

**KidMove**

# Interactive Prototype

Transporting children in autonomous vehicles

Assignment 3  
IDEA9105 Interface Design  
The University of Sydney

**8Kteam**



**James Anderson**  
Creative Director



**Haiyan Gao**  
hgao0237 | 510476436



**Nancy Jian**  
hjia2135 | 510556691



**Yancheng Zhang**  
yzha7774 | 520100756



## Design Brief

**KidMove assigned young creatives to develop an automated kid transport service system for parents that highlights safety and communication.**

Arranging transportation for kids to school is currently a practical challenge for many families due to busy schedules, multiple obligations, and demographic factors. Parents often opt for traditional methods of transportation such as cars, public transit, or school buses, which may come with **inherent risks** like human error, the danger of strangers, and unexpected accidents. **Shared autonomous vehicles** offer a viable alternative in the children's transportation market that addresses these concerns.

KidMove is an international company has the potential to transform the child commuting

landscape by exploring a futuristic solution to the challenges brought by traditional industry. KidMove is dedicating to providing parents a **reliable** and **efficient** child transportation service with enhanced convenience but lower costs.

Young creatives were challenged to develop an automated transport service system for kids. Our task is to deliver the **user experience from parents' perspective** and provide them with a user-friendly **interface to book, monitor, and organize** their children's transportation. Safety and communication is expected to be prioritized in every journey throughout the system.

## Our target users are those parents who prioritize their children's safety but may be unable to provide transportation themselves.

They are now seeking a reliable and convenient mode of transportation for their kids. As part of the concept proposing phase, we chose Sydney as the pioneering region for this project. After investigating marketing background, online posts, and competitors, we created Jobs-to-be-done Framework and user profiles. User needs and key features were generated.



### User needs

- A safe and efficient service with convenient communication
- The access to the live updates of automated vehicles and monitor kids' status
- A system to easily manage multiple kids' commute trips



### UI/UX design features

- Simple hierarchy, distinctive colors
- Highlight safety and supervision/communication features
- Indicate automated features
- Multiple shortcuts for common and prime functions



Lisa's mom is juggling multiple kids and finds it challenging to personally drop off and pick up each of them from school due to the work commitments of her and her husband.

The safety concerns associated with public transportation and early departure times of school buses add to their worries.

That's where KidMove comes in.

## Design Solution

### KidMove

#### Design System

#### Prototyping

#### Testing & Iteration

#### Deployment

#### Feedback & Improvement

#### Final Product

#### Conclusion

#### Appendix

#### References

#### Resources

#### Next Steps

#### Final Summary

#### Final Product

#### Final Summary

## &lt;



#1A6CFA

**KidMove Blue**

We selected blue as the brand color for KidMove, as well as the primary color in our user interface.

In a color psychology perspective suggested by **Faber Birren**, blue is the proper color to convey a safe, reliable, and technological sense (Withrow, 2004). This is in line with our users' primary need and expectation of a **safe and reliable service**, and it also embodies the **high-tech** of automated vehicles.

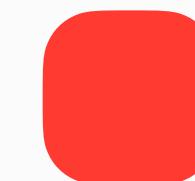
#478AFF for Apple Watch



#58C07F | Accent

**Green**

To signify the status of progress, completion, success, and smoothness.



#FF3B30 | Accent

**Red**

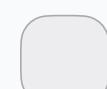
To indicate cancellation action, also used in urgency, and congestion-related elements.

