

# 360° Image Rotator

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A smooth, interactive 360-degree image rotator that creates the illusion of 3D rotation by switching between pre-rendered images from different angles. Perfect for product showcases on e-commerce websites.

## Features

- 🖱️ **Mouse Drag Support** - Click and drag to rotate on desktop
- 📱 **Touch/Swipe Support** - Swipe to rotate on mobile devices
- ⚙️ **Smooth Rotation** - Seamless transitions between frames
- ⚡ **Image Preloading** - All images preload for instant rotation
- ⚙️ **Customizable** - Easy to customize appearance and behavior
- 🏠 **Squarespace Ready** - Easy to embed on Squarespace websites

## How It Works

The rotator uses multiple pre-rendered images of your product from different angles (typically 36 or 72 images for a full 360° rotation). As the user drags or swipes, the script calculates which image to display based on the drag distance, creating a smooth rotation effect.

## Image Requirements

1. **Number of Images:** Typically 36 images (10° per image) or 72 images (5° per image) for smoother rotation
2. **Naming Convention:** Images must be named sequentially. Supported formats:
  - `product_001.jpg`, `product_002.jpg`, `product_003.jpg`, etc. (with underscore)
  - `00000.png`, `00001.png`, `00002.png`, etc. (without underscore, 5-digit padding)
  - `chair_01.jpg`, `chair_02.jpg`, etc. (2-digit padding)
  - Any sequential naming pattern - just configure `startFrame`, `framePadding`, and `useUnderscore`
3. **Image Format:** JPG, PNG, or WebP
4. **Consistent Angles:** Images should be evenly spaced around the product (same camera distance, lighting, etc.)

## Quick Start

### 1. Prepare Your Images

Organize your images in a folder with sequential naming:

```
images/
├── chair_001.jpg
├── chair_002.jpg
├── chair_003.jpg
└── ... (up to chair_036.jpg for 36 images)
```

## 2. Basic Usage

```
<!DOCTYPE html>
<html>
<head>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <div id="rotator360" class="rotator-360">
    <img id="rotatorImage" src="" alt="360 Product View">
    <div class="rotator-overlay">
      <div class="loading-indicator">Loading...</div>
    </div>
  </div>

  <script src="rotator.js"></script>
  <script>
    // Example 1: For images named chair_001.jpg, chair_002.jpg, etc.
    const rotator = new Rotator360({
      containerId: 'rotator360',
      imagePath: 'images/chair',           // Base path (without frame number)
      imageFormat: 'jpg',                 // Image format
      totalFrames: 36,                    // Number of images
      startFrame: 1,                      // Starting frame
      framePadding: 3,                    // Number of digits (3 = 001, 002,
etc.)                                     // Use underscore: chair_001.jpg
      useUnderscore: true
    });

    // Example 2: For images named 00000.png, 00001.png, etc.
    // const rotator = new Rotator360({
    //   containerId: 'rotator360',
    //   imagePath: 'images/',             // Base path
    //   imageFormat: 'png',
    //   totalFrames: 36,
    //   startFrame: 0,                   // Start at 0
    //   framePadding: 5,                 // 5 digits: 00000, 00001, etc.
    //   useUnderscore: false             // No underscore: 00000.png
    // });
  </script>
</body>
</html>
```

## Configuration Options

Option	Type	Default	Description
containerId	string	'rotator360'	ID of the container element
imagePath	string	'images/product'	Base path for images (without frame number)

Option	Type	Default	Description
<code>imageFormat</code>	string	<code>'jpg'</code>	Image file format (jpg, png, webp)
<code>totalFrames</code>	number	<code>36</code>	Total number of images
<code>startFrame</code>	number	<code>1</code>	Starting frame number (0 for 00000.png, 1 for 001.jpg)
<code>framePadding</code>	number	<code>3</code>	Number of digits in filename (3 = 001, 5 = 00000)
<code>useUnderscore</code>	boolean	<code>true</code>	Use underscore in filename (true for product_001.jpg, false for 00000.png)
<code>frameUrls</code>	string[]	<code>null</code>	Explicit URLs for each frame (use when files don't share a base path)
<code>autoRotate</code>	boolean	<code>false</code>	Enable auto-rotation on load
<code>autoRotateSpeed</code>	number	<code>0.5</code>	Auto-rotation speed (0.1 - 2.0)

## Embedding on Squarespace

### Method 1: Code Block (Recommended)

#### 1. Upload your images to Squarespace:

- Go to Settings → Files
- Upload all your rotation images
- Note the URL pattern (e.g., [https://yoursite.squarespace.com/s/chair\\_001.jpg](https://yoursite.squarespace.com/s/chair_001.jpg))

