

Purpose and Style

Using motion with meaning in interfaces

Val Head • @vlh

Author of Designing Interface Animation

Senior Design Advocate, Adobe

Designing Interface Animation

designinginterfaceanimation.com

FIGURE 2.12
Safari's save file
animation follows an
arced path from
the download link
to the downloads
folder in your dock.
I've superimposed
the approximate arc
followed in this image,
and you can see it in
action in this video:
<https://vimeo.com/162712118>.

32

CHAPTER 2

 Rosenfeld

DESIGNING INTERFACE ANIMATION
Meaningful Motion for User Experience
by VAL HEAD Foreword by Ethan Marcotte

***What makes good
UI animation?***



Purpose & Style



Continuity

Reinforce mental models of the interface
and where things are



Sign In



[Shop All Products](#) [Tags](#) [Blank by CB](#)

50% OFF BLANK TEES →



ON DEMAND

BAE

By andrewxchens



ON

**C
F
T**

By

Search here...



Newest



Photo

Artwork

Viewing 804 of 804 font families

Open Sans
Steve Matteson (10 styles)

All their
equipment and
instruments are
alive.

Slabo 27px
John Hudson (1 style)

A shining crescent
far beneath the
flying vessel.

Oswald
Vernon Adams (3 styles)

Silver mist suffused
the deck of the ship.

Cairo
Multiple Designers (6 styles)

A red flair
silhouetted the
jagged edge of a
wing.

Taviraj
Cadson Demak (18 styles)

It was going to be
a lonely trip
back.

Roboto Condensed
Christian Robertson (6 styles)

The face of the
moon was in
shadow.

Prompt
Cadson Demak (18 styles)

I watched the
storm, so
beautiful yet
terrific.

Trirong
Cadson Demak (18 styles)

Mist enveloped
the ship three
hours out from
port.

Libre Franklin
Impallari Type (18 styles)

She stared
through the
window at the
stars.

Roboto
Christian Robertson (12 styles)

Almost before we
knew it, we had
left the ground.

Lato
Łukasz Dziedzic (10 styles)

My two natures
had memory in
common.

Source Sans Pro
Paul D. Hunt (12 styles)

The recorded voice
scratched in the
speaker.

Categories

- ☒ Serif
- ☒ Sans Serif
- ☒ Display
- ☒ Handwriting
- ☒ Monospace

Sorting

Trending

Languages

All Languages

Number of styles

☐

Thickness


☐


Slant

☐


Width

☐




val@thisisportable.com 



\$0+

PayPal or pay with 

CHARGE TO

PayPal val@thisisportable.com 

Give

Where can I find the postscript  SECURED BY  GUMROAD? Pick the weight you want in your font manager of choice and go to the info panel. It'll be in the same group as "Style", "Family" and "Full name".

I've found a bug, what should I do? Please **file an issue** with steps to reproduce.

Feedback

Letting users know something has happened,
and helping them keep track of complex tasks.

The payment form done right

Checkout is an embeddable payment form for desktop, tablet, and mobile devices. It works within your site—customers can pay instantly, without being redirected away to complete the transaction.

Donate to Watsi

Try Checkout by donating support Watsi's medical work.

Checkout creates a [Stripe.js token](#) that you can use to charge a card, create a customer, start a subscription, or anything else you might normally do. [Documentation](#)

Speak your customers' language

Checkout is translated into English, French, Spanish, Dutch, Italian, German, Japanese and Chinese so that customers around the world get a localized experience.



WillCall

2 Tickets

Email

Card number

MM / YY CVC

Remember me

Pay \$15.00



Watsi

High-impact medical care.

Email

Card

Bitcoin

Card number

MM / YY

CVC

☐ Remember me

Donate \$1.00



Gengo

583 Traducciones

Email nombre@email.com

Tarjeta **** * *

Venc. MM / AA CVV 123

Guarda mi información

NEW

Accept any form of payment

In addition to credit and debit cards, Checkout makes it easy to support [Alipay](#) and [Bitcoin](#), with more types of payment coming soon.

Donate \$1.00

Show your support

Clapping shows how much you appreciated Mandy Michael



8,990



Mandy Michael

Lover of CSS, and Batman.

Name	Owner	Last modified
 A collection of documents	me	10:59 AM me
 Documents are the coolest!	me	10:58 AM me
 I <3 documents	me	10:58 AM me
 Another document	me	10:54 AM me
 One document	me	10:54 AM me



SMART POWER MANAGEMENT

No need to turn on or off the device,
we manage that for you



94%

Directing Attention

Leading the eye around an interface in
a meaningful way

CODEPEN

Save

Fork

Info

Share

HTML

```
1 <div>
2   <p>Step 1 of 3 for The Design
   Interface Animations a</p>
3
4 </div>
```