**Neutral colors** for text and background

#1D1D1F



#838387



#EEEEEE



#F5F5F7

**Contrast check** for mainly-used colors

Normal Text Size

AA ✓

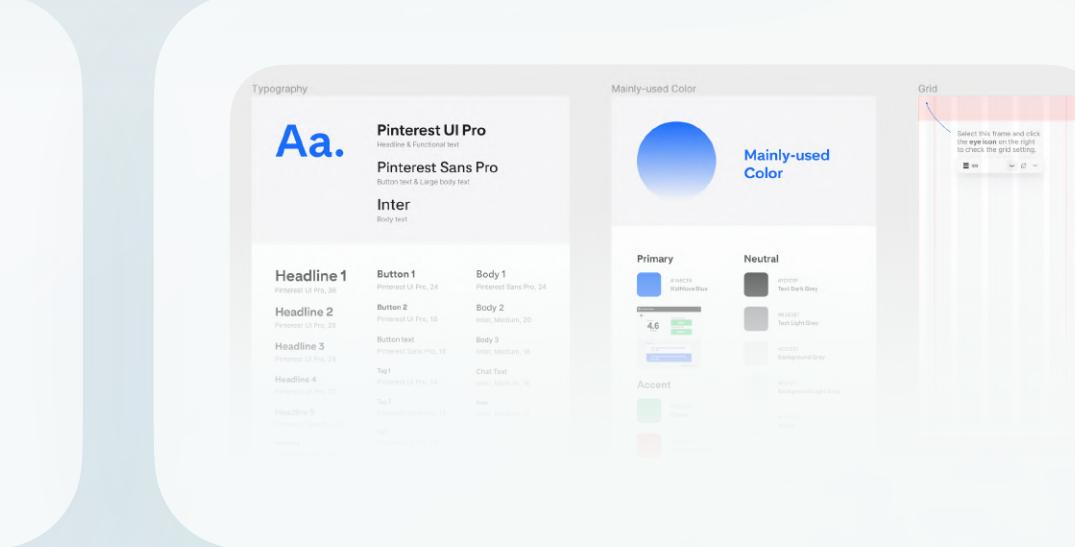
Large Text Size

AAA ✓



AAA✓

AAA ✓



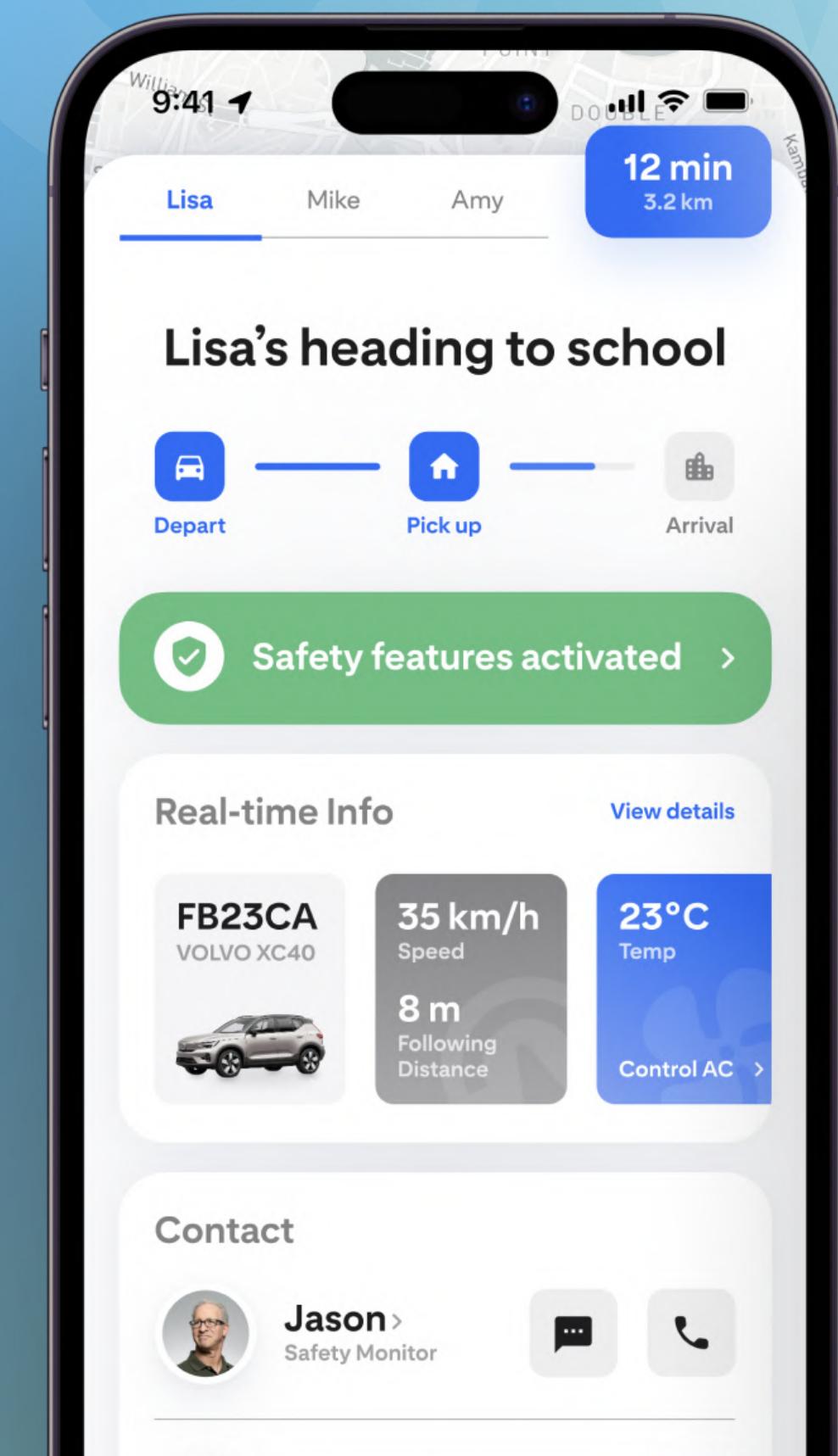
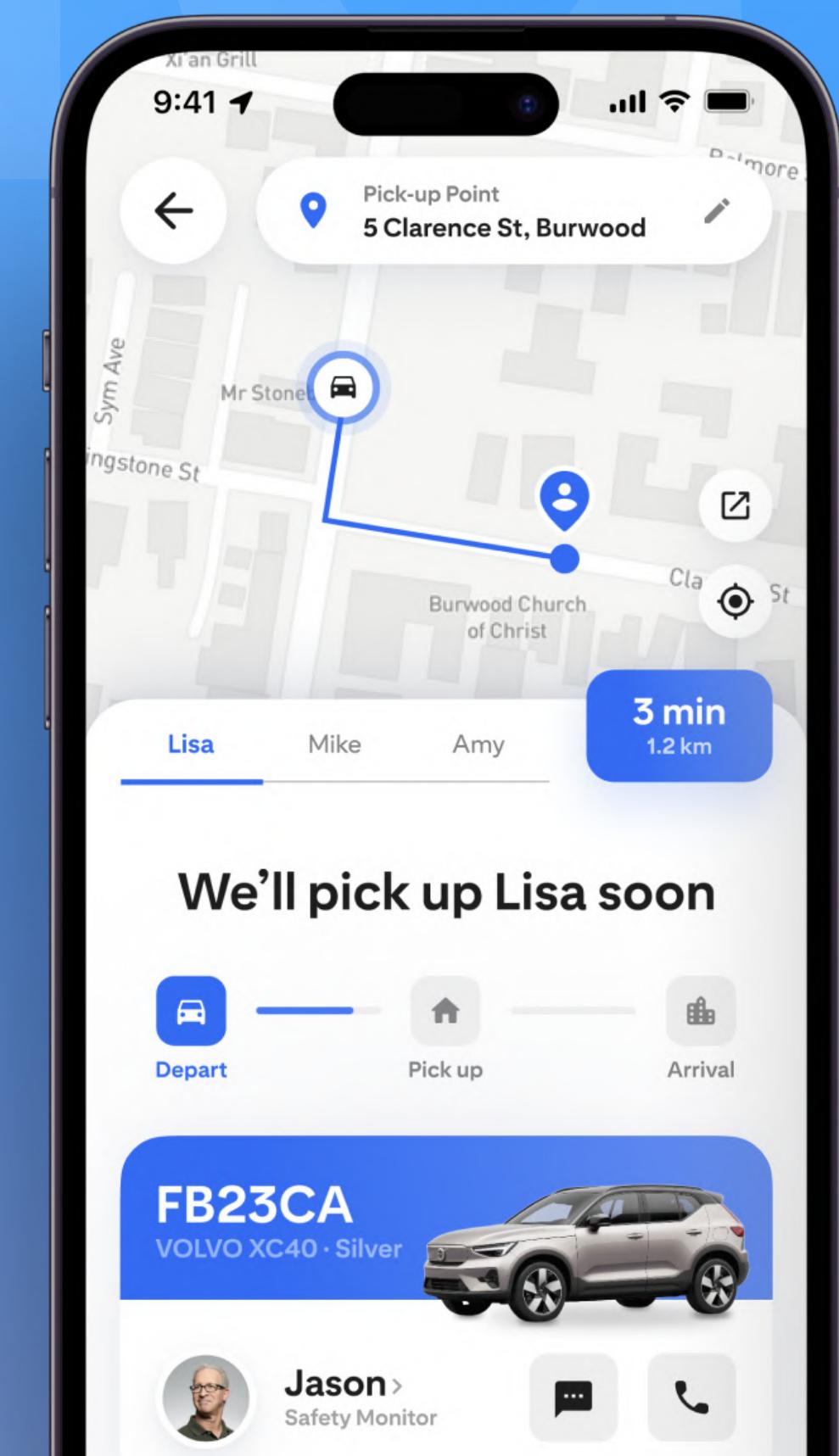
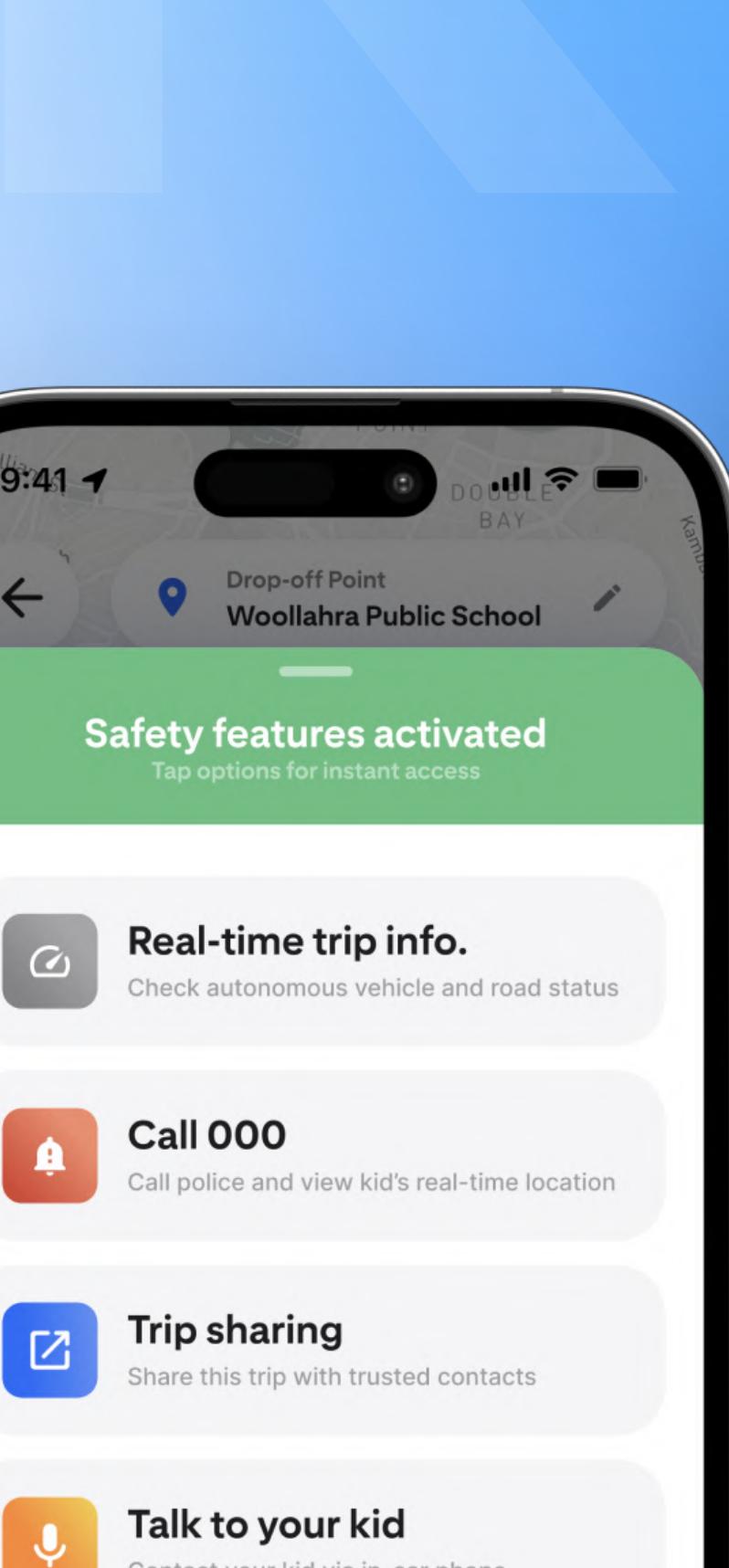
Please click on the following icons to Figma for detailed design systems for different devices.





