

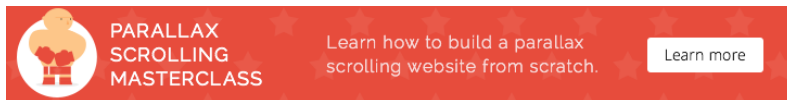
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Front End Development Blog

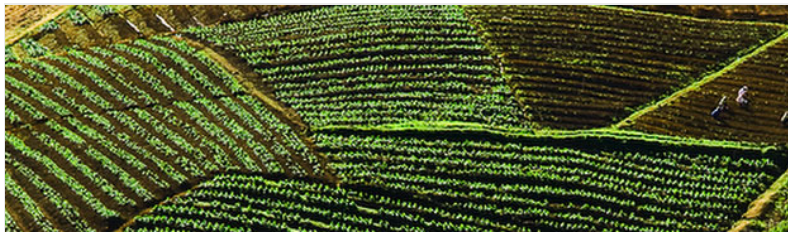
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wYyJxYiqNUg?

sub\_confirmation=



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(https://ihatetomatoes.net/how-to-create-a-parallax-scrolling-website/)

## How to create a parallax scrolling website

December 29, 2013 • Web development (https://ihatetomatoes.net/categories/web-development/) • 203 Replies (https://ihatetomatoes.net/how-to-create-a-parallax-scrolling-website/#comments)

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Today's **parallax website tutorial** is a detailed explanation of the Parallax Scrolling Effect using Skrollr.js (https://ihatetomatoes.net/parallax-scroll-effect-skrollr-js/) published a few weeks ago.

You will learn how to create a simple parallax scrolling website using Skrollr.js (https://github.com/Prinzhorn/skrollr) plugin.

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If you haven't seen the demo already, go and check it out. It will give you a clear understanding of what we are talking about in the sections below.

[VIEW DEMO → \(HTTPS://IHATETOMATOES.NET/DEMOS/PARALLAX-SCROLL-EFFECT/\)](https://ihatetomatoes.net/demos/parallax-scroll-effect/)

## Introduction

To develop a parallax scrolling website can be a bit scary especially if you do it for the first time, but as you know the practice makes perfect. Take this parallax tutorial as your first step to developing a great looking parallax website.

**Please note**, that this tutorial is suitable for a more advanced developers and attached files are the **final files**. Simply open `index.html`, `main.css` and `_main.js` and follow the sections below.

## 1. Include and initiate Skrollr.js

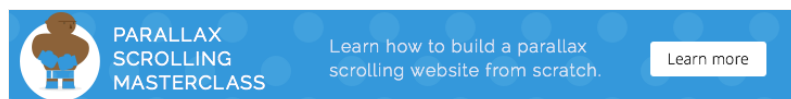
As a first step we need to include Skrollr.js (<https://github.com/Prinzhorn/skrollr>) preferably before the closing `body` tag. This plugin will do the magic and will animate the element properties on page scroll. Skrollr is a stand-alone parallax scrolling JavaScript library for mobile (Android, iOS, etc.) and desktop. **No jQuery. Just plain JavaScript.**

```
01 <script src="//ajax.googleapis.com/ajax/libs/jquery/1.9
02 <script>window.jQuery || document.write('<script src="j
03 <script src="js/skrollr.js"></script>
04 <script src="js/_main.js"></script>
```

Initiate the Skrollr inside of the `_main.js` file. You can log the current scroll position if you need to work out a precise `timing` and `positioning` of your animations.

```
01 ( function( $ ) {
02     // Init Skrollr
03     var s = skrollr.init({
04         render: function(data) {
05             //Debugging - Log the current scroll position
06             //console.log(data.curTop);
07         }
08     });
09 } )( jQuery );
```

Now lets have a look at the markup and Skrollr settings of the individual slides.

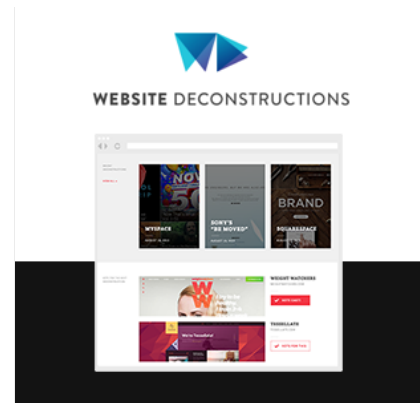


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## 2. Slide #1 – Fade out elements

**Section height** – 100% of the viewport, resized on page load

```
01 /* CSS */
```



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How To Create A Scrolling Slideshow using Skrollr (<https://ihatetomatoes.net/create-scrolling-slideshow-using-skrollr/>)

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Parallax Scrolling Website (<http://ihatetomatoes.net/demos/parallax-scroll-effect/>)

