

Google Tango Project

ShareDesign

Platform for **CUSTOMIZING TOGETHER** in the living room

myDesignLab

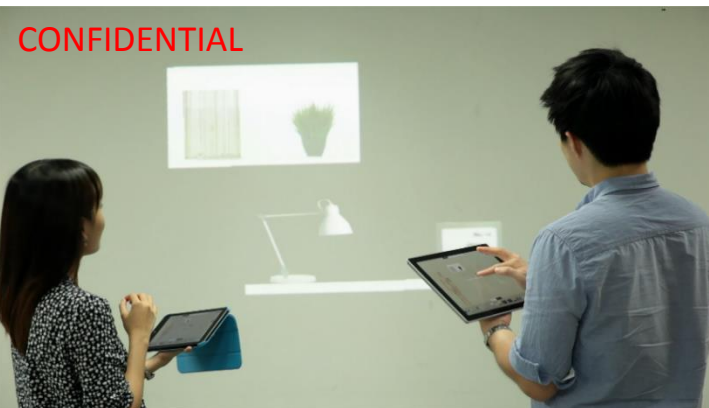
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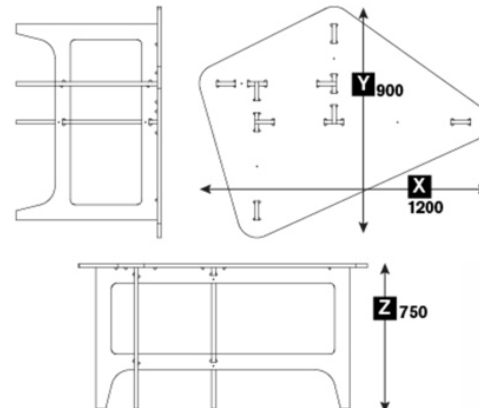
Tablet based augmented reality (AR) is a great way to engage people in situated design processes in their homes.

Shelf systems or kitchen layouts are digitally placed next to real, physical furniture to evaluate functionality and fit. With digital fabrication, tables or other furniture are personalized in-place before being custom made.

When we studied how couples make design decisions in their homes, we found that families typically make decisions together. Based on this insight, we propose **ShareDesign**, a collaborative platform for personalizing furniture in the living room.



Couples designing together



Filson and Rohrbacher, atFab customized CNC'ed furniture

<https://www.youtube.com/watch?v=Zl5mod9MCh4>

Currently, several cool demos and concepts demonstrate the potential for situated interior design using tablet-based AR and Google Tango. However, these efforts are primarily limited to **single user operation** and making furniture **arrangements**.

We propose to extend this work into a shared collaboration platform based on our experience into how professional design teams collaborate. **With ShareDesign**, family members discuss, compare and evaluate designs together using multiple tablets and fluidly navigate between private and shared design spaces.

	User Operation		Arranging Tasks	Customization (Color and Texture Only)	Collaboration
	Single	Multi			
TransVision		●	●		
Estiluz	●		●	●	
IKEA AR Catalogue	●		●		
Augmented Furniture	●		●	●	
Car Visualizer	●		●	●	



Collaborative Design Tool for Casual Users



Furniture is used by everyone, and as such everyone should have a say in how it looks and how it is used. Design in the home is a social experience that can be enjoyed, regardless of previous design experience.



Collaborate with family, friends and professionals to obtain new ideas and to create the best layout that fits your needs.

Boundless Interaction Situated in the Real Environment



Design in context, view virtual objects side by side with physical objects to see how they fit.

Is that desk tall enough to be comfortable while working? Is that shelf big enough to store all your books?



Marker-less AR with Google Tango allows you to freely design layouts throughout the home.

Customization with Real-Time Simulation



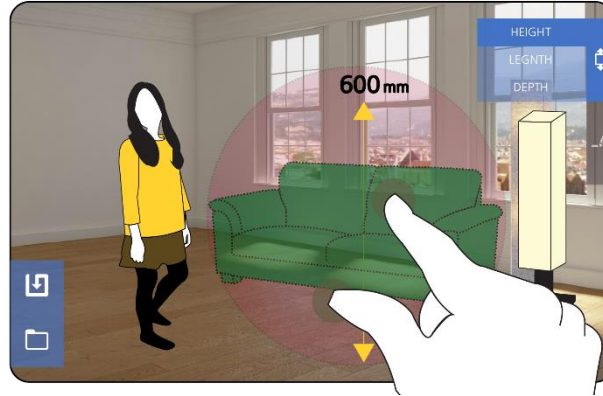
Express your creativity by **fully customizing** your furniture. Change the color, texture, dimensions and fit of the furniture by utilizing an easy-to-use, intuitive UI.