User Flow

# Mid-journey iOS App Interface





## User testing

from peers and parent testers

I conducted 12 user tests (8 peers and 4 parents) to exam the user flow, components, and visual design of iOS interface.

### User flow

- All participants found the user flow to be **clear and without any issues**.

### Components

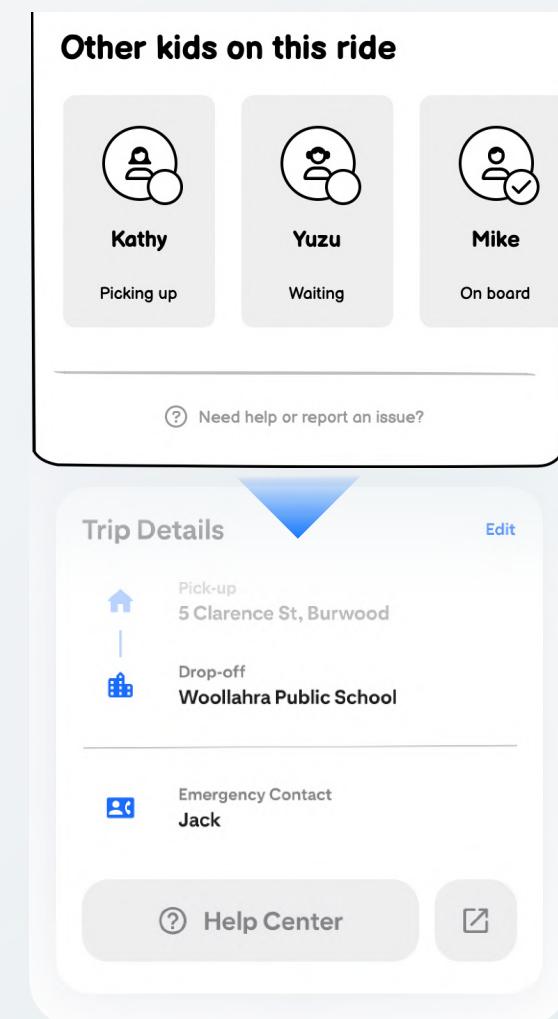
- 'Help' button could be more prominent.
- Parents would like to have more controls over the vehicle.
- Participants did not particularly care about the information of other kids in the same vehicle.

### Visual design

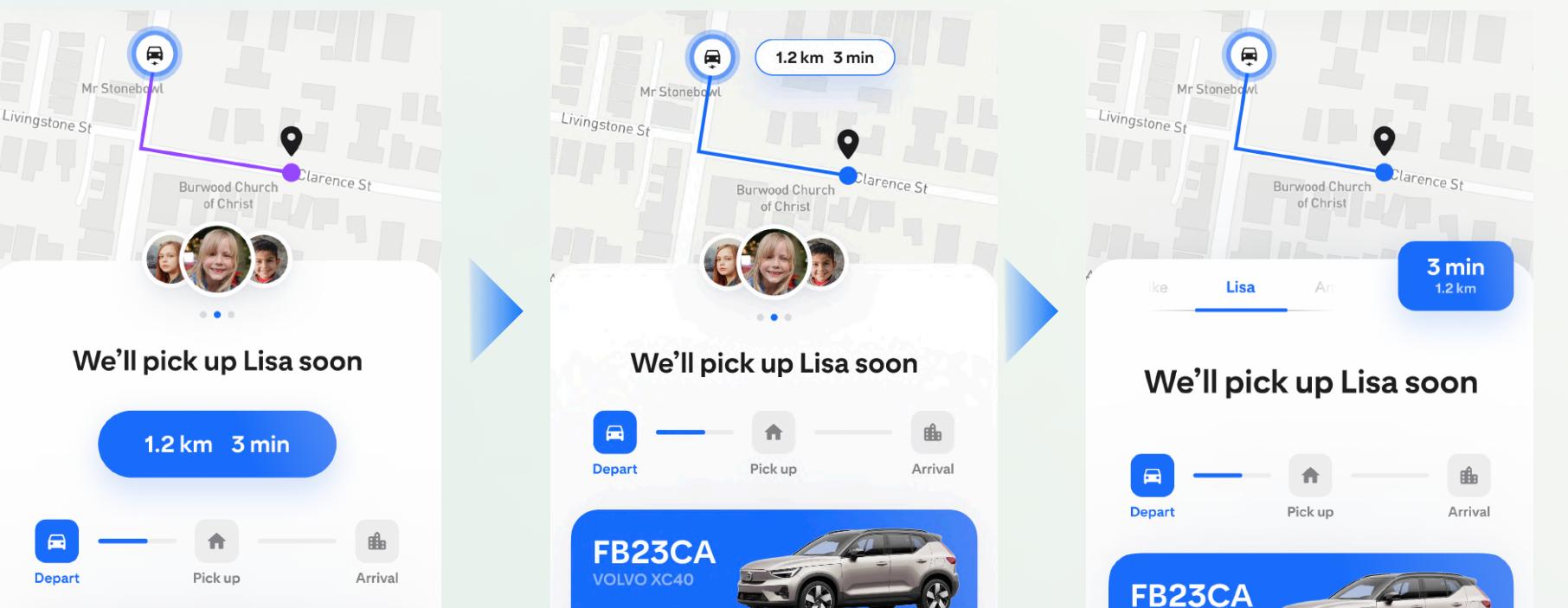
- The displayed information on each page is **very appropriate** in terms of content and hierarchy.
- I also did more tests for specific pages and elements to iterate with finer details, you're welcome to check my Figma page for detailed iterations.

