

UI/UX Process Book



x COMPILED BY Lian Bensaadon Faith Ong Hope Terpilowski **x TEAM** James Pierce Lian Bensaadon Hope Terpilowski Burke Smithers Faith Ong Cole Young Ann Lai



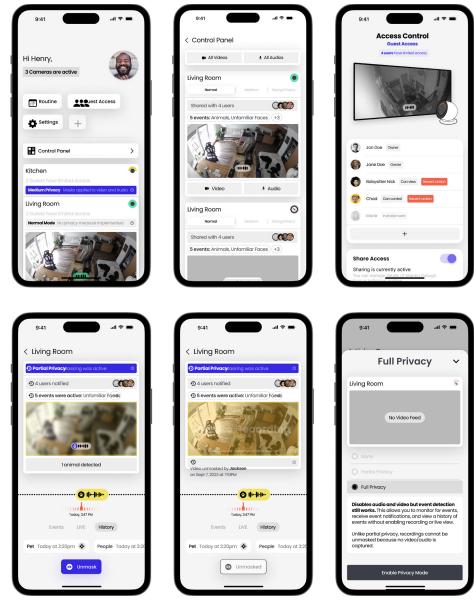
An overview of the user interface & user experience design process for Arca; an inclusive, privacy-sensitive smart home security system.

Spring/Summer 2023

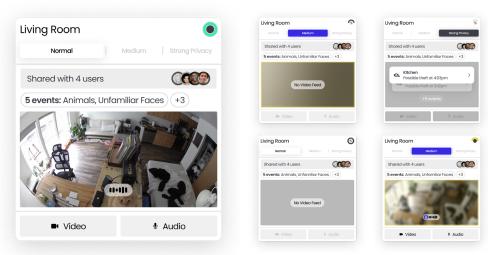
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TEAM د



x Figure1 ∠



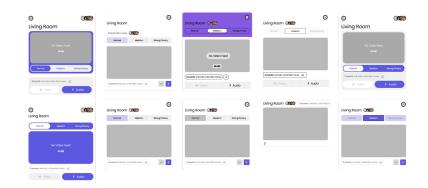
Initial UX/UI צ

P.03

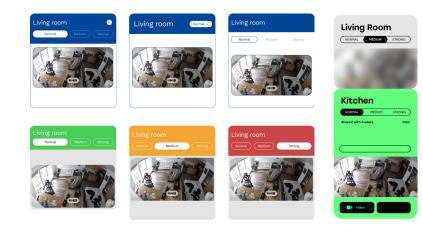
Displayed on the opposite page are screens from the first round of interface design for the Arca app. The screens shown in Figure 1 were initially part of a user-tested prototype.

The team's goal was to use these screens as a jumping off point for an entirely re-designed interface. We felt that these screens were not intuitive enough, and could benefit overall from the implementation of a clearer brand.

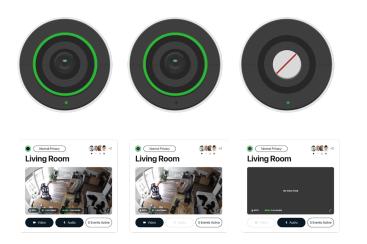
We decided to start by reworking the basis of the app: the camera cards. The original camera cards are shown here in Figure 2.



Living Room	Medun Hvacy Kitchen	Story Mikey Bedroom	Office
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6 events: Animats, Unfamiliar Faces +3	6 events: Animats, Unfamiliar Faces +3 ~		

















Medium Privacy

Kitchen





x Final Camera Cards

P.05

We settled on a version of the card that exists in several permutations, providing users with the primary actions for each mode. By keeping buttons simple and removing a level of depth that caused a heaviness on the initial versions of the cards, we kept the video feed as the visual focus.

x Initial Camera **Card Iterations**

Our first round of iteration consisted of fleshing out ideas for the camera cards. These cards are what users interact with the most, so the team prioritized ensuring they were clear, but not informationally or visually overwhelming. We explored color, button styles, and overall hierarchy.

P.04

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e a ite Patio	Bedroom Person detected at 4:03pm	Bedroom · · · · · · · · · · · · · · · · · ·	Office



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amena behaves as a normal security camena. This allows all display and control of both the video and audio feed, is well as a recorded history of events.	Medium Privacy	Medium Privacy	Medium Privacy
Medium Privacy	Actos a removidee privacy mask that clurs video and muffles audio. This helps protect privacy by discouraging users from viewing recordings or live feeds.	Strong Privacy ①	Strong Privacy
Strong Privacy	Strong Privacy	Fully disables the camera and microphone from recording or clisplaying live video. However, you can still receive notifications about detected events.	Ø off 🗇
Ø off	Ø off	Ø off	Disables both video and audio from being on or recorded. Events are not detected or recorded.

