

# textToPoints()

Returns an array of points outlining a string of text written using the font.

Each point object in the array has three properties that describe the point's location and orientation, called its path angle. For example, `{ x: 10, y: 20, alpha: 450 }`.

The first parameter, `str`, is a string of text. The second and third parameters, `x` and `y`, are the text's position. By default, they set the coordinates of the bounding box's bottom-left corner. See [textAlign\(\)](#) for more ways to align text.

The fourth parameter, `fontSize`, is optional. It sets the text's font size. By default, `font.textToPoints()` will use the current [textSize\(\)](#).

The fifth parameter, `options`, is also optional. `font.textToPoints()` expects an object with the following properties:

`sampleFactor` is the ratio of the text's path length to the number of samples. It defaults to 0.1. Higher values produce more points along the path and are more precise.

`simplifyThreshold` removes collinear points if it's set to a number other than 0. The value represents the threshold angle to use when determining whether two edges are collinear.

## Examples



```
let font;

function preload() {
  font = loadFont('/assets/inconsolata.otf');
}

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

  background(200);

  // Get the point array.
  let points = font.textToPoints('p5*js', 6, 60, 35, {
    sampleFactor: 0.5 });

  // Draw a dot at each point.
  for (let p of points) {
    point(p.x, p.y);
  }

  describe('A set of black dots outlining the text "p5*js" on a gray background.');
}
```

## Syntax

```
textToPoints(str, x, y, [fontSize], [options])
```

## Parameters

<code>str</code>	String: string of text.
<code>x</code>	Number: x-coordinate of the text.
<code>y</code>	Number: y-coordinate of the text.
<code>fontSize</code>	Number: font size. Defaults to the current <a href="#">textSize()</a> .
<code>options</code>	Object: object with <code>sampleFactor</code> and <code>simplifyThreshold</code> properties.

## Returns

Array: array of point objects, each with `x`, `y`, and `alpha` (path angle) properties.

This page is generated from the comments in [src/typography/p5.Font.js](#). Please feel free to edit it and submit a pull request!

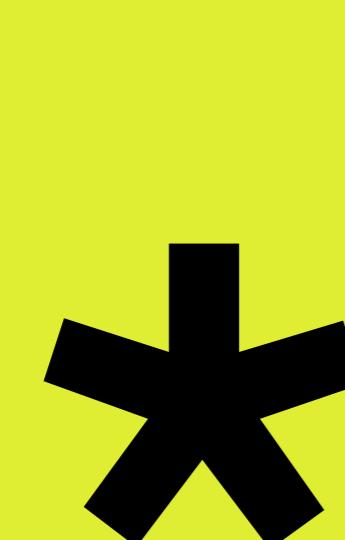
## Related References

[font](#)  
The font's underlying opentype.js font object.

[textBounds](#)  
Returns the bounding box for a string of text written using the font.

[textToPoints](#)  
Returns an array of points outlining a string of text written using the font.

[image](#)  
Draws an image to the canvas.



p5.js	Resources	Information	Socials
	<a href="#">Reference</a> <a href="#">Tutorials</a> <a href="#">Examples</a> <a href="#">Contribute</a> <a href="#">Community</a> <a href="#">About</a> <a href="#">Start Coding</a> <a href="#">Donate</a>	<a href="#">Download</a> <a href="#">Contact</a> <a href="#">Copyright</a> <a href="#">Privacy Policy</a> <a href="#">Terms of Use</a>	<a href="#">GitHub ↗</a> <a href="#">Instagram ↗</a> <a href="#">X ↗</a> <a href="#">YouTube ↗</a> <a href="#">Discord ↗</a> <a href="#">Forum ↗</a>