hdk

Zürcher Hochschule der Künste
Bachelor of Arts in Design

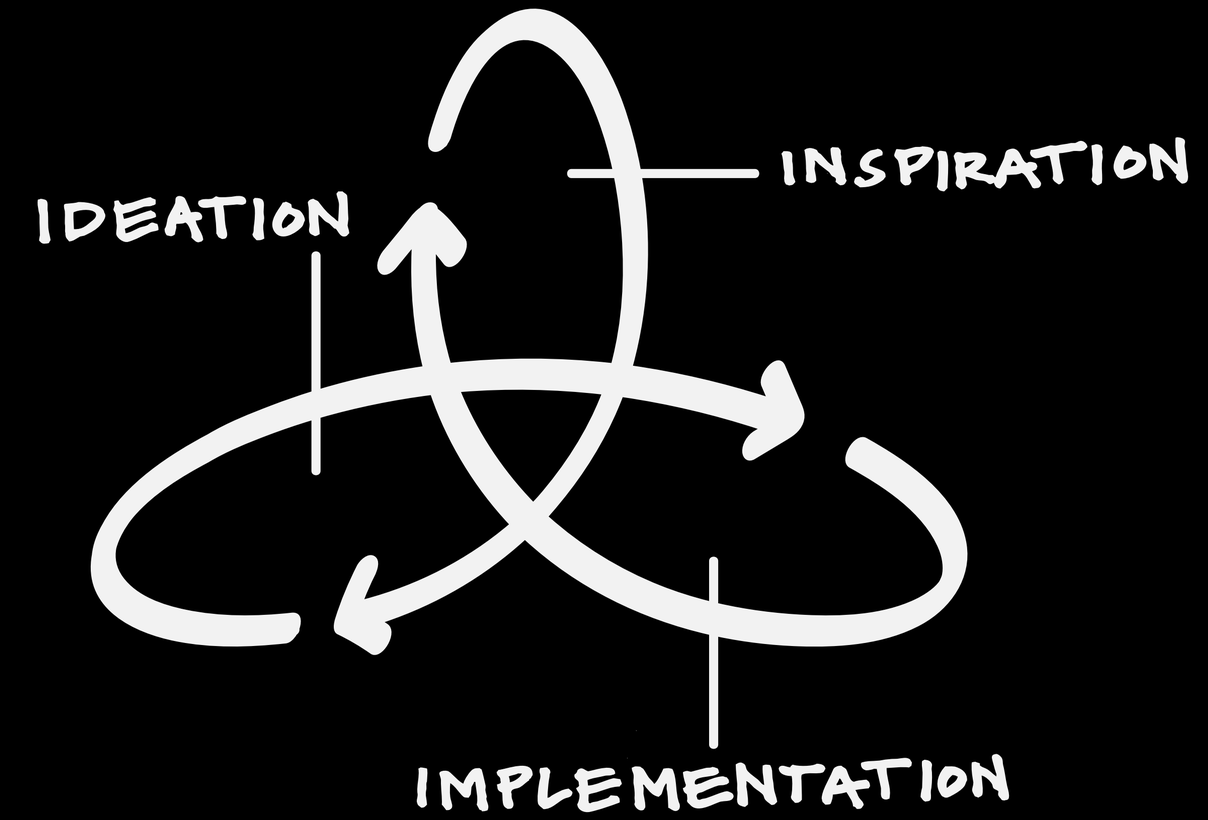
Service Prototyping

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

https://designthinking.ideo.com/

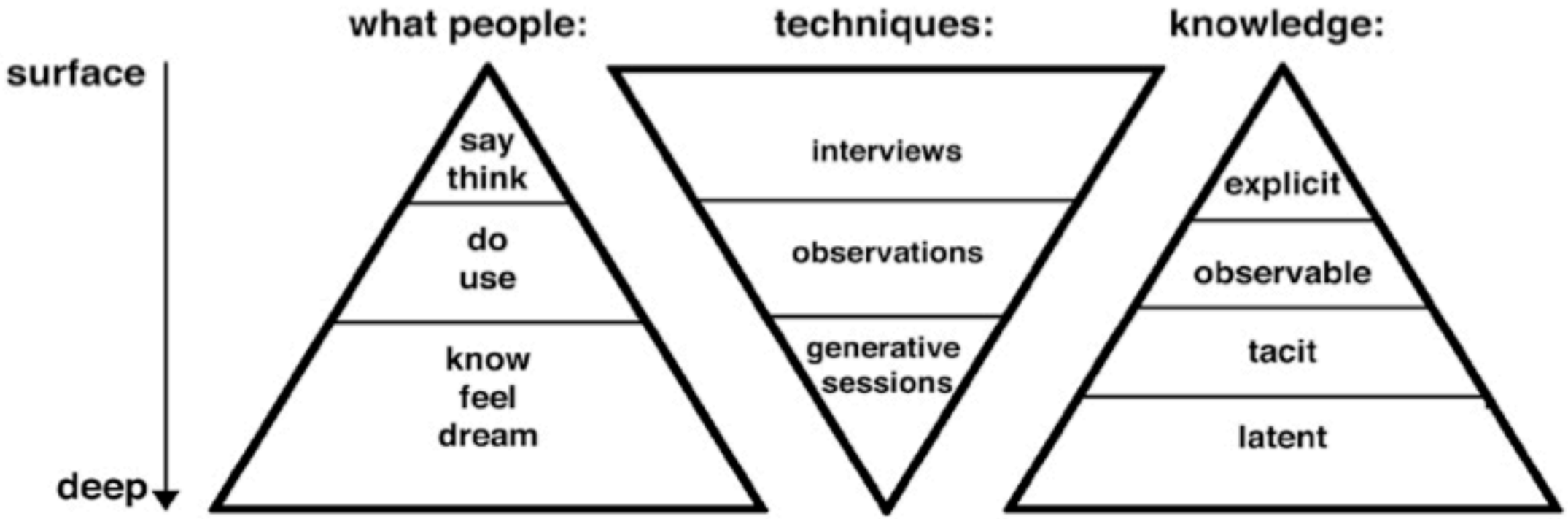
Prototype - Testen eines Ablaufs

Prototype - Testen von Handling

Wie soll ein Laserscanner getragen werden? @SchindlerCreations 2015

Prototype - Testen der Akzeptanz

Sunect (2017) – Adonis Bou Chakra, Gabriel Bach, Lara Hänny, Simon Fischer



Sanders, E. B. N. (2001). Virtuosos of the experience domain. Proceedings from IDS Education Conference.

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

Lim & Stolterman (2008)

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.

Lim & Stolterman (2008)

Table III. The Definition and Variables of Each Manifestation Dimension

Manifestation Dimension	Definition	Example Variables
Material	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
Resolution	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
Scope	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

Youn-Kyung, L., Erik, S., & Josh, T. (2008). The anatomy of prototypes: Prototypes as filters, prototypes as manifestations of design ideas. ACM Trans. Comput.-Hum. Interact., 15(2), 1-27.

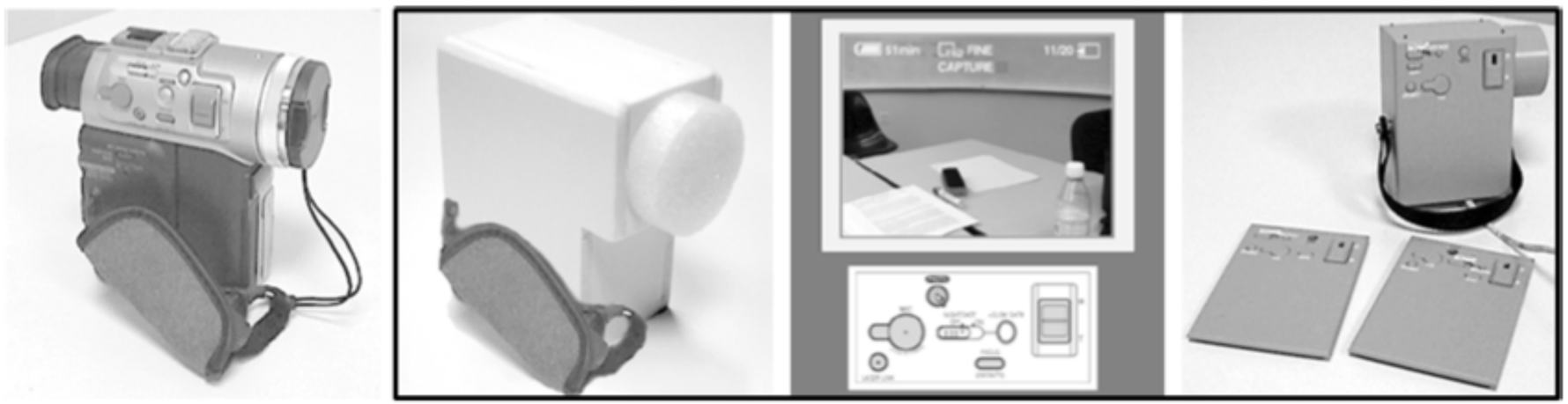
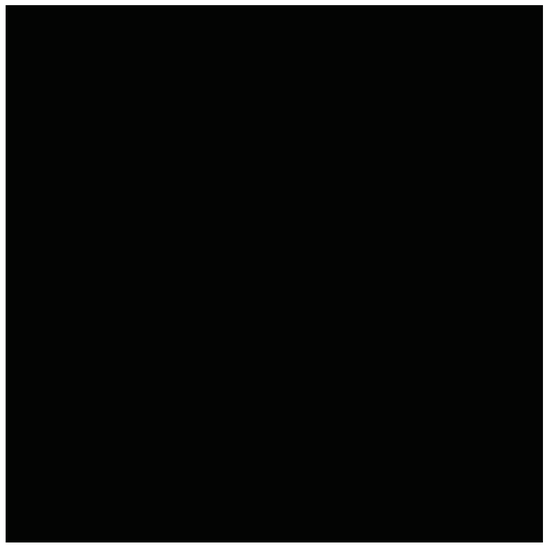
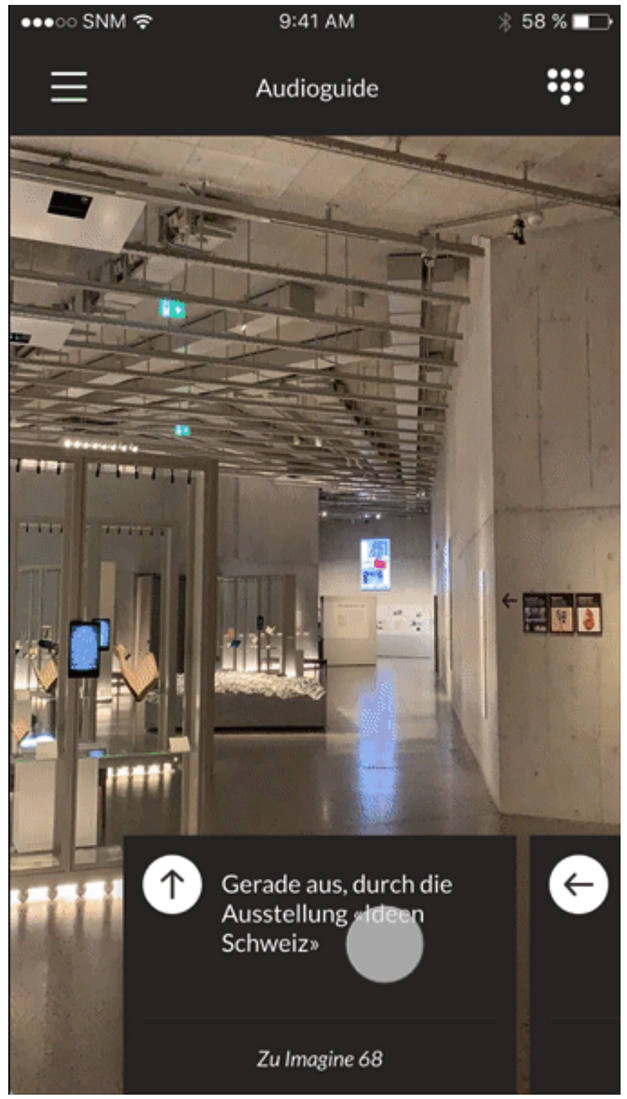


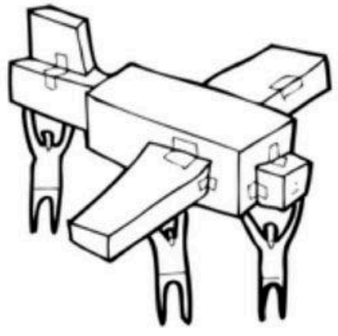
Fig. 1. A series of prototypes that represent different qualities of interest to a designer to filter out different aspects of a design [Lim 2003].