		Normal Privacy	Medium Prisoy (the target	Wedum Privacy (• •	
Normal Privacy Iving Room		Living Room	Kitchen	Kitchen	Office
Medium Privacy (• • • • •		Living Room Privacy Mode Consens is set to "Normal Privacy" mode, to this mode, the corners will behave as a regular security carriera.	Privacy Mode O Cemtrals is set to "Medium Phisacy" mode, in this mode, there is a removable privacy mask, that blurs video and muffles audo. O Camera Location O	Kitchen	writing distributed
Strong Privacy Bedroom				• • • • • • • • • • • •	+
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Medium Privacy ' Kitchen		Medium Privacy Strong Privacy Off Image: Complex strength of the strengt of the strength of the strength of the strength of the strength	Unmask Event Dog Detected		recorded until camera is turned on.
• Strong Privacy Bedroom			Dog Detected Unmask Event	"The carries is on the bookhelf above the duck statua" Carriera Users 2 other users have access to this carriera.	Note that has not in the booth of a booth of the contract of t
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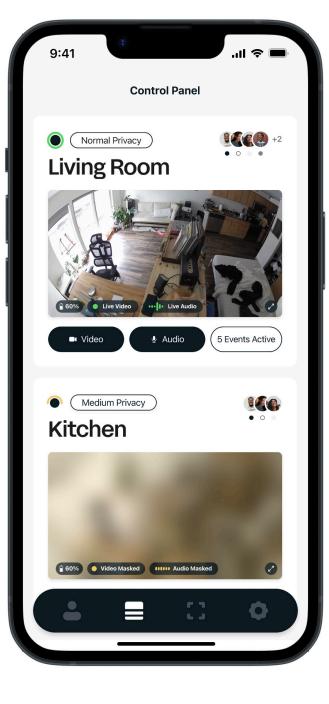
x Components

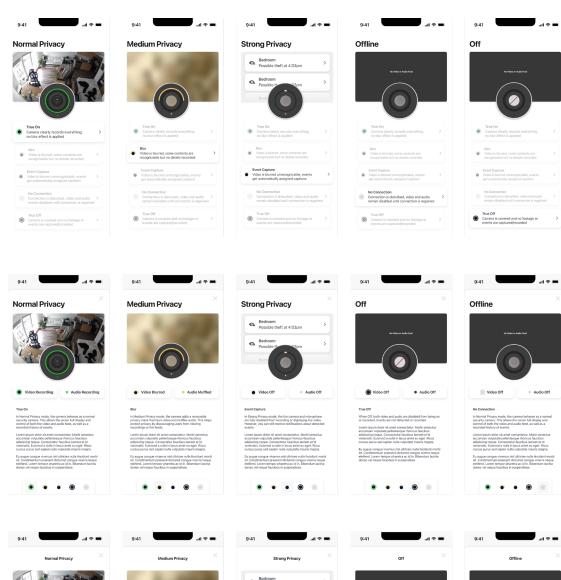
Drawing from the card design and a new branding system, the team created the components that form the experience of the Arca app.

Not only did the creation of components help further define a visual language, but the process included consideration of how a user might move from screen to screen. The team implemented microinteractions such as pressed and active button states, animations, page transitions, drawers, and pop-ups.

P.07

These considerations make the Arca experience more proprietary, highlighting the novel features.





41 1 Image: Image

x Finalized Control Panel

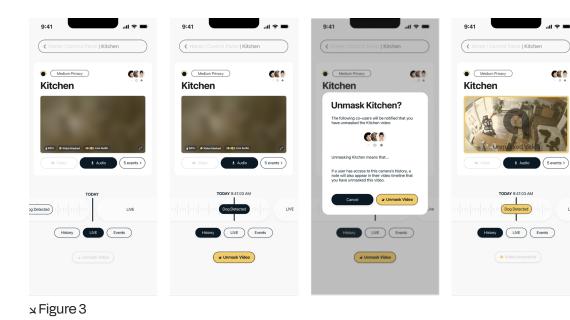
The team's finalized cards and a few components first manifested in the form of the Control Panel.

Here, users can view their video feeds, change privacy modes, see shared users, among other primary actions. x Privacy Mode Guide Iterations

P.09

Arca's privacy modes are communicated via both the app and the physical camera face. Because of the novelty of this feature, the team created a guide, available to both primary and secondary users, built into the app to illustrate how the privacy modes are visually displayed.

P.08



9:41

Medium Privacy

Unmask Kitchen? The following co-users will be notified the have unmasked the Kitchen video:

If a user has access to this camera's history, a note will also appear in their video timeline that you have unmasked this video.

History LIVE

Kitchen

....

