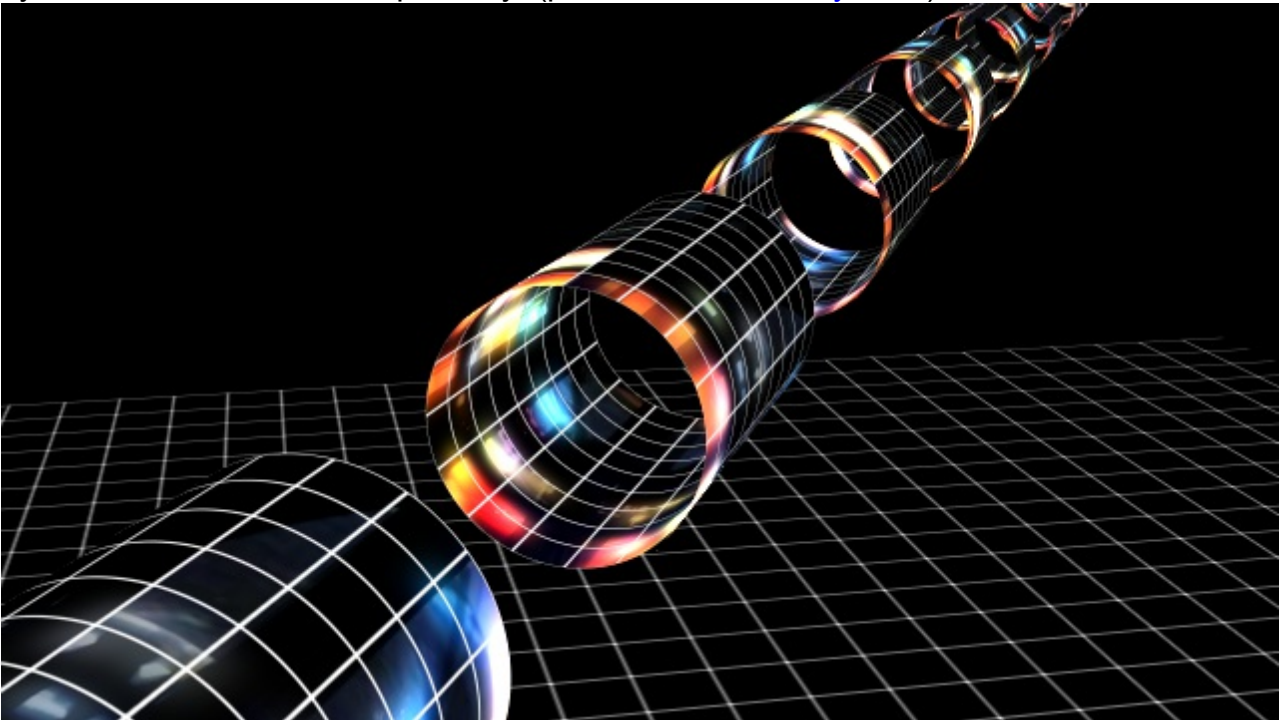
In version 1.10, the cylinder is able to be deformed into hyperboloid. (parameter: [Hyperboloid](#))



The cylinder can be "opened" into a plane. (parameter: [Open Cylinder](#))



The cylinder can be extended repeatedly. (parameter: [Extend Cylinder](#))



The cylinder can self shadow, depth composite and render a depth of field blur for very realistic results.

Setup

Platform

Adobe After Effects (Windows, Mac OS X) CS4 or later

Install

Place the plugin in the **'Plug-ins'** folder inside the After Effects folder. Default directory is:

(win)

C:\Program Files\Adobe\Adobe After Effects XX\Support Files\Plug-ins

(mac)

/Applications/Adobe After Effects XX/Plug-ins

Uninstall

1. Launch After Effects and apply Power Cylinder to a layer. Click "Register" or "About..." button in the top of effect panel.
 2. Click "Unregister" button on the popup panel.
 3. A popup to confirm will appear, click "Yes".
 4. Shut down After Effects, and remove the plugin from the 'Plug-ins' folder.
-

Setup

Prepare a layer the same size and pixel aspect ratio as the Composition.

Apply the effect (Effect > CROSSPHERE > Power Cylinder) to the layer.

By default, no texture is set, and the cylinder will show UV coordinate of the cylinder. User can set a layer as texture of the cylinder by "Texture" parameter.

For other detail operations, see the next section.

Parameters

Texture

Assigns the layer as the texture of cylinder. If no layer is assigned, the cylinder will show UV coordinates.

Transform

These parameters control the transform of the cylinder.