## Testing-driven iterations

### Section and hierarchy



### Presentation of information



- In the first image, the remaining arrival time and distance of the vehicle are displayed within a capsule. To highlight the information, I filled the capsule with the primary color for emphasis. However, peers have provided feedback that this module **looks like a button**, which may unintentionally prompt users to click on it.
- I then modified the presentation of this information as shown in the second image. I believe that the display of this information can be retained in the final version, but it still **lacks visibility**. Based on user testing and online ethnography research, I found that the remaining time and distance information of the vehicle are crucial for child transportation, especially during the time-sensitive mornings.
- I chose to present this information on the right side of the main card as the final solution, making it **prominent enough** without wasting screen space.



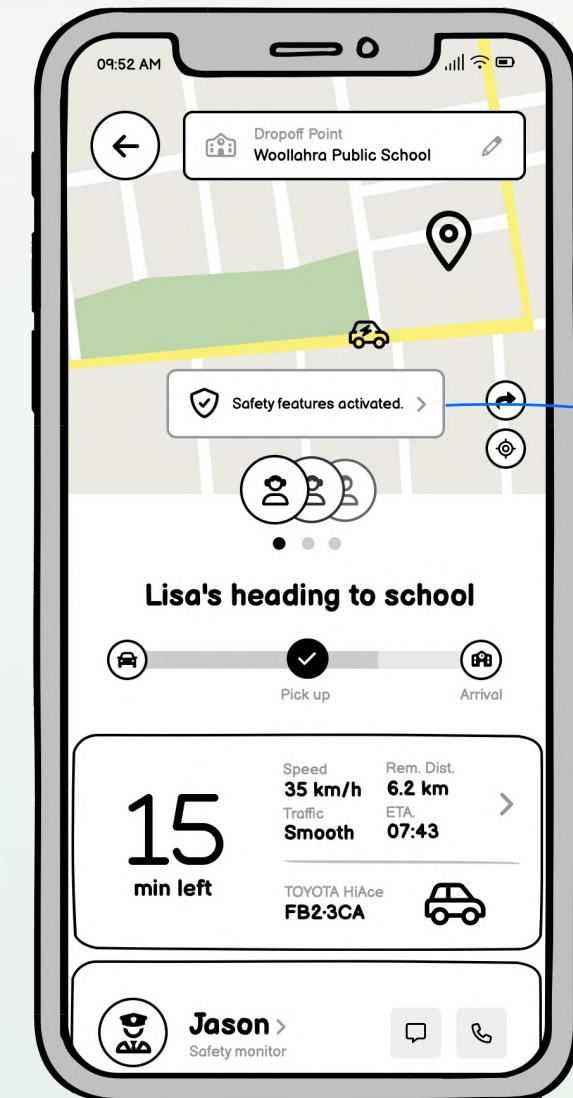
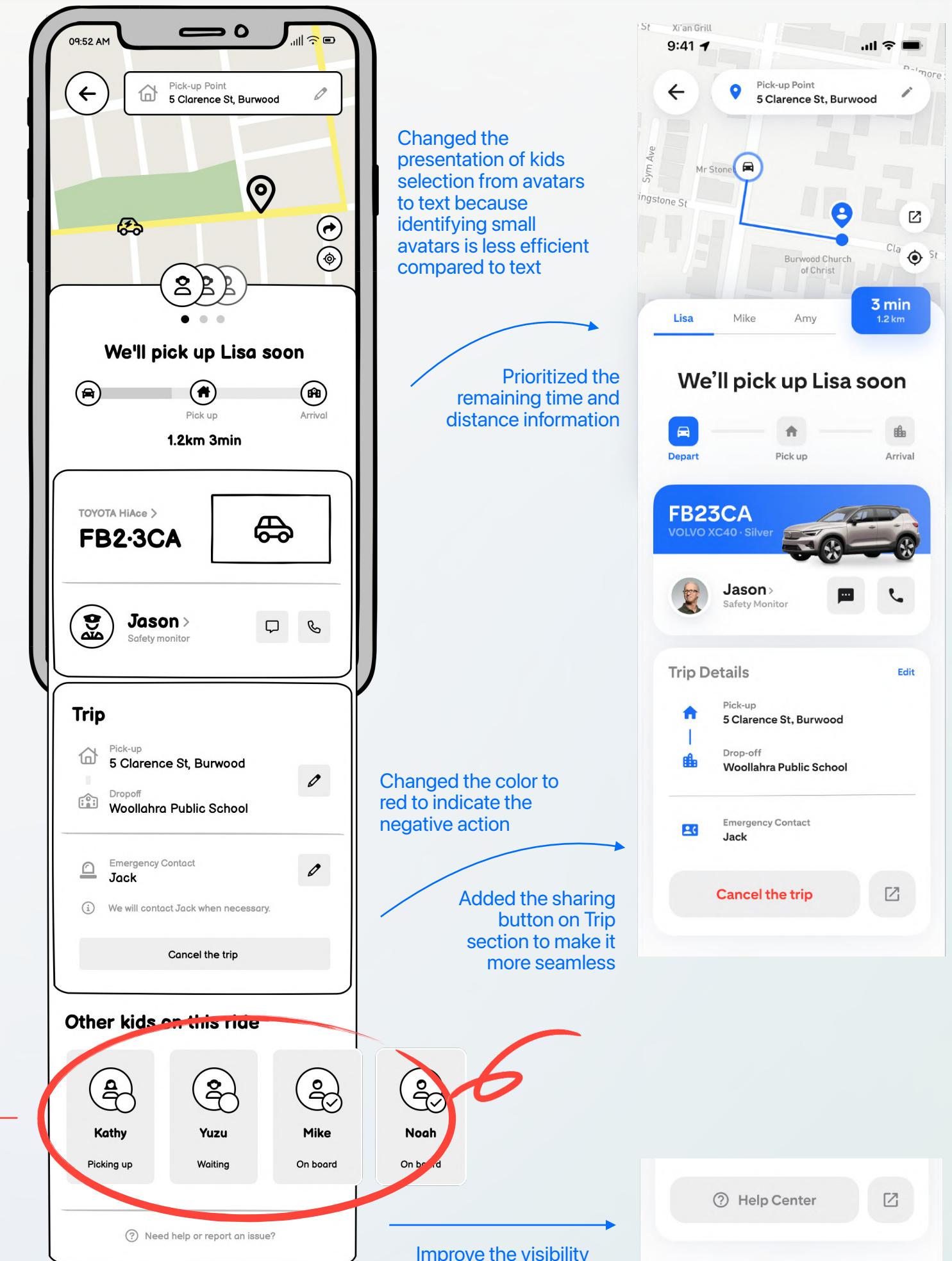
# Prototype iteration

## From low-fidelity to high-fidelity



For [detailed iterations](#), I highly recommend you to see them on Figma because the report space is quite limited but I did lots of iterations.