CSS

```
1
```

Step 1 of 3 for The Design In



03/26/2017 → 04/01/2017



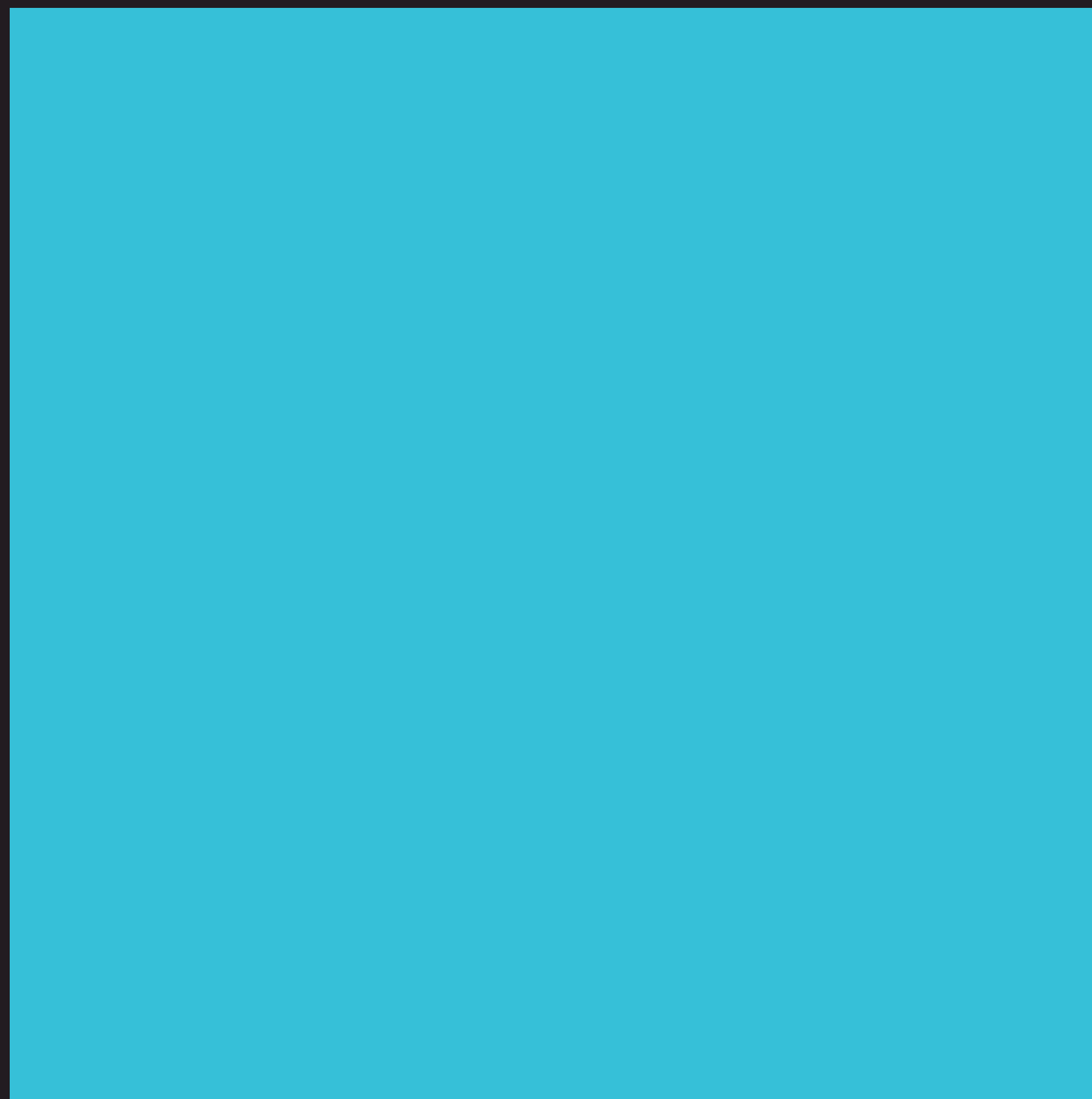
\$749

\$374

Choreography

Many moving pieces, and “real” expectations

Slow down before stopping



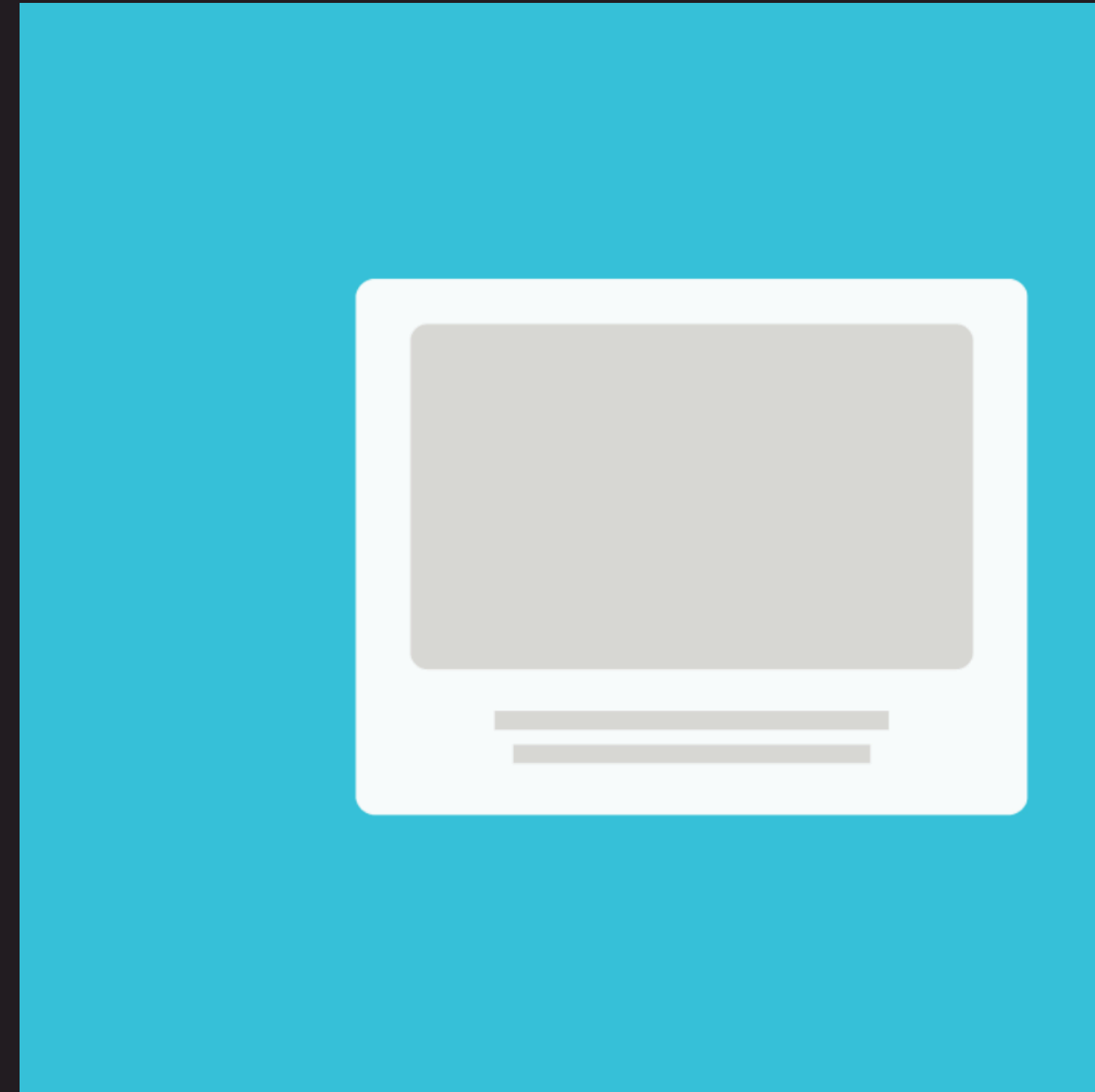
Tip: use “ease-out” easing for entrances

Overlap groups of actions



Tip: overlapping action (offsets) can also be great for performance!

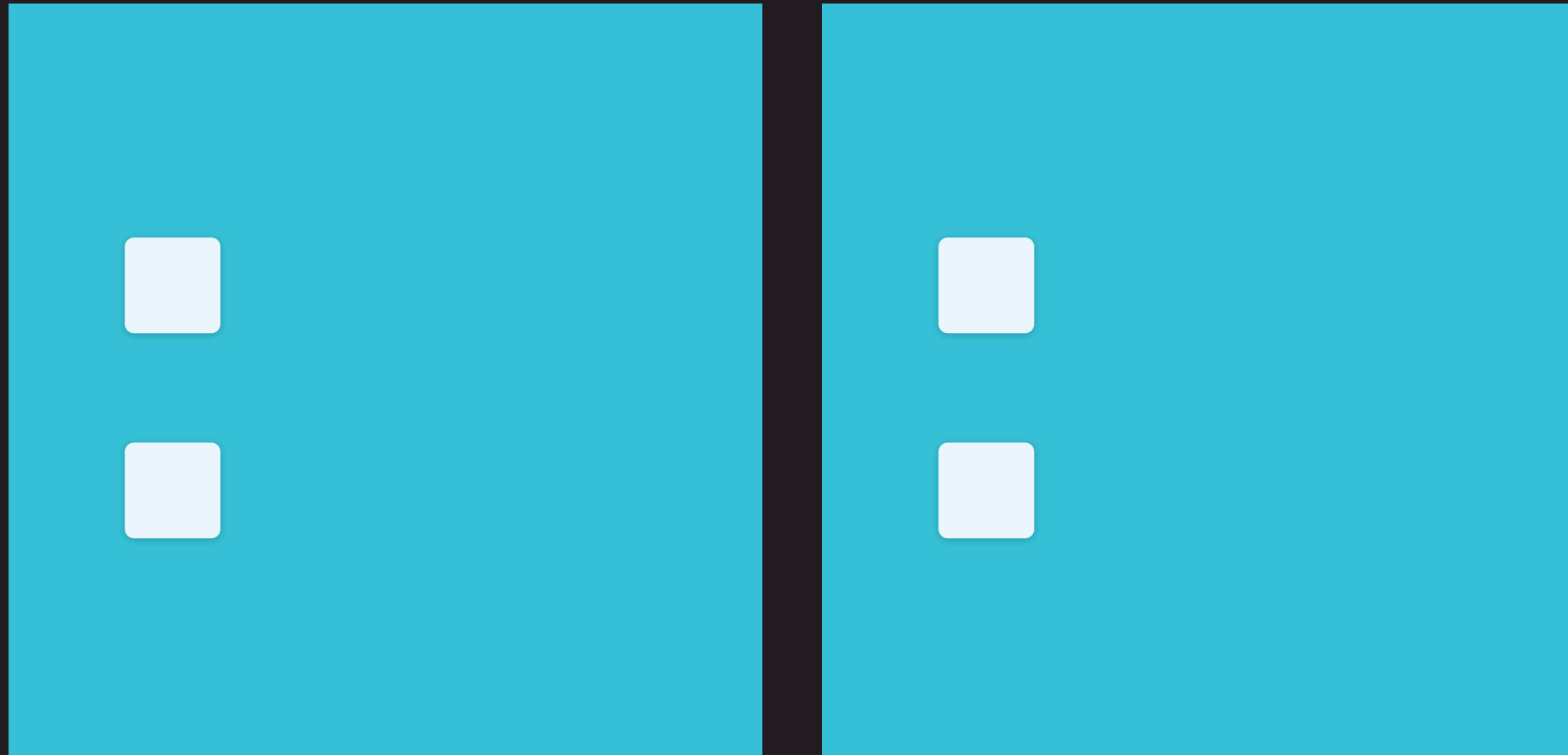
Similar objects should animate similarly



