

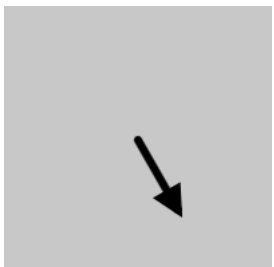
Reference > random2D()

random2D()

Creates a new 2D unit vector with a random heading.

Examples

```
function setup() {  
  // Create a p5.Vector object.  
  let v = p5.Vector.random2D();  
  
  // Prints "p5.Vector Object : [x, y, 0]" to the console  
  // where x and y are small random numbers.  
  print(v.toString());  
}
```



```
function setup() {  
  createCanvas(100, 100);  
  
  // Slow the frame rate.  
  frameRate(1);  
  
  describe('A black arrow in extends from the center of a gray  
square. It changes direction once per second.');
```

```
function draw() {  
  background(200);  
  
  // Create a p5.Vector to the center.  
  let v0 = createVector(50, 50);  
  
  // Create a random p5.Vector.  
  let v1 = p5.Vector.random2D();  
  
  // Scale v1 for drawing.  
  v1.mult(30);  
  
  // Draw the black arrow.  
  drawArrow(v0, v1, 'black');
```

```
function drawArrow(base, vec, myColor) {  
  push();  
  stroke(myColor);  
  strokeWeight(3);  
  fill(myColor);
```

Returns

p5.Vector: new [p5.Vector](#) object.

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

Related References

add Adds to a vector's x, y, and z components.	angleBetween Calculates the angle between two vectors.	array Returns the vector's components as an array of numbers.	clampToZero Replaces the components of a p5.Vector that are very close to zero with zero.
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p5.js

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