CSS3 3D Transforms

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CSS3 3D Transforms

CSS3 allows you to format your elements using 3D transformations.

Mouse over the elements below to see the difference between a 2D and a 3D transformation:

2D rotate

3D rotate

Browser Support for 3D Transforms

The numbers in the table specify the first browser version that fully supports the property.

Numbers followed by -webkit-, -moz-, or -o- specify the first version that worked with a prefix.

Property					
transform	36.0 12.0 -webkit-	10.0	16.0 10.0 -moz-	9.0 4.0 -webkit-	23.0 15.0 -webkit-
transform-origin (three-value syntax)	36.0 12.0 -webkit-	10.0	16.0 10.0 -moz-	9.0 4.0 -webkit-	23.0 15.0 -webkit-
transform-style	36.0 12.0 -webkit-	11.0	16.0 10.0 -moz-	9.0 4.0 -webkit-	23.0 15.0 -webkit-
perspective	36.0 12.0 -webkit-	10.0	16.0 10.0 -moz-	9.0 4.0 -webkit-	23.0 15.0 -webkit-

perspective-origin	36.0 12.0 -webkit-	10.0	16.0 10.0 -moz-	9.0 4.0 -webkit-	23.0 15.0 -webkit-
backface-visibility	36.0 12.0 -webkit-	10.0	16.0 10.0 -moz-	9.0 4.0 -webkit-	23.0 15.0 -webkit-

CSS3 3D Transforms

In this chapter you will learn about the following 3D transformation methods:

- `rotateX()`
- `rotateY()`
- `rotateZ()`

The rotateX() Method

The `rotateX()` method rotates an element around its X-axis at a given degree:

Example

```
div {
    -webkit-transform: rotateX(150deg); /* Safari */
    transform: rotateX(150deg);
}
```

Try it Yourself »

The rotateY() Method

The `rotateY()` method rotates an element around its Y-axis at a given degree:

Example

```
div {
    -webkit-transform: rotateY(130deg); /* Safari */
    transform: rotateY(130deg);
}
```

Try it Yourself »

The rotateZ() Method

The `rotateZ()` method rotates an element around its Z-axis at a given degree:

Example

```
div {
    -webkit-transform: rotateZ(90deg); /* Safari */
    transform: rotateZ(90deg);
}
```

Try it Yourself »

Test Yourself with Exercises!

Exercise 1 » Exercise 2 » Exercise 3 »

CSS3 Transform Properties

The following table lists all the 3D transform properties:

Property	Description
transform	Applies a 2D or 3D transformation to an element

transform-origin	Allows you to change the position on transformed elements
transform-style	Specifies how nested elements are rendered in 3D space
perspective	Specifies the perspective on how 3D elements are viewed
perspective-origin	Specifies the bottom position of 3D elements
backface-visibility	Defines whether or not an element should be visible when not facing the screen

3D Transform Methods

Function	Description
matrix3d (*n,n,n,n,n,n,n,n,n,n,n,n,n,n,n,n*)	Defines a 3D transformation, using a 4x4 matrix of 16 values
translate3d(*x,y,z*)	Defines a 3D translation
translateX(*x*)	Defines a 3D translation, using only the value for the X-axis
translateY(*y*)	Defines a 3D translation, using only the value for the Y-axis
translateZ(*z*)	Defines a 3D translation, using only the value for the Z-axis
scale3d(*x,y,z*)	Defines a 3D scale transformation
scaleX(*x*)	Defines a 3D scale transformation by giving a value for the X-axis
scaleY(*y*)	Defines a 3D scale transformation by giving a value for the Y-axis
scaleZ(*z*)	Defines a 3D scale transformation by giving a value for the Z-axis
rotate3d(*x,y,z,angle*)	Defines a 3D rotation
rotateX(*angle*)	Defines a 3D rotation along the X-axis
rotateY(*angle*)	Defines a 3D rotation along the Y-axis
rotateZ(*angle*)	Defines a 3D rotation along the Z-axis
perspective(*n*)	Defines a perspective view for a 3D transformed element

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