Entrances should informs exits



Match velocities, not duration



***Expressing
personality
with motion***

How we style animation:

- Through our easing choices
(ease-in, ease-out, ease-in-out, bounce, springs...)
- Duration values, offsets
- The properties we animate

Aiming for:

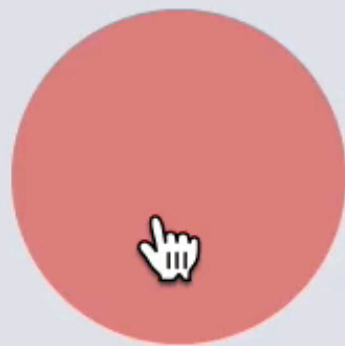
Calm, Soft, Reassuring

Use:

opacity, soft blurs, small deltas,
easing curves with gradual speed changes

Calm, Soft, Subtle

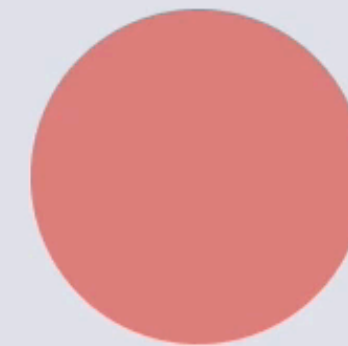
opacity fades, soft blurs, small scales, easing curves with gradual speed changes