Youn-Kyung, L., Erik, S., & Josh, T. (2008). The anatomy of prototypes: Prototypes as filters, prototypes as manifestations of design ideas. ACM Trans. Comput.-Hum. Interact., 15(2), 1-27.

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."

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."

globalservicejam.org #gsjam image Adrian Paulsen

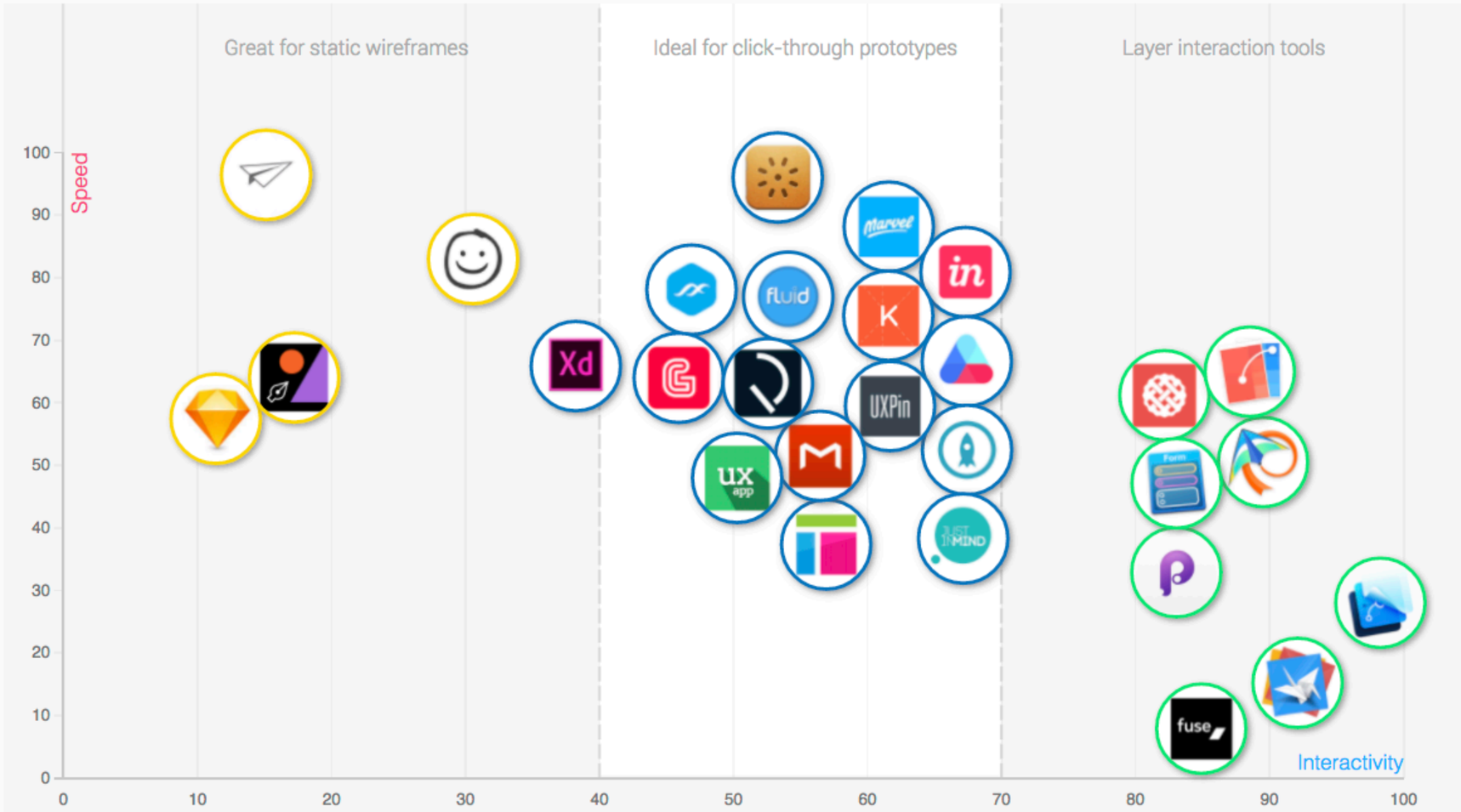
Digital UI Prototyping

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

Saying at IDEO

UI Prototyping

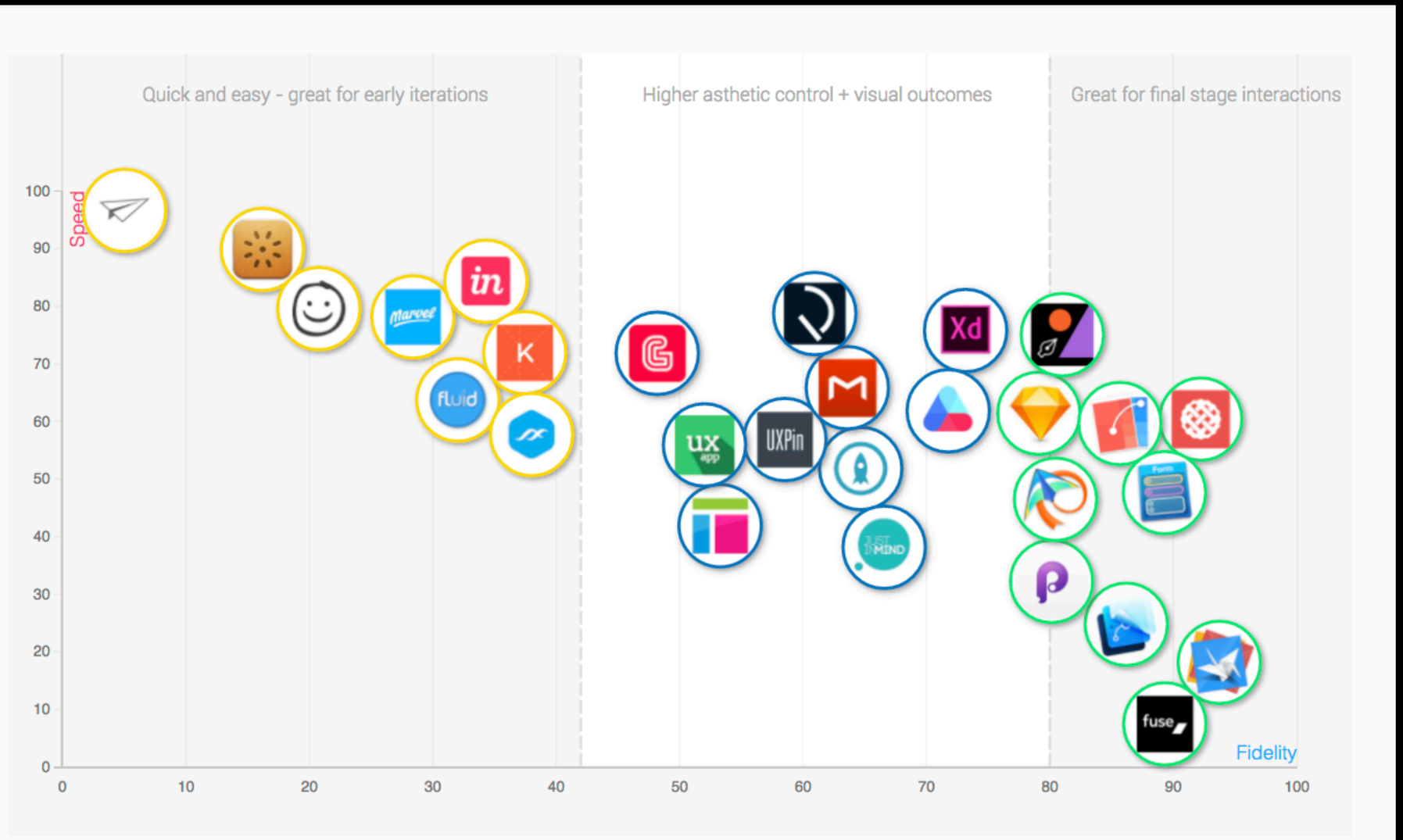
Übersicht - speed / interactivity



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