Slide Texture

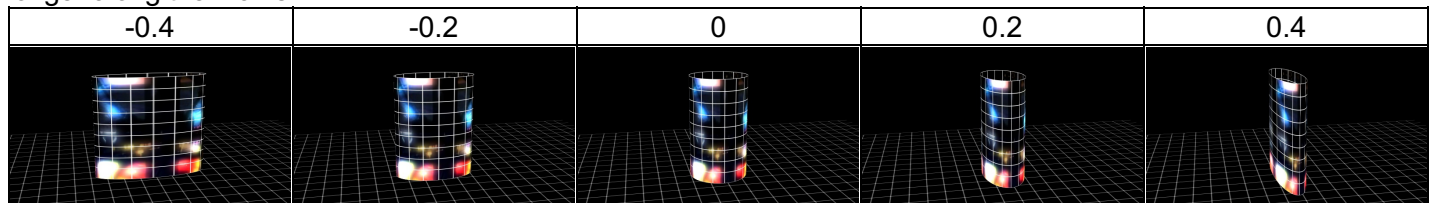
Slide texture around the z-axis of the cylinder.

Control Layer

If a layer is assigned to this parameter, the cylinder copies the transformation of the assigned layer. Make sure to make the layer 3D.

Ellipse X/Y

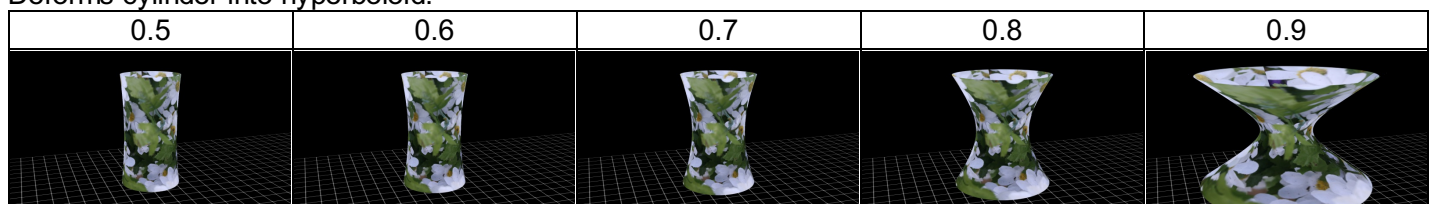
Deforms the cylinder along the x-axis or y-axis of the cylinder. Positive value makes the cylinder longer along the x-axis.



Ellipse X/Y Parameters and deformation of the cylinder.

Hyperboloid

Deforms cylinder into hyperboloid.



Hyperboloid Parameters and deformation of the cylinder.

Radius Scale

Controls the scale of the radius of the cylinder.

Height Scale

Controls the scale of the height of the cylinder.

Position XY

Position Z

Control the center position of the cylinder.

Rotation X

Rotation Y

Rotation Z

Control the rotation of the cylinder.

Open Cylinder

Show Pivot

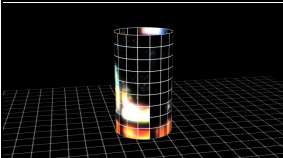
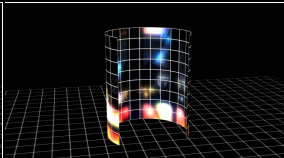
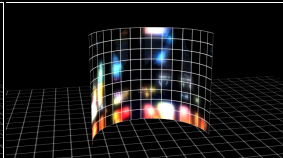
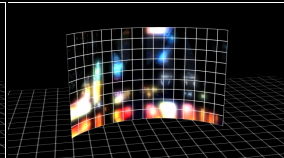
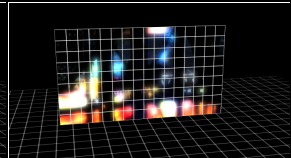
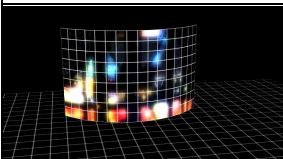
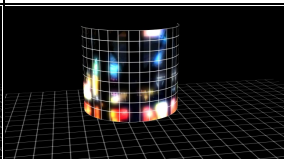
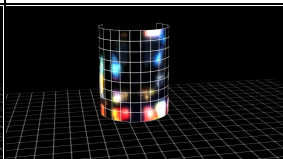
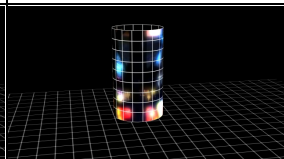
Shows where the pivot line is.

Fixed Point U

Controls the U coordinate of the pivot.

Open Parameter

Opens the cylinder. If this value is 0, the cylinder is closed. If this value is 1, the cylinder is fully open into a plane. If this value is 2, the cylinder inverts.

0	0.25	0.5	0.75	1.
				
1.25	1.5	1.75	2.	
				

Open parameters and how much the cylinder opens.

Extend Cylinder

Extends cylinder repeatedly along to its axis.

Extension Side

Specifies the direction of extension.