9:41

Medium Privacy

Kitchen

9:41

Medium Privacy

🖬 Video 🔹 Audio

History LIVE

Unmask Video

Kitchen

| | Kitchen

•

5 events active

9:41 9:41 9:41 9:41 Kitchen K Home | C Home ontrol Panel | Kitchen ontrol Panel | Kitchen ntrol Panel | Kitchen Medium Privacy Medium Privacy Medium Privacy Medium Privacy Kitchen Kitchen Kitchen Kitchen 🛔 Audio 🛓 Audio 5 events > 5 events > Video & Audio 5 events > 1 Audio 5 events > LIVE Events Live History History LIVE Events History LIVE Events History LIVE Events Unmask Video Unmask Video Unmask Video

5 Figure x

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CE ?

I Kitchen

(History) LIVE

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KHome Control Panel Kite	chen	K Home Control Pane	Kitchen	K Home Control Panel K	itchen	K Home Control Pan	el Kitchen
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History	IVE	History	LIVE	History	LIVE	History	LIVE
						Video U	

Figure 6 د

ע Unmasking צ	
Iterations	

A key feature of the medium privacy mode is the ability to unmask, or remove the blur, from any portion of the video captured. The team iterated on two versions of an unmasking flow: an "easy" version, shown in Figures 3–5, and a "hard" version, shown in Figure 6.

א "Easy" vs. "Hard"

P.11

The "easy" version is more intuitive and accessible, while the "hard" version aims to discourage users from utilizing the feature too often by making the action more hidden.

P.10

9:41

(K Hom

Kitchen

Medium Privacy

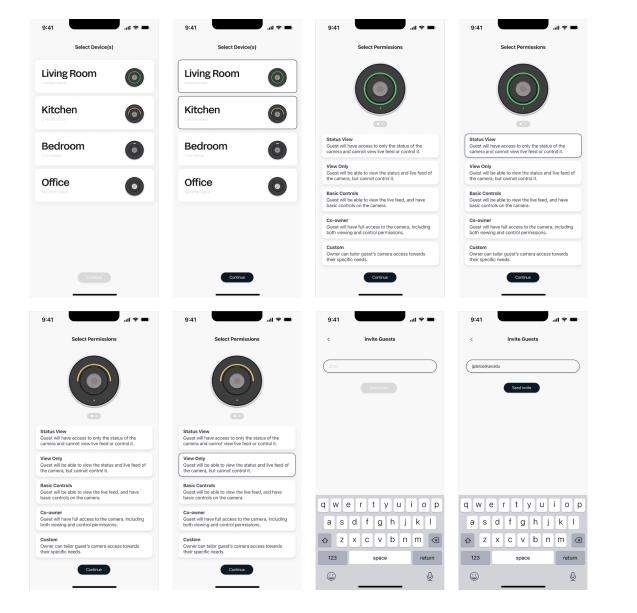
х Figure 4

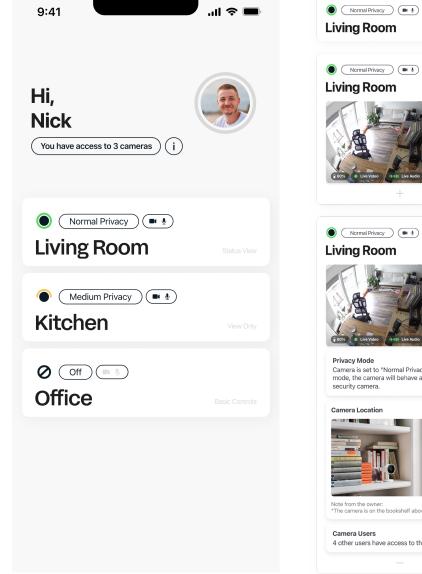
| Kitchen

Audio 5 events active

History LIVE

....





Normal Privacy Normal Privacy Camera is set to "Normal Privacy" mode. In this mode, the camera will behave as a regular lote from the owner: The camera is on the bookshelf above the duck statue 4 other users have access to this camera.

x Sharing: Primary User-end

The team designed a flow for the primary user to share any of their cameras with anyone. With the option of several permission levels for each camera, the owner has complete control over what is visible to outside users they invite.

x Sharing: Secondary User-end

P.13

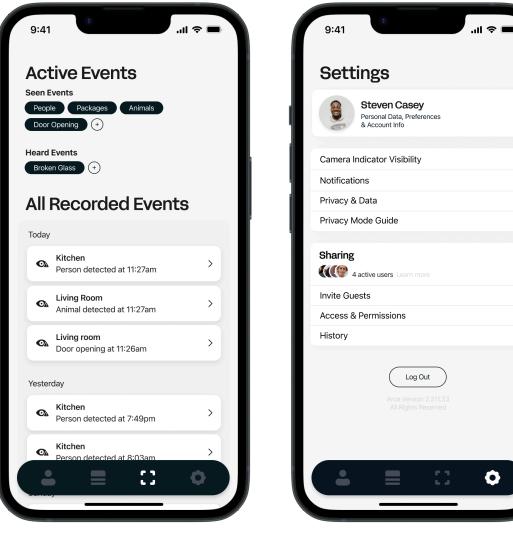
On the secondary user-end, the team designed a flow which shows three types of access permissions: Status View, View Only, and Basic Controls. The goal on this end was to be completely transparent with the outside user, but ensure that the primary user has overall control.

