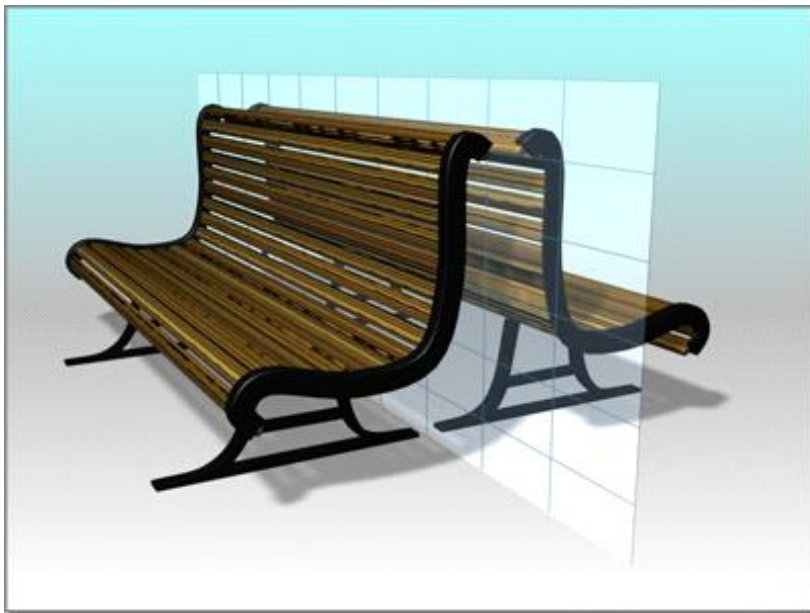# Mirror modifier:

The Mirror modifier provides a parametric method of mirroring an object or a sub-object selection. You can apply the Mirror modifier to any type of geometry, and you can animate the mirror effect by animating the modifier's gizmo.

Modify panel > Make a selection. > Modifier List > Object-Space Modifiers > Mirror

Default menu: Make a selection. > Modifiers menu > Parametric Deformers > Mirror

Alt menu: Make a selection. > Modifiers menu > Geometry (Parametric) > Mirror

Tip: When modeling the left or right side of a character for mirroring to the opposite side, use the Symmetry modifier to create the other side. Its Weld Seam feature helps create a more natural-looking model.
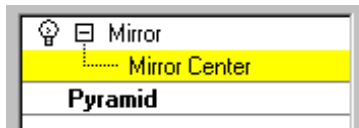

Procedures

To apply the Mirror modifier:

1. Apply the Mirror modifier to a selection.

2. Set the axis or axis pair on which to mirror the object.

3. To create a mirrored pair, specify an Offset amount and turn on Copy.
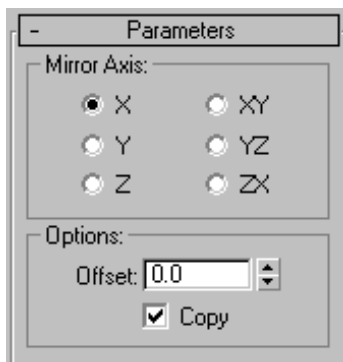
Interface

Modifier Stack

Represents the axis of the mirror effect. You can move, rotate or scale the gizmo to affect the mirroring. You can animate the gizmo transforms, which you can't do with the toolbar Mirror tool.

For more information on the stack display, see Modifier Stack.

Parameters rollout

Mirror Axis group

X, Y, Z, XY, YZ, ZX

Specify the axis or axes about which the mirroring takes place. You can usually see the effect in the viewport as you select the option.

Options group

Offset

Specifies the offset, in units, from the mirror axis. This is an animatable parameter.

Copy

Copies the geometry rather than simply mirroring it.

Stretch:

The Stretch modifier simulates the traditional animation effect of "squash-and-stretch." Stretch applies a scale effect along a specified stretch axis and an opposite scale along the two remaining minor axes.

The amount of opposite scaling on the minor axes varies, based on distance from the center of the scale effect. The maximum amount of scaling occurs at the center and falls off toward the ends.
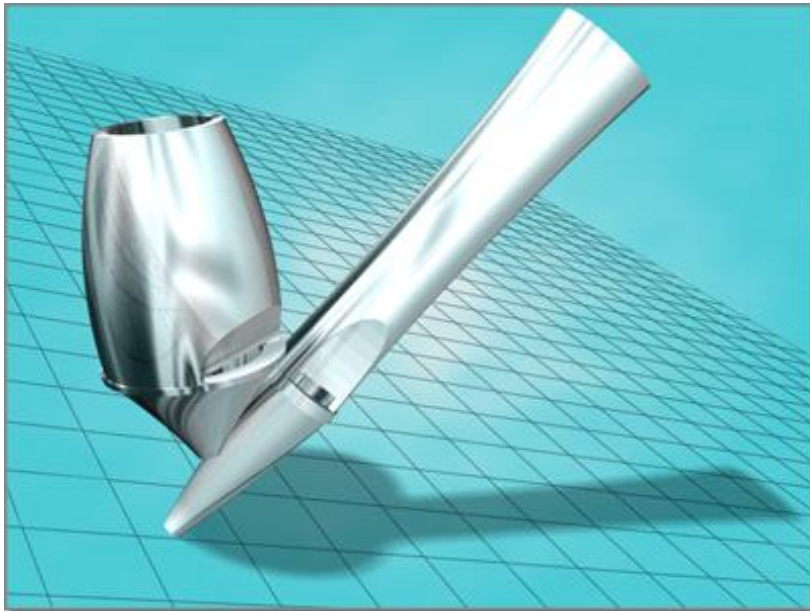
Procedures

To stretch an object:

Select an object.

Apply Stretch.

On the Parameters rollout Stretch Axis group, choose X, Y, or Z.

On the Parameters rollout Stretch group, enter a value in the Stretch field.

Adjust the Parameters rollout Stretch group Amplify setting to change the amount of scaling along the minor axes.

To limit a stretch:

Apply a Stretch modifier to an object and specify the stretch amounts and stretch axis.

On the Parameters rollout Limits group, turn on Limit Effect.

Set values for the Upper and Lower Limits to define the Stretch boundaries on either side of the Stretch center.

In the modifier stack, choose the Center sub-object level, and move the center to locate the limited stretch effect.

Interface

Modifier stack

Gizmo

At this sub-object level, you can transform and animate the gizmo like any other object, altering the effect of the Stretch modifier. Translating the gizmo translates its center an equal distance. Rotating and scaling the gizmo takes place with respect to its center.

Center

At this sub-object level, you can translate and animate the center, altering the Stretch gizmo's shape, and thus the shape of the stretched object.

Parameters rollout
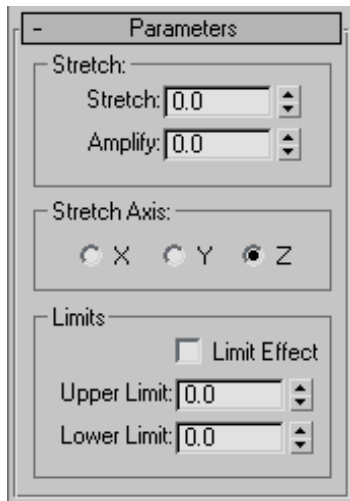
Use options in the Parameters rollout to set the following:

Amount of stretch

Major stretch axis

Area affected by the stretch