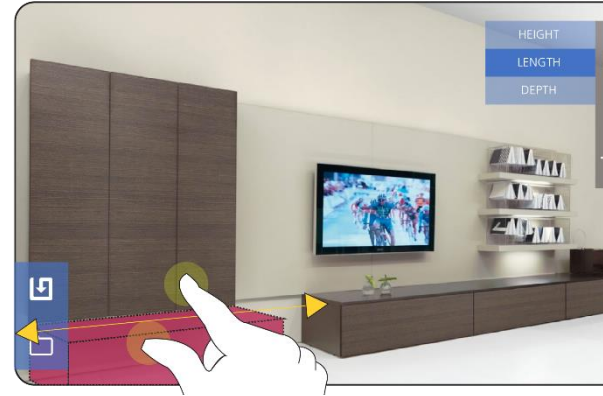
View the **changes in real time** and share them with friends and family.

Customization

Personalize your own space by freely customizing and designing the dimensions and aesthetics of your furniture.



Manipulate : Change furniture dimensions and rotate to fit your space.



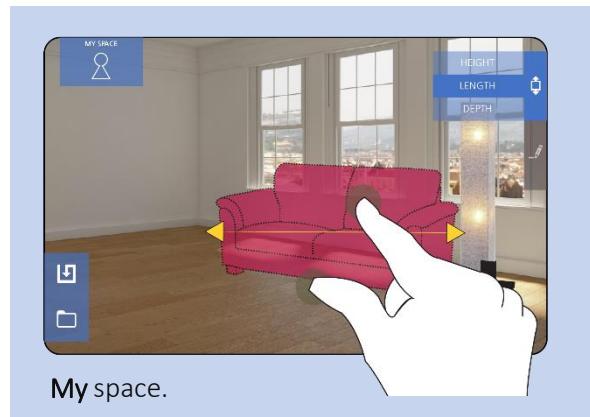
Integrate: Snap together virtual and physical objects and lock them into place.



Decorate: Modify colors, textures and patterns.

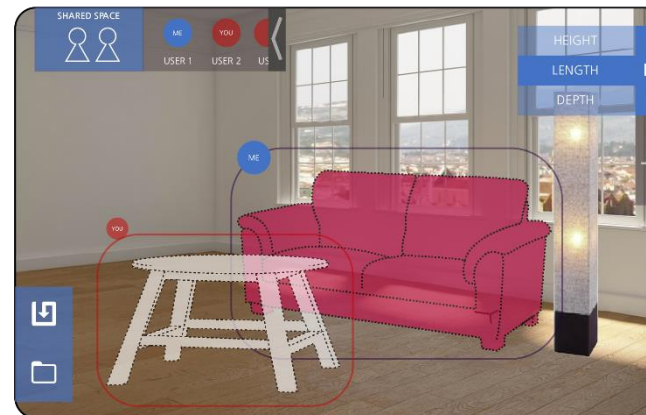
Collaboration

Work with friends, family and experts to perfect your space.



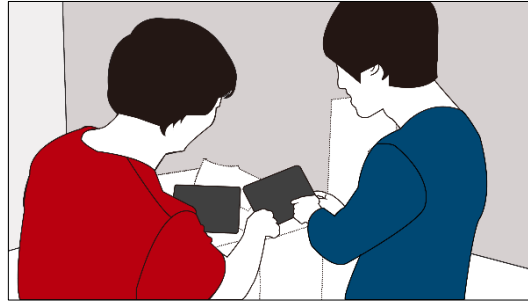
My space.

