

AOS - Animate on scroll library



For last stable release (v2) go here



## **\*** Codepen Examples

- Different built-in animations
- With anchor setting in use
- With anchor-placement and different easings
- With simple custom animations
- To get a better understanding how this actually works, I encourage you to check my post on CSS-tricks.

# Installation

#### Basic

Add styles in <head>:

```
<link rel="stylesheet" href="https://unpkg.com/aos@next/dist/aos.css" />
```

Add script right before closing </body> tag, and initialize AOS:

```
<script src="https://unpkg.com/aos@next/dist/aos.js"></script>
<script>
    AOS.init();
</script>
```

### Using package managers

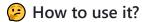
Install aos package:

- yarn add aos@next
- Or npm install --save aos@next

Import script, styles and initialize AOS:

```
import AOS from 'aos';
import 'aos/dist/aos.css'; // You can also use <link> for styles
// ..
AOS.init();
```

In order to make it work you'll have to make sure your build process has configured styles loader, and bundles it all correctly. If you're using <a href="Parcel">Parcel</a> however, it will work out of the box as provided.



#### 1. Initialize AOS:

Q

Q

```
Q
    AOS.init();
    // You can also pass an optional settings object
    // below listed default settings
    AOS.init({
      // Global settings:
      disable: false, // accepts following values: 'phone', 'tablet', 'mobile', boolean, expression or function
      startEvent: 'DOMContentLoaded', // name of the event dispatched on the document, that AOS should initialize on
      initClassName: 'aos-init', // class applied after initialization
      animatedClassName: 'aos-animate', // class applied on animation
      useClassNames: false, // if true, will add content of `data-aos` as classes on scroll
      disableMutationObserver: false, // disables automatic mutations' detections (advanced)
      debounceDelay: 50, // the delay on debounce used while resizing window (advanced)
      throttleDelay: 99, // the delay on throttle used while scrolling the page (advanced)
      // Settings that can be overridden on per-element basis, by `data-aos-*` attributes:
      offset: 120, // offset (in px) from the original trigger point
      delay: 0, // values from 0 to 3000, with step 50ms
      duration: 400, // values from 0 to 3000, with step 50ms
      easing: 'ease', // default easing for AOS animations
      once: false, // whether animation should happen only once - while scrolling down
      mirror: false, // whether elements should animate out while scrolling past them
      anchorPlacement: 'top-bottom', // defines which position of the element regarding to window should trigger the animation
    });
Q
      <div data-aos="fade-in"></div>
  And adjust behaviour by using data-aos-* attributes:
                                                                                                                                  Q
      <div
        data-aos="fade-up"
        data-aos-offset="200"
        data-aos-delay="50"
        data-aos-duration="1000"
        data-aos-easing="ease-in-out"
        data-aos-mirror="true"
        data-aos-once="false"
        data-aos-anchor-placement="top-center"
      </div>
  See full list of all animations, easings and anchor placements
  Anchor
  There is also a setting that can be used only on per-element basis:

    data-aos-anchor - element whose offset will be used to trigger animation instead of an actual one.

  Examples:
                                                                                                                                  Q
    <div data-aos="fade-up" data-aos-anchor=".other-element"></div>
  This way you can trigger animation on one element, while you scroll to another - useful in animating fixed elements.
```

AOS object is exposed as a global variable, for now there are three methods available:

**API** 

- init initialize AOS
- refresh recalculate all offsets and positions of elements (called on window resize)
- refreshHard reinit array with AOS elements and trigger refresh (called on DOM changes that are related to aos elements)

Example execution:

```
AOS.refresh();
```

By default AOS is watching for DOM changes and if there are any new elements loaded asynchronously or when something is removed from DOM it calls refreshHard automatically. In browsers that don't support MutationObserver like IE you might need to call AOS.refreshHard() by yourself.

refresh method is called on window resize and so on, as it doesn't require to build new store with AOS elements and should be as light as possible.

