

Z

hdk

Zürcher Hochschule der Künste
Bachelor of Arts in Design

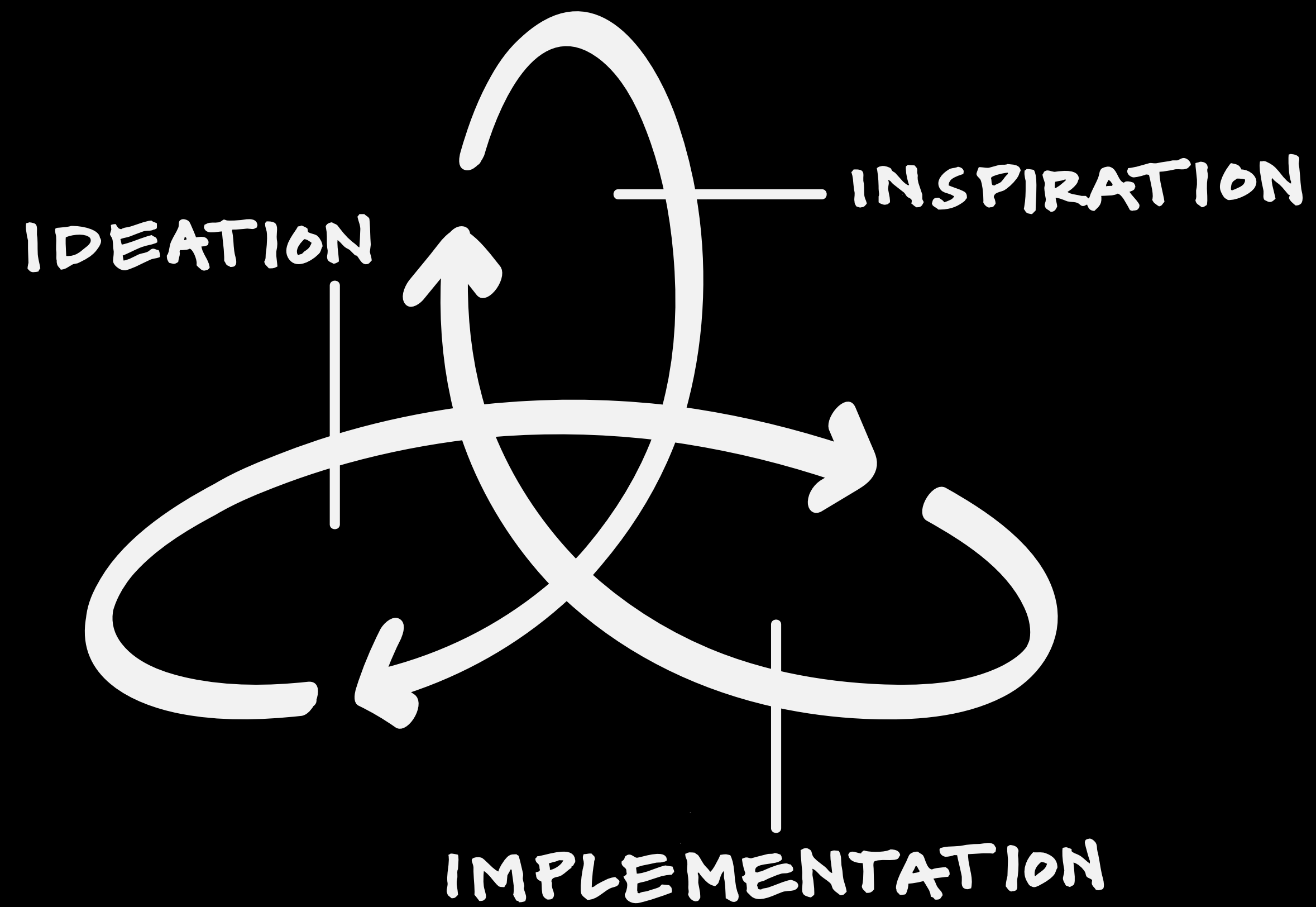
Service Prototyping

Service Design I | 5th of April 2022

Florian Wille

„The best prototype is one that, in the simplest and the most efficient way, makes the **possibilities** and **limitations** of a design idea visible and measurable.“

Lim & Stolterman (2008)



The 3 core activities of design thinking

IDEO

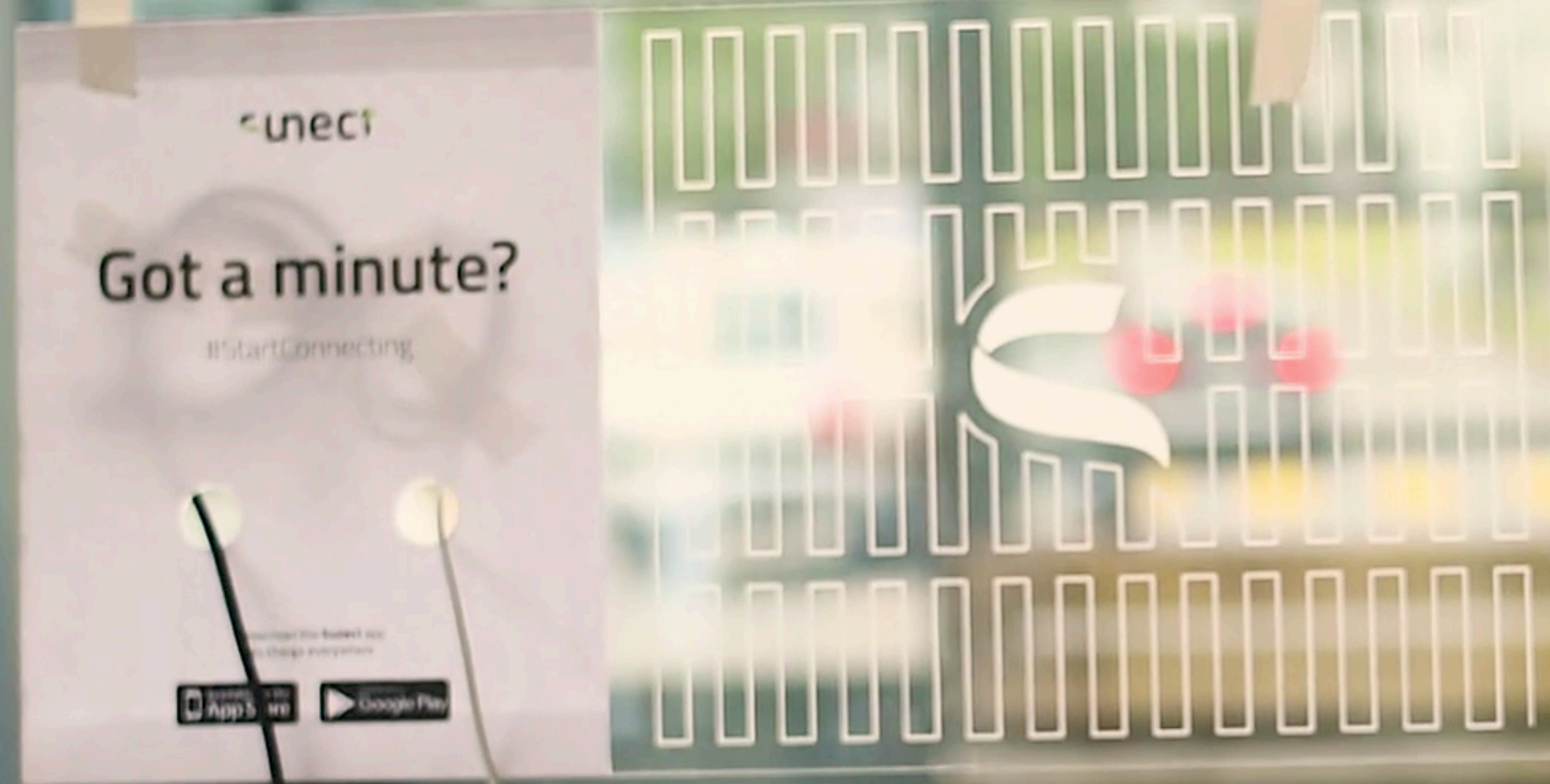
Prototype - Testen eines Ablaufs

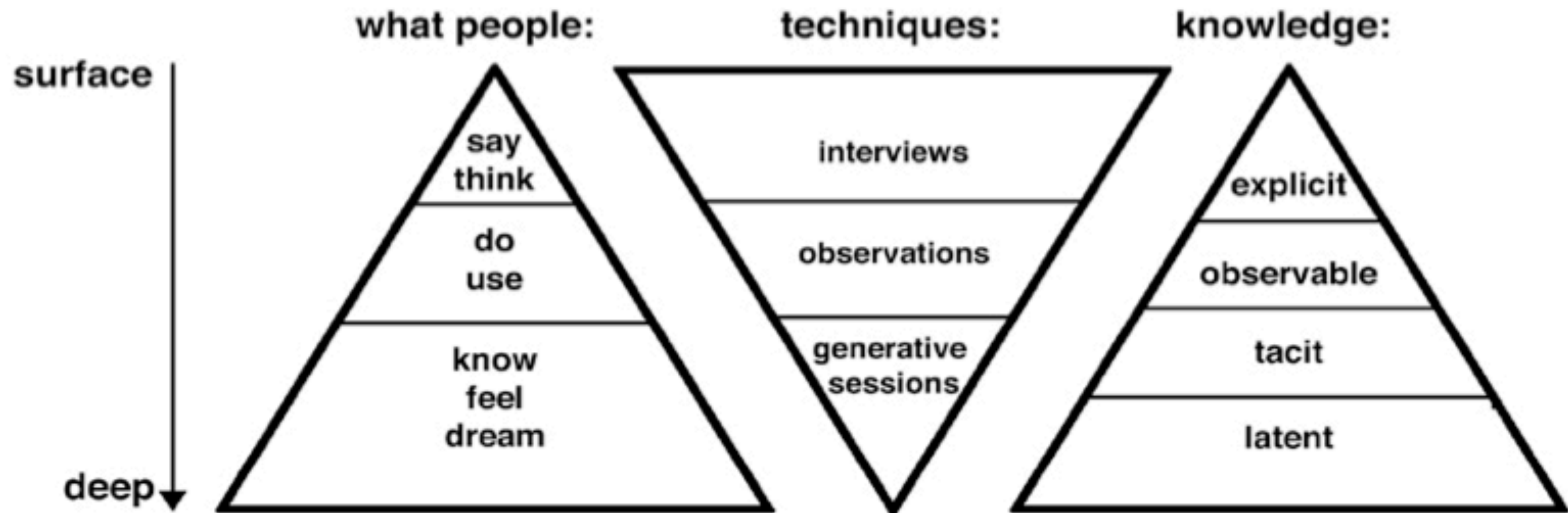
Prototype - Testen von Handling



Wie soll ein Laserscanner getragen werden? @SchindlerCreations 2015

Prototype - Testen der Akzeptanz





Prototyping Dimensions

The purposes for which prototypes are used can be broadly categorized into the following areas:

- (1) evaluation and testing***
- (2) the understanding of user experience, needs, and values***
- (3) idea generation***
- (4) communication among designers***

What determines the specifics of how to form prototypes are the issues of what prototypes should be composed or made out of, that is, the materials (whether visible or invisible) by which the prototype is made manifest; what level of fidelity the prototype should be, that is, the resolution of a prototype; and how complete the prototype should be, that is, the scope of a prototype.