UI Prototyping

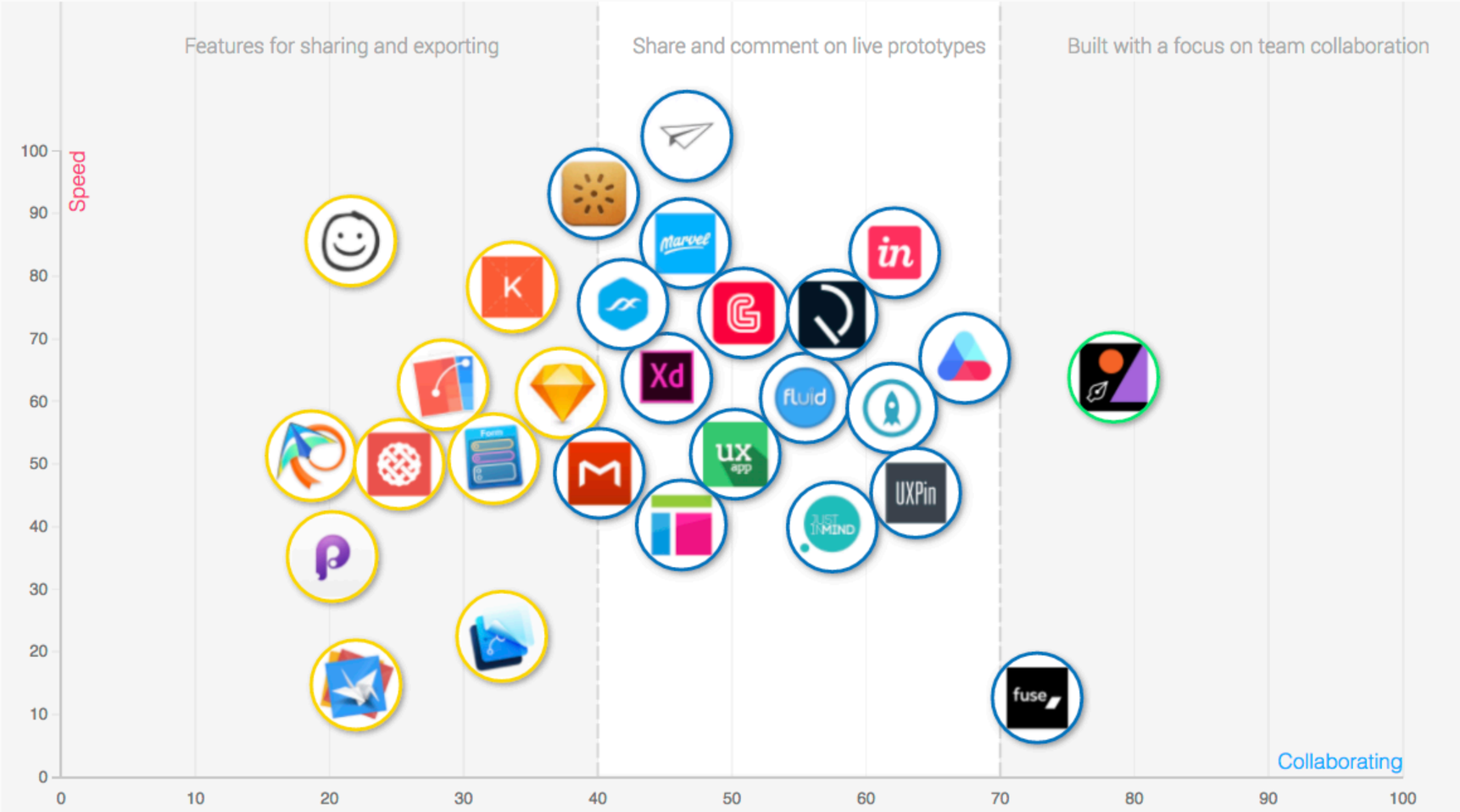
Übersicht - speed / fidelity



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

UI Prototyping

Übersicht - speed / collaborating



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

UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

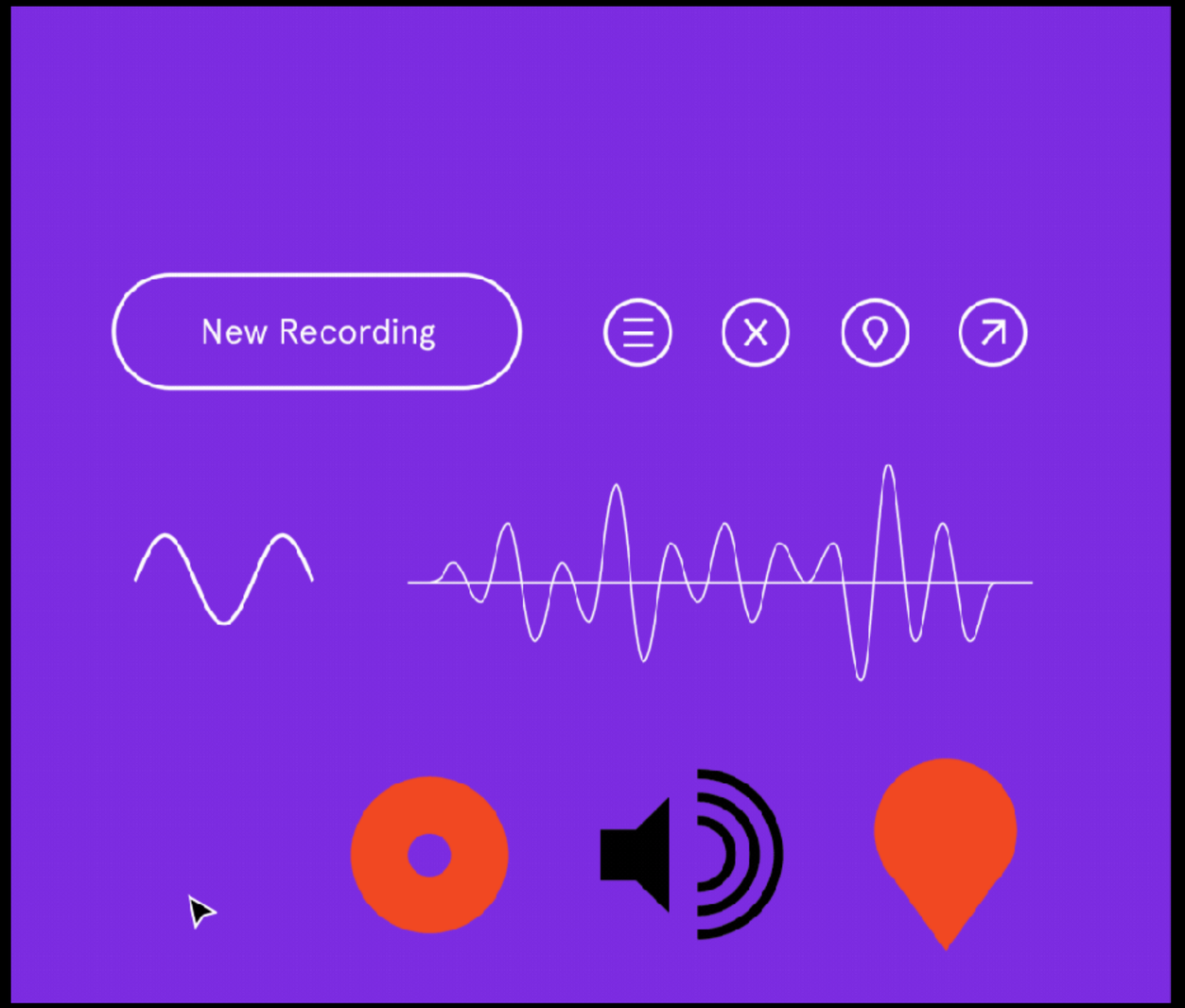
Constraints

Prototyping

Collaboration

Documentation

Autolayout



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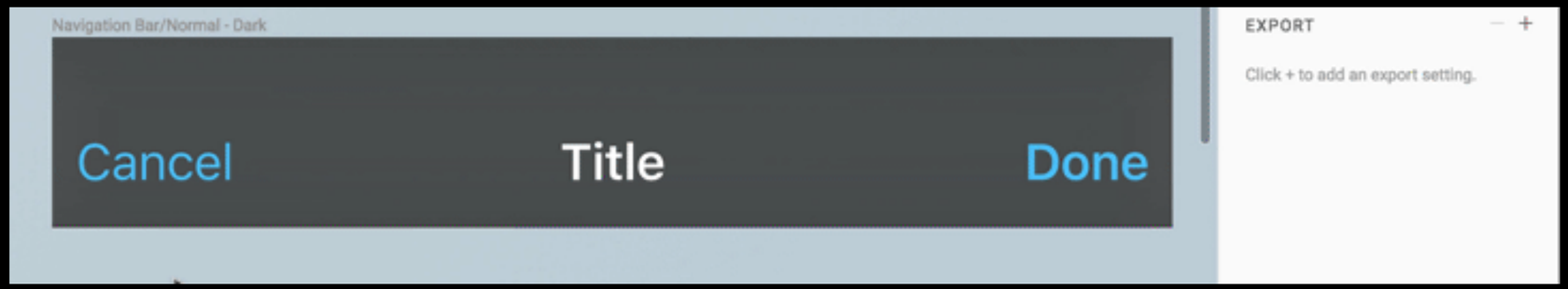

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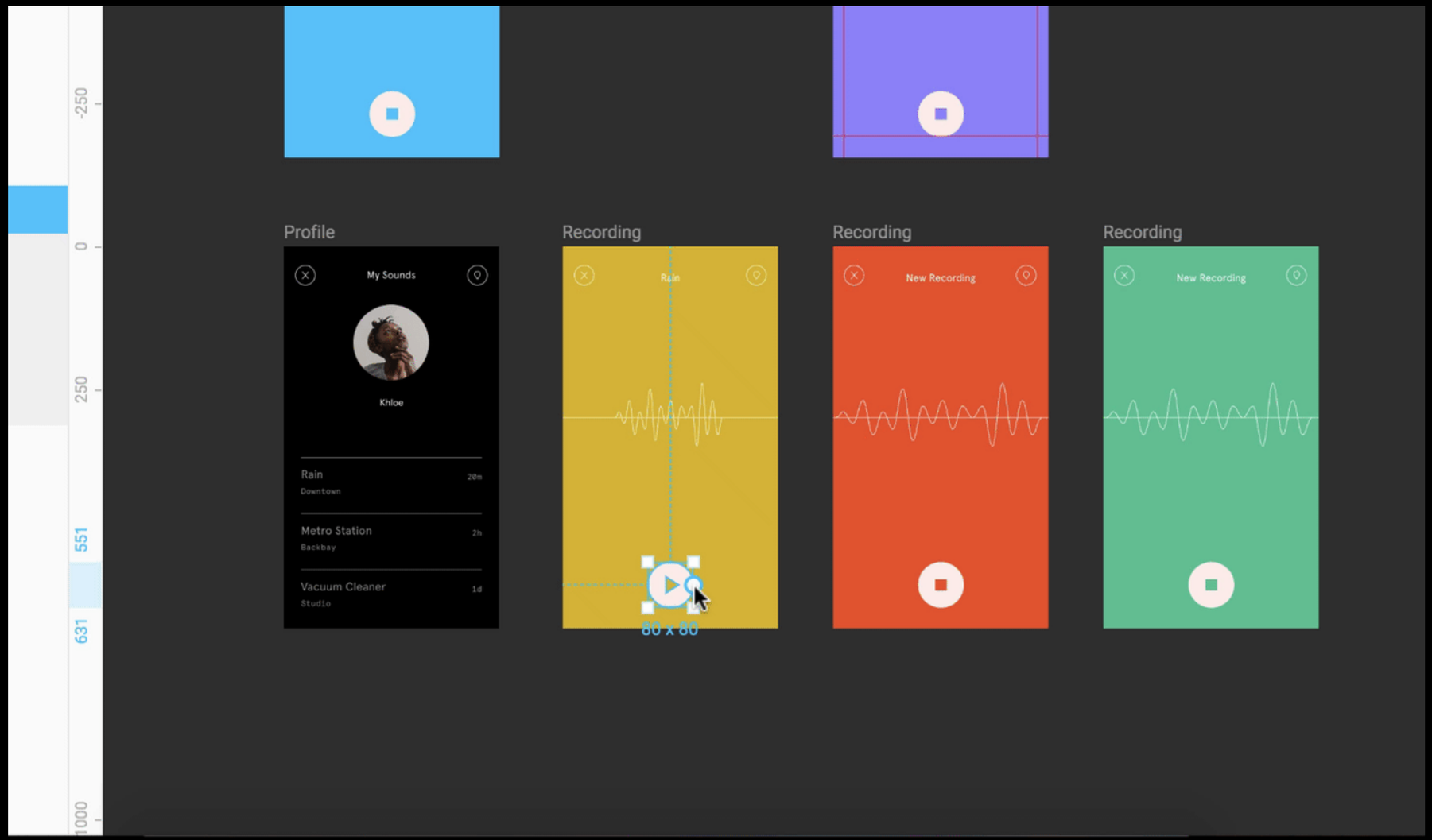

