

Reference > shearX()

shearX()

Shears the x-axis so that shapes appear skewed.

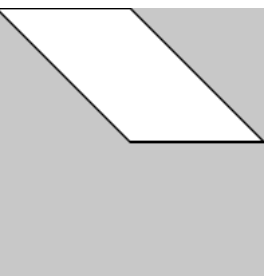
By default, the x- and y-axes are perpendicular. The `shearX()` function transforms the coordinate system so that x-coordinates are translated while y-coordinates are fixed.

The first parameter, `angle`, is the amount to shear. For example, calling `shearX(1)` transforms all x-coordinates using the formula $x = x + y * \tan(\text{angle})$. `shearX()` interprets angle values using the current `angleMode()`.

By default, transformations accumulate. For example, calling `shearX(1)` twice has the same effect as calling `shearX(2)` once. The `push()` and `pop()` functions can be used to isolate transformations within distinct drawing groups.

Note: Transformations are reset at the beginning of the draw loop. Calling `shearX(1)` inside the `draw()` function won't cause shapes to shear continuously.

Examples



```
function setup() {
  createCanvas(100, 100);

  describe('A white quadrilateral on a gray background.');
```

```
}

function draw() {
  background(200);

  // Shear the coordinate system along the x-axis.
  shearX(QUARTER_PI);

  // Draw the square.
  square(0, 0, 50);
}
```



```
function setup() {
  createCanvas(100, 100);

  // Use degrees.
  angleMode(DEGREES);

  describe('A white quadrilateral on a gray background.');
```

```
}

function draw() {
  background(200);

  // Shear the coordinate system along the x-axis.
  shearX(45);

  // Draw the square.
  square(0, 0, 50);
}
```

Syntax

```
shearX(angle)
```

Parameters

angle Number: angle to shear by in the current `angleMode()`.

This page is generated from the comments in `src/core/transform.js` . Please feel free to edit it and submit a pull request!

Related References

applyMatrix

Applies a transformation matrix to the coordinate system.

resetMatrix

Clears all transformations applied to the coordinate system.

rotate

Rotates the coordinate system.

rotateX

Rotates the coordinate system about the x-axis in WebGL mode.

p5.js

Resources

- Reference
- Tutorials
- Examples
- Contribute
- Community
- About
- Start Coding
- Donate

Information

- Download
- Contact
- Copyright
- Privacy Policy
- Terms of Use

Socials

- GitHub ↗
- Instagram ↗
- X ↗
- YouTube ↗
- Discord ↗
- Forum ↗