Parallax Scrolling Website with Navigation (<http://ihatetomatoes.net/demos/parallax-scroll-effect-part-2/>)

Simple Parallax Scrolling (<http://ihatetomatoes.net/demos/simple-parallax->)

```

02  .hsContainer {
03      display: table;
04      table-layout: fixed;
05      width: 100%;
06      height: 100%;
07      overflow: hidden;
08      position: relative;
09      opacity: 0;
10  }
11  .hsContent {
12      max-width: 450px;
13      margin: -150px auto 0 auto;
14      display: table-cell;
15      vertical-align: middle;
16      color: #ebebeb;
17      padding: 0 8%;
18      text-align: center
19  }
20  .bcg {
21      background-position: center center;
22      background-repeat: no-repeat;
23      background-attachment: fixed;
24      background-size: cover;
25      height: 100%;
26      width: 100%;
27  }
28  /* Slide 1 */
29  #slide-1 .bcg {background-image: url('../img/bcg_slide-1

```

```

01  <!-- HTML -->
02  <section id="slide-1" class="homeSlide">
03      <div class="bcg"
04          data-center="background-position: 50% 0px;"
05          data-top-bottom="background-position: 50% -100px;"
06          data-anchor-target="#slide-1"
07      >
08          <div class="hsContainer">
09              <div class="hsContent"
10                  data-center="opacity: 1"
11                  data-106-top="opacity: 0"
12                  data-anchor-target="#slide-1 h2"
13              >
14                  <h2>Fade out elements before <br>they l
15              </div>
16          </div>
17      </div>
18  </section>

```

`.hsContainer` and `.hsContent` are two nested containers helping us to center the content vertically on the page. `.bcg` is a container which takes up 100% width and height of each `section` and contains our background image.

### Background animation

The background image of `.bcg` is animating from the initial position (`data-center`) `50% 0px` to `50% -100px`. This means that the background image moves up by 100px between the start of the scrolling and when the bottom of the `#slide-1` hits the top of the viewport (`data-top-bottom`).

### Content fading in and out

The content of the slide starts at full opacity as specified in `data-center` attribute and fades out to `opacity: 0` when the `#slide-1 h2` hits 106 pixels from the top of the viewport, where 106 is the height of our header.

Is this your first project using Skrollr? You might find the data attributes a **bit confusing**. If that's the case, download my Skrollr Cheatsheet (<https://ihatetomatoes.net/skrollr-cheatsheet/>) or:

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[scrolling-tutorial/](#)

## Popular Deconstructions

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Sony Be Moved (<https://ihatetomatoes.net/sonys-be-moved-website-deconstructed/>)

Squarespace (<https://ihatetomatoes.net/squarespace-com-website-deconstructed/>)

### 3. Slide #2 – Background color animation

**Section height** – 310px fixed height

```
01  /* CSS - Slide 2 */
02  #slide-2 .bcg {
03      background: none;
04      background-color: #010101;
05      height: 310px;
06      text-align: center
07  }
```

```
01  <!-- HTML -->
02  <section id="slide-2">
03      <div class="bcg"
04          data-0="background-color:rgb(1,27,59);"
05          data-top="background-color:(0,0,0);"
06          data-anchor-target="#slide-2"
07      >
08          <div class="hsContainer">
09              <div class="hsContent">
10                  <h2
11                      data--200-bottom="opacity: 0"
12                      data-center="opacity: 1"
13                      data-206-top="opacity: 1"
14                      data-106-top="opacity: 0"
15                      data-anchor-target="#slide-2 h2"
16                  >
17                      Fade me in and out
18                  </h2>
19              </div>
20          </div>
21      </div>
22  </section>
```

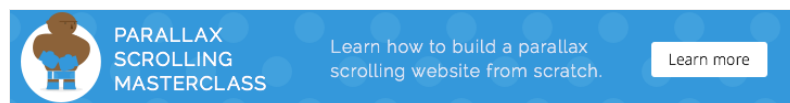
#### Background animation

We are simply animating the background color from dark blue to black.

`data-0` contains the initial background color and `data-top` contains the background color to which we are animating when the `#slide-2` hits the top of the viewport.

#### Content fading in and out

The content fades in when `#slide-2 h2` is 206 pixels from the bottom of the viewport and fades out similar way as the `#slide-1` content.