- Head Side
The cylinder is extended to the upper side of its texture (y-minus side of the cylinder).
- Tail Side
The cylinder is extended to the lower side of its texture (y-plus side of the cylinder).
- Both Sides
The cylinder is extended to its both sides.

Extensions

Controls the number of extended cylinders.

Flip Vertical

Controls whether to flip alternate textures vertically.

Screw

Controls screw angle between extended cylinders.

Interval

Controls interval between extended cylinders.

Shading

The cylinder accepts 3D lights from the composition.

Falloff

Falloff Radius

Falloff Distance

Control the falloff from Parallel , Point and Spot lights.

- None
Illumination does not falloff as the distance between the cylinder and the light increases.
- Smooth
Indicates a smooth linear falloff starting at the "Falloff Radius" and extending to the length specified by "Falloff Distance".
- Inverse Square Clamped
Indicates a physically accurate falloff starting at the "Falloff Radius" and decreasing proportionally to the inverse square of the distance.

Self Shadow

Specifies whether the cylinder casts and accepts it's own shadow.

Light Transmission

Controls how much light the surface of the cylinder allows to pass through.

Emit

Controls how much color the cylinder emits without lights.

Ambient

Controls the ambient or nondirectional reflectivity of the cylinder.

Diffuse

Controls the diffuse or omnidirectional reflectivity of the cylinder.

Specular

Controls the directional or specular reflectivity/highlight of the cylinder.

Roughness

Determines the size of the specular highlight.

Metal

Controls the mix of the cylinder color with the color of the specular highlight.

Reflection Map

Specifies the layer to be used as a reflection map.

Reflection Intensity

Controls the intensity of the reflection.

Reflection Rolloff

Controls the rolloff of the reflection. Larger values decrease the reflection when the view direction and the normal of the surface are parallel.

Rendering

Rendering Side

Specifies whether only the inside or outside is rendered.

- Full
Both inside and outside are rendered.
- Inside
Inside only.
- Outside
Outside only.

Use Composition Camera

Specifies whether the composition camera is used.

Depth Of Field

Specifies whether the depth of field (DOF) is used or not. To use DOF there must be an active camera in the composition.

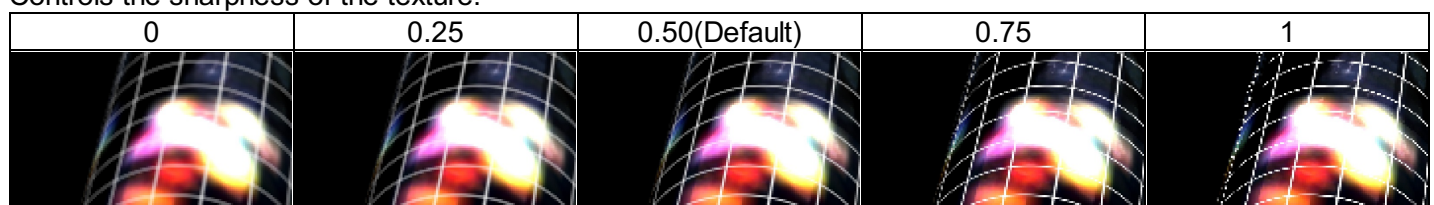
- Off
No DOF blur effect.
- Camera Settings
DOF will use the settings of the active composition camera.
- On

Boost DOF Blur

Amplifies the DOF blur effect.

Sharpness

Controls the sharpness of the texture.



Sharpness values and effect on texture

Depth Composite

Composite depends on the depth from the active camera.

Mode

Specifies the mode of the composite.

- Off
No Composite
- Fog
Composite the color specified by Fog Color depends on the depth.
- Fade Out
Change the transparency by the depth.

Start depth

Specifies the depth to start composite.

End depth

Specifies the depth to complete composite.

Fog Color

Specifies the color of fog.

Other settings

Color Depth

8bpc, 16bpc and 32bpc

Camera

The cylinder will render using the active comp camera if one exists. The cylinder can also be controlled with these settings:

- Zoom
- Depth of Field (When Depth Of Field parameter of the cylinder is set to "Camera Settings")
- Focus Distance (When DOF blur effect used)
- Aperture (When DOF blur effect used)
- Blur Level (When DOF blur effect used)

To control the DOF blur effect, see [Rendering Parameters](#)

Light

The cylinder will render using the lights in the composition and has these controls:

- Intensity
- Color
- Cone Angle
- Cone Feather
- Casts Shadows (When the parameter "Self Shadow" is on)
- Shadow Darkness (When the parameter "Self Shadow" is on)

To control the cylinder shading from lights, see [Shading Parameters](#).

Post Script

Author

Author: Koizumi

E-Mail Address: koizumim83@gmail.com

<http://aescrpts.com/authors/crossphere/>