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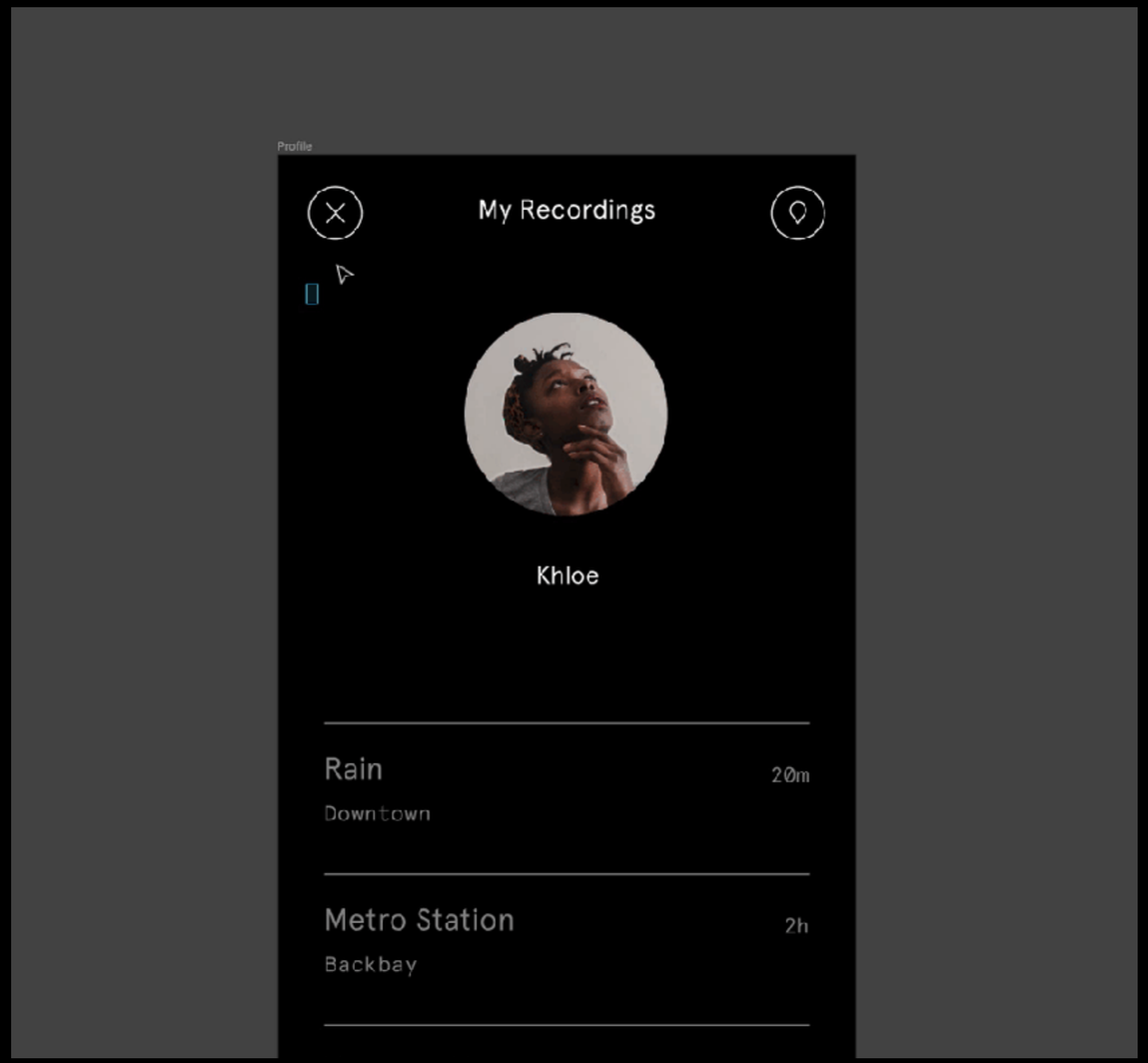
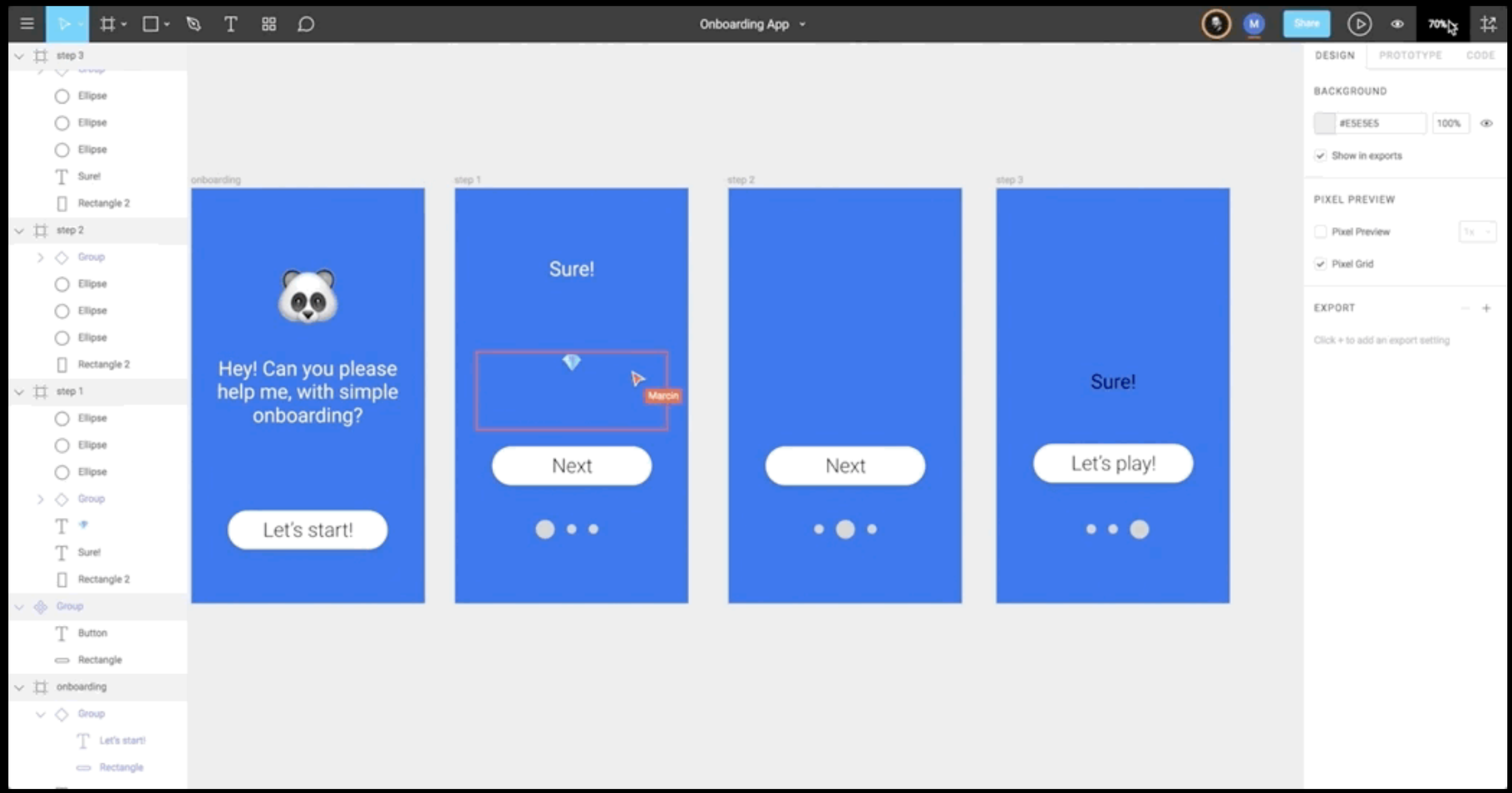


UI Prototyping

Wichtige Schlüsselfunktionen

- Symbols
- Constraints
- Prototyping
- **Collaboration**
- Documentation
- Autolayout