#### 2. Add a Code Block to your page:

- Edit your page
- Add a Code Block
- Paste the following code:

```
<style>
  .rotator-360-embed {
    position: relative;
    width: 100%;
    padding-bottom: 75%;
    background: #fff;
    border-radius: 10px;
    overflow: hidden;
    cursor: grab;
    user-select: none;
    touch-action: none;
    box-shadow: 0 5px 15px rgba(0, 0, 0, 0.1);
  }
  .rotator-360-embed:active { cursor: grabbing; }
  .rotator-360-embed img {
    position: absolute;
```

```

        top: 0;
        left: 0;
        width: 100%;
        height: 100%;
        object-fit: contain;
        display: block;
        transition: opacity 0.1s ease;
    }
    .rotator-overlay-embed {
        position: absolute;
        top: 0;
        left: 0;
        width: 100%;
        height: 100%;
        display: flex;
        align-items: center;
        justify-content: center;
        background: rgba(255, 255, 255, 0.9);
        z-index: 10;
        transition: opacity 0.3s ease;
    }
    .rotator-overlay-embed.hidden {
        opacity: 0;
        pointer-events: none;
    }
    .loading-indicator-embed {
        font-size: 1.2em;
        color: #667eea;
        font-weight: 500;
    }
}
</style>

<div class="rotator-360-embed" id="rotator360-embed">
    <img id="rotatorImage-embed" src="" alt="360 Product View">
    <div class="rotator-overlay-embed">
        <div class="loading-indicator-embed">Loading...</div>
    </div>
</div>

<script>
    // Define window.ROTATOR_FRAME_URLS before the main script to use explicit
    URLs
    window.ROTATOR_FRAME_URLS = [
        'https://images.squarespace-cdn.com/content/...../00000.png?content-
        type=image%2Fpng',
        'https://images.squarespace-cdn.com/content/...../00001.png?content-
        type=image%2Fpng',
        // ... add all frames
    ];
</script>

<script>
    // Include the Rotator360Embed class script (see squarespace-ready.html for

```

```
the latest version)
</script>
```

### 3. Update the configuration in the script:

- If each image has a unique folder URL (common in Asset Library), paste the explicit URLs into `window.ROTATOR_FRAME_URLS`
- If your images share a base path (e.g., hosted on a CDN), use the `imagePath` configuration instead
- Adjust `totalFrames`, `framePadding`, `startFrame`, `useUnderscore` as needed

## Method 2: Custom CSS/JavaScript Injection

1. Go to **Settings** → **Advanced** → **Code Injection**
2. Add the CSS to **Header** and JavaScript to **Footer**
3. Add the HTML to your page using a Code Block

## Tips for Best Results

1. **Image Quality**: Use high-quality images (at least 1200px width recommended)
2. **Consistent Lighting**: Ensure all images have consistent lighting and exposure
3. **Even Spacing**: Images should be evenly spaced (every 10° for 36 images, every 5° for 72 images)
4. **File Size**: Optimize images for web (use tools like TinyPNG or ImageOptim)
5. **Aspect Ratio**: Keep all images the same aspect ratio
6. **Background**: Use transparent or consistent backgrounds for best results

## Browser Support

- ☒ Chrome/Edge (latest)
- ☒ Firefox (latest)
- ☒ Safari (latest)
- ☒ Mobile browsers (iOS Safari, Chrome Mobile)

## Customization

### Adjust Rotation Sensitivity

In `rotator.js`, modify the sensitivity value in `handleMove()`:

```
this.rotation += deltaX * 0.5; // Change 0.5 to adjust speed (higher = faster)
```

### Change Aspect Ratio

In `styles.css`, modify the `padding-bottom` value:

```
.rotator-360 {
  padding-bottom: 75%; /* 75% = 4:3, 100% = 1:1, 56.25% = 16:9 */
```

```
}
```

## Custom Styling

All styles are in `styles.css`. Modify colors, borders, shadows, etc. to match your brand.

## Troubleshooting

### Images not loading:

- Check image paths are correct
- Verify image naming or explicit URLs match your configuration
- Check browser console for errors

### Rotation feels choppy:

- Reduce number of images or increase image quality
- Check image file sizes (smaller files load faster)
- Ensure images are preloaded

### Not working on mobile:

- Verify touch events are enabled
- Check that `touch-action: none` is set in CSS

## Squarespace Asset Library – Bulk URL Export Helper

When Squarespace stores each image in a unique path, use this helper to copy all URLs quickly:

1. Open your Asset Library folder with the 360° images
2. Press **F12** (DevTools) → Console tab
3. Paste this snippet and press Enter:

```
(async () => {  
  const buttons = [...document.querySelectorAll('[data-clipboard-text]')];  
  const urls = buttons  
    .map(btn => btn.getAttribute('data-clipboard-text'))  
    .filter(url => /\d{5}\.png/i.test(url))  
    .sort((a, b) => a.localeCompare(b));  
  const json = JSON.stringify(urls, null, 2);  
  console.log(json);  
  try {  
    await navigator.clipboard.writeText(json);  
    console.log('Copied to clipboard!');  
  } catch (err) {  
    console.warn('Copy to clipboard failed:', err);  
  }  
})();
```

4. Paste the copied array into `window.ROTATOR_FRAME_URLS` in the Squarespace code block (or into a JSON file)

If the snippet finds no URLs, scroll through the folder so all items load and run it again.

## License

Free to use for personal and commercial projects.

## Credits

Inspired by Cylindo and other 360° product visualization tools.