Table III. The Definition and Variables of Each Manifestation Dimension

Manifestation Dimension	Definition	Example Variables
<i>Material</i>	Medium (either visible or invisible) used to form a prototype	Physical media, e.g., paper, wood, and plastic; tools for manipulating physical matters, e.g., knife, scissors, pen, and sandpaper; computational prototyping tools, e.g., Macromedia Flash and Visual Basic; physical computing tools, e.g., Phidgets and Basic Stamps; available existing artifacts, e.g., a beeper to simulate an heart attack
<i>Resolution</i>	Level of detail or sophistication of what is manifested (corresponding to fidelity)	Accuracy of performance, e.g., feedback time responding to an input by a user—giving user feedback in a paper prototype is slower than in a computer-based one); appearance details; interactivity details; realistic versus faked data
<i>Scope</i>	Range of what is covered to be manifested	Level of contextualization, e.g., website color scheme testing with only color scheme charts or color schemes placed in a website layout structure; book search navigation usability testing with only the book search related interface or the whole navigation interface

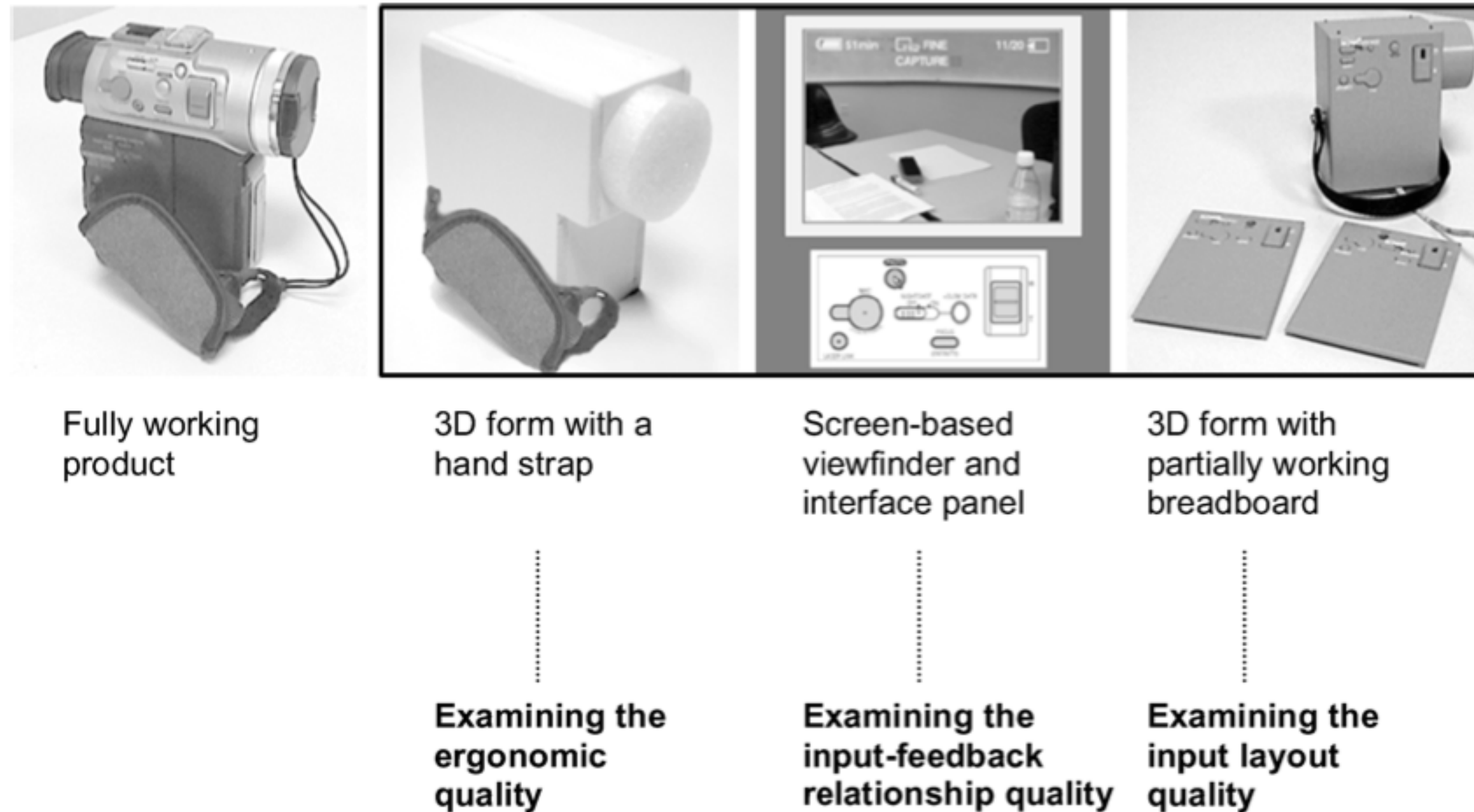
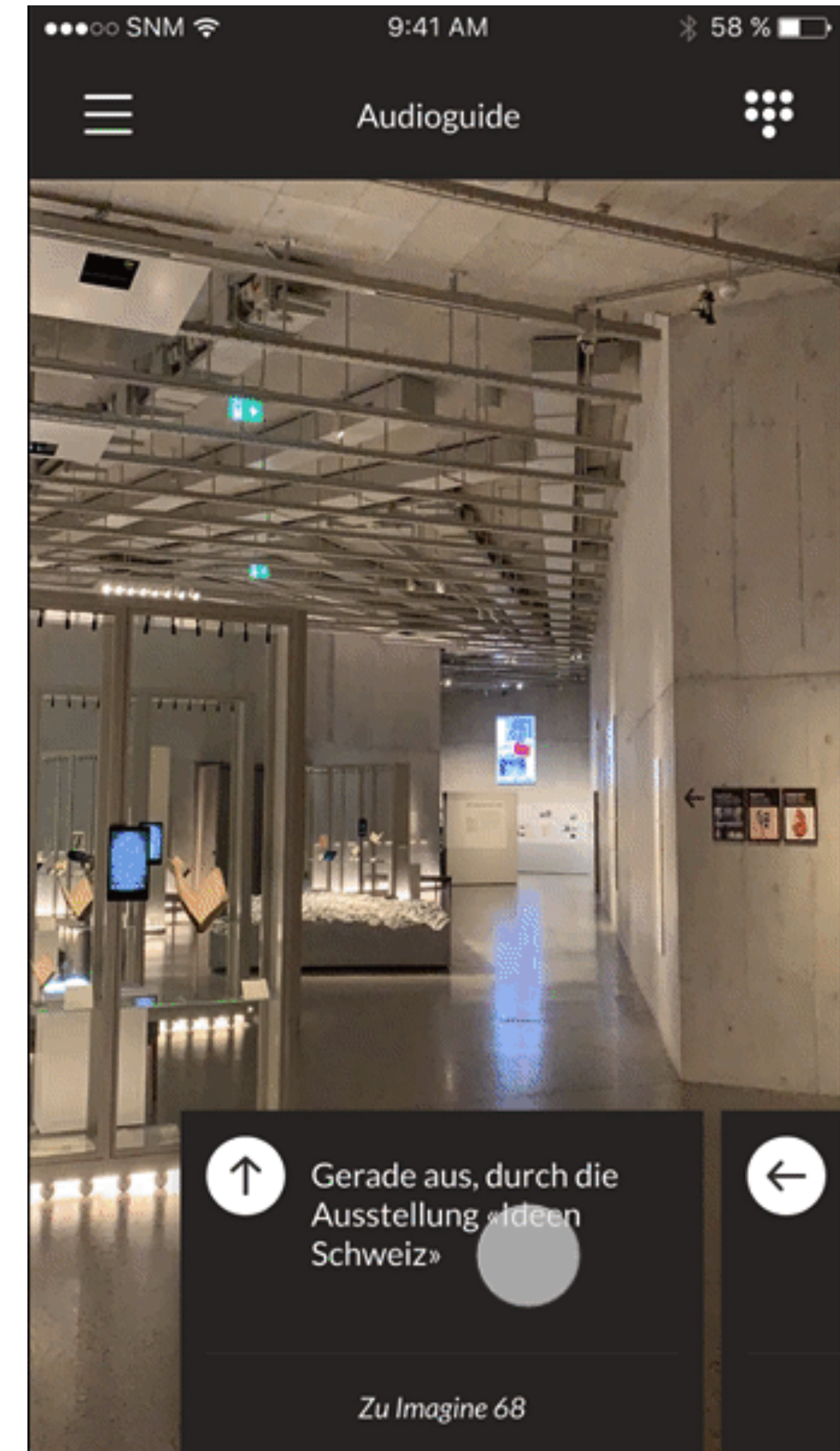
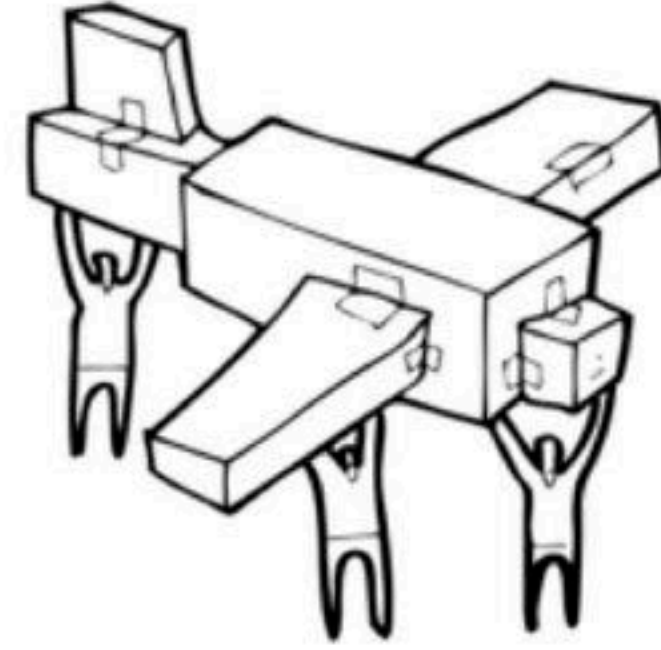


Fig. 1. A series of prototypes that represent different qualities of interest to a designer to filter out different aspects of a design [Lim 2003].

Low vs. High Fidelity





"A great
PROTOTYPE
has already
FAIL'D"

Adam's thoughts on Prototyping

Fail-able

A great prototype can be **tested** in action, and is able to fail the test to teach me something.

(inter)Active

A great prototype can be **interacted** with, just like I would interact with the final offering: "try this", not "look at this".

Informative

All prototypes must **teach** the builder something. If it doesn't teach me anything, why did I build it?

Lo-Fi

A great prototype is at the lowest meaningful level of fidelity. It's clear, but often **ugly** and built to be replaced.

Disposable

There is never "the prototype". There is never "the final prototype". There is only "the **latest** prototype".

"If my prototype is non-interactive,
nicely polished and cannot fail,
it's not a prototype - **it's a visual aid.**"

identity. It's clear, but often **ugly** and built to be replaced.

Disposable

There is never "the prototype". There is never "the final prototype". There is only "the **latest** prototype".

"If my prototype is non-interactive,
nicely polished and cannot fail,
it's not a prototype - **it's a visual aid.**"