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### 4. Slide #3 – Move background image horizontally

**Section height** – 100% of the viewport, resized on page load

```
01  /* CSS - Slide 3 */
02  #slide-3 .bcg {background-image:url('../img/bcg_slide-3
```

```
01  <!-- HTML -->
```

```

02 <section id="slide-3" class="homeSlide">
03   <div class="bcg"
04     data-center="background-position: 0px 50%;"
05     data-bottom-top="background-position: 0px 40%;"
06     data-top-bottom="background-position: -40px 50%;"
07     data-anchor-target="#slide-3"
08   >
09     <div class="hsContainer">
10       <div class="hsContent">
11         <div class="plaxEl"
12           data-106-top="opacity: 0"
13           data-bottom="opacity: 1; position:
14             data--30p-top="opacity: 1;"
15             data--60p-top="opacity: 0;"
16             data-anchor-target="#slide-3"
17         >
18           <h2>Fixed element fading in and out
19         </div>
20       </div>
21     </div>
22   </div>
23 </section>

```

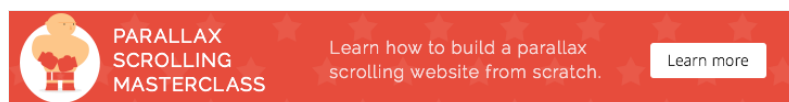
### Background animation

The background image on this slide is only slightly moving up until the slide is centered in the viewport. Then it's moving `40 pixels` left as specified in the ending position `data-top-bottom="background-position: -40px 50%;"`.

### Fixed content

The content is this time fixed to `206px` from the top of the slide and doesn't move. It fades in when the `#slide-3` is 106 pixel from the top of the viewport and stays at full opacity until the slide is `30%` above the top of the viewport. Then it fades out when `60%` of the slide is out of the view.

**Note:** Using the `percentage` instead of pixels is very handy especially if you don't know how tall your sections will be – e.g. if you are using javascript to keep sections 100% height of your viewport on window resize.



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## 5. Slide #4 – Curtain effect

**Section height** – 200% of the viewport, resized on page load

```

01 /* Slide 4 */
02 .curtainContainer {
03   width: 100%; height: 100%;
04   position: relative;
05 }
06 .curtainContainer .curtain {
07   width: 300%; height: 1px;
08   background-color: #000000;
09   position: absolute; top: 25%; left: 0;
10   opacity: 0
11 }
12 .curtainContainer .copy {
13   position: absolute;
14   bottom: 30%; left: 0;
15   width: 100%; text-align: center;
16 }
17 #slide-4 .bcg {background-image:url('../img/bcg_slide-4

```

```

01  <!-- HTML -->
02  <section id="slide-4" class="homeSlide homeSlideTall">
03    <div class="bcg"
04      data-center="background-position: 50% 0px;"
05      data-bottom-top="background-position: 50% 100px"
06      data-top-bottom="background-position: 50% -100px"
07      data-anchor-target="#slide-4"
08    >
09      <div class="curtainContainer">
10        <div class="curtain"
11          data-bottom-top="opacity: 0"
12          data-106-top="height: 1%; top: -10%; op
13          data-center="height: 100%; top: 0%; opa
14          data-anchor-target="#slide-4"
15        ></div>
16        <div class="copy"
17          data-bottom-top="opacity: 0"
18          data--100-bottom="opacity: 0"
19          data--280-bottom="opacity: 1;"
20          data-280-top="opacity: 1;"
21          data-106-top="opacity: 0;"
22          data-anchor-target="#slide-4 .copy"
23        >
24          <h2>Curtain effect while you scroll</h2>
25        </div>
26      </div>
27    </div>
28  </section>
29

```

This one is my favourite. Why? Because it was **made in the browser**, by trying a few things.

### Background animation

The background animation is similar to our first slide, so let's jump straight to the curtain effect. **Note** that this section has additional class `.homeSlideTall` which gives this section a double the height.

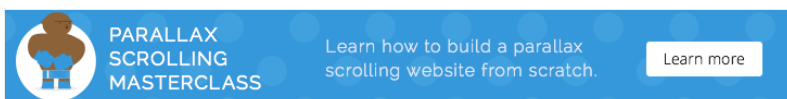
### Curtain animation

The `.curtain` is basically a div with a `background-color` set to `#000`. It's invisible (`data-bottom-top`) until the top of the `#slide-4` reaches `106` pixels from the top of the viewport (`data-106-top`).

Its `height` grows from `1%` and becomes `100%` when this slide is centered in the viewport (`data-center`). Remember that we've doubled the height of this slide? Now you know why. It gives us more room to show and fade out the `.copy`.

### Copy animation

The `.copy` fades in just after the curtain covers the whole screen and fades out before it reaches our header (`data-106-top`).