Shared Space

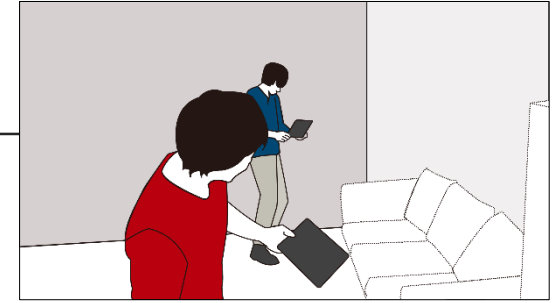


Their space.

with Friends



Share your ideas with a friend.



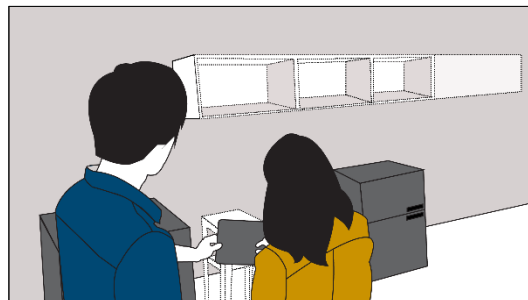
Visualize the setup together in real time.

with a Design Expert

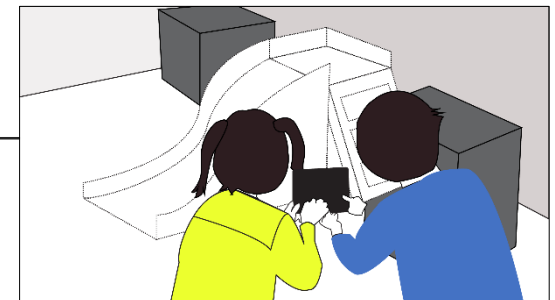


Consult with experts.


with Family Members

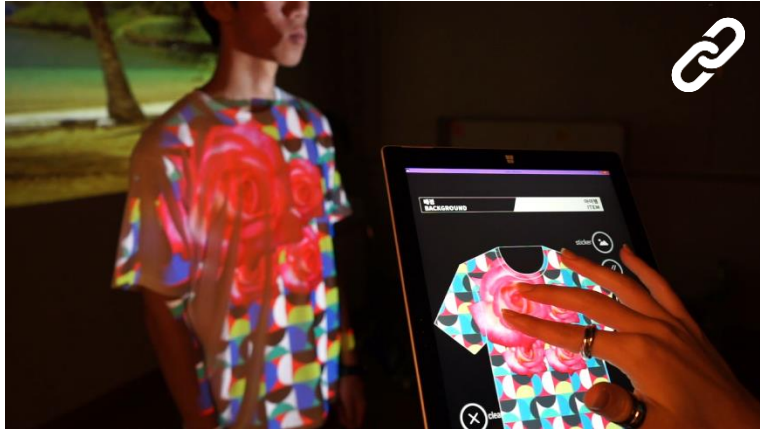


Design your space with your spouse..



..and let your children's imaginations run free.

Click  to watch project videos



Mirror Mirror

A T-shirt design system for everybody. Using AR, shirts can be designed together using mid-air gestures or through a tablet to offer an intuitive and precise way of designing.

<https://www.youtube.com/watch?v=ZI5mod9MCh4>



Two Shelves

For couples designing in the living room. Create your own layouts, check out your partner's, and then integrate them to create the perfect space.

<https://www.youtube.com/watch?v=ZI5mod9MCh4>



BodyMeter

A body-centric system to customize furniture. By using your body as reference, VR furniture can be customized to the way you need it.

<https://www.youtube.com/watch?v=ZI5mod9MCh4>



ShareDesign

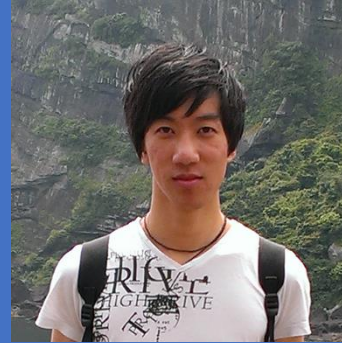
“Design and fully customize your own space in context with those that are important to you.”