globalservicejam.org

#gsjam

image Adrian Paulsen

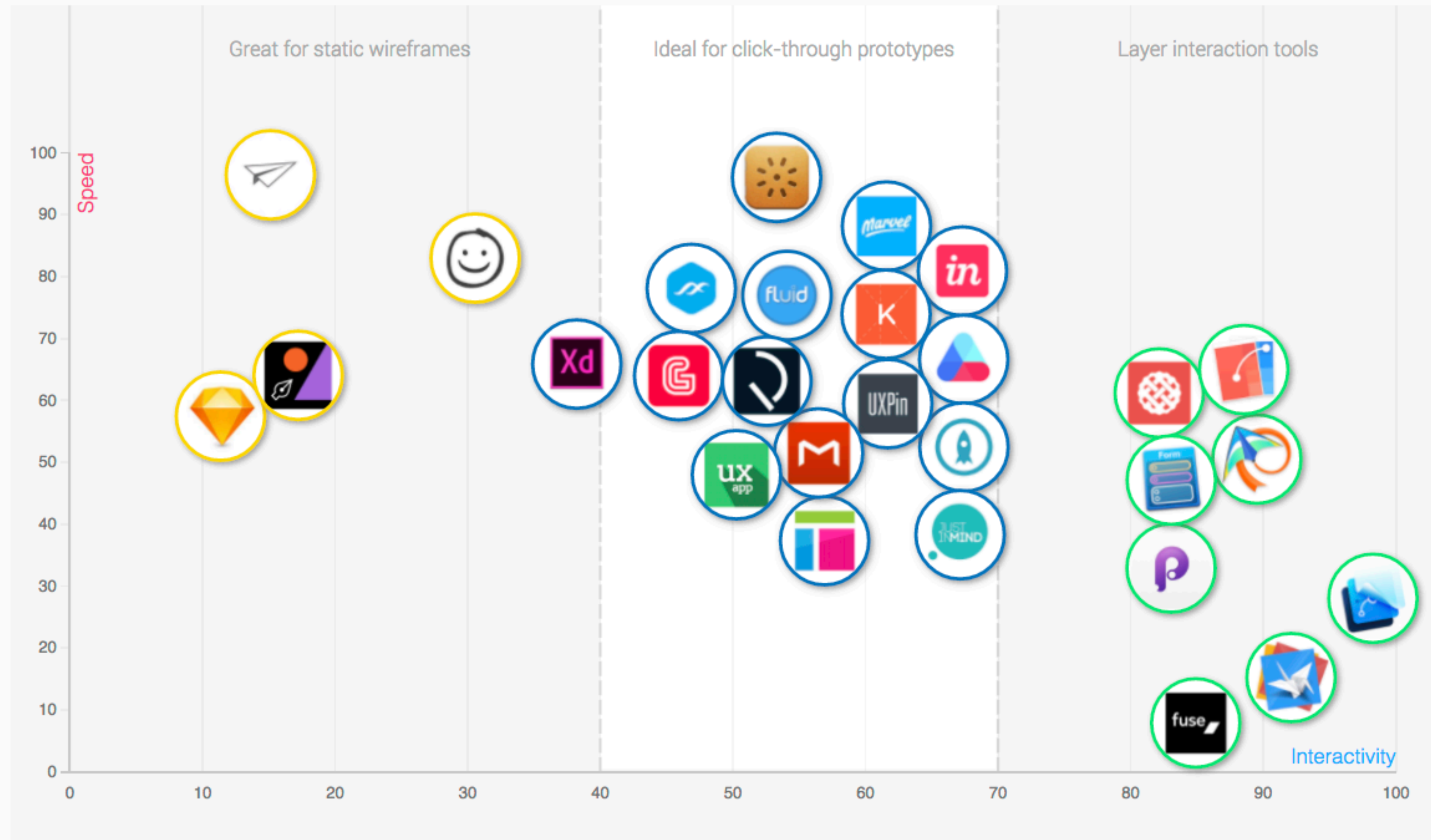
Digital UI Prototyping

**«If an image is worth a 1000 words -
a prototype is worth a 1000
meetings»**

Saying at IDEO

UI Prototyping

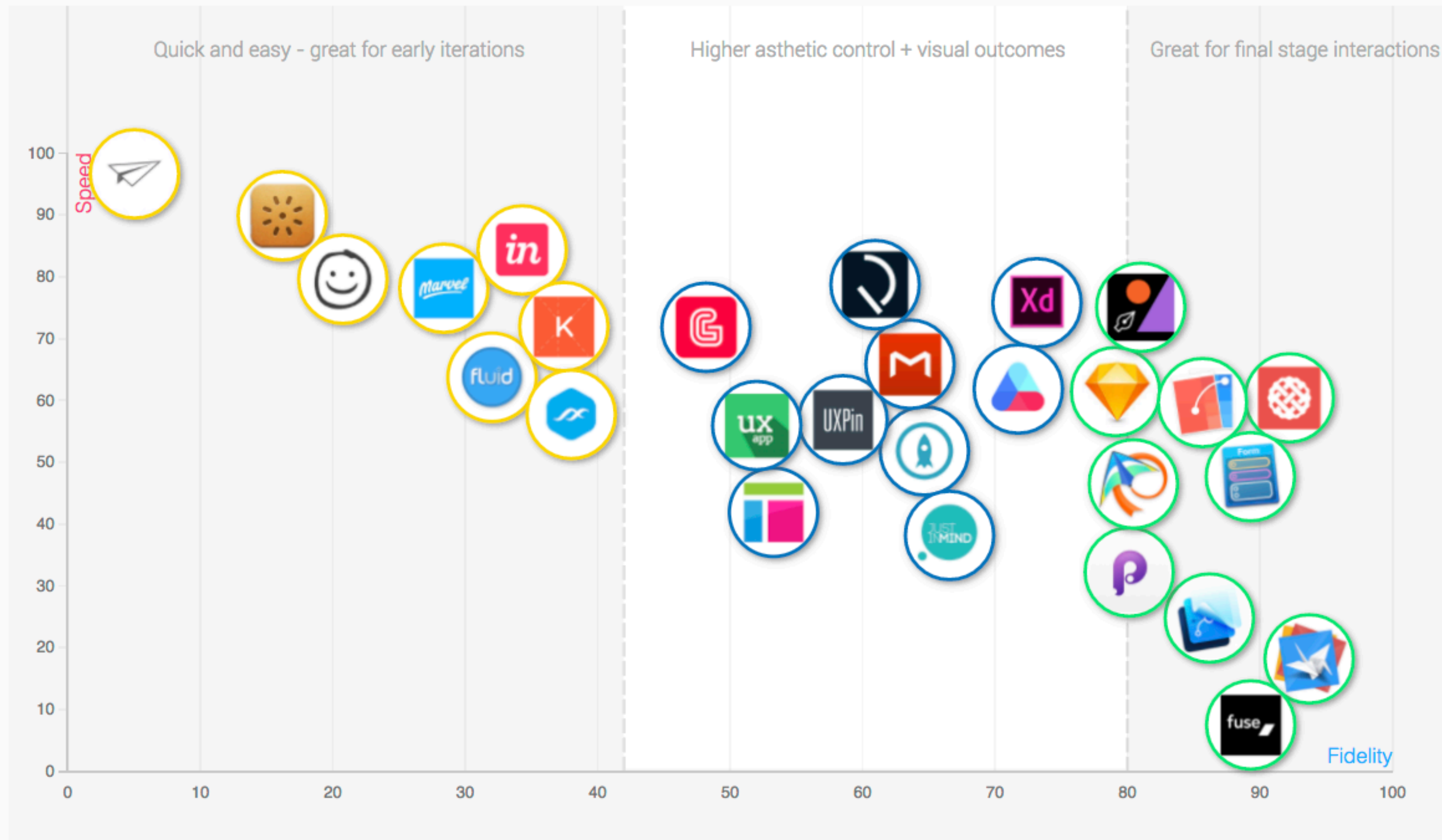
Übersicht - speed / interactivity



Quelle: <http://www.prototypr.io/prototyping-tools/>

UI Prototyping

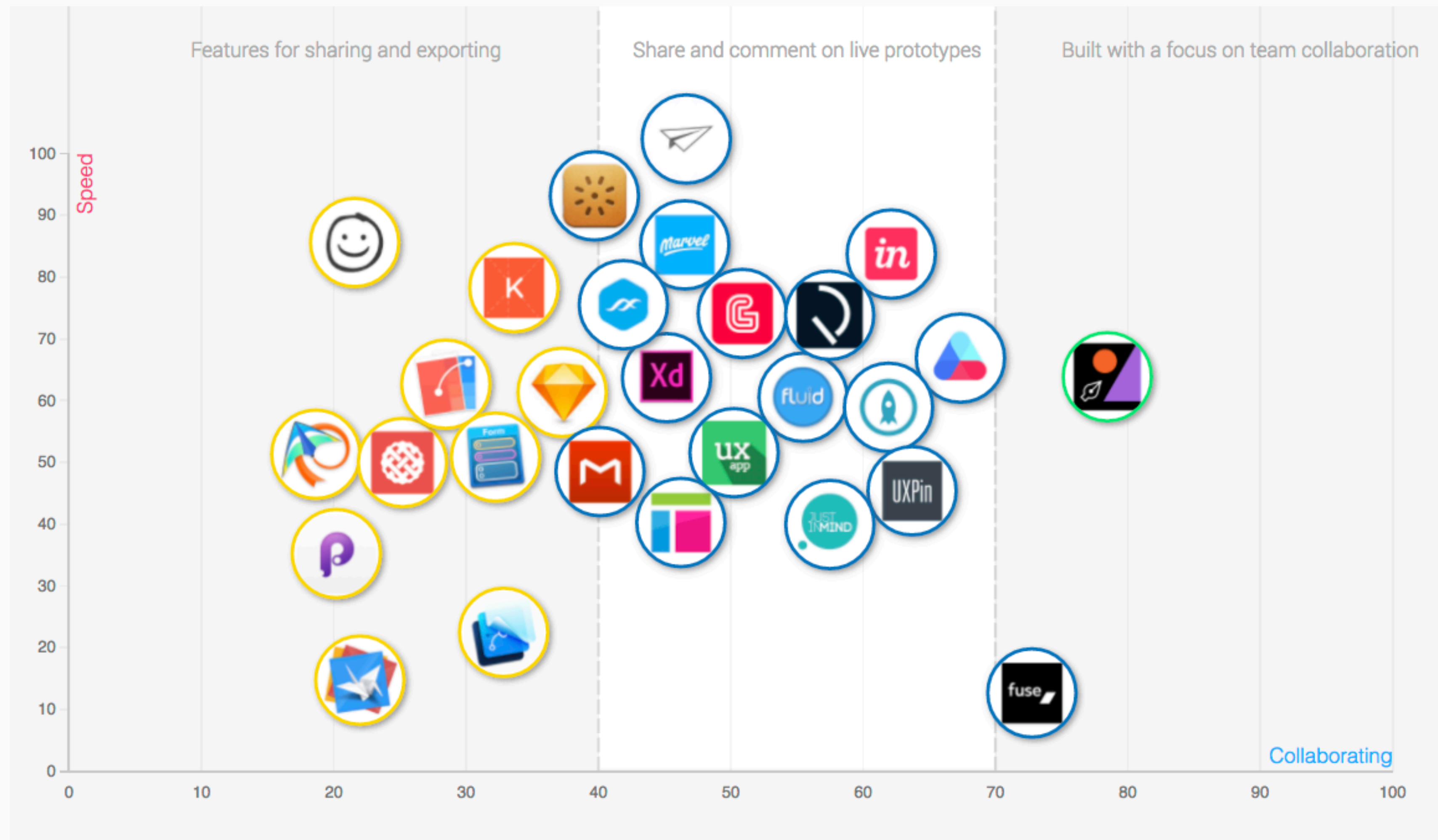
Übersicht - speed / fidelity



Quelle: <http://www.prototypr.io/prototyping-tools/>

UI Prototyping

Übersicht - speed / collaborating



Quelle: <http://www.prototypr.io/prototyping-tools/>

UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

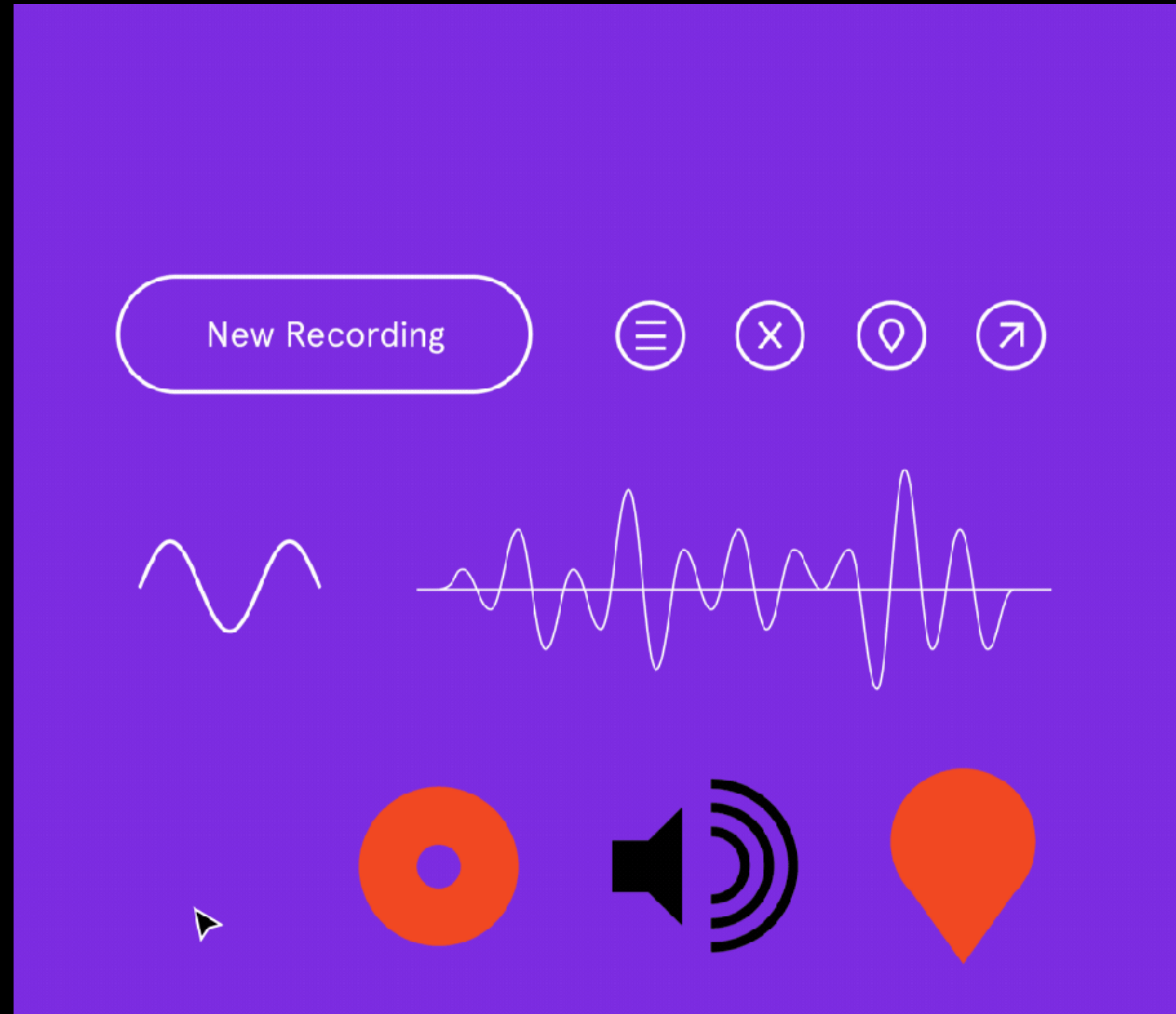
Constraints

Prototyping

Collaboration

Documentation

Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

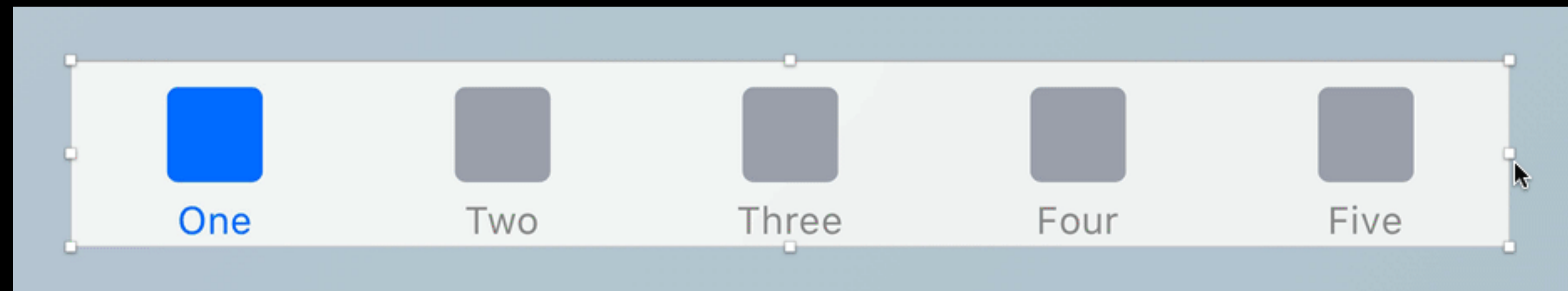
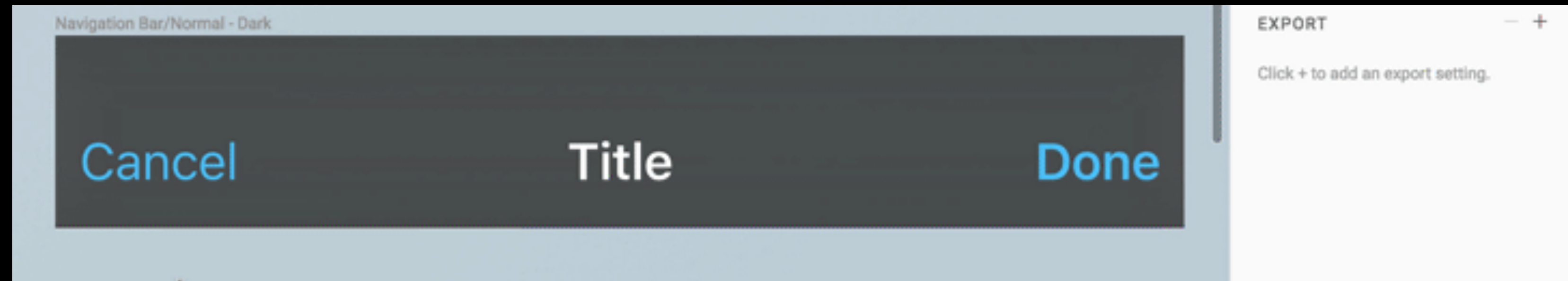
Constraints