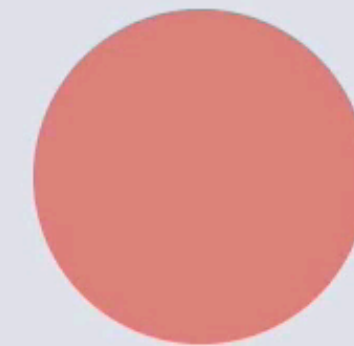
fade



scale + fade

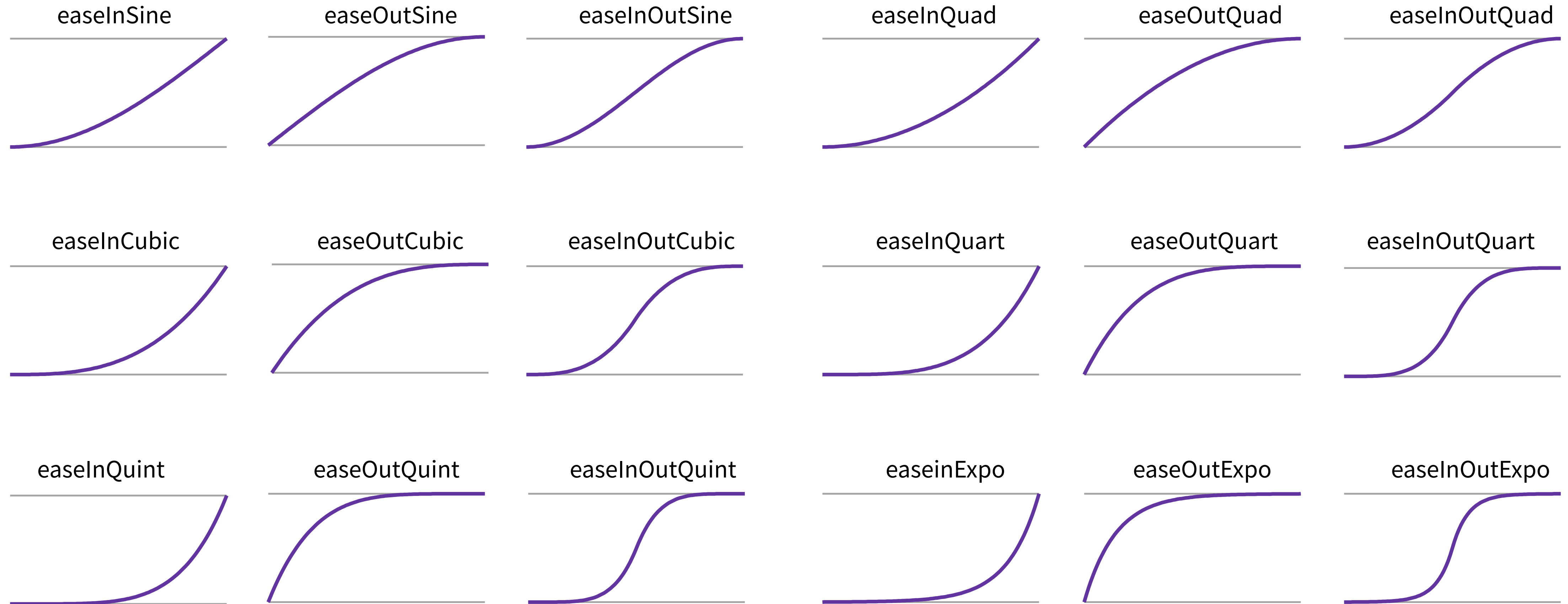


blur + fade



blur + scale + fade

(Some of) The Penner Easing Equations



See them in action on easings.net

Penner Easing Equations



easeInOutSine



easeInOutQuad



easeInOutCubic



easeInOutQuart



easeInOutQuint

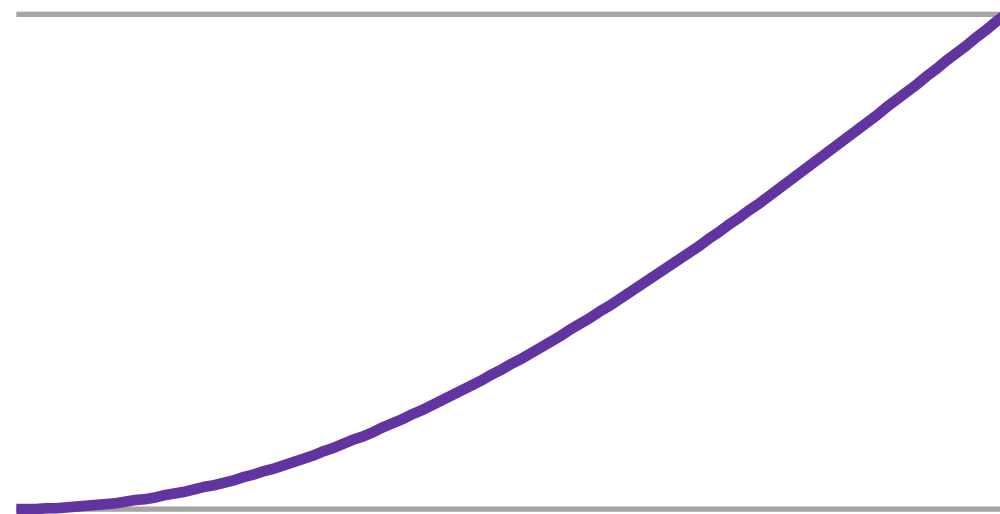


easeInOutExpo

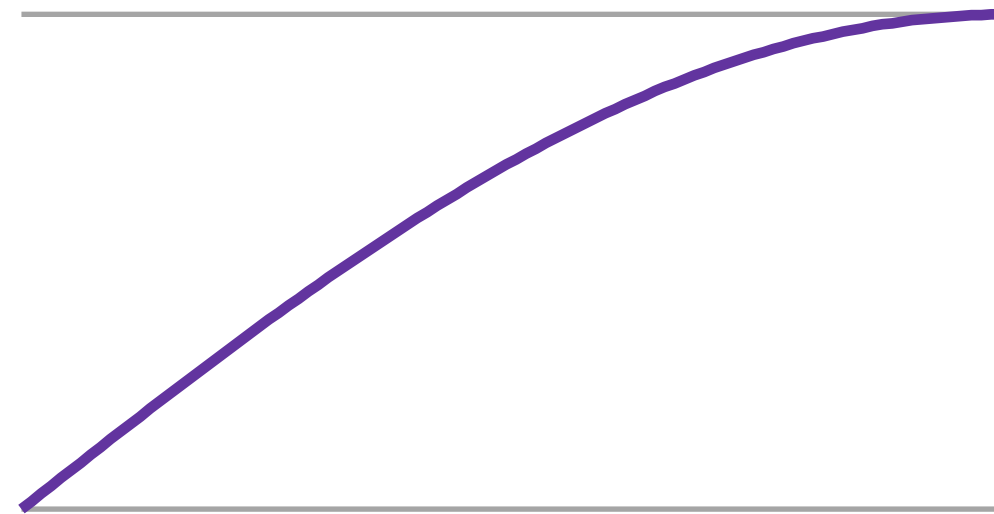
Aiming for:

Calm, Soft, Reassuring

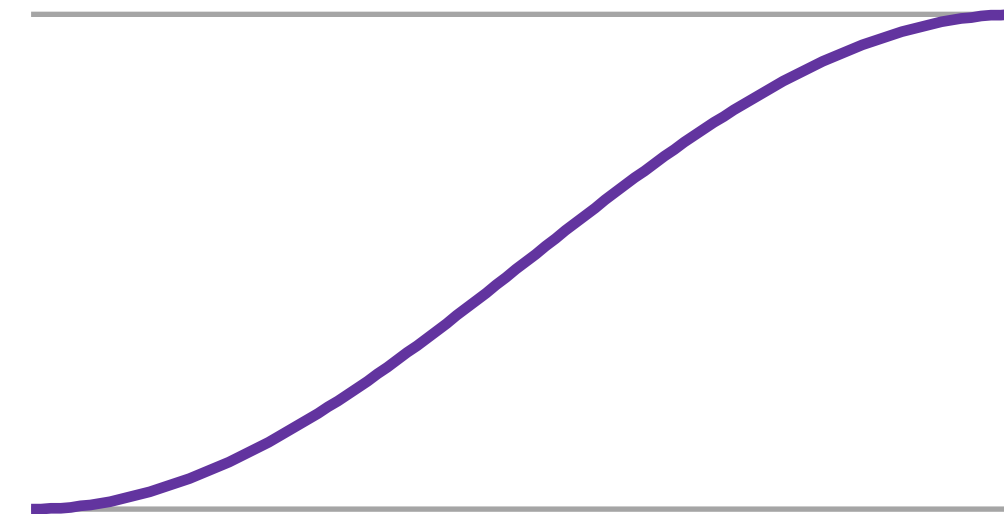
easeInSine



easeOutSine



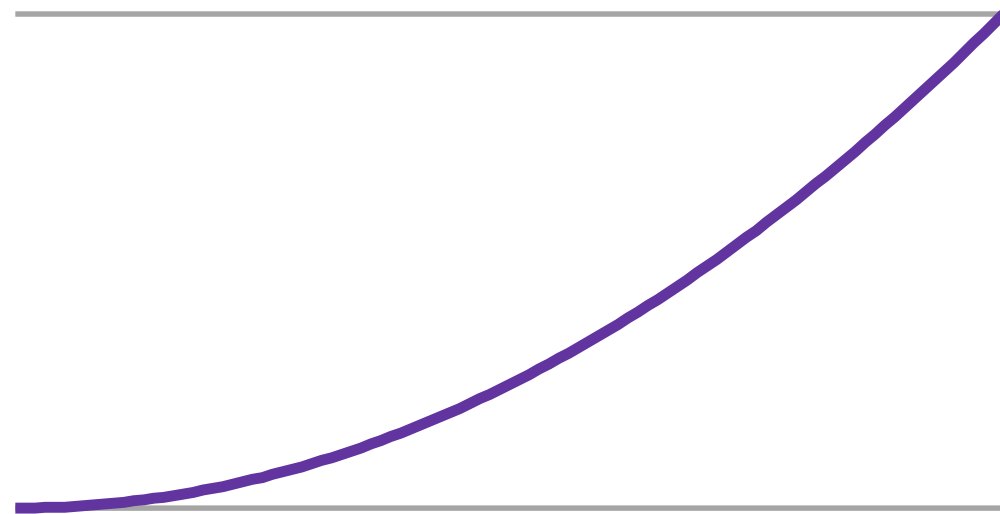
easeInOutSine



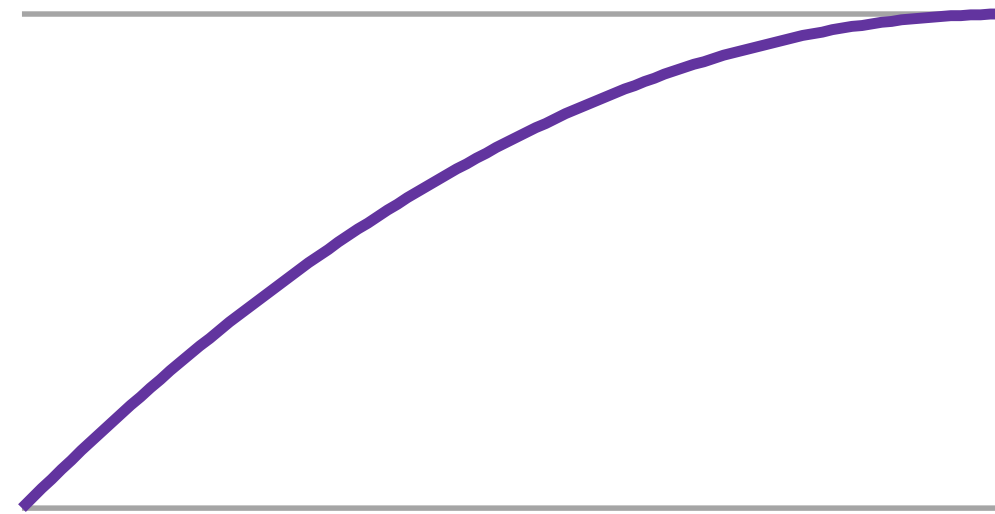
Aiming for:

Calm, Soft, Reassuring

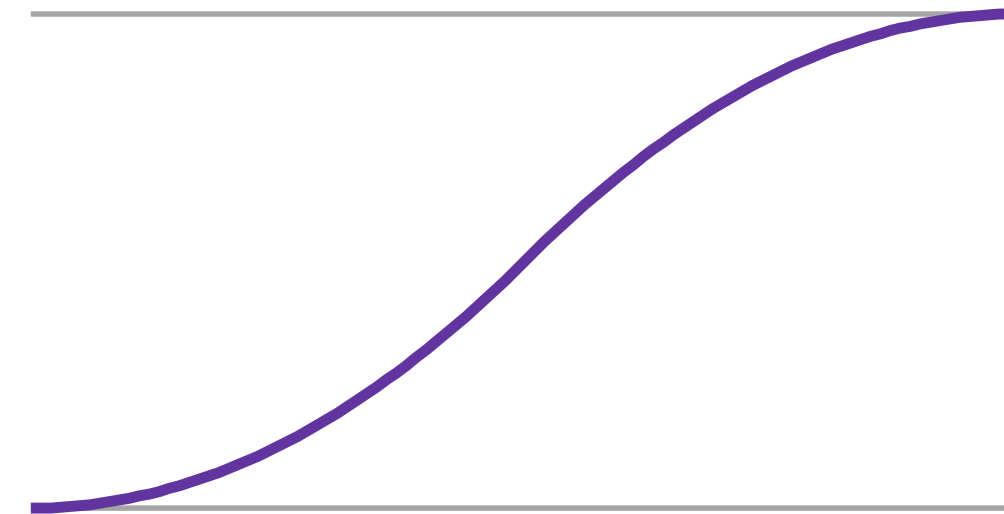
easeInQuad



easeOutQuad



easeInOutQuad



Aiming for:

Confident, Stable, Strong

Use:

Direct movements, straight lines, symmetrical ease-in-outs.

Avoid blurs, bounces, and overshoots

Strong, Stable, Confident

Direct movements, straight lines, symmetrical ease-in-outs. Avoid blurs, bounces, and overshoots.



quick fade



scale + fade

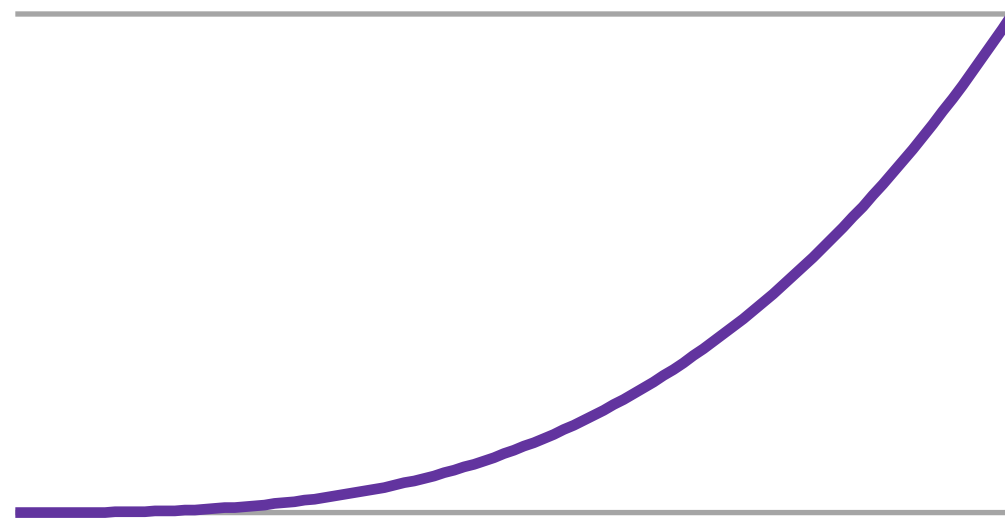


direct starts and stops

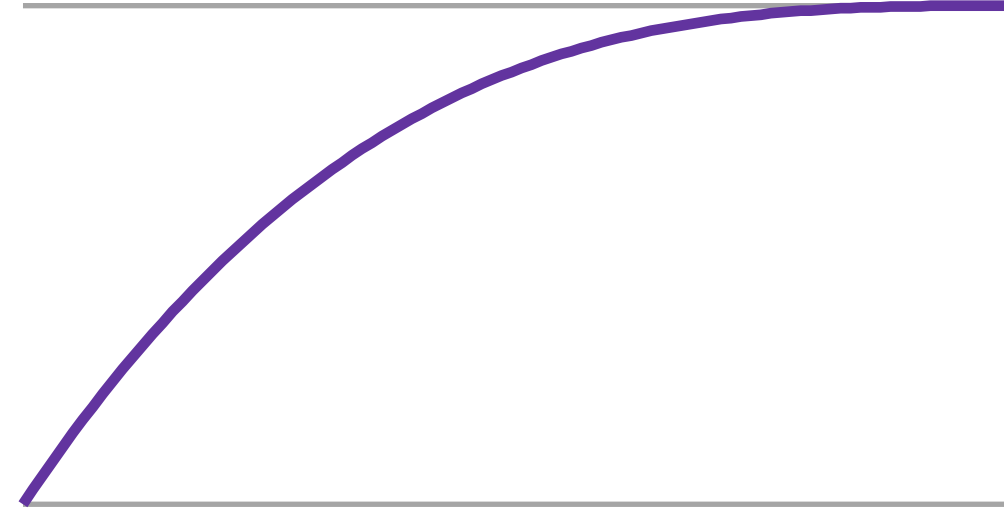
Aiming for:

Confident, Stable, Strong

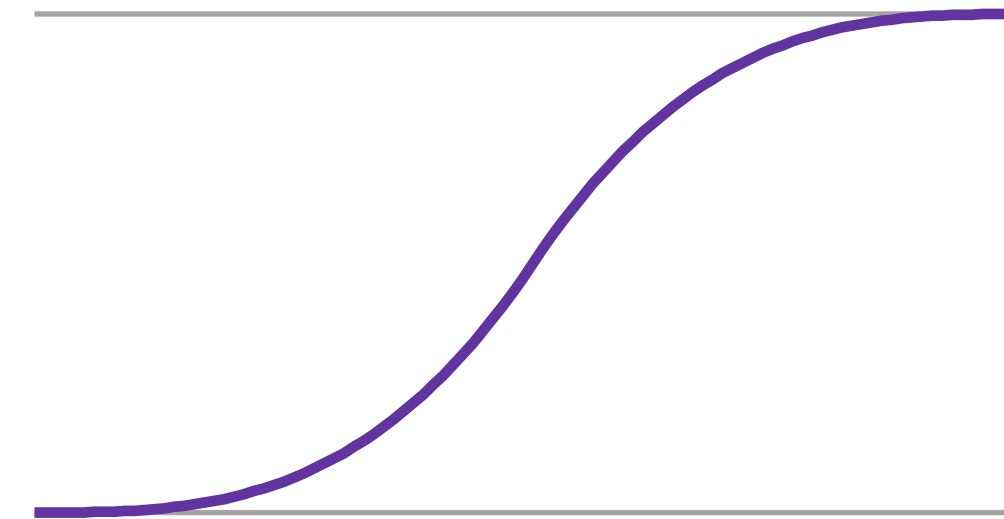
easeInCubic



easeOutCubic



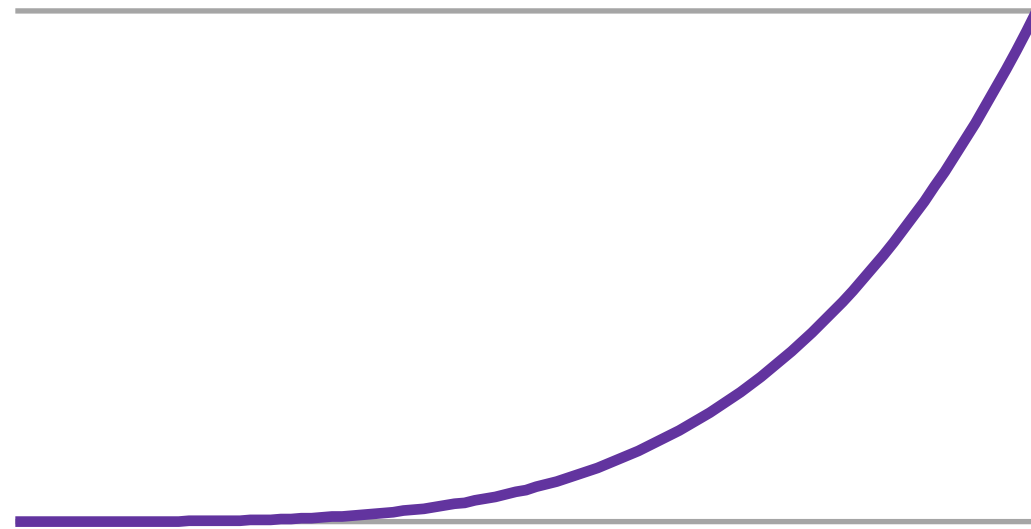
easeInOutCubic



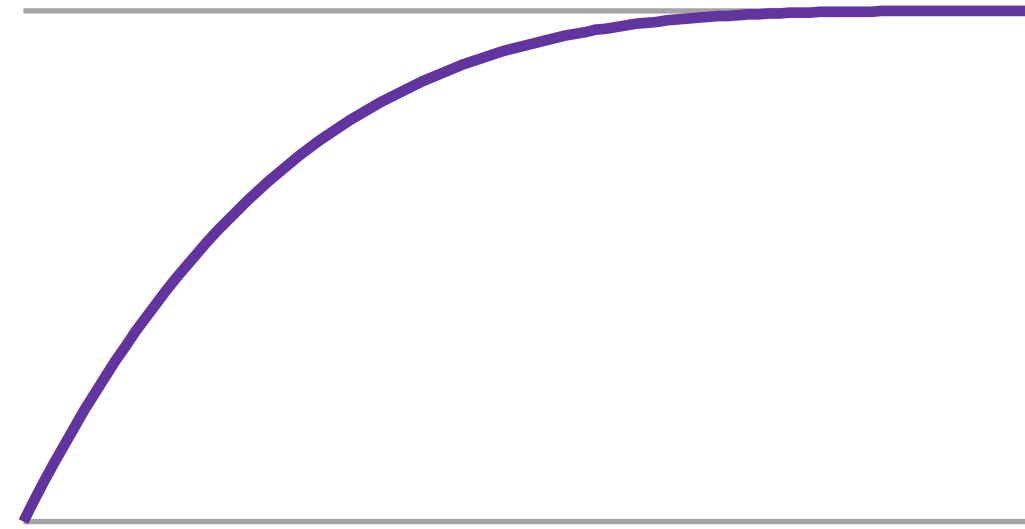
Aiming for:

Confident, Stable, Strong

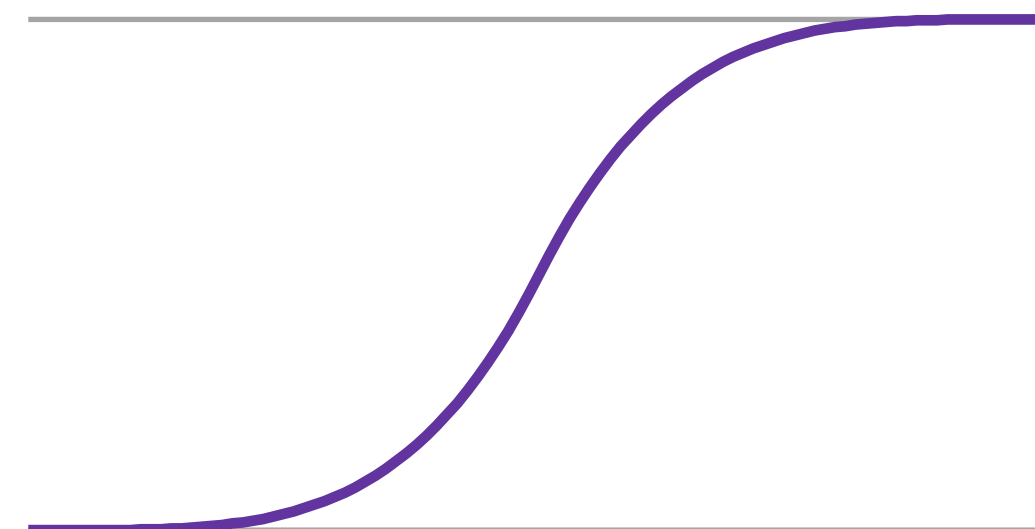
`easeInQuart`



`easeOutQuart`



`easeInOutQuart`



Aiming for:

Lively, Energetic, Friendly

Use:

Overshoots, anticipation, “snappy” easing curves.

Lively, Energetic, Friendly

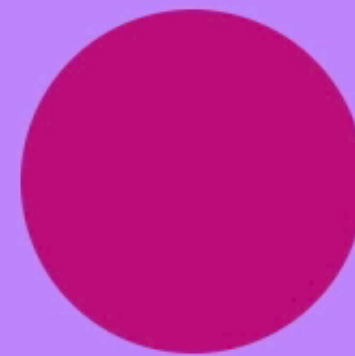
overshoots & anticipation.