<https://www.figma.com/file/5fN5CogIrsCAKMswsyfB2S/KidMove---iOS?type=design&node-id=0%3A1&t=CAvWJ8fETW43Fay5-1>



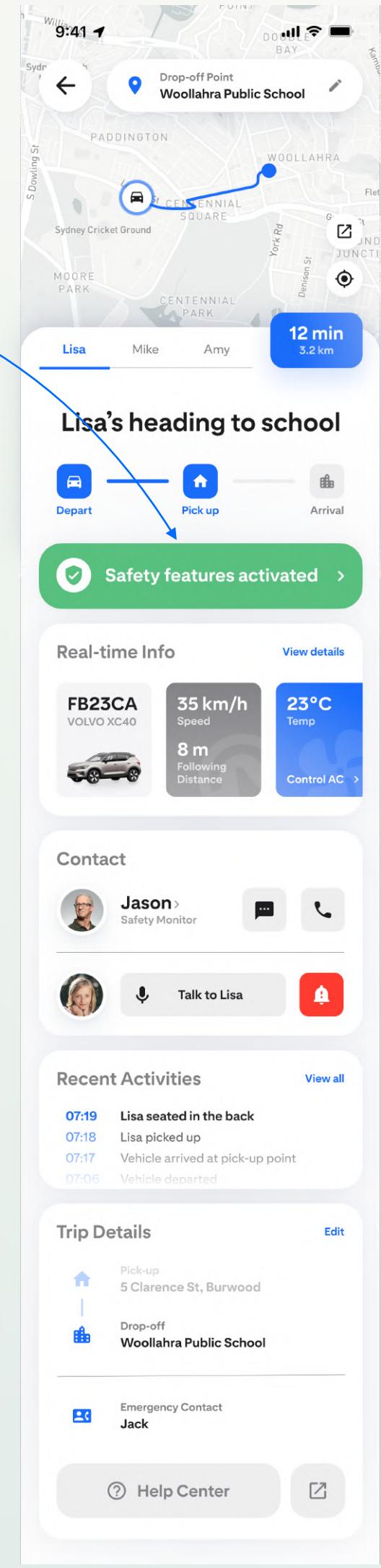
I placed the entry point for the integrated page of safety features in a prominent position within the main card, so that users won't miss it when scrolling up.

I differentiated it from the primary color by using green, creating a sense of activation and liveliness.

I chose to present real-time info. in the form of cards, and I adjusted the background color of the cards to reflect the content or status.

For example, I use our primary color to indicate when a feature or device is on, green to represent smooth road conditions, and red for congested roads, among others.

These visualized and categorized display of information can provide users with a more intuitive understanding of the real-time information of the trip.





# Latest high-fidelity prototype

Yes, I'll keep refining it.

I sincerely expect you to scan this QR Code to experience the prototype on your phone :)

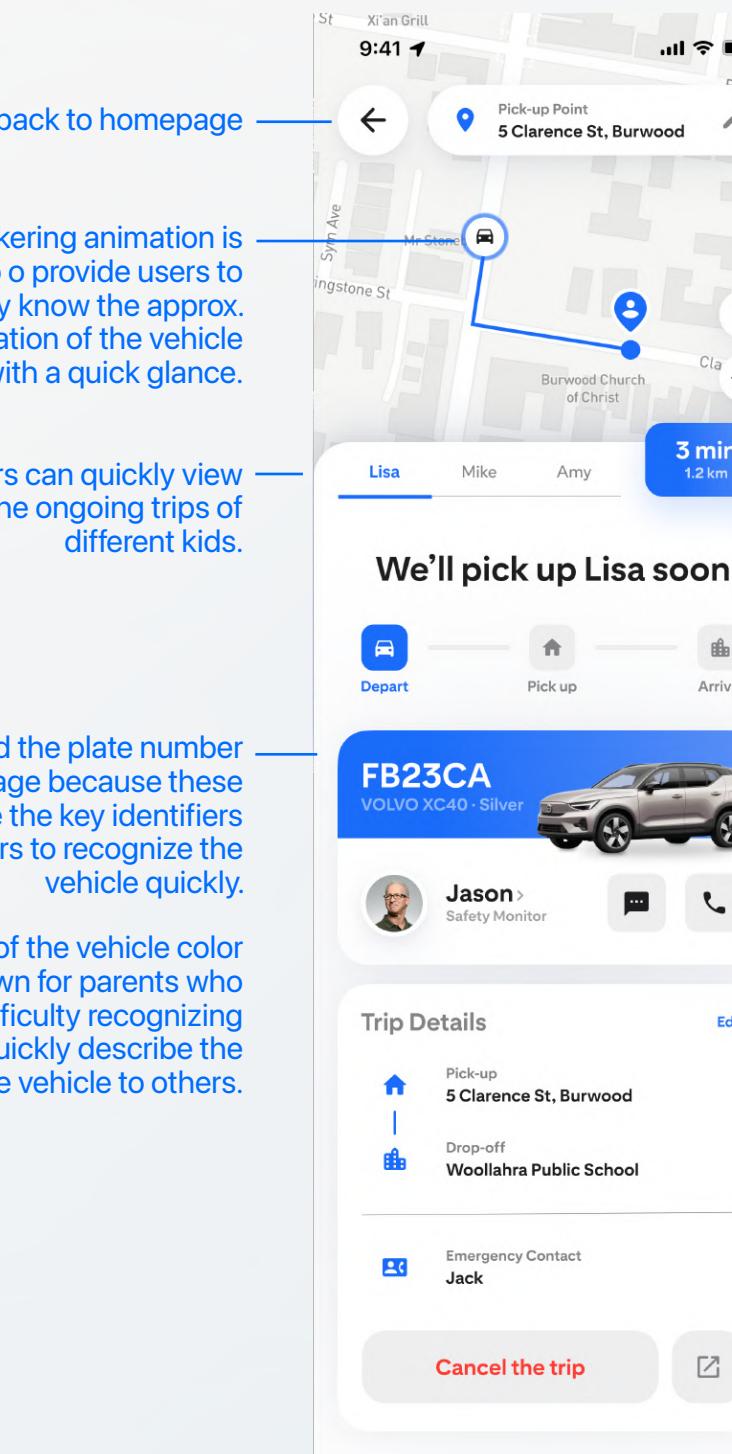


You can also click the following link to view the website version.

<https://www.figma.com/proto/5fN5CogiRsCAKMswsyfB2S/KidMove---iOS?page-id=0%3A1&type=design&node-id=8-2&viewport=160%2C374%2C0.2&scaling=scale-down&starting-point-node-id=8%3A2&showproto-sidebar=1>

## Picking up

### Main page



Go back to homepage

A flickering animation is used to provide users to easily know the approx. location of the vehicle with a quick glance.