Prototyping

Collaboration

Documentation

Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

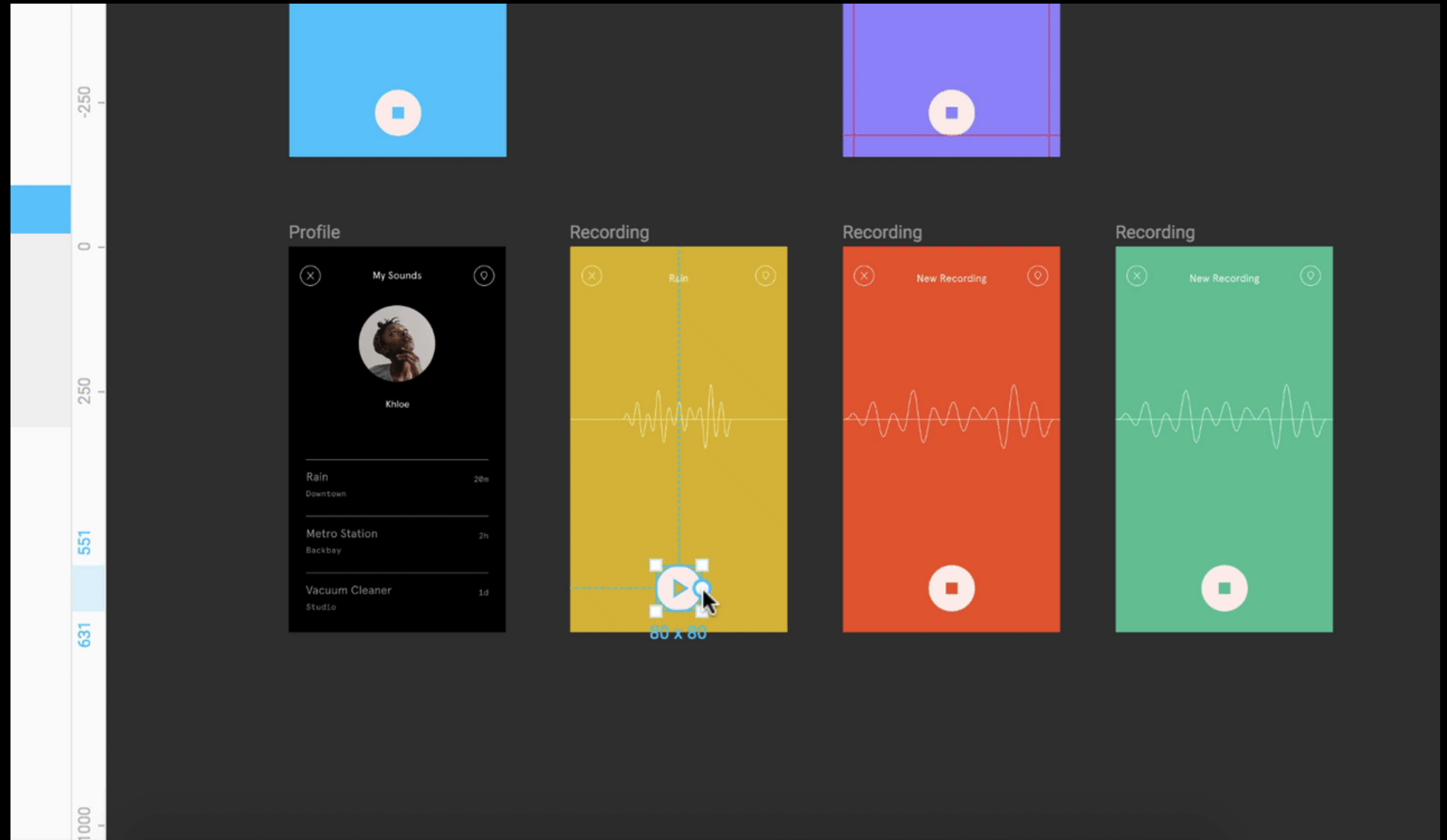
Constraints

Prototyping

Collaboration

Documentation

Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

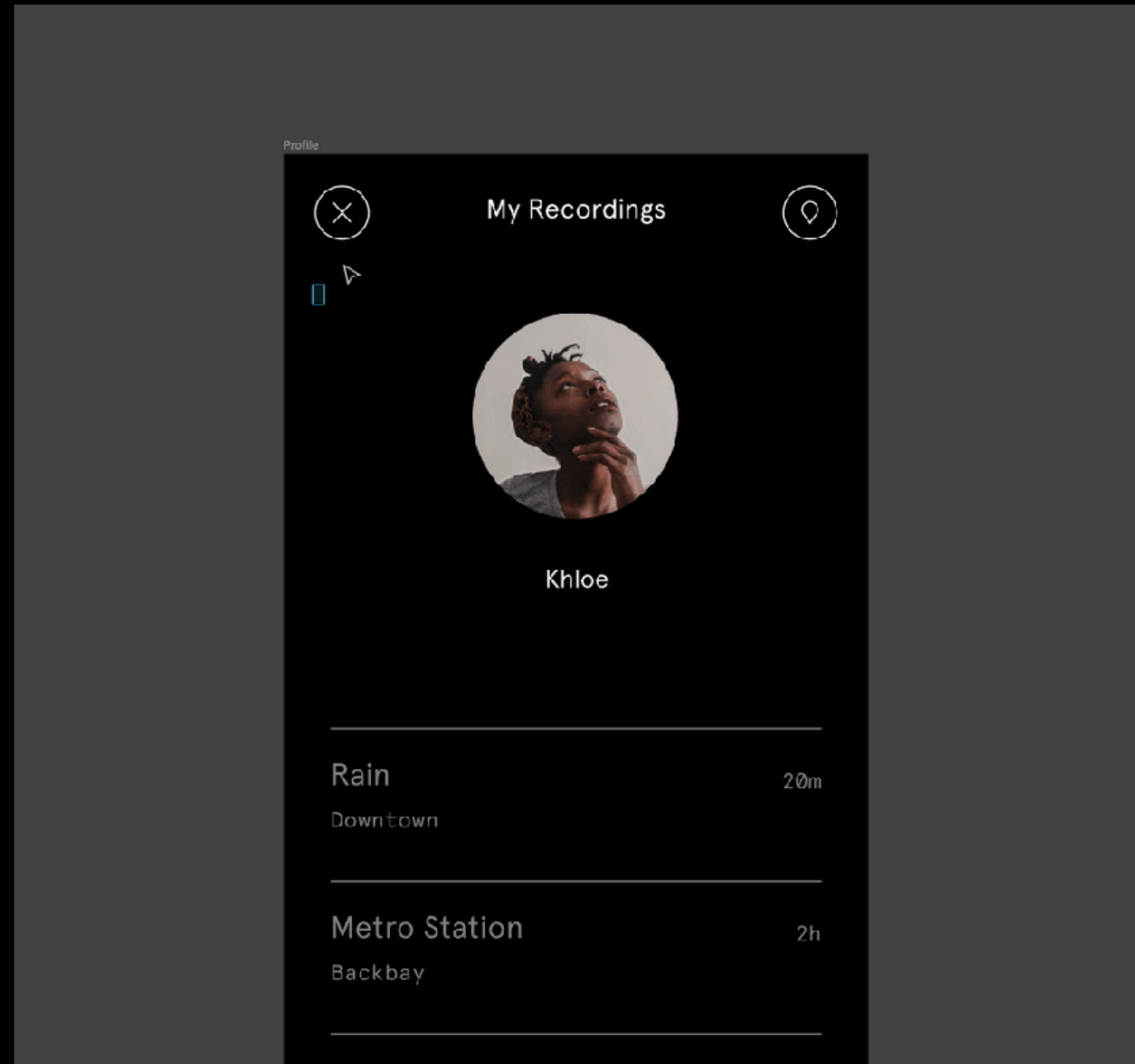
Constraints

Prototyping

Collaboration

Documentation

Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

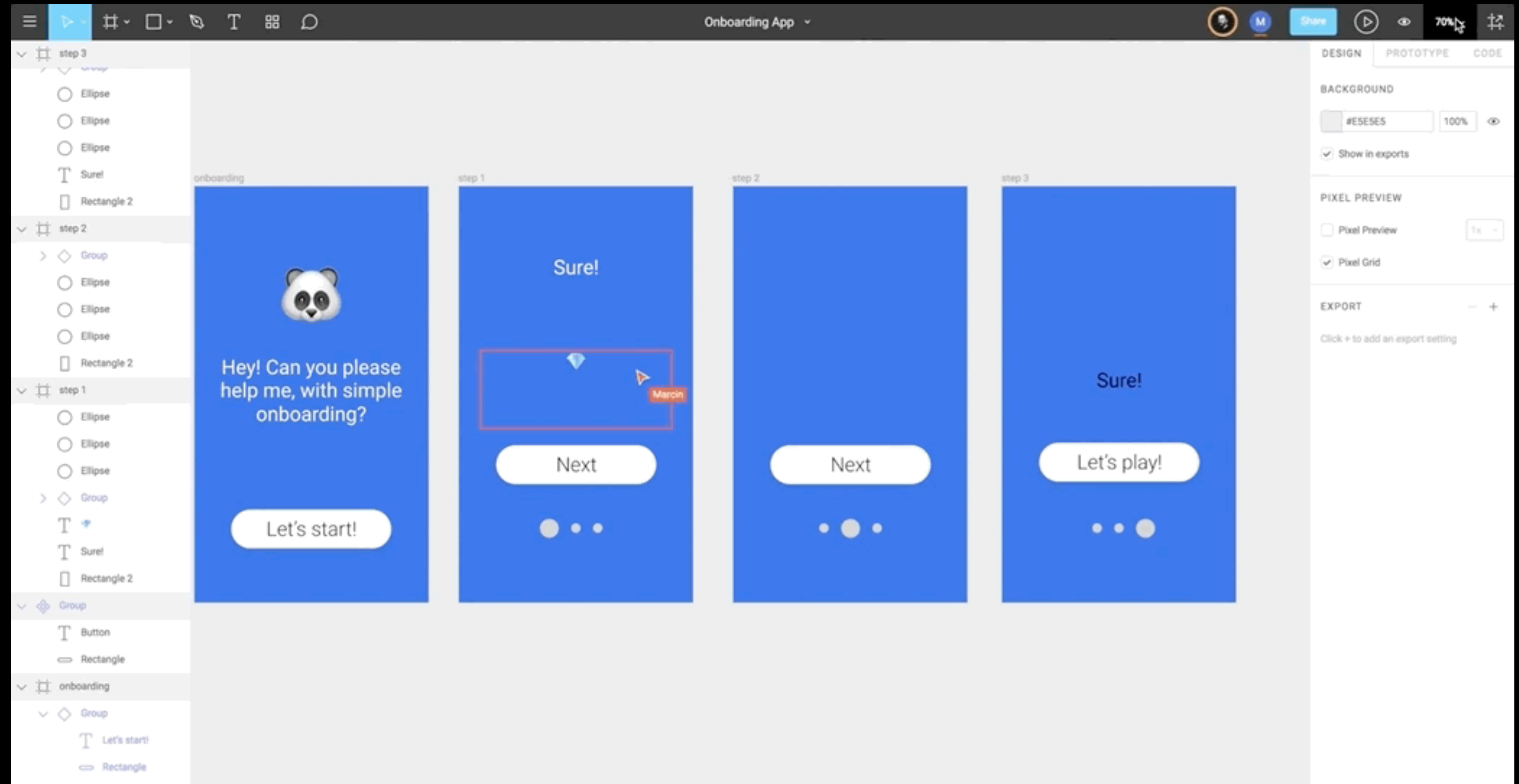
Constraints

Prototyping

Collaboration

Documentation

Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

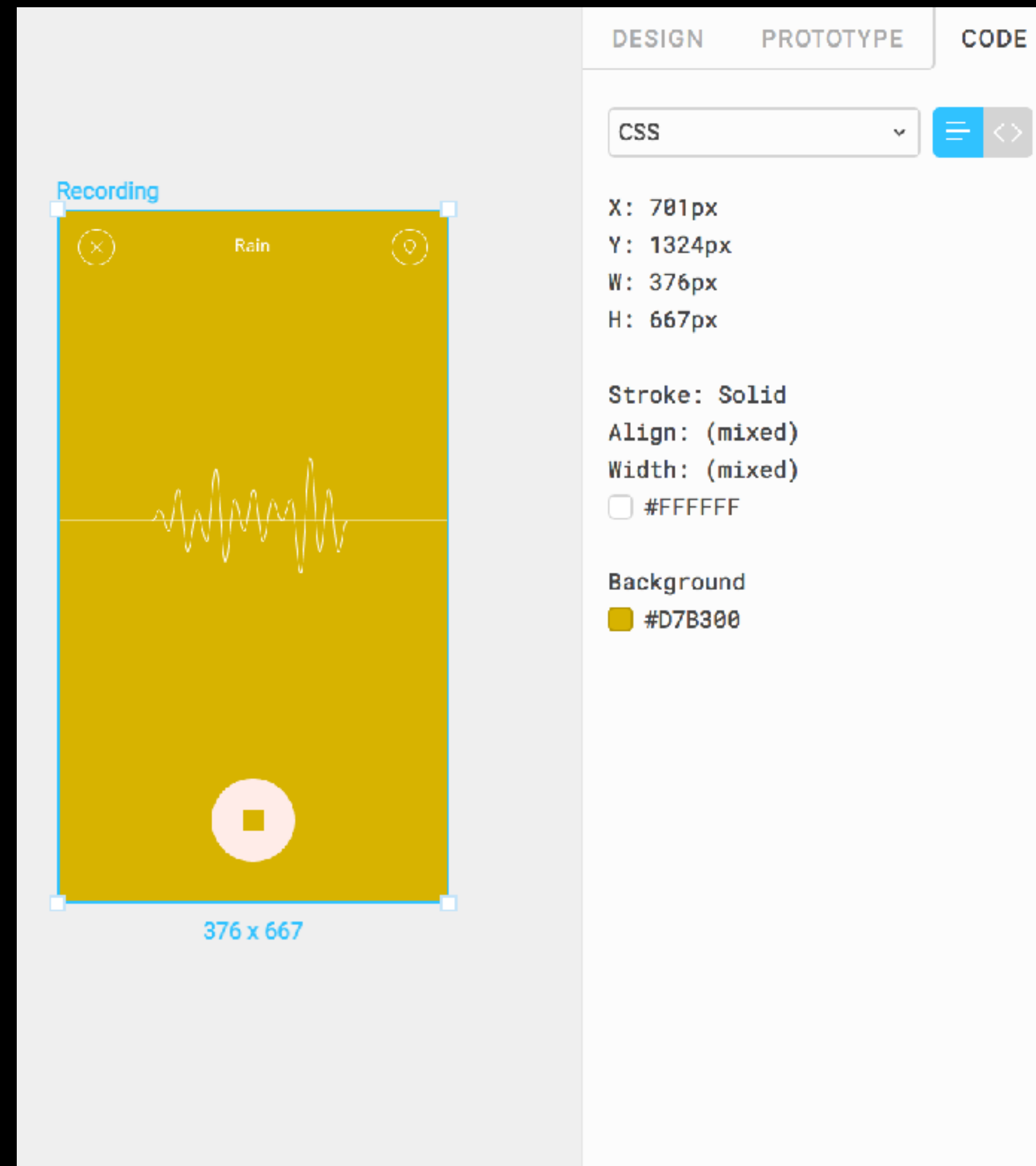
Constraints

Prototyping

Collaboration

Documentation

Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

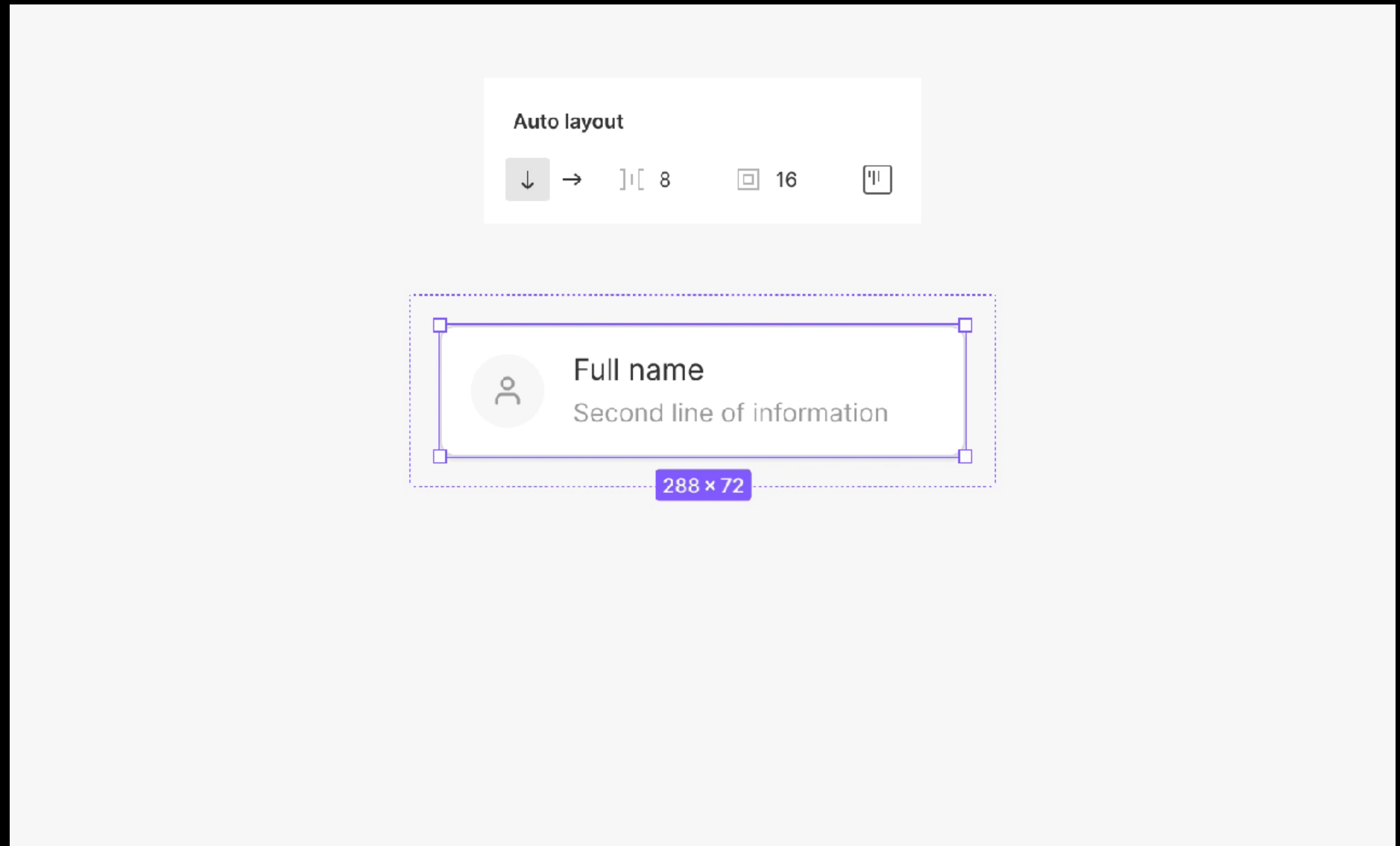
Constraints

Prototyping

Collaboration

Documentation

Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

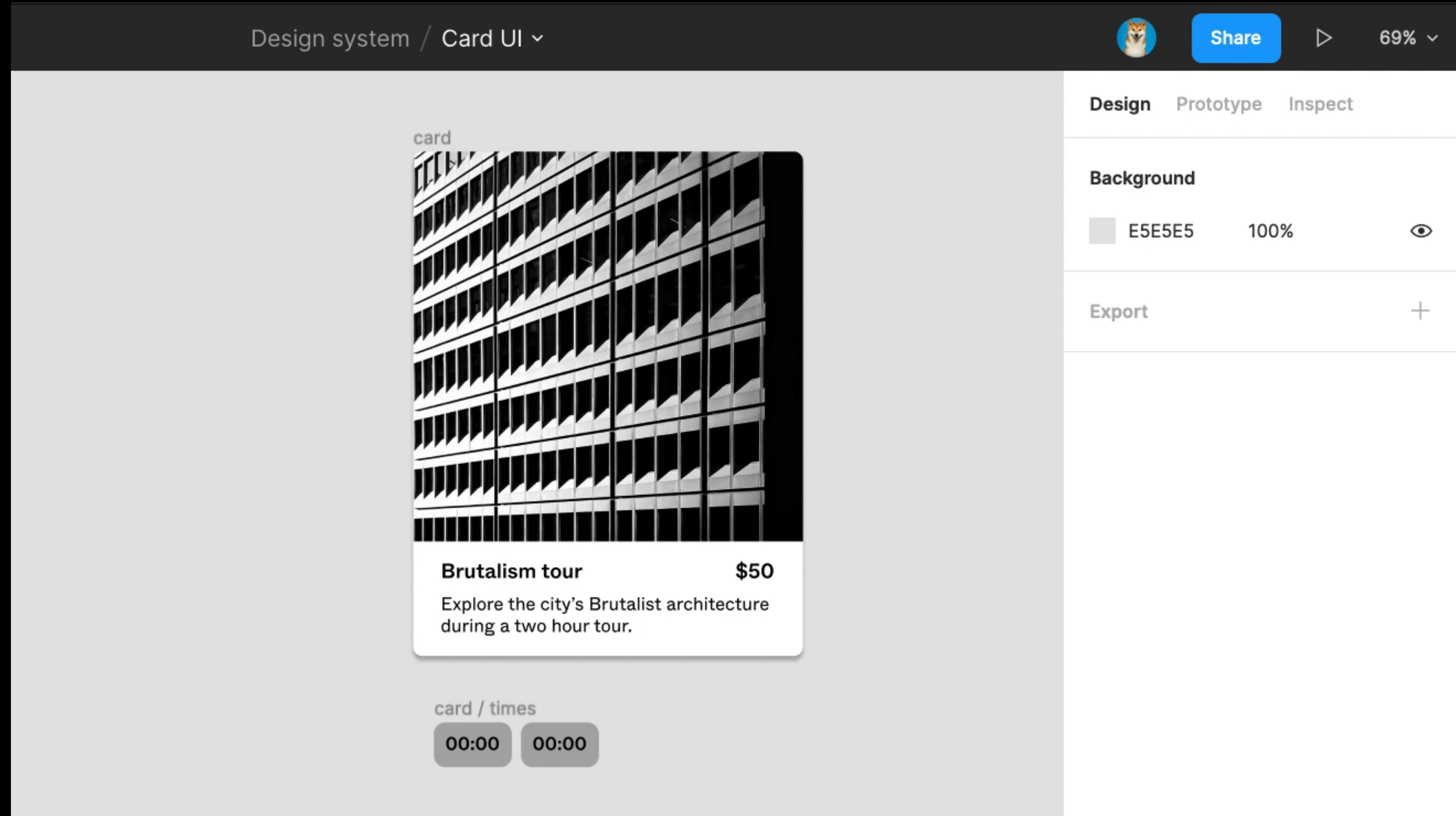
Constraints

Prototyping

Collaboration

Documentation

Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

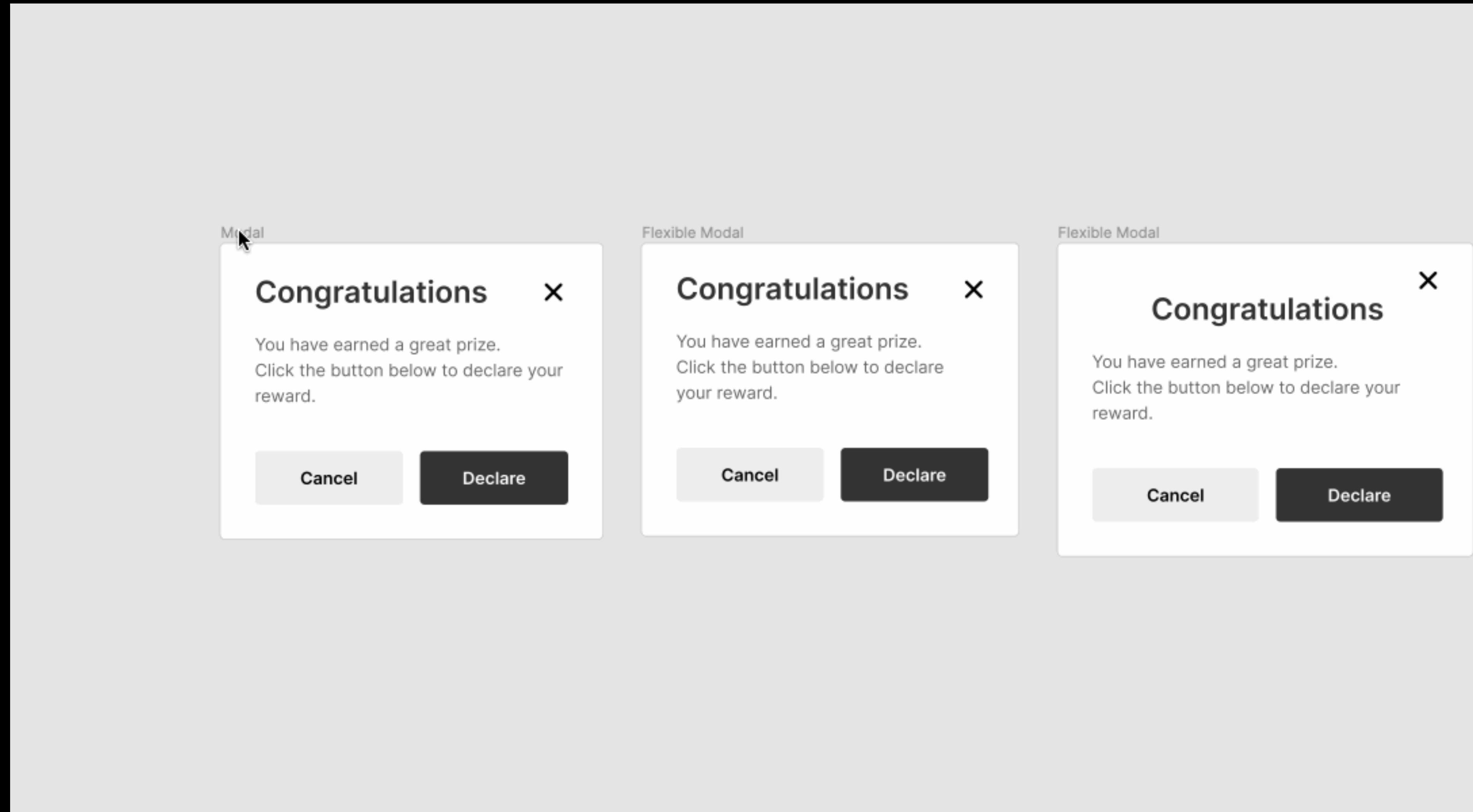