overshoot



overshoot + scale



anticipation

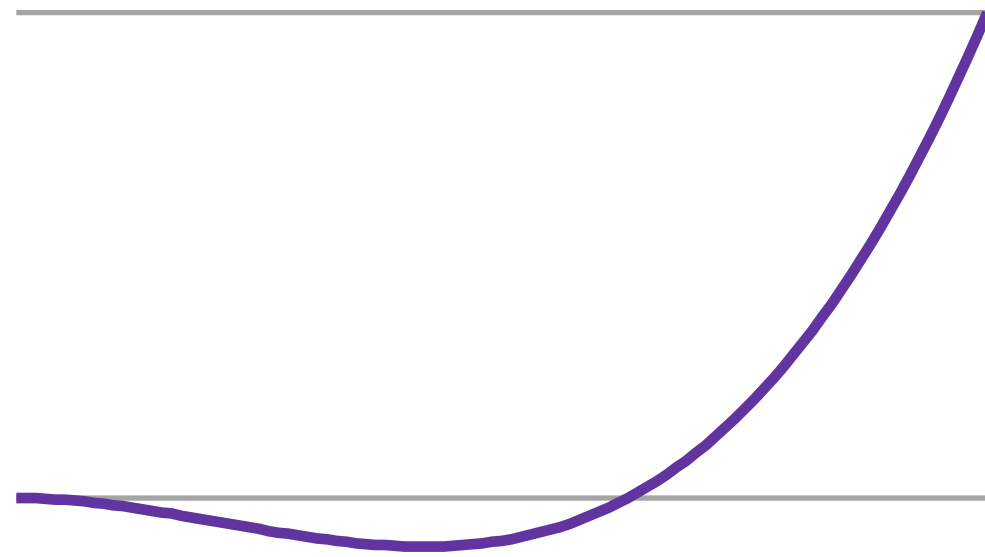


anticipation + overshoot

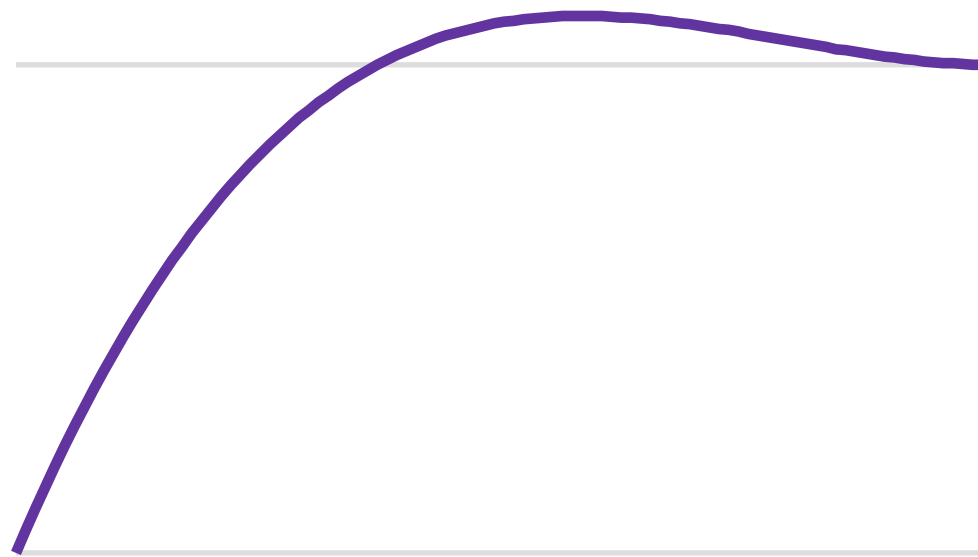
Aiming for:

Lively, Energetic, Friendly

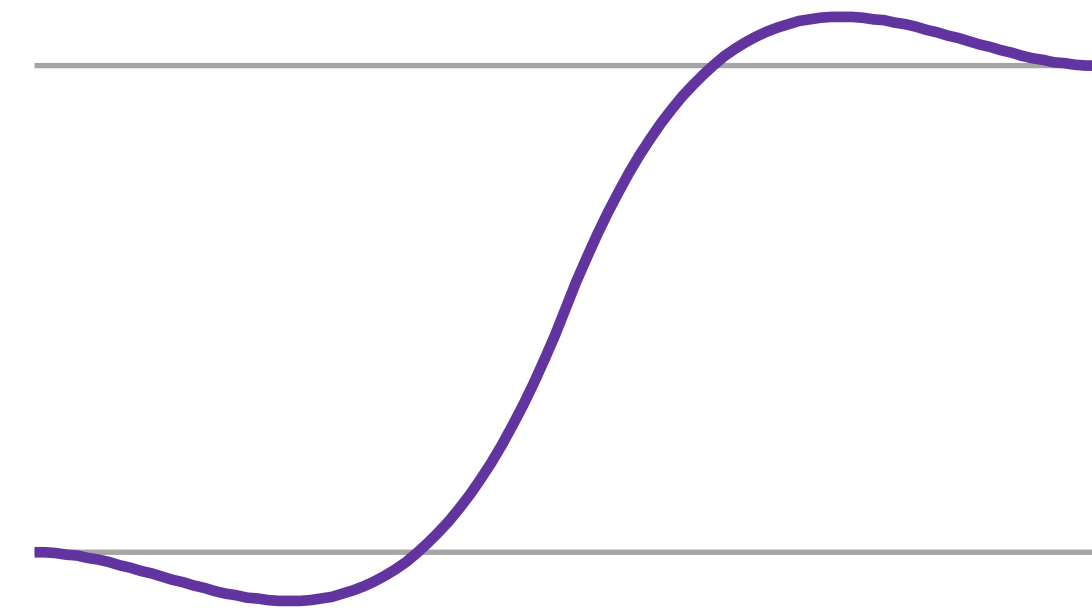
easeInBack



easeOutBack



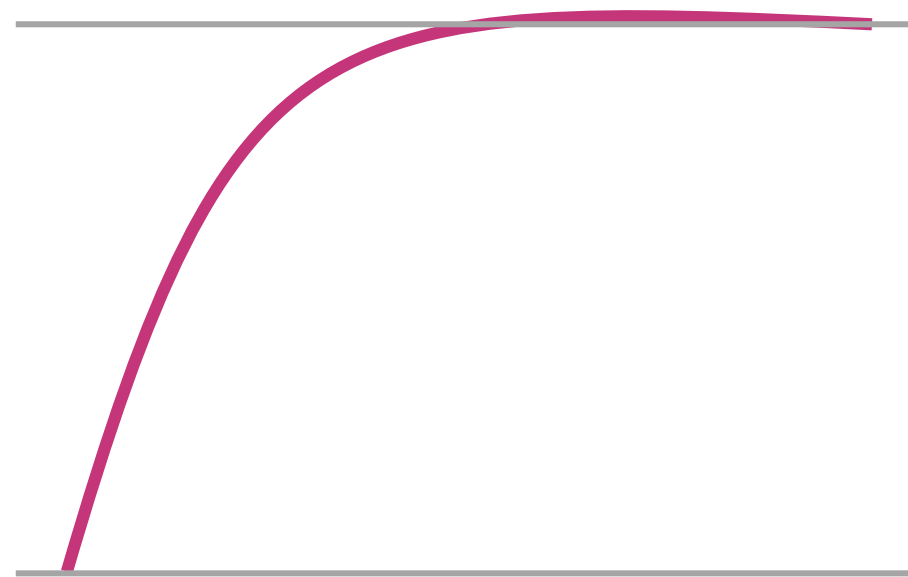
easeInOutBack



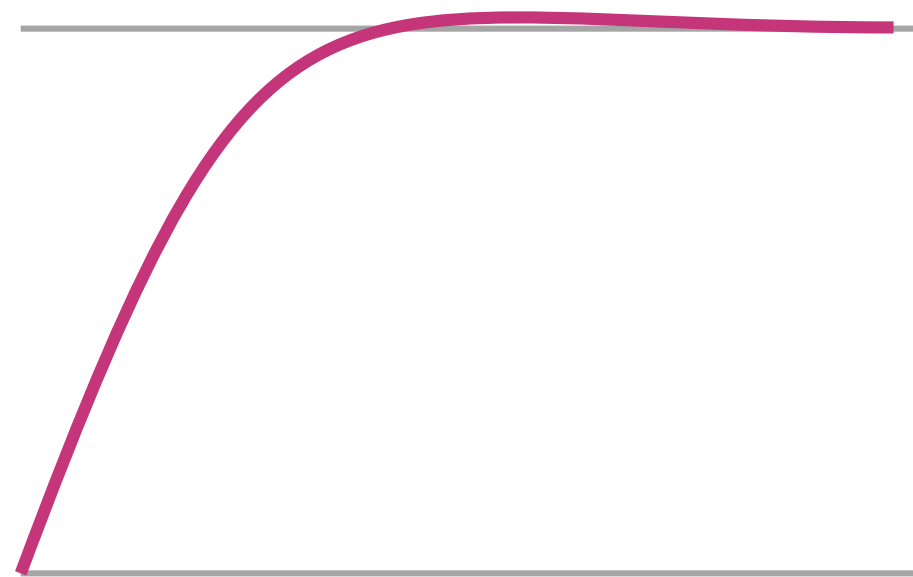
Aiming for:

Lively, Energetic, Friendly

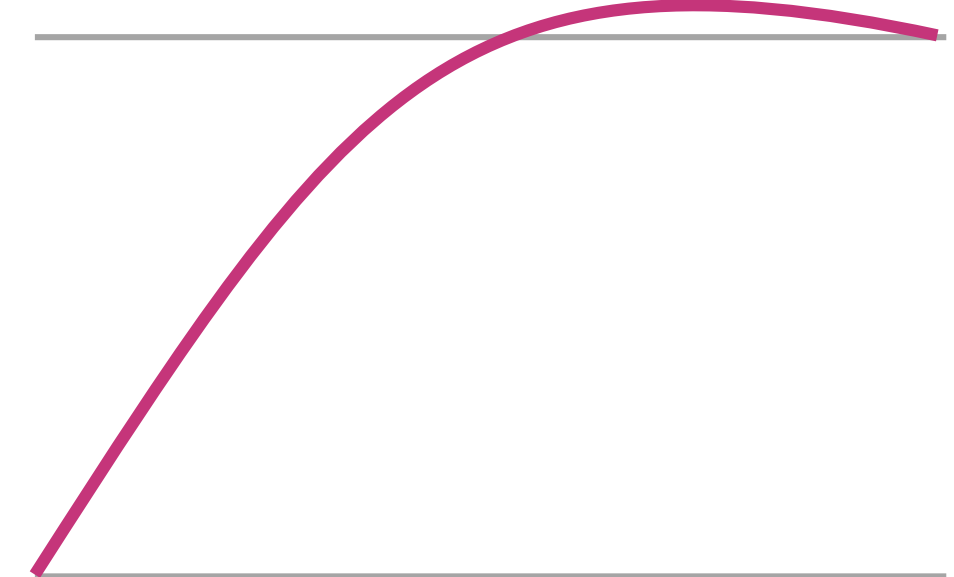
cubic-bezier(0.2, 1, 0.3, 1.05)



cubic-bezier(.28,1.23,.33,1)



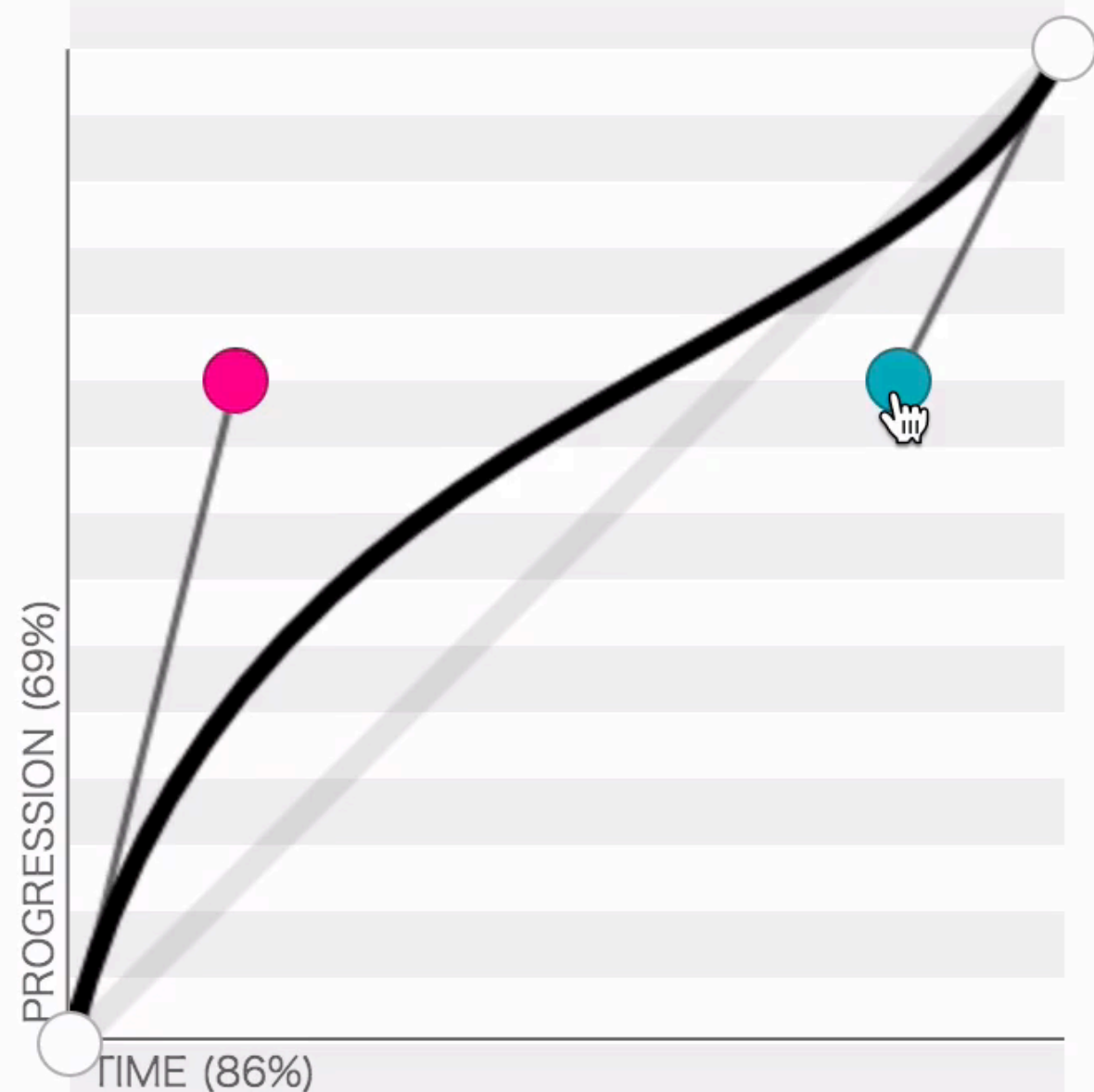
cubic-bezier(.34,.9,.46,1.19)



cubic-bezier(.17, .67, .83, .67) [SAVE](#)

Preview & compare [GO!](#)

Duration: 1 second



Library [IMPORT](#) [EXPORT](#)

Click on a curve to compare it with the current one.



ease



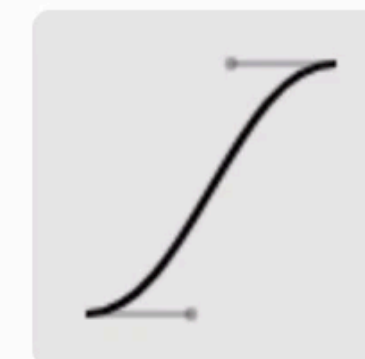
linear



ease-in



ease-out



ease-in-out

Tip: Right click on any library curve and select “Copy Link Address” to get a permalink to it which you can share with others

Aiming for:

Playful, Fun, Lighthearted

Use:

Bounces, shape morphs, squash and stretch

Playful, Fun, Lighthearted

bounces, squash and stretch, shape morphs, springs.



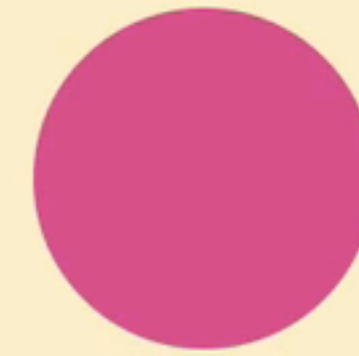
bounce



elastic



morph



squash and stretch

Thank you!

Newsletter: uianimationnewsletter.com

Let's chat on twitter: [@vlh](https://twitter.com/vlh)