

# orbitControl()

Allows the user to orbit around a 3D sketch using a mouse, trackpad, or touchscreen.

3D sketches are viewed through an imaginary camera. Calling `orbitControl()` within the `draw()` function allows the user to change the camera's position:

```
function draw() {
  background(200);

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

  // Rest of sketch.
}
```

Left-clicking and dragging or swipe motion will rotate the camera position about the center of the sketch. Right-clicking and dragging or multi-swipe will pan the camera position without rotation. Using the mouse wheel (scrolling) or pinch in/out will move the camera further or closer from the center of the sketch.

The first three parameters, `sensitivityX`, `sensitivityY`, and `sensitivityZ`, are optional. They're numbers that set the sketch's sensitivity to movement along each axis. For example, calling `orbitControl(1, 2, -1)` keeps movement along the x-axis at its default value, makes the sketch twice as sensitive to movement along the y-axis, and reverses motion along the z-axis. By default, all sensitivity values are 1.

The fourth parameter, `options`, is also optional. It's an object that changes the behavior of orbiting. For example, calling `orbitControl(1, 1, 1, options)` keeps the default sensitivity values while changing the behaviors set with `options`. The object can have the following properties:

```
let options = {
  // Setting this to false makes mobile interactions smoother by
  // preventing accidental interactions with the page while orbiting.
  // By default, it's true.
  disableTouchActions: true,

  // Setting this to true makes the camera always rotate in the
  // direction the mouse/touch is moving.
  // By default, it's false.
  freeRotation: false
};

orbitControl(1, 1, 1, options);
```

## Examples

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

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

```
  describe('A multicolor box on a gray background. The camera angle changes when the user interacts using a mouse, trackpad, or touchscreen.');
}
```

```
function draw() {
  background(200);
```

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

```
  // Style the box.
  normalMaterial();
```

```
  // Draw the box.
  box(30, 50);
}
```

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  createCanvas(100, 100, WEBGL);
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  describe('A multicolor box on a gray background. The camera angle changes when the user interacts using a mouse, trackpad, or touchscreen.');
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```

```
function draw() {
  background(200);
```

```
  // Create an options object.
  let options = {
```

```
    disableTouchActions: false,
    freeRotation: true
  };

```

```
  // Enable orbiting with the mouse.
  // Prevent accidental touch actions on touchscreen devices
  // and enable free rotation.
  orbitControl(1, 1, 1, options);
```

```
  // Style the box.
  normalMaterial();
```

```
  // Draw the box.
  box(30, 50);
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## Syntax

```
orbitControl([sensitivityX], [sensitivityY], [sensitivityZ], [options])
```

## Parameters

`sensitivityX` Number: sensitivity to movement along the x-axis. Defaults to 1.

`sensitivityY` Number: sensitivity to movement along the y-axis. Defaults to 1.

`sensitivityZ` Number: sensitivity to movement along the z-axis. Defaults to 1.

`options` Object: object with two optional properties, `disableTouchActions` and `freeRotation`. Both are Booleans. `disableTouchActions` defaults to `true` and `freeRotation` defaults to `false`.

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[noDebugMode](#) Turns off `debugMode()` in a 3D sketch.

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