Constraints

Prototyping

Collaboration

Documentation

Autolayout



Tipps

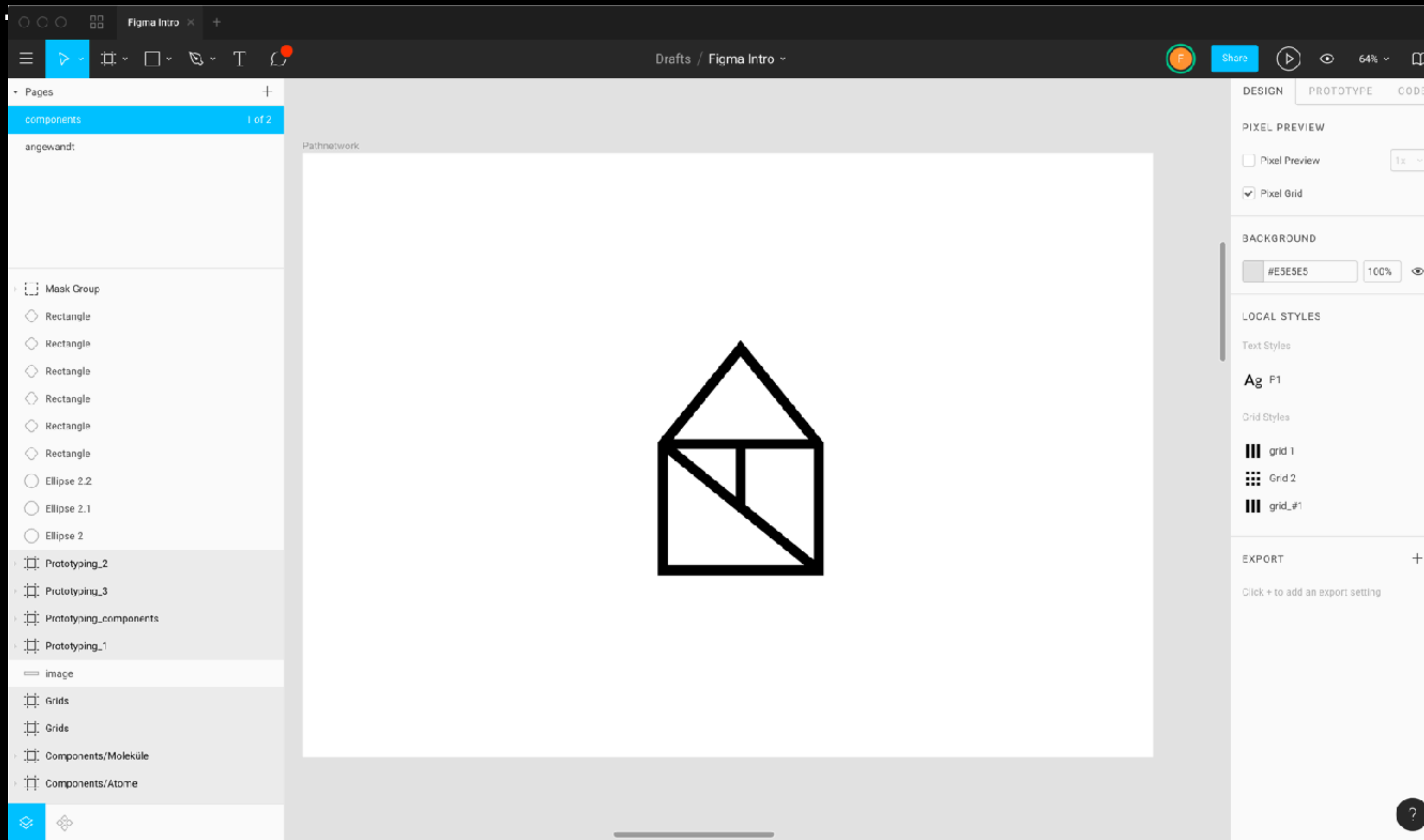
- Behaltet während dem erstellen eures Mockups immer Kopf: **Was will ich testen?**
- Vollständige interaktive Mockups sind sehr aufwändig.
Teilt euren Mockup in testbare Segmente um Zeit zu sparen.
- Stellt sicher dass die Programme in eurem Workflow miteinander kommunizieren können.

Tools worth exploring

—

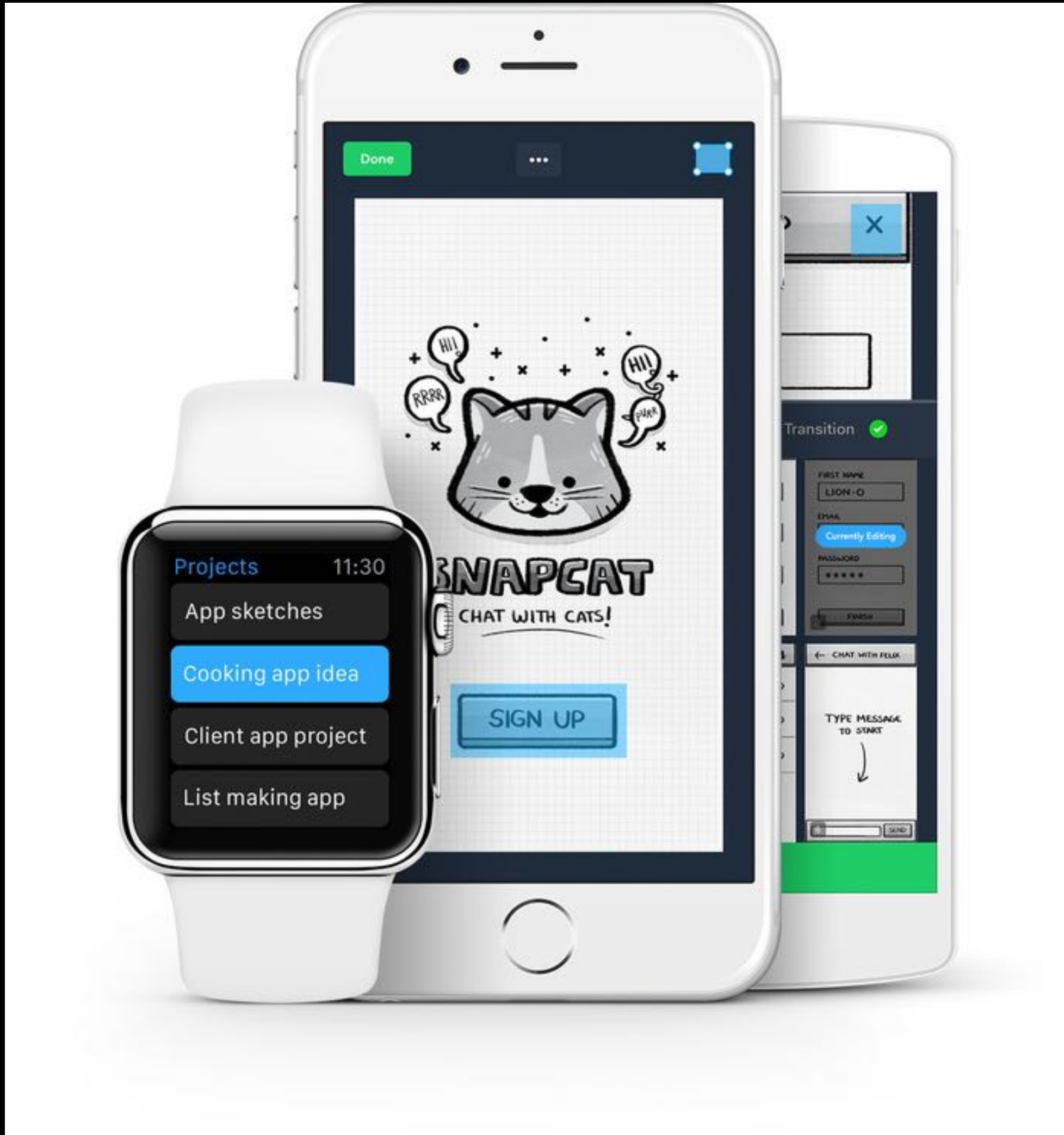
Tools

Figma



Tools

Marvel App



Thank you!