### **JS Events**

AOS dispatches two events on document: aos:in and aos:out whenever any element animates in or out, so that you can do extra stuff in JS:

```
document.addEventListener('aos:in', ({ detail }) => {
  console.log('animated in', detail);
});

document.addEventListener('aos:out', ({ detail }) => {
  console.log('animated out', detail);
});
```

You can also tell AOS to trigger custom event on specific element, by setting data-aos-id attribute:

```
<div data-aos="fade-in" data-aos-id="super-duper"></div>
```

Then you'll be able to listen for two custom events then:

- aos:in:super-duper
- aos:out:super-duper

### **Recipes:**

#### Adding custom animations:

Sometimes built-in animations are just not enough. Let's say you need one box to have different animation depending on resolution. Here's how you could do it:

```
[data-aos="new-animation"] {
  opacity: 0;
  transition-property: transform, opacity;

&.aos-animate {
    opacity: 1;
  }

@media screen and (min-width: 768px) {
    transform: translateX(100px);

    &.aos-animate {
       transform: translateX(0);
    }
```

}

Then use it in HTML:

```
<div data-aos="new-animation"></div>
```

The element will only animate opacity on mobile devices, but from 768px width it'll also slide from right to left.

### Adding custom easing:

Similar to animations you can add custom easings:

```
[data-aos] {
  body[data-aos-easing="new-easing"] &,
  &[data-aos][data-aos-easing="new-easing"] {
    transition-timing-function: cubic-bezier(.250, .250, .750, .750);
  }
}
```

### Customizing default animations distance

Default distance for built-in animations is 100px. As long as you're using SCSS though, you can override it:

```
$aos-distance: 200px; // It has to be above import
@import 'node_modules/aos/src/sass/aos.scss';
```

You have to however configure your build process to allow it to import styles from node\_modules beforehand.

### Integrating external CSS animation library (e.g. Animate.css):

Use animatedClassName to change default behaviour of AOS, to apply class names placed inside data-aos on scroll.

```
AOS.init({
    useClassNames: true,
    initClassName: false,
    animatedClassName: 'animated',
});
```

The above element will get two classes: animated and fadeInUp. Using different combinations of the three above settings, you should be able to integrate any external CSS animation library.

External libraries however don't care too much about animation state before the actual animation. So if you want those elements to be not visible before scrolling, you might need to add similar styles:

```
[data-aos] {
    visibility: hidden;
}
[data-aos].animated {
    visibility: visible;
}
```

### Caveats:

setting: duration, delay

Duration and delay accept values from 50 to 3000, with step 50ms, it's because those are handled by css, and to not make css longer than it is already I implemented only a subset. I believe those should cover most cases.

If not, you can write simple CSS that will add another duration, for example:

```
body[data-aos-duration='4000'] [data-aos],
[data-aos][data-aos-duration='4000'] {
  transition-duration: 4000ms;
}
```

This code will add 4000ms duration available for you to set on AOS elements, or to set as global duration while initializing AOS script.

Notice that double <code>[data-aos][data-aos]</code> - it's not a mistake, it is a trick, to make individual settings more important than global, without need to write ugly "!important" there:)

Example usage:

```
<div data-aos="fade-in" data-aos-duration="4000"></div>
```

# **Predefined options**

### **Animations**

- Fade animations:
  - o fade
  - o fade-up
  - o fade-down
  - o fade-left
  - o fade-right
  - o fade-up-right
  - o fade-up-left
  - o fade-down-right
  - o fade-down-left
- Flip animations:
  - o flip-up
  - o flip-down
  - flip-left
  - o flip-right
- Slide animations:
  - o slide-up
  - o slide-down
  - o slide-left
  - o slide-right
- Zoom animations:
  - o zoom-in
  - o zoom-in-up
  - o zoom-in-down
  - o zoom-in-left
  - o zoom-in-right
  - o zoom-out

- o zoom-out-up
- o zoom-out-down
- o zoom-out-left
- o zoom-out-right

### Anchor placements:

- top-bottom
- top-center
- top-top
- center-bottom
- center-center
- center-top
- bottom-bottom
- bottom-center
- bottom-top

## **Easing functions:**

- linear
- ease
- ease-in
- ease-out
- ease-in-out
- ease-in-back
- ease-out-back
- ease-in-out-back
- ease-in-sine
- ease-out-sine
- ease-in-out-sine
- ease-in-quad
- ease-out-quad
- ease-in-out-quad
- ease-in-cubic
- ease-out-cubic
- ease-in-out-cubic
- ease-in-quart
- ease-out-quart
- ease-in-out-quart

# **Questions**

### Releases

### **Packages**

No packages published

### Used by 140k



### Contributors 20

























+ 6 contributors

### Deployments 11

github-pages 6 years ago

+ 10 deployments

### Languages

JavaScript 86.2%
 CSS 13.8%