UI Prototyping

Wichtige Schlüsselfunktionen

Symbols

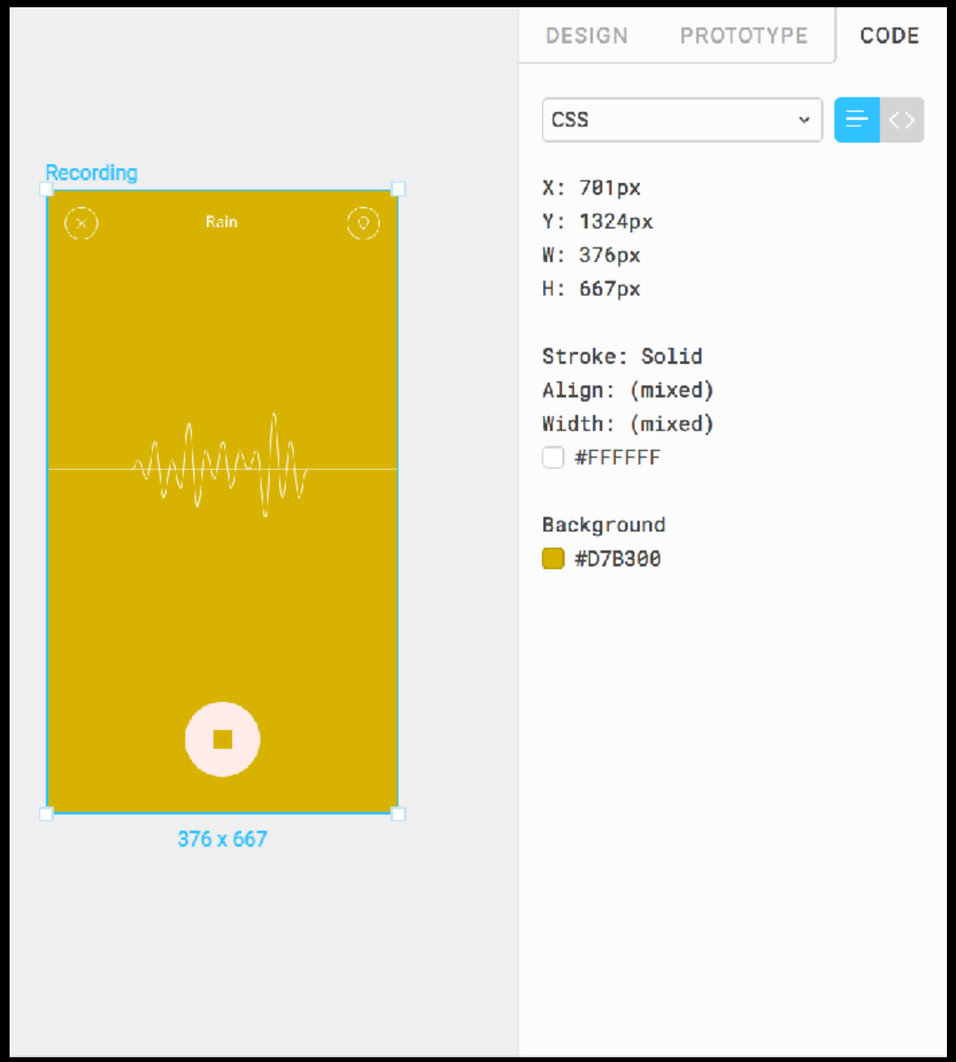
Constraints

Prototyping

Collaboration

Documentation

Autolayout



Wichtige Schlüsselfunktionen

Symbols
Constraints
Prototyping
Collaboration
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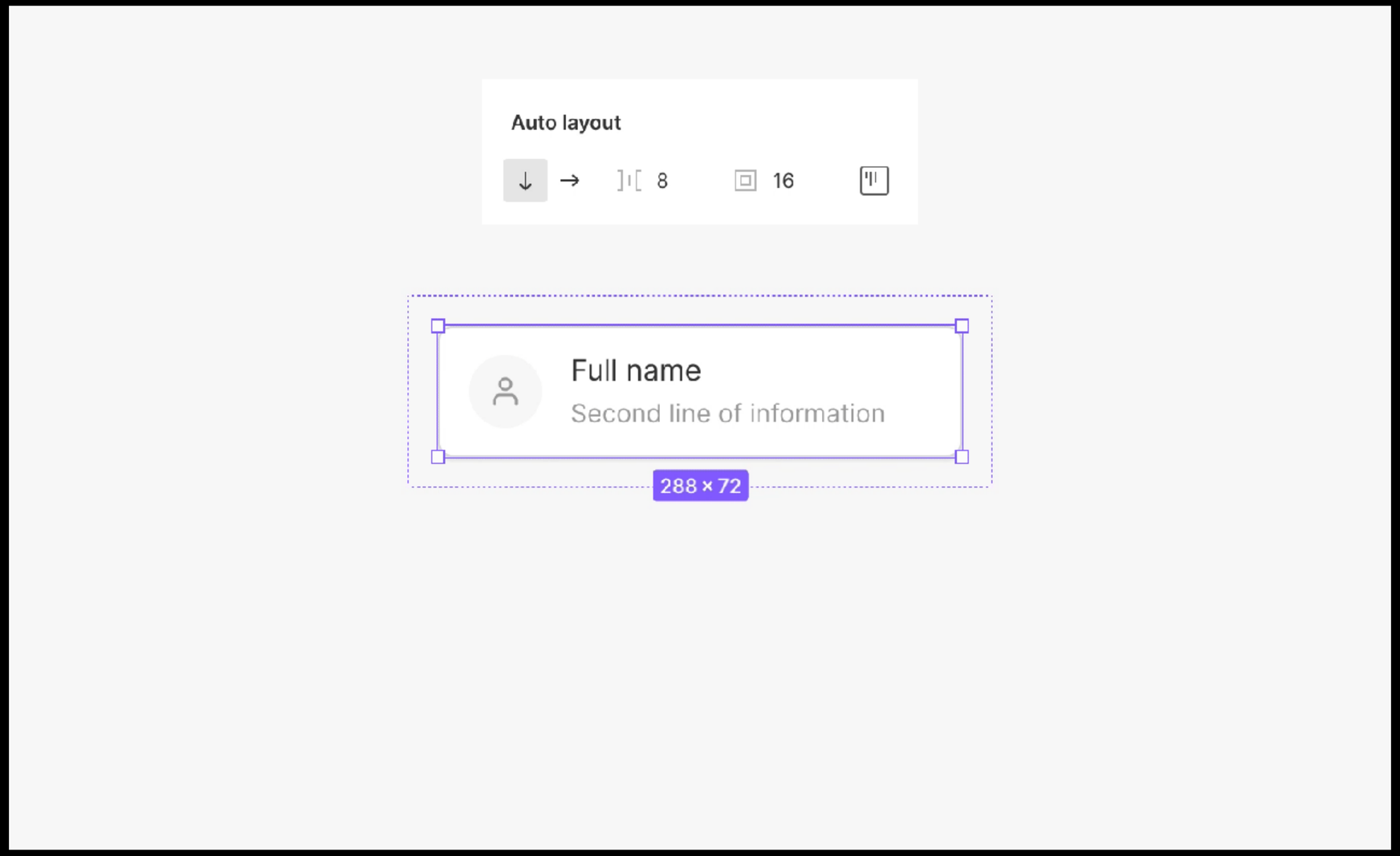
Autolayout



UI Prototyping

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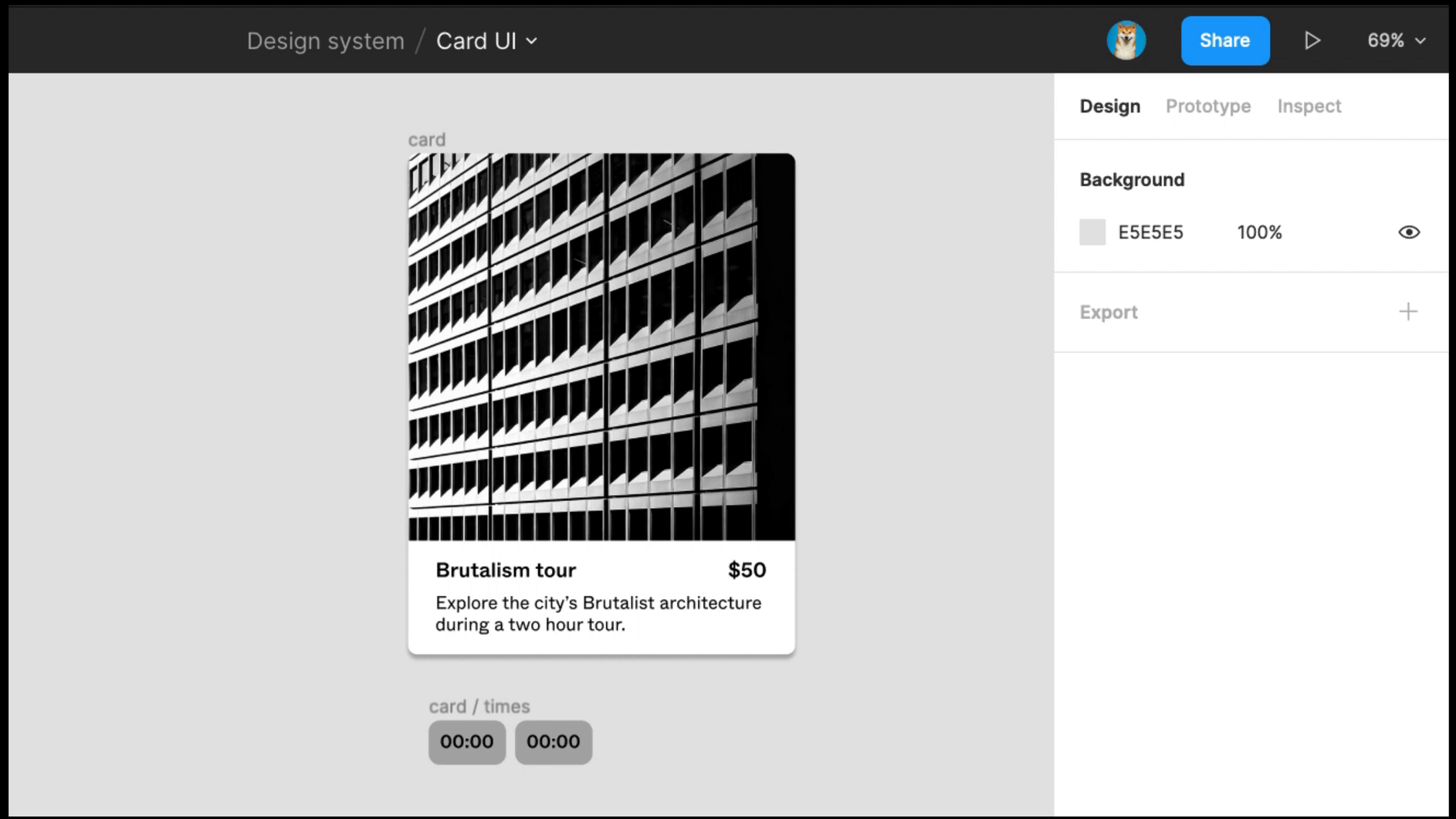

UI Prototyping

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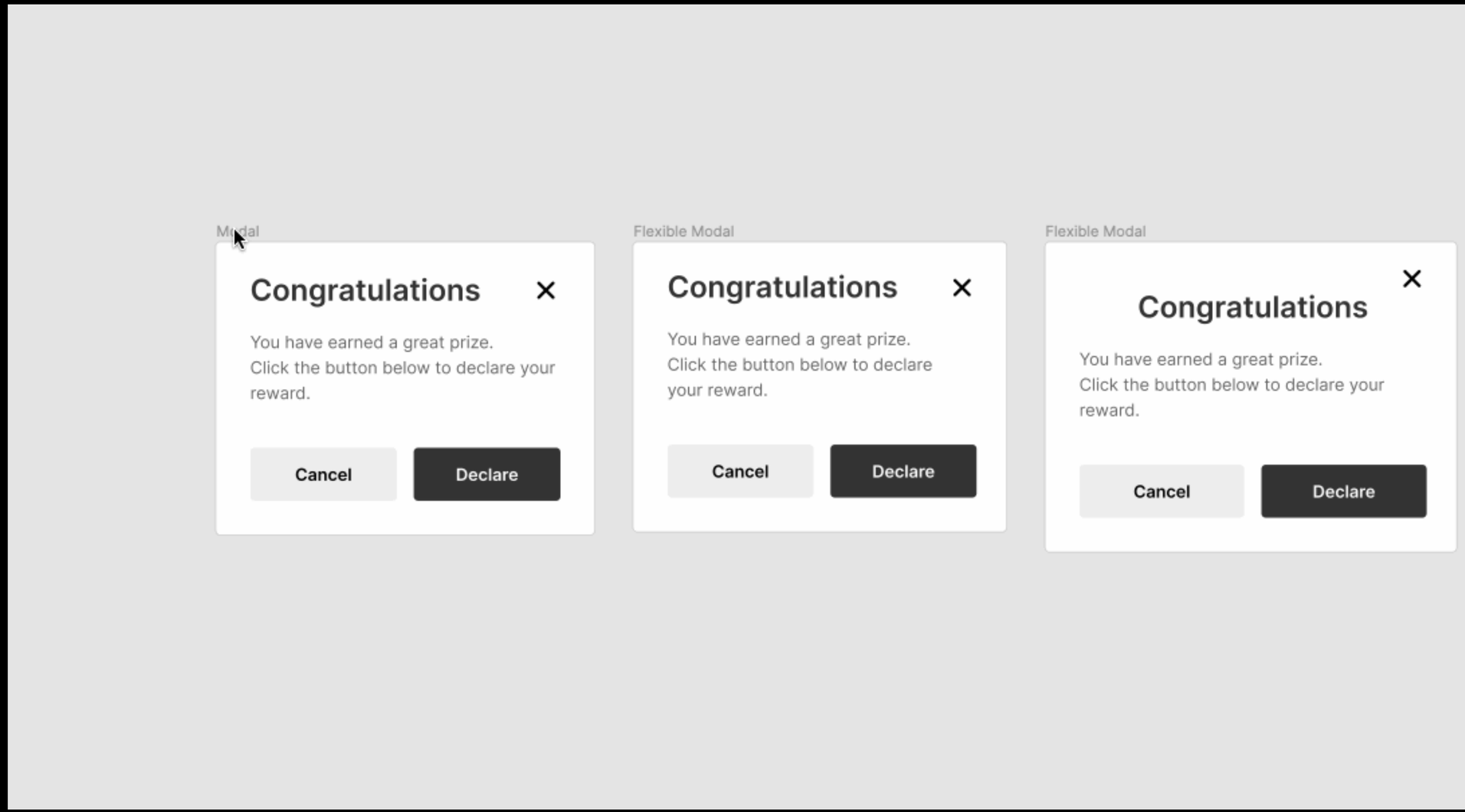


Tipps

- **Behaltet während dem erstellen eures Mockups immer Kopf: Was will ich testen?**