Kontakt

Florian Wille

florian.wille@zhdk.ch

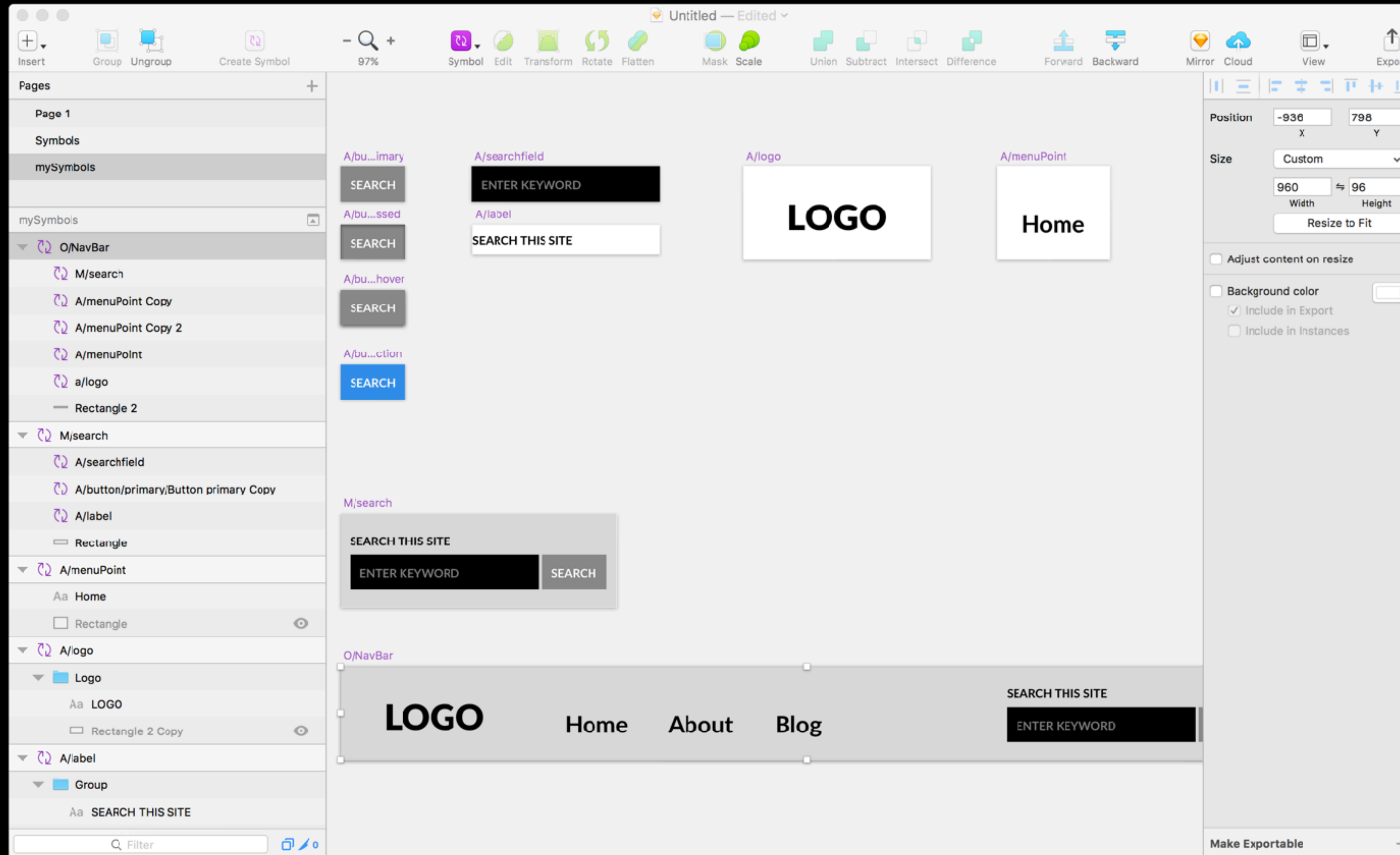
Z

hdk

Zürcher Hochschule der Künste
Bachelor of Arts in Design

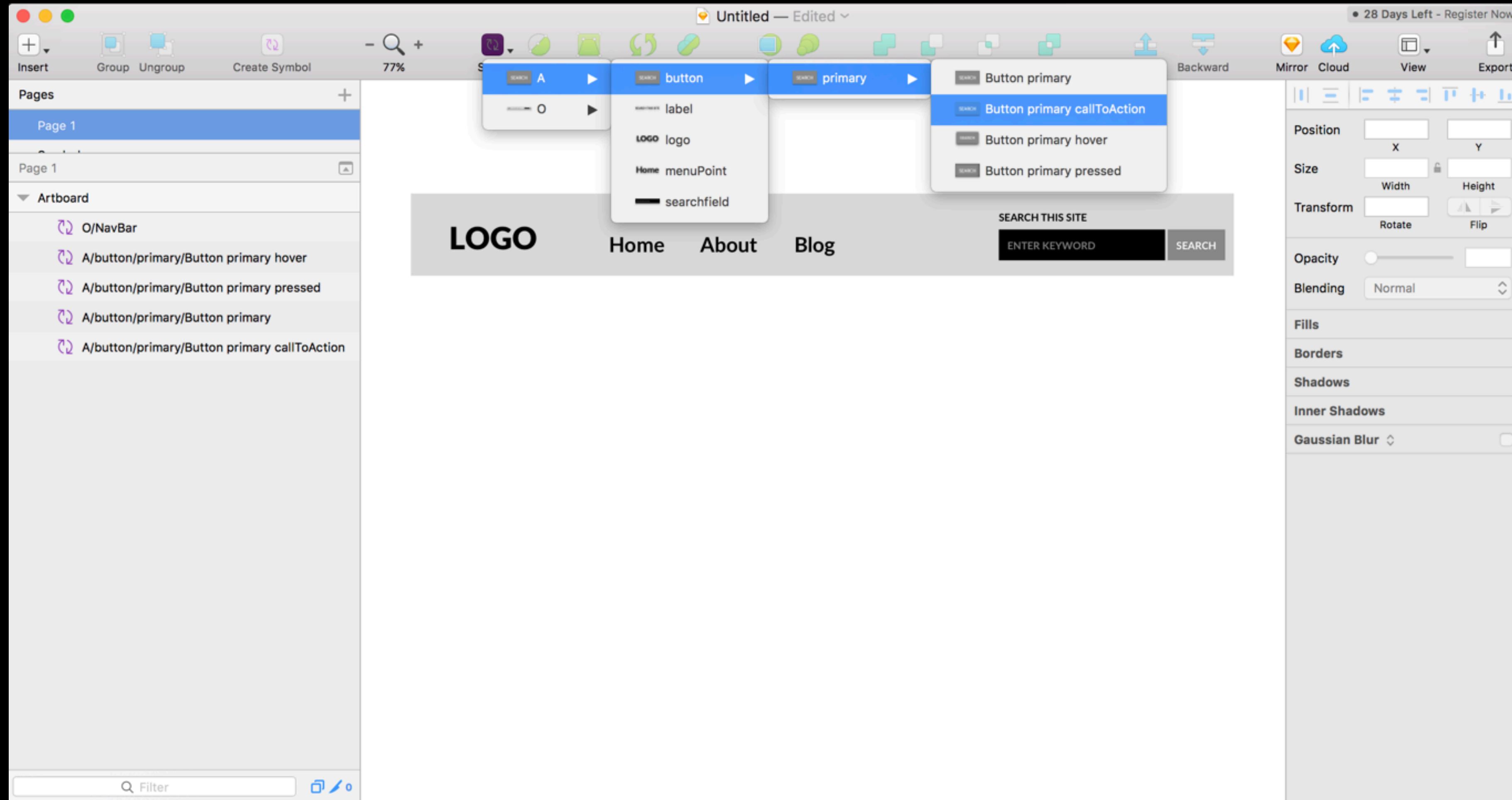
Tools

Features | Symbols - use of atomic design principles



Tools

Features | Symbols - naming convention



A/button/primary/Button primary callToAction

Tools

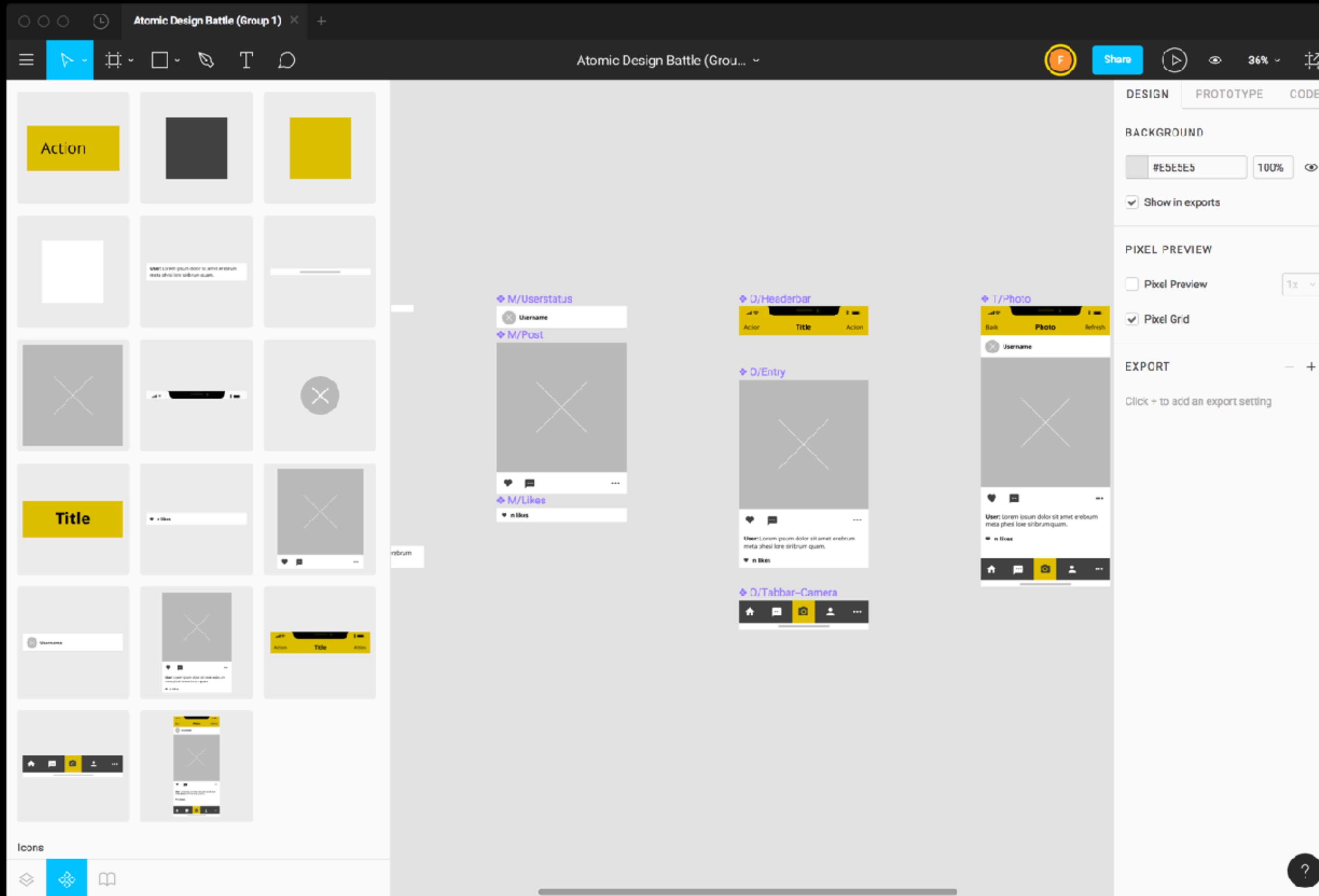
Features | Symbols - nested

The image shows a design tool interface. On the left, a horizontal navigation bar is displayed with a light gray background. It contains a large 'LOGO' on the left, followed by three menu items: 'Home', 'About', and 'Blog'. On the right side of the bar is a search field with the text 'SEARCH THIS SITE' above it, an input box containing 'ENTER KEYWORD', and a 'SEARCH' button. The right side of the image shows a panel titled 'O/NavBar' with a dropdown arrow. Below the title is an 'Overrides' section containing a list of nested symbols. Each symbol is represented by a text label on the left and a corresponding text field or dropdown on the right. The symbols and their values are: 'O/search' (O/search), 'A/searchf...' (A/searchfield), 'ENTER K...' (ENTER KEYWORD), 'A/button/...' (A/button/primary/...), 'SEARCH' (SEARCH), 'A/label' (A/label), 'SEARCH...' (SEARCH THIS SITE), 'A/menuP...' (A/menuPoint), 'Home' (Home), 'A/menuP...' (A/menuPoint), 'Home' (Home), 'A/menuP...' (A/menuPoint), 'Home' (Home), 'a/logo' (A/logo), and 'LOGO' (LOGO).