Development Team



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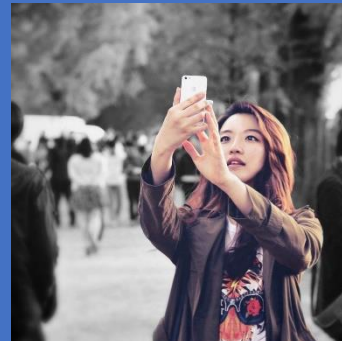
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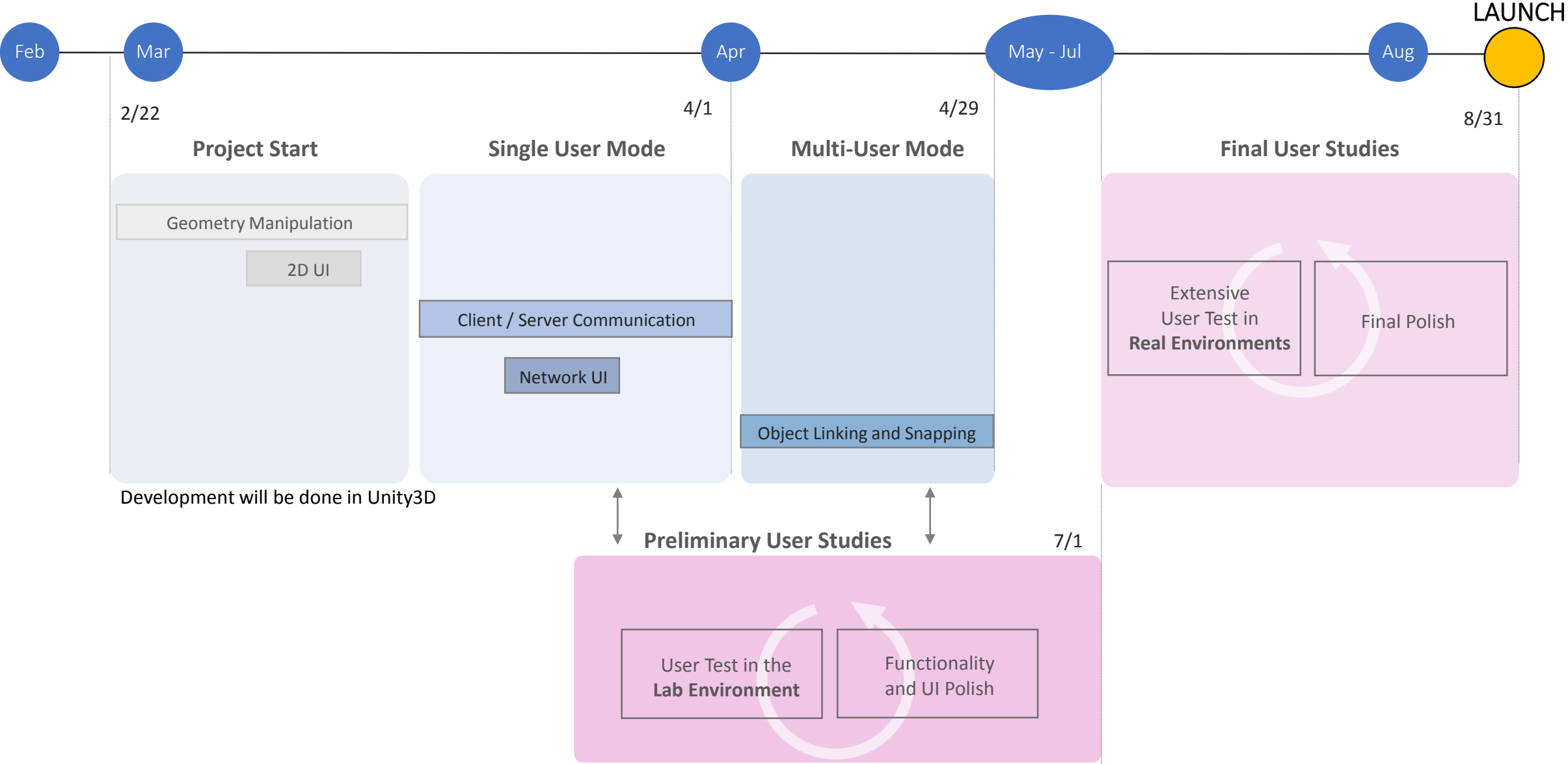


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BSc in Industrial Design and
User Study Expert

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Development and Design Process



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