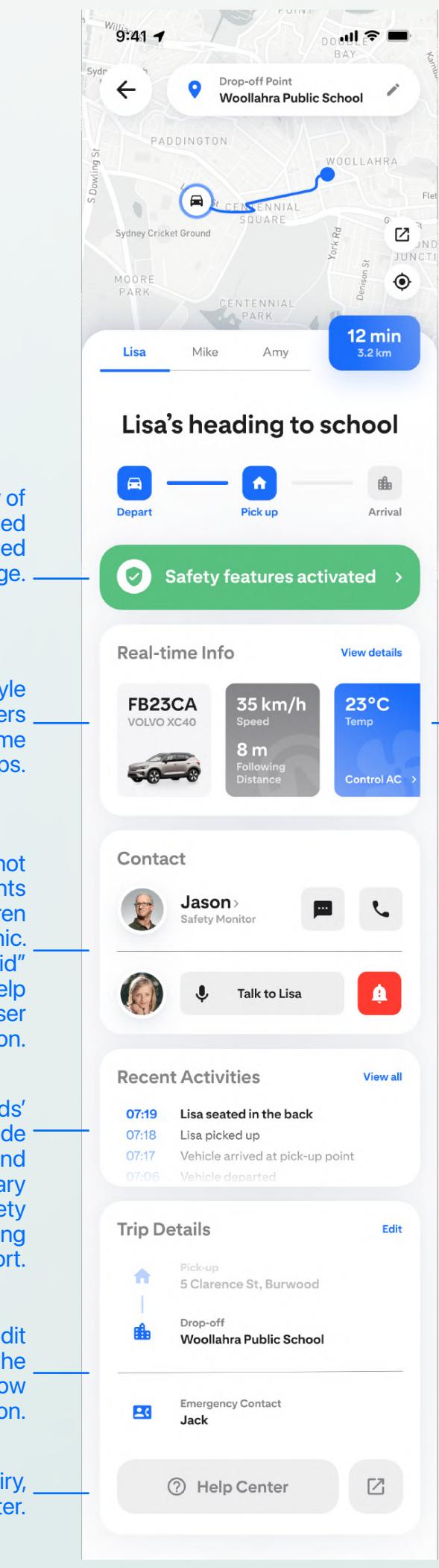
Users can quickly view the ongoing trips of different kids.

I enlarged the plate number and car image because these two info. are the key identifiers for users to recognize the vehicle quickly.

The name of the vehicle color is also shown for parents who have difficulty recognizing colors quickly describe the color of the vehicle to others.

## Ongoing Trip

### Main page



Kids' safety is the priority of users and us, so I highlighted this entrance of integrated safety features page.

Through card-style information display, users can quickly access real-time info. about their kids' trips.

Since some kids may not have a cell phone, parents can contact their children through the in-car mic. Writing "talk to your kid" directly in text can help reduce the cost of user awareness of this function.

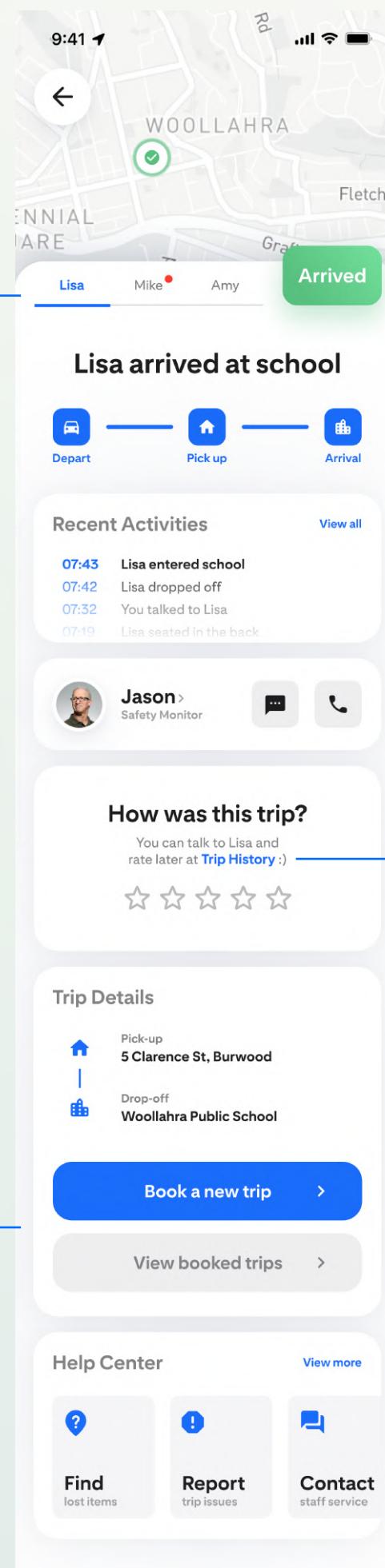
Clear presentation of kids' recent activities can provide parents with insurance and minimize unnecessary communication with safety monitor and kids, saving users' time and effort.

Users do not need to edit the pick-up point during the trip, but they need to know the information.

For further needs and enquiry, users can check the Help Center.

## Arrival

### Main page



A red dot badge will show when there are updates of other kids' ongoing trips, and a popover notification will also appear.

Lisa arrived at school

Recent Activities

Jason > Safety Monitor

How was this trip?

Trip Details

Book a new trip

View booked trips

Help Center

Find lost items

Report trip issues

Contact staff service

Since parents are not on this KidMove trip, they may learn about their kids' experiences through afterwards conversations with them. At such times, parents may have additional thoughts or feedback to share.

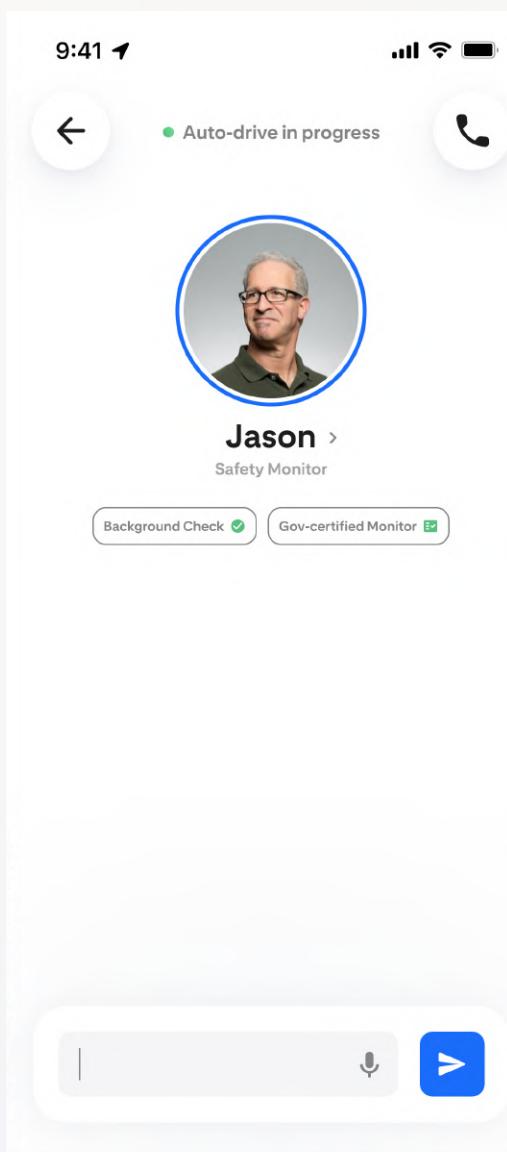
After the trip is completed, the commonly used features of Help Center are presented in card format. Since the Arrival Page doesn't have much information, having a bit more content at the bottom won't result in information redundancy.



