

Reference > set()

# set()

Sets the color of one or more pixels within an image.

`img.set()` is easy to use but it's not as fast as `img.pixels`. Use `img.pixels` to set many pixel values.

`img.set()` interprets the first two parameters as x- and y-coordinates. It interprets the last parameter as a grayscale value, a `[R, G, B, A]` pixel array, a `p5.Color` object, or another `p5.Image` object.

`img.updatePixels()` must be called after using `img.set()` for changes to appear.

## Examples



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

  background(200);

  // Create a p5.Image object.
  let img = createImage(100, 100);

  // Set four pixels to black.
  img.set(30, 20, 0);
  img.set(85, 20, 0);
  img.set(85, 75, 0);
  img.set(30, 75, 0);

  // Update the image.
  img.updatePixels();

  // Display the image.
  image(img, 0, 0);

  describe('Four black dots arranged in a square drawn on a gray background.');
```



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

  background(200);

  // Create a p5.Image object.
  let img = createImage(100, 100);

  // Create a p5.Color object.
  let black = color(0);

  // Set four pixels to black.
  img.set(30, 20, black);
  img.set(85, 20, black);
  img.set(85, 75, black);
  img.set(30, 75, black);

  // Update the image.
  img.updatePixels();

  // Display the image.
  image(img, 0, 0);

  describe('Four black dots arranged in a square drawn on a gray background.');
```



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

  background(200);

  // Create a p5.Image object.
  let img = createImage(66, 66);

  // Draw a color gradient.
  for (let x = 0; x < img.width; x += 1) {
    for (let y = 0; y < img.height; y += 1) {
      let c = map(x, 0, img.width, 0, 255);
      img.set(x, y, c);
    }
  }

  // Update the image.
  img.updatePixels();

  // Display the image.
  image(img, 17, 17);

  describe('A square with a horizontal color gradient from black to white drawn on a gray background.');
```



```
let img;

// Load the image.
function preload() {
  img = loadImage('/assets/rockies.jpg');
}

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

  // Create a p5.Image object.
  let img2 = createImage(100, 100);

  // Set the blank image's pixels using the landscape.
  img2.set(0, 0, img);

  // Display the second image.
  image(img2, 0, 0);

  describe('An image of a mountain landscape.');
```

## Syntax

```
set(x, y, a)
```

## Parameters

x	Number: x-coordinate of the pixel.
y	Number: y-coordinate of the pixel.
a	Number Number[] Object: grayscale value   pixel array   <code>p5.Color</code> object   <code>p5.Image</code> to copy.

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

## Related References

<b>blend</b> Copies a region of pixels from another image into this one.	<b>copy</b> Copies pixels from a source image to this image.	<b>delay</b> Changes the delay between frames in an animated GIF.	<b>filter</b> Applies an image filter to the image.
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p5.js

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