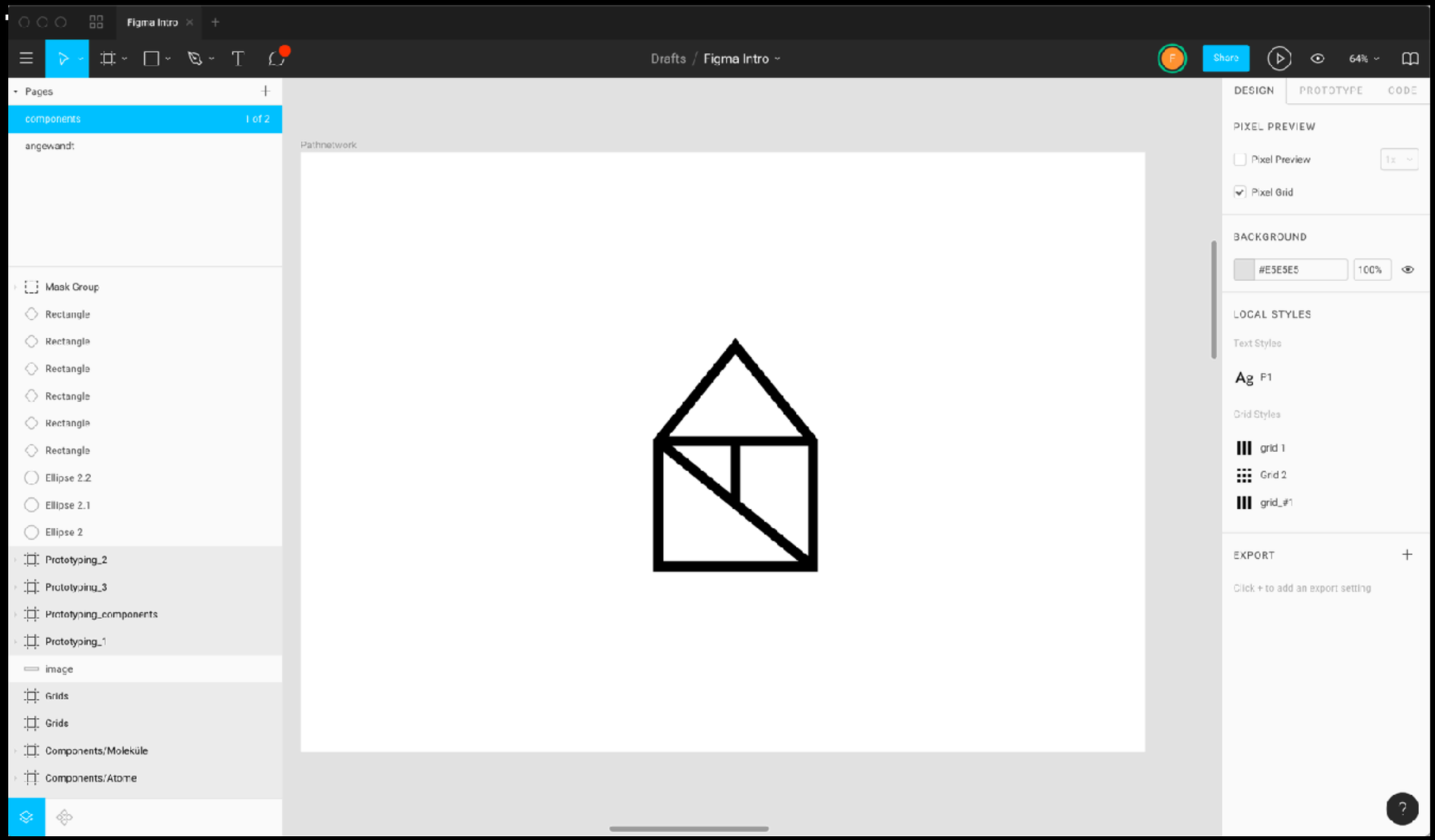
- **Vollständige interaktive Mockups sind sehr aufwändig. Teilt euren Mockup in testbare Segmente um Zeit zu sparen.**

- **Stellt sicher dass die Programme in eurem Workflow miteinander kommunizieren können.**

Tools worth exploring

Tools

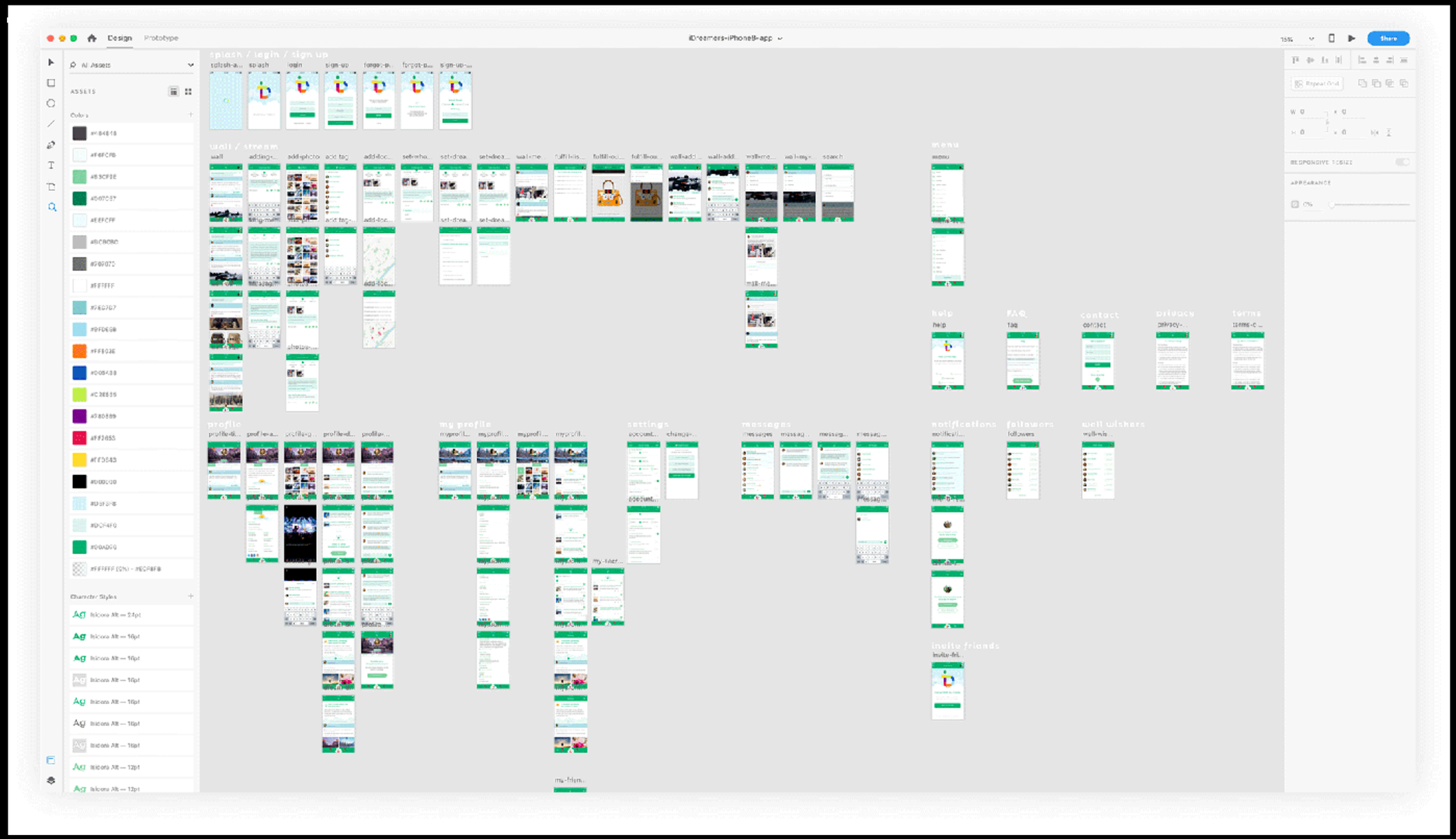
Figma



https://www.figma.com

Tools

Adobe Xd



https://www.adobe.com/products/xd.html

Tools

Marvel App

https://marvelapp.com/

Thank you!