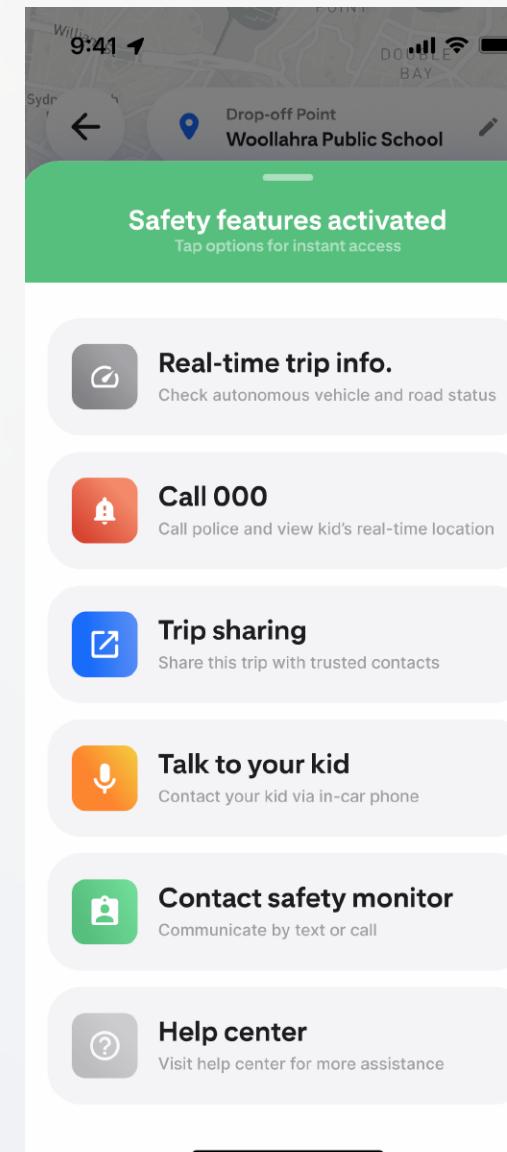
# Latest high-fidelity prototype

## of subpages and overlays

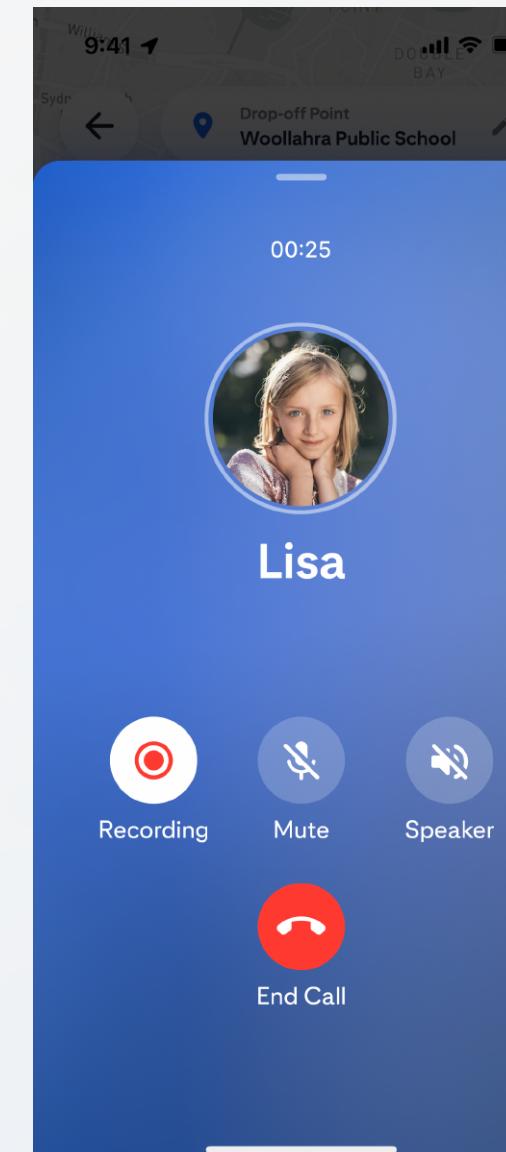
### Chat Subpage



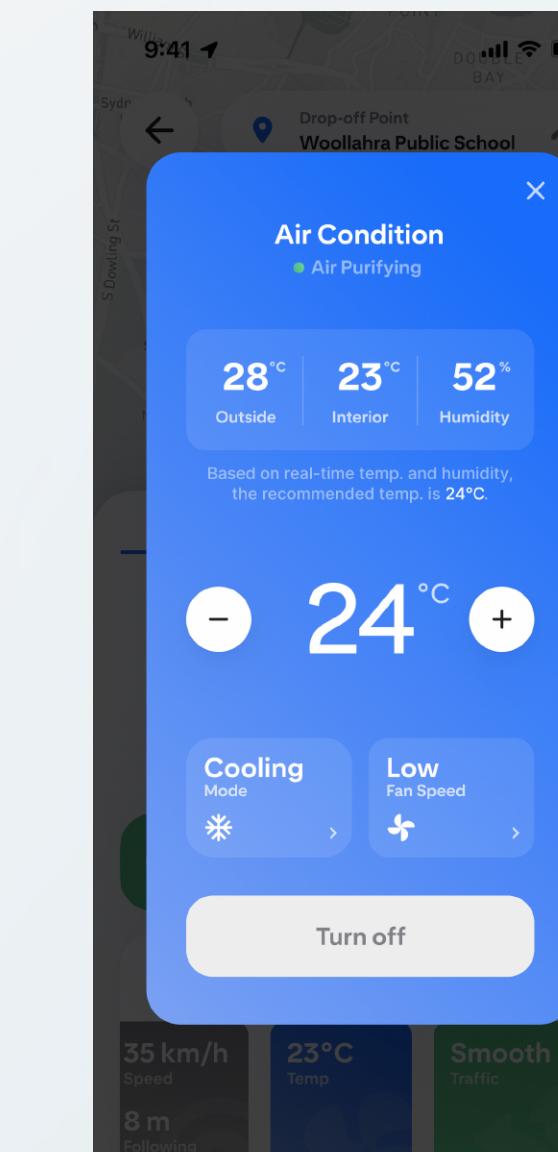
### Safety Features Overlay



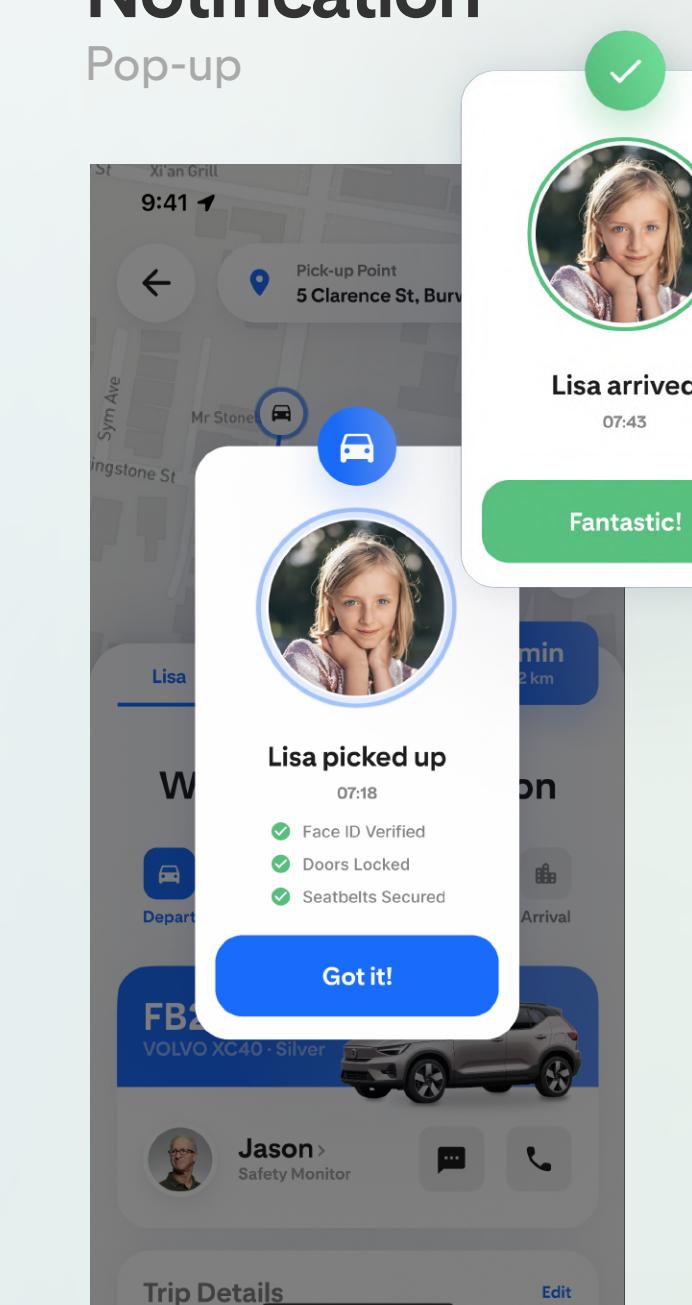
### Talk to Kid Overlay



### AC Control Overlay



### Notification Pop-up



Due to the abundance of safety-related information in this section, I displayed the number plate in different colors and added a border to make it easier for parents to locate the vehicle information while checking real-time information. This facilitates communication with police or other personnel in case of emergencies.

During user testing with different parents, I discovered that they are highly concerned about the qualifications of safety monitors. Therefore, I directly displayed the verification information of safety monitors on the chat page with them, ensuring that parents can always feel reassured.

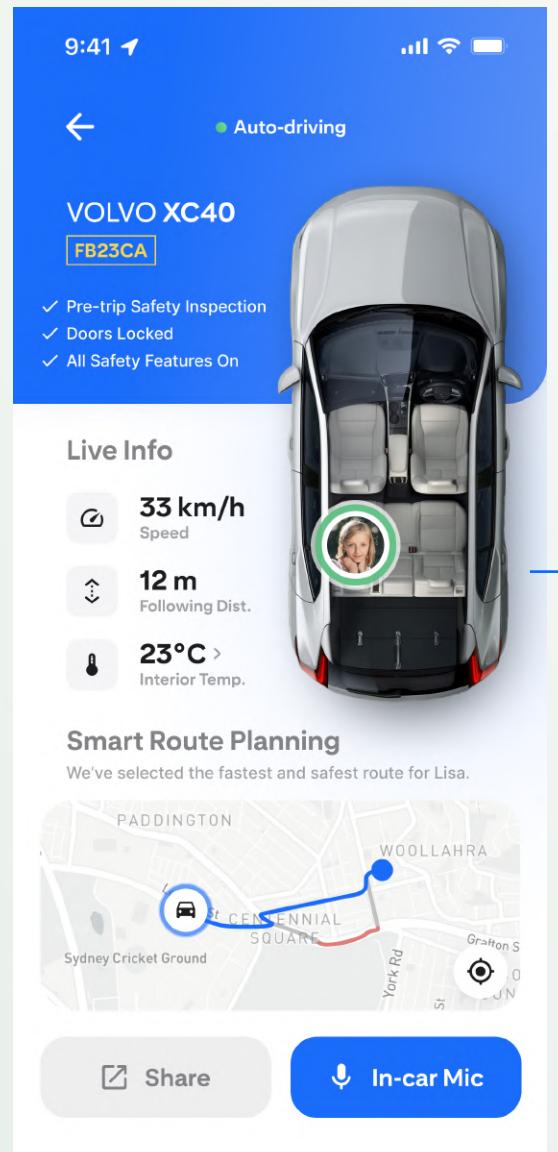
I integrated all safety-related features on a single page for quick access, enhancing the convenience for users. Additionally, the 'Safety features activated' heading does not use a shield icon as shown on the entry button because specific safety features already use respective icons. Having too many icons could overwhelm users and cause visual clutter.

A flickering halo animation is used around the kid's avatar to indicate an ongoing status.

I emphasized the intelligent and high-tech aspect of KidMove to strengthen the brand image, such as air purification and temperature recommendations.

A flickering halo animation is also used around kid's avatar. More detailed information shown on this card is helpful to enhance parents' feeling of assurance.

While viewing real-time information, parents have the option to share the itinerary and directly communicate with their child through the in-car microphone.



A flickering halo is used to indicate where the kid is sitting.

## References

- Interaction Design Foundation. (2019). *What is Heuristic Evaluation?* The Interaction Design Foundation. [www.interaction-design.org/literature/topics/heuristic-evaluation](http://www.interaction-design.org/literature/topics/heuristic-evaluation)
