

# touches

An `Array` of all the current touch points on a touchscreen device.

The `touches` array is empty by default. When the user touches their screen, a new touch point is tracked and added to the array. Touch points are `Objects` with the following properties:

```
// Iterate over the touches array.
for (let touch of touches) {
  // x-coordinate relative to the top-left
  // corner of the canvas.
  console.log(touch.x);

  // y-coordinate relative to the top-left
  // corner of the canvas.
  console.log(touch.y);

  // x-coordinate relative to the top-left
  // corner of the browser.
  console.log(touch.winX);

  // y-coordinate relative to the top-left
  // corner of the browser.
  console.log(touch.winY);

  // ID number
  console.log(touch.id);
}
```

## Examples

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```
// On a touchscreen device, touch the canvas using one or
fingers
// at the same time.

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

  describe(
    'A gray square. White circles appear where the user
touches the square.'
  );
}

function draw() {
  background(200);

  // Draw a circle at each touch point.
  for (let touch of touches) {
    circle(touch.x, touch.y, 40);
  }
}
```

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```
// On a touchscreen device, touch the canvas using one or
fingers
// at the same time.

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

  describe(
    'A gray square. Labels appear where the user touches the
square, displaying the coordinates.'
  );
}

function draw() {
  background(200);

  // Draw a label above each touch point.
  for (let touch of touches) {
    text(`${touch.x}, ${touch.y}`, touch.x, touch.y - 40);
  }
}
```

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

## Related References

<b>touchEnded</b> A function that's called once each time a screen touch ends.	<b>touchMoved</b> A function that's called when the user touches the screen and moves.	<b>touchStarted</b> A function that's called once each time the user touches the screen.	<b>touches</b> An Array of all the current touch points on a touchscreen device.
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