

# draw()

A function that's called repeatedly while the sketch runs.

Declaring the function `draw()` sets a code block to run repeatedly once the sketch starts. It's used to create animations and respond to user inputs:

```
function draw() {  
  // Code to run repeatedly.  
}
```

This is often called the "draw loop" because p5.js calls the code in `draw()` in a loop behind the scenes. By default, `draw()` tries to run 60 times per second. The actual rate depends on many factors. The drawing rate, called the "frame rate", can be controlled by calling `frameRate()`. The number of times `draw()` has run is stored in the system variable `frameCount()`.

Code placed within `draw()` begins looping after `setup()` runs. `draw()` will run until the user closes the sketch. `draw()` can be stopped by calling the `noLoop()` function. `draw()` can be resumed by calling the `loop()` function.

## Examples



```
function setup() {  
  createCanvas(100, 100);  
  
  // Paint the background once.  
  background(200);  
  
  describe(  
    'A white circle on a gray background. The circle follows  
the mouse as the user moves, leaving a trail.'  
  );  
}  
  
function draw() {  
  // Draw circles repeatedly.  
  circle(mouseX, mouseY, 40);  
}
```



```
function setup() {  
  createCanvas(100, 100);  
  
  describe(  
    'A white circle on a gray background. The circle follows  
the mouse as the user moves.'  
  );  
}  
  
function draw() {  
  // Paint the background repeatedly.  
  background(200);  
  
  // Draw circles repeatedly.  
  circle(mouseX, mouseY, 40);  
}
```



```
// Double-click the canvas to change the circle's color.  
  
function setup() {  
  createCanvas(100, 100);  
  
  describe(  
    'A white circle on a gray background. The circle follows  
the mouse as the user moves. The circle changes color to pink  
when the user double-clicks.'  
  );  
}  
  
function draw() {  
  // Paint the background repeatedly.  
  background(200);  
  
  // Draw circles repeatedly.  
  circle(mouseX, mouseY, 40);  
}  
  
// Change the fill color when the user double-clicks.  
function doubleClicked() {  
  fill('deeppink');  
}
```



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

## Related References

### disableFriendlyErrors

Turns off the parts of the Friendly Error System (FES) that impact performance.

### draw

A function that's called repeatedly while the sketch runs.

### isLooping

Returns true if the draw loop is running and false if not.

### loop

Resumes the draw loop after `noLoop()` has been called.

### p5.js

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