- UX Movement. (2023, January 13). *How to Use Surface Elevation to Elevate Your Interface*. Medium. [uxmovement.medium.com/how-to-use-surface-elevation-to-elevate-your-interface-e788d022ffc3](https://uxmovement.medium.com/how-to-use-surface-elevation-to-elevate-your-interface-e788d022ffc3)
- Withrow, R. L. (2004). The use of color in art therapy. *The Journal of Humanistic Counseling, Education and Development*, 43(1), 33-40.
- Apple Developer. (n.d.). Fonts for Apple platforms. Apple. Retrieved on May 10, 2023, from developer.apple.com/fonts/
- Apple Developer. (n.d.). SF Symbols 4. Apple. Retrieved on May 24, 2023, from developer.apple.com/sf-symbols/
- Eldrieny, O. (n.d.). iPhone 14 Pro Mockups. Figma. Retrieved on May 27, 2023, from www.figma.com/community/file/1195941020099864601
- Made Thought, & Pinterest. (n.d.). Pinterest UI Pro, Pinterest Sans Pro. Retrieved on May 10, 2023, from www.madethought.com/work/pinterest
- Mantel Group, Zhadan, A., Cadman, C., Jack, & Lai, S. (n.d.). iOS 16 UI Kit (By Itty Bitty Apps). Figma. Retrieved on May 15, 2023, from www.figma.com/community/file/1172051389106515682/iOS-16-UI-Kit-(By-Itty-Bitty-Apps)
- Material Design. (n.d.). Material Design Icons. Figma. Retrieved on May 10, 2023, from www.figma.com/community/file/971632569763234669/Material-Design-Icons
- Mockuuups Studio. (n.d.). iPhone 14 Pro Mockups. Retrieved on May 27, 2023, from mockuuups.studio/mockup-generator/iphone-14-pro
- Scribrostd. (2022, November 23). Phone 14 Pro Screen Mockup. Behance. [www.behance.net/gallery/157622483/Phone-14-Pro-Screen-Mockup](https://www.behance.net/gallery/157622483/Phone-14-Pro-Screen-Mockup)
- Volvo. (n.d.). XC40. Volvo Car Corporation. Retrieved on May 15, 2023, from www.volvocars.com/au/cars/xc40/
- We created maps using Mapsicle.
- We selected avatar images using Unsplash.
- We selected supplemental icons using iconfont.

## Appendix 2. iOS Iterations



Figma can show iterations in a better version—  
PDF is quite limited.

<https://www.figma.com/file/5fN5CogiRsCAKMswsyfB2S/KidMove---iOS?type=design&node-id=0%3A1&t=CAvWJ8fETW43Fay5-1>