P.12



Figure 7 צ

Figure 8 x



я Figure 9 к

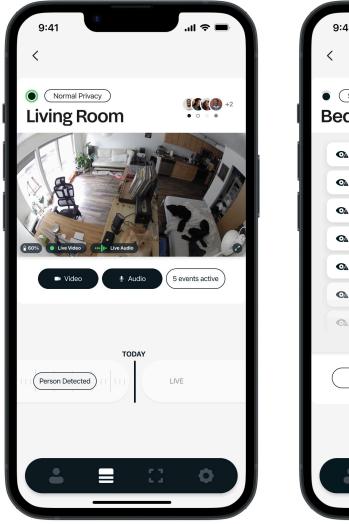
Figure 10 د

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x Finalized Screens

P.15

Figure 7 – Home Screen Figure 8 – Control Panel Figure 9 – Events Page Figure 10 - Settings Page



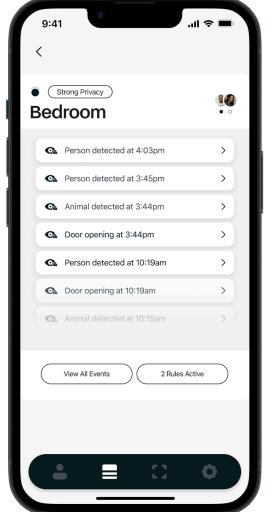


Figure 11 د

Figure 12 x

.... 🗢 🔲 9:41 Medium Privacy • • Kitchen 100% Video Masked IIIII Audio Mask 0 🎍 Audio 5 events active Video TODAY Dog Detected LIVE Ô

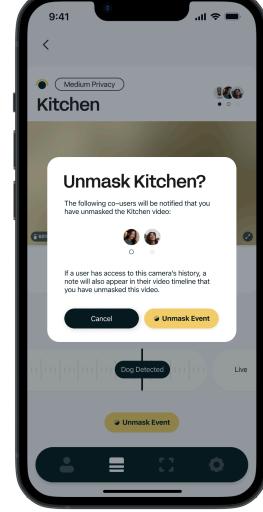
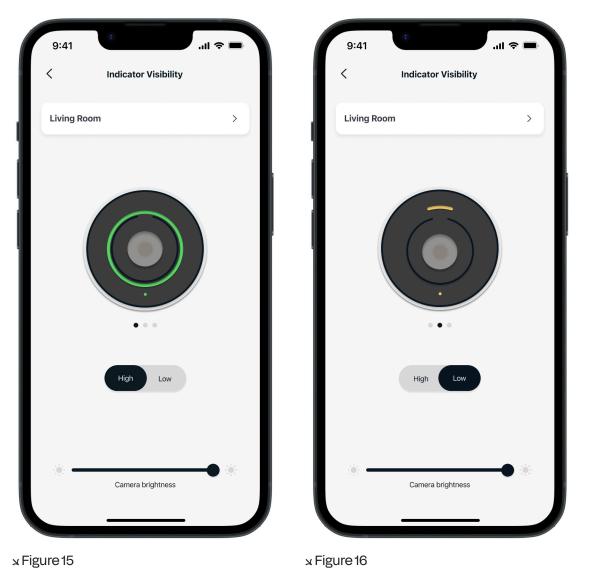


Figure 13 د

Figure 14 د

x Detailed Camera Views Figure 11 – Normal Privacy Figure 12 – Strong Privacy Figure 13 – Medium Privacy Figure 14 – Unmasking Medium Privacy



9:41 ...| 🌫 🛯 9:41 ''' 🗩 🗩 **Select Permissions** Hello, Kiana You have access to 3 cameras Normal Privacy Living Room Status View Status View Guest will have access to only the status of the camera and cannot view live feed or control it. Medium Privacy) (View Only Kitchen Guest will be able to view the status and live feed of View Only the camera, but cannot control it. **Basic Controls** Guest will be able to view the live feed, and have basic controls on the camera. Office Basic Controls Co-owner Guest will have full access to the camera, including both viewing and control permissions. Custom Owner can tailor guest's camera access towards Continue

x Figure 17

Figure 18 צ

x Supplementary Screens

Figure 11 – High Visibility Figure 12 – Low Visibility Figure 13 – Select Permissions Figure 14 – Secondary User Home Screen