Kontakt

Florian Wille

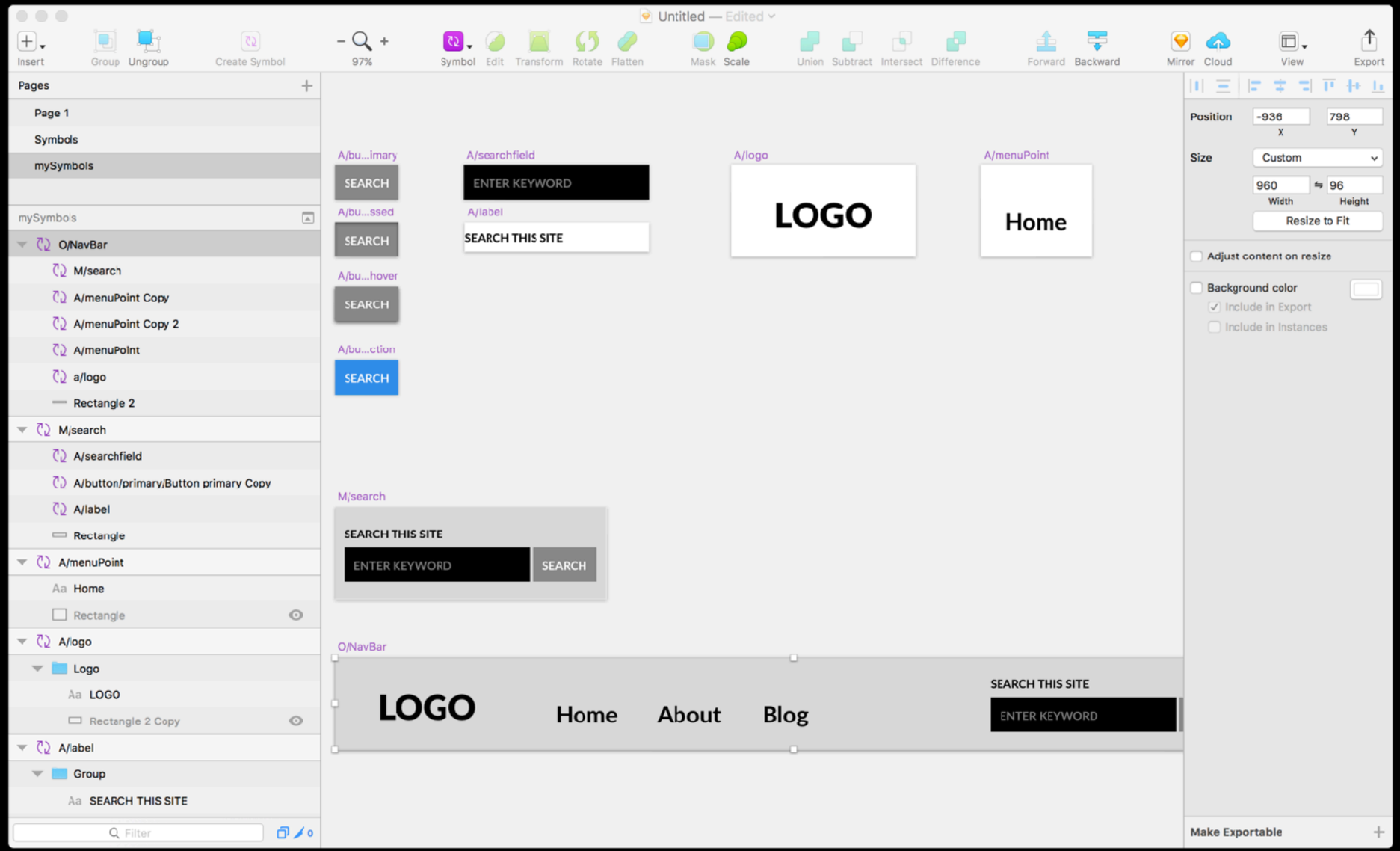
florian.wille@zhdk.ch

Z hdk

Zürcher Hochschule der Künste
Bachelor of Arts in Design

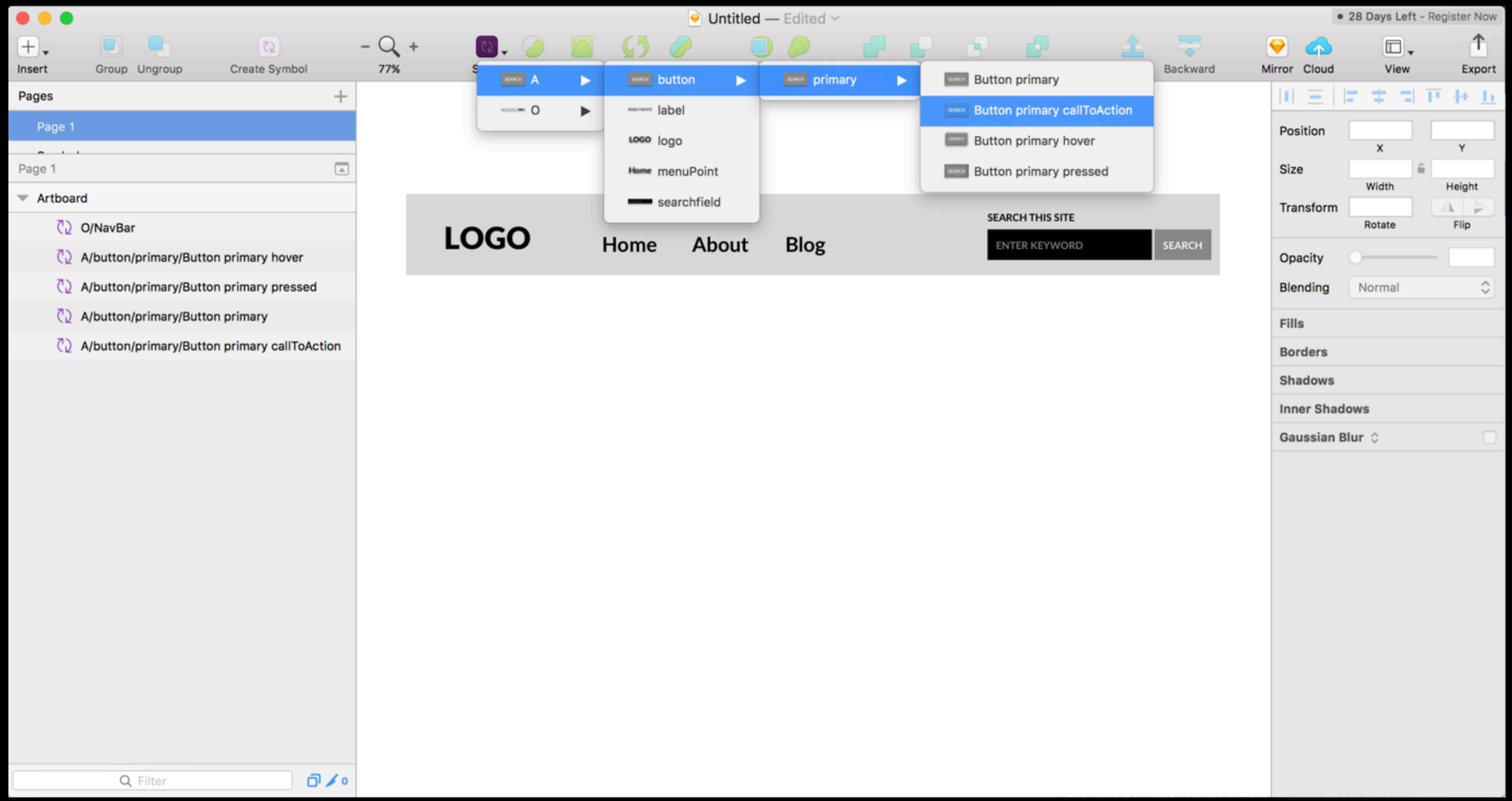
Tools

Features I Symbols - use of atomic design principles



Tools

Features I Symbols - naming convention



A/button/primary/Button primary callToAction

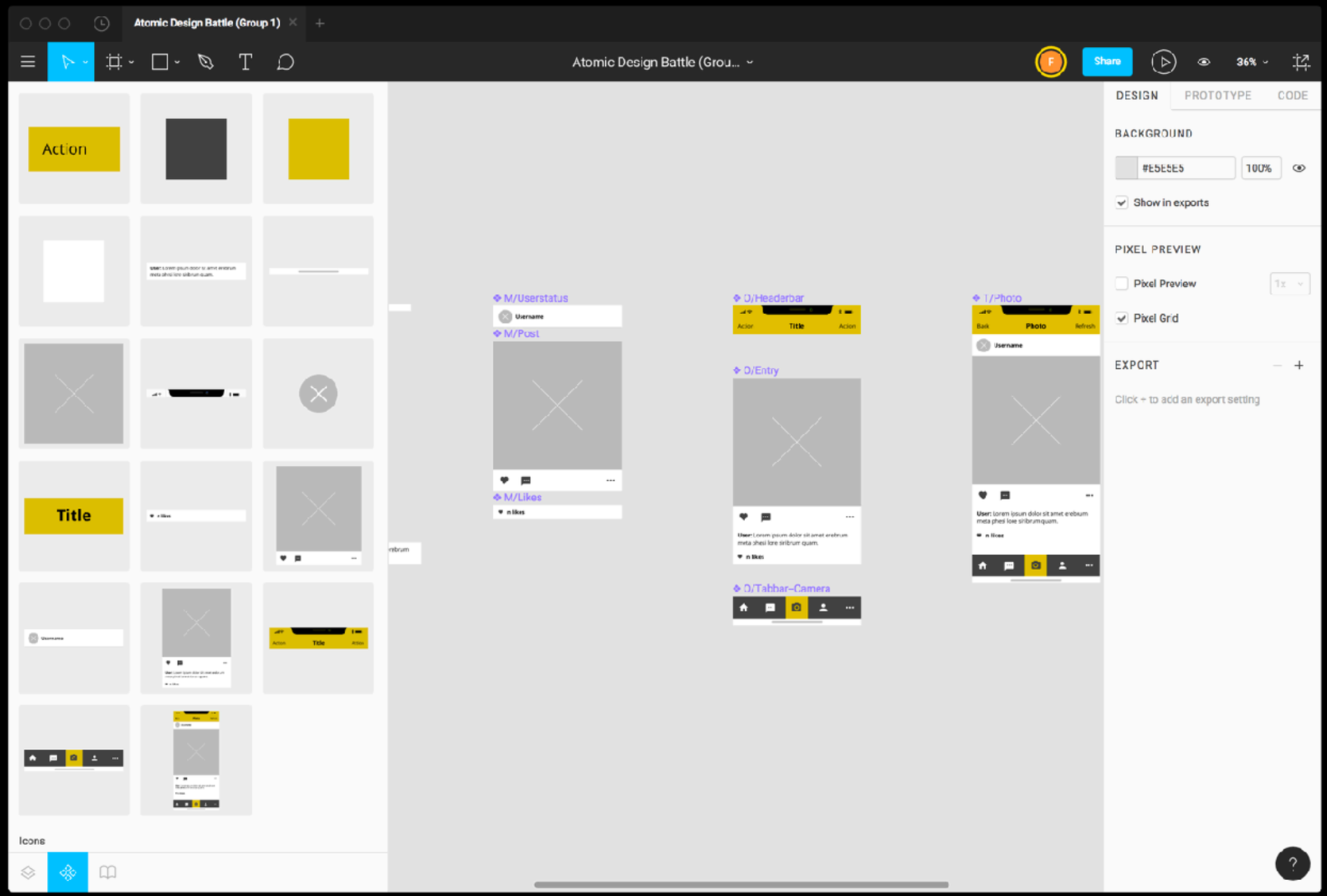
Tools

Features I Symbols - nested

Source: https://nordnet.design/an-atomic-workflow-for-design-development-at-nordnet-e91c815428b6