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## 6. Slide #5 – Cross-fade to blur effect

**Section height** – 300% of the viewport, resized on page load

```

01  /* Slide 5 */
02  #slide-5 {position: relative;}
03  #slide-5 .bcg {background-image:url('../img/bcg_slide-5
04  #slide-5 .bcg2 {
05      background-image:url('../img/bcg_slide-5b.jpg');
06      position: fixed; bottom: 0; left: 0;
07      opacity: 0; z-index: 1
08  }
09  #slide-5 .bcg3 {
10      background: none; background-color: #010101;
11      position: fixed; bottom: 0; left: 0;
12      opacity: 0; z-index: 2
13  }

```

```

01  <!-- HTML -->
02  <section id="slide-5" class="homeSlide homeSlideTall2">
03      <div class="bcg">&nbsp;</div>
04      <div class="bcg bcg2"
05          data-bottom-top="opacity: 0;"
06          data--33p-top="opacity: 0;"
07          data--66p-top="opacity: 1;"
08          data-anchor-target="#slide-5"
09      >
10          <div class="hsContainer">
11              <div class="hsContent"
12                  data-bottom-top="opacity: 0;"
13                  data-center="opacity: 1"
14                  data-anchor-target="#slide-5"
15              >
16                  <h2>Fixed element fading in and out</h2>
17              </div>
18          </div>
19      </div>
20      <div class="bcg bcg3"
21          data-300-bottom="opacity: 0;"
22          data-100-bottom="opacity: 1;"
23          data-anchor-target="#slide-5"
24      >
25          <div class="hsContainer">
26              <div class="hsContent"
27                  data-100-bottom="opacity: 0;"
28                  data-bottom="opacity: 1;"
29                  data-anchor-target="#slide-5"
30              >
31                  <h2>The End</h2>
32              </div>
33          </div>
34      </div>
35  </section>

```

Finally lets have a look at the last section and congratulations if you've made it this far.

`.bcg` is the beautiful sharp image of a waterfall in Sapa, Vietnam. On top of it is a blurred image `.bcg2` (with z-index: 1) which starts fading in when the top of `#slide-5` is 33% above the top of the viewport (`data--33p-top`). It becomes fully visible when the section is 66% out of the view (`data--66p-top`).

`.bcg3` is the final screen which fades in between 300 and 100 pixels from the bottom of the page and it's content `.hsContent` then fades in right at the end.

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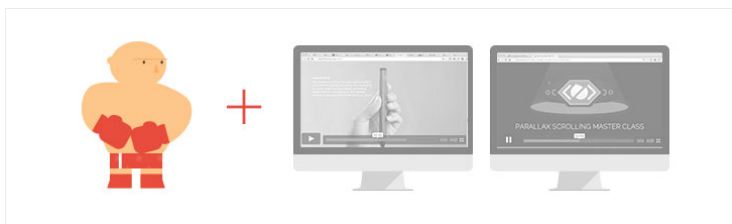
## Conclusion

If you want to create a **parallax scrolling website** that works and looks great, keep these points in mind:

- **Less is more** – avoid lots of elements flying quickly through the viewport. Subtle movements softened by fading in and out usually look the best.
- **Keep it natural** – avoid cars animating vertically, their natural way is horizontal movement. A car coming from the side into the viewport will be less distracting than car falling down from the top.
- **Make it readable** – try to avoid text animating over objects with the same color, it will become unreadable.
- **Timing is everything** – make sure that your content is perfectly aligned and everything looks the best when the section is centered in the viewport. Having it messy and out of place before and after is part of the beauty of parallax scrolling websites.
- **Have fun** – you will create amazing things when you will enjoy playing with different settings and effects.
- **Keep trying** – you might not get it right the first time, just keep trying and things will improve.

Let me know in the comments below what are your **tricks or struggles** when it comes to developing a parallax scrolling website. I would love to hear your thoughts.

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### About Petr Tichy

Petr Tichy = Ihatetomatoes. Petr is a front-end web developer with a passion for pixel-perfect code, innovative digital products and state-of-the-art websites. He is the instructor in Parallax Scrolling Master Class (<https://ihatetomatoes.net/product/parallax-scrolling-master-class/>). Follow him @ihatetomatoes (<http://www.twitter.com/ihatetomatoes>)

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203 thoughts on "How to create a parallax scrolling website"



**MyLifeFactory**

January 6, 2014 at 12:42 pm

(<https://ihatetomatoes.net/how-to-create-a-parallax-scrolling-website/#comment-3561>)

I have not tried it yet but I appreciate your work !!

Reply (/how-to-create-a-parallax-scrolling-website/?replytocom=3561#respond) ↓



**Petr Tichy** (<http://www.ihatetomatoes.net>) Post author

January 6, 2014 at 12:44 pm

(<https://ihatetomatoes.net/how-to-create-a-parallax-scrolling-website/#comment-3562>)

Try it and let me know what you think. Cheers

Reply (/how-to-create-a-parallax-scrolling-website/?replytocom=3562#respond) ↓



**Scott W**

March 27, 2014 at 9:44 pm

(<https://ihatetomatoes.net/how-to-create-a-parallax-scrolling-website/#comment-5293>)

Awesome tutorial. Gives me the courage to get my feet wet with parallax sites.