Symbol	Value
O/search	O/search
A/searchf...	A/searchfield
ENTER K...	ENTER KEYWORD
A/button/...	A/button/primary/...
SEARCH	SEARCH
A/label	A/label
SEARCH...	SEARCH THIS SITE
A/menuP...	A/menuPoint
Home	Home
A/menuP...	A/menuPoint
Home	Home
A/menuP...	A/menuPoint
Home	Home
a/logo	A/logo
LOGO	LOGO

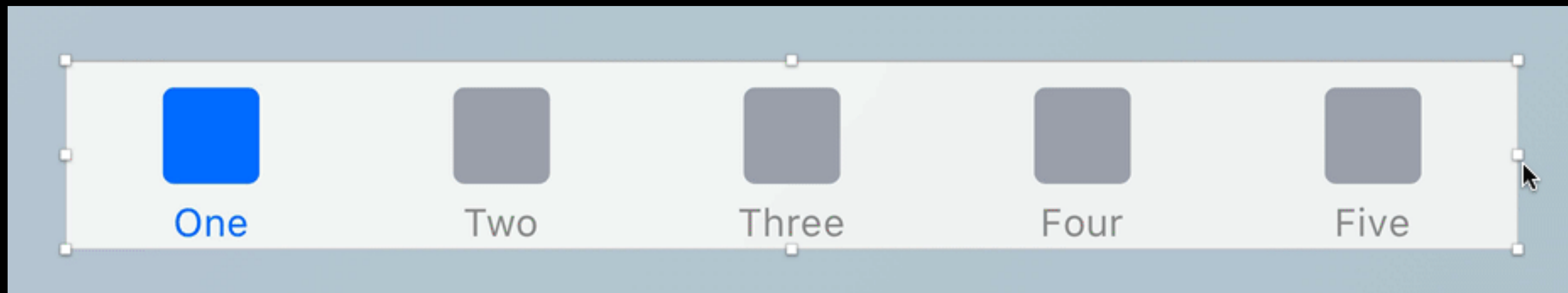
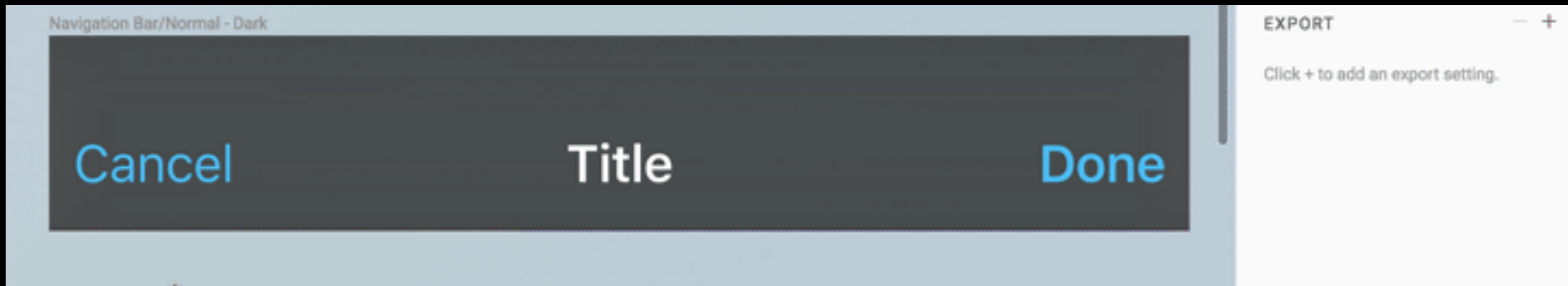
Tools

Features | Symbols in Figma



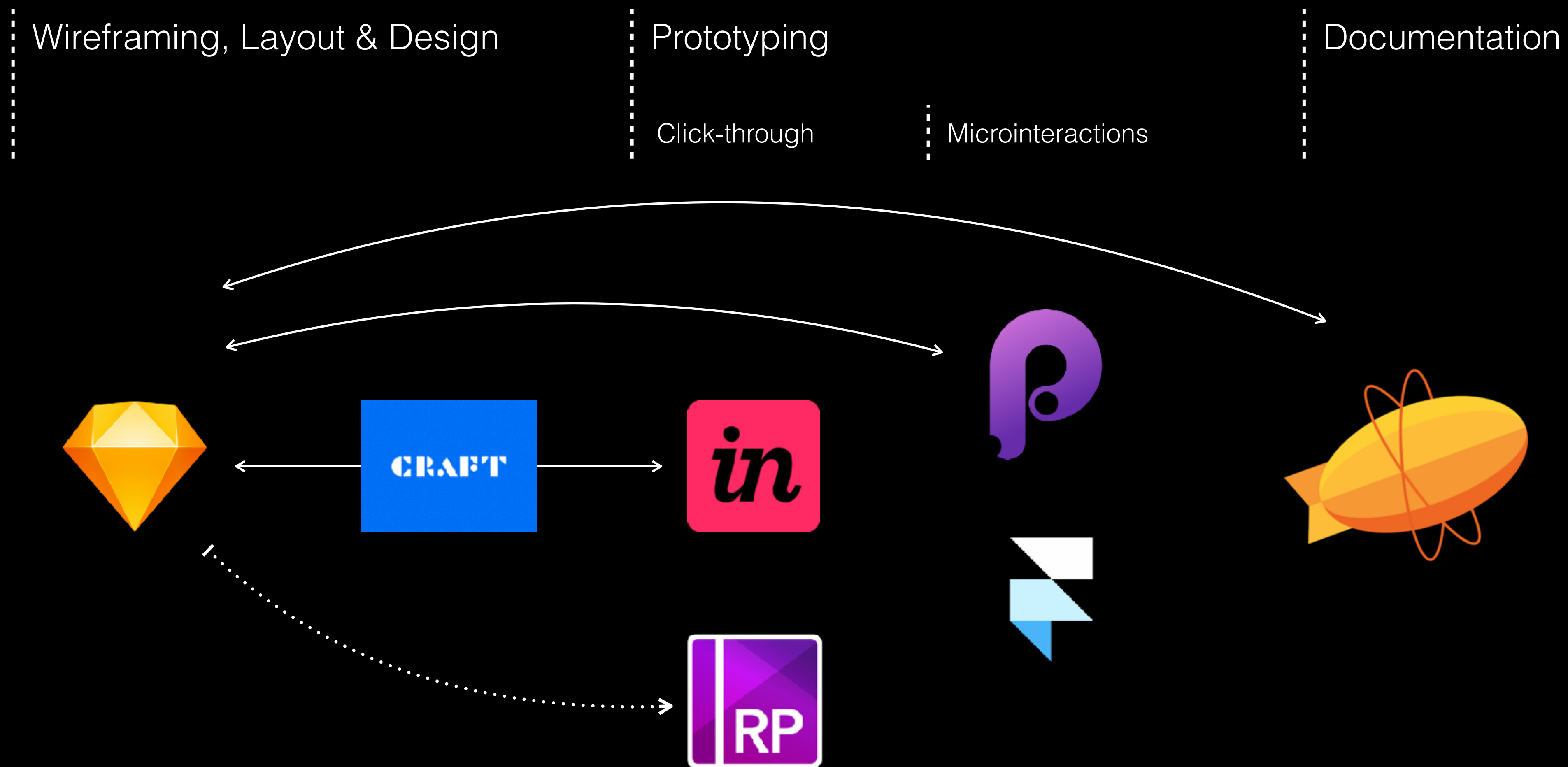
Tools

Features | Constraints



Tools

Ensure your workflow is not a oneway street



Tips

- When creating a mockup keep in mind: **What do I want to test?**
- Fully interactive Mockups are time-consuming. **Split your mockup** into testable segments to save time.
- Ensure the programs in your workflow can talk to each other.

Tools worth exploring

—

Tools

Origami Studio - Visual Programming Interface



The screenshot displays the Origami Studio interface for an iPhone 7 app named 'Moments Onboarding'. The central workspace shows a visual programming flowchart with three main paths:

- Top Path:** Two 'Photo Access 2 Alert View' components (one for 'Button 1 Tapped', one for 'Button 2 Tapped') are connected via an 'Or' gate to a 'Wait' component (Duration 0.1s), which then connects to a 'Photo Access 1 Alert View' component.
- Middle Path:** Two 'Notifications Alert View' components (one for 'Button 1 Tapped', one for 'Button 2 Tapped') are connected via an 'Or' gate to a 'Wait' component (Duration 0.1s), which then connects to a 'Photo Access 1 Alert View' component.
- Bottom Path:** Two 'Photo Access 1 Alert View' components (one for 'Button 1 Tapped', one for 'Button 2 Tapped') are connected via an 'Or' gate to a 'Wait' component (Duration 0.1s), which then connects to a 'Photo Access 2 Alert View' component.

On the left, a preview window shows a 'Please allow photo access' dialog box with the following text: 'Please allow photo access. Moments will group your photos based on when you took them and who's in them. Only you will see these groupings.' The dialog has 'Cancel' and 'OK' buttons.

On the right, the 'Photo Access 1 Alert View' properties panel is visible, showing settings for 'Turn On', 'Title', 'Message', 'Action 1', 'Style 1', 'Action 2', 'Style 2', 'Action 3', 'Style 3', 'Action 4', 'Style 4', and 'Tint'.

<https://origami.design/>

Tools

Flinto for Mac



The screenshot displays the Flinto for Mac interface with a storyboard for a weather application. The storyboard is titled "Jupiter Weather.flinto - Edited" and is set to 12% zoom. The interface includes a toolbar at the top with various tools like "Add Screen", "Add Image", "Rectangle", "Group", "Ungroup", "Scroll Group", "Create Link", "Draw Link", "Hide Links", "Zoom", "Units", "Help", "Arrange", "Viewer", "Preview", and "Share".

The storyboard itself is a grid of screens connected by red lines representing transitions. The screens are:

- Welcome**: A screen with a "Jupiter Weather" title and a "300°F" temperature display.
- Jupiter-home**: A screen with a "JUPITER" title and a "300°F" temperature display.
- Jupiter-d...**: A screen with a "300°F" temperature display and a "FORECAST" section.
- StormW...**: A screen with a "STORM WARNING" section.
- NOW**: A screen with a "NOW" title and a "300°F" temperature display.
- FRI**: A screen with a "FRI" title and a "300°F" temperature display.
- SAT**: A screen with a "SAT" title and a "300°F" temperature display.
- Settings**: A screen with a "SETTINGS" title and a "Notifications" toggle.
- Thyone**: A screen with a "THYONE" title and a "-10°F" temperature display.
- Thyone-f...**: A screen with a "-10°F" temperature display and a "FORECAST" section.
- Kore**: A screen with a "KORE" title and a "1000 F" temperature display.
- Kore Det...**: A screen with a "Kore Det..." title and a "1000 F" temperature display.

The right sidebar contains the "Gestures" and "Properties" panels. The "Gestures" panel has an "Add Gesture" dropdown. The "Properties" panel has fields for "Position" (X and Y) and "Size" (Width and Height), along with checkboxes for "Hide Layer" and "Lock Layer".

<https://www.flinto.com/>