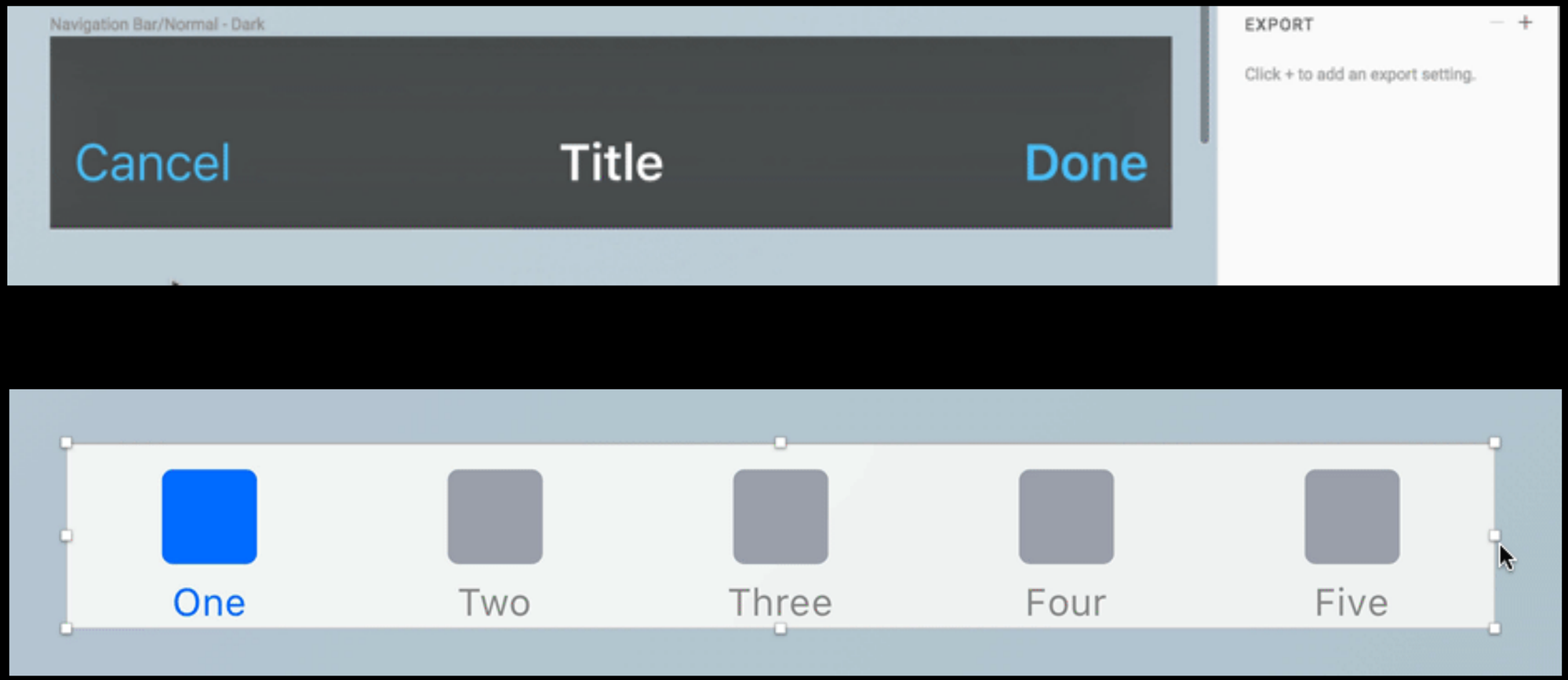
Tools

Features I Symbols in Figma



Tools

Features I Constraints



Source: https://medium.com/@mengto/figma-vs-sketch-c01e5e74eddd

Tools

Ensure your workflow is not a oneway street

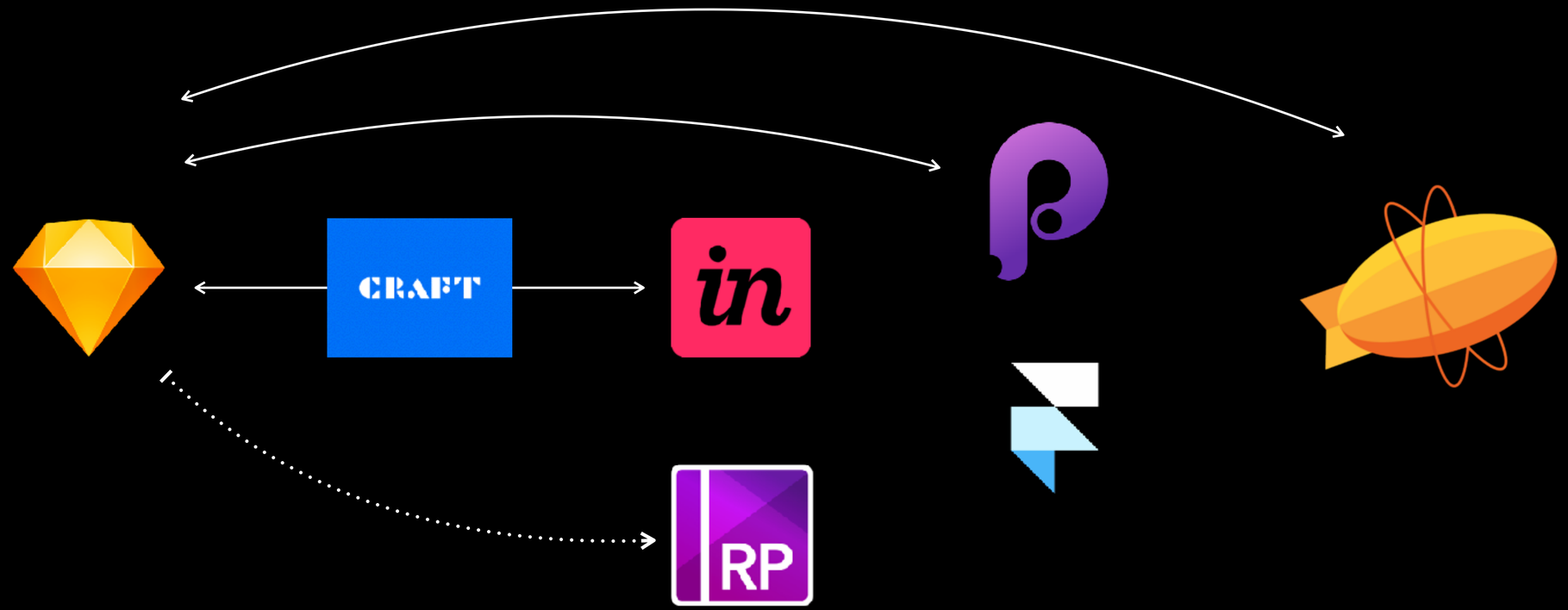
Wireframing, Layout & Design

Prototyping

Click-through

Microinteractions

Documentation



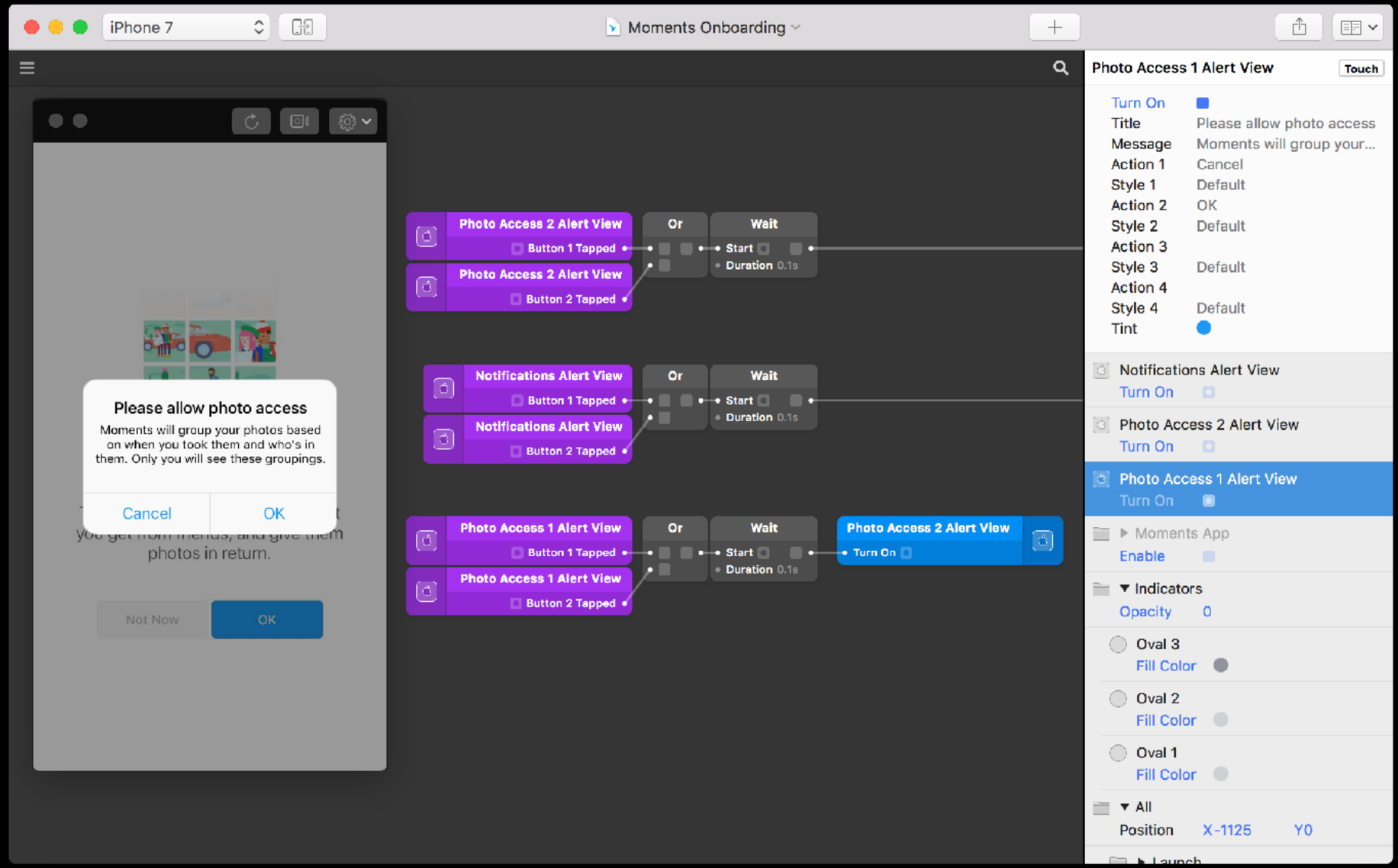
Tips

- 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

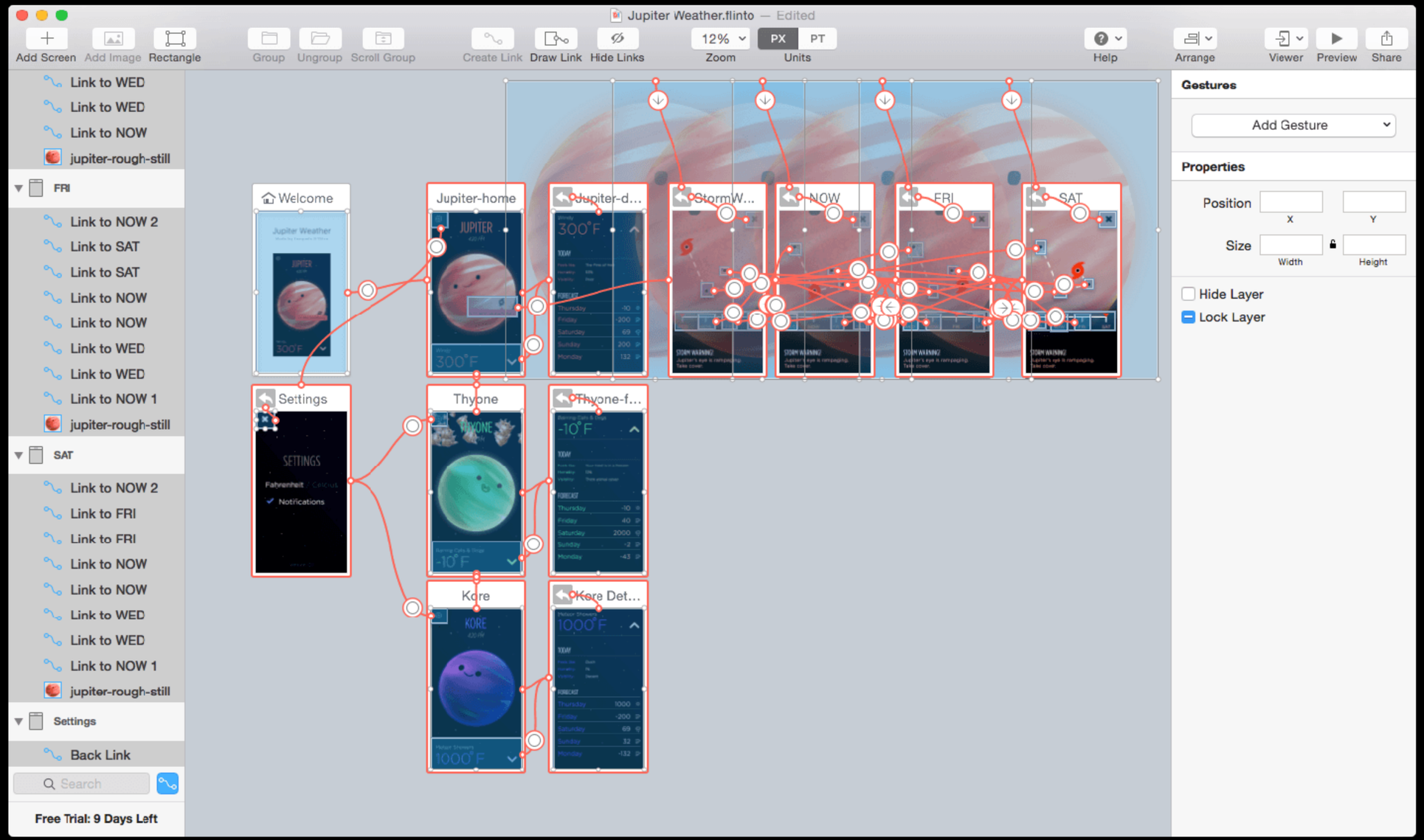
Origami Studio - Visual Programming Interface



https://origami.design/

Tools

Flinto for Mac



https://www.flinto.com/