

# beginContour()

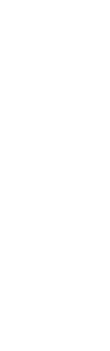
Begins creating a hole within a flat shape.

The `beginContour()` and `endContour()` functions allow for creating negative space within custom shapes that are flat. `beginContour()` begins adding vertices to a negative space and `endContour()` stops adding them. `beginContour()` and `endContour()` must be called between `beginShape()` and `endShape()`.

Transformations such as `translate()`, `rotate()`, and `scale()` don't work between `beginContour()` and `endContour()`. It's also not possible to use other shapes, such as `ellipse()` or `rect()`, between `beginContour()` and `endContour()`.

Note: The vertices that define a negative space must "wind" in the opposite direction from the outer shape. First, draw vertices for the outer shape clockwise order. Then, draw vertices for the negative space in counter-clockwise order.

## Examples



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

  background(200);

  // Start drawing the shape.
  beginShape();

  // Exterior vertices, clockwise winding.
  vertex(10, 10);
  vertex(90, 10);
  vertex(90, 90);
  vertex(10, 90);

  // Interior vertices, counter-clockwise winding.
  beginContour();
  vertex(30, 30);
  vertex(30, 70);
  vertex(70, 70);
  vertex(70, 30);
  endContour();

  // Stop drawing the shape.
  endShape(CLOSE);

  describe('A white square with a square hole in its center drawn on a gray background.');
}
```



```
// Click and drag the mouse to view the scene from different angles.
```

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

  describe('A white square with a square hole in its center drawn on a gray background.');
}

function draw() {
  background(200);

  // Enable orbiting with the mouse.
  orbitControl();

  // Start drawing the shape.
  beginShape();

  // Exterior vertices, clockwise winding.
  vertex(-40, -40);
  vertex(40, -40);
  vertex(40, 40);
  vertex(-40, 40);

  // Interior vertices, counter-clockwise winding.
  beginContour();
  vertex(-20, -20);
  vertex(-20, 20);
  vertex(20, 20);
  vertex(20, -20);
```



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

## Related References

`beginContour`  
Begins creating a hole within a flat shape.

`beginShape`  
Begins adding vertices to a custom shape.

`bezierVertex`  
Adds a Bézier curve segment to a custom shape.

`curveVertex`  
Adds a spline curve segment to a custom shape.

