



# SLEEPMATE

Aaron H., Derek C., Michelle X., Tristan W.



# The Team



Aaron H.



Michelle X.



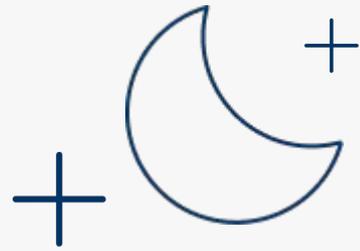
Derek C.



Tristan W.

# Value Proposition

Sleeping easy, made easy.



# Mission

SleepMate's mission is to ease anxiety when it comes to sleeping with roommates by reminding roommates to keep noise levels low during sleeping hours.

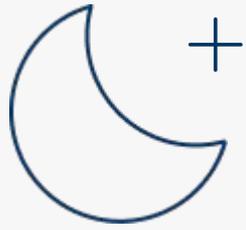
# Problem Overview

It can be difficult to tell your roommates over and over again to be quiet when you're trying to sleep. SleepMate helps you rest at ease by monitoring your roommates' noise levels and alerting them when they're being too loud so you don't have to!

# Value Encoded

**Communication**

**Comfort**



**Privacy**

**Physical  
Health**

**Cooperation**

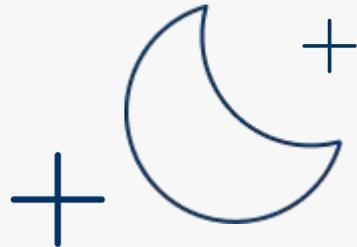
**Respect**

# Review of Tasks

**Simple Task:** Notify your roommates you're going to sleep through the app.

**Moderate Task:** Modify your household by adding or removing roommates.

**Complex Task:** Update your sleeping preferences and notify your roommates you're still awake after X hours.



# Actionable Feedback from Prototype Testing



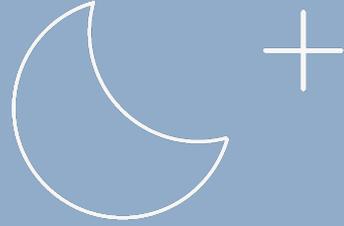
Many participants **had problems notifying roommates** that they're going to bed by **identifying the “go to sleep” button** and had **problem returning back to the home screen** when they were on the sleep tracking page.



One participant noted that it would be nice to be able to **notify roommates about special events** (travelling for a week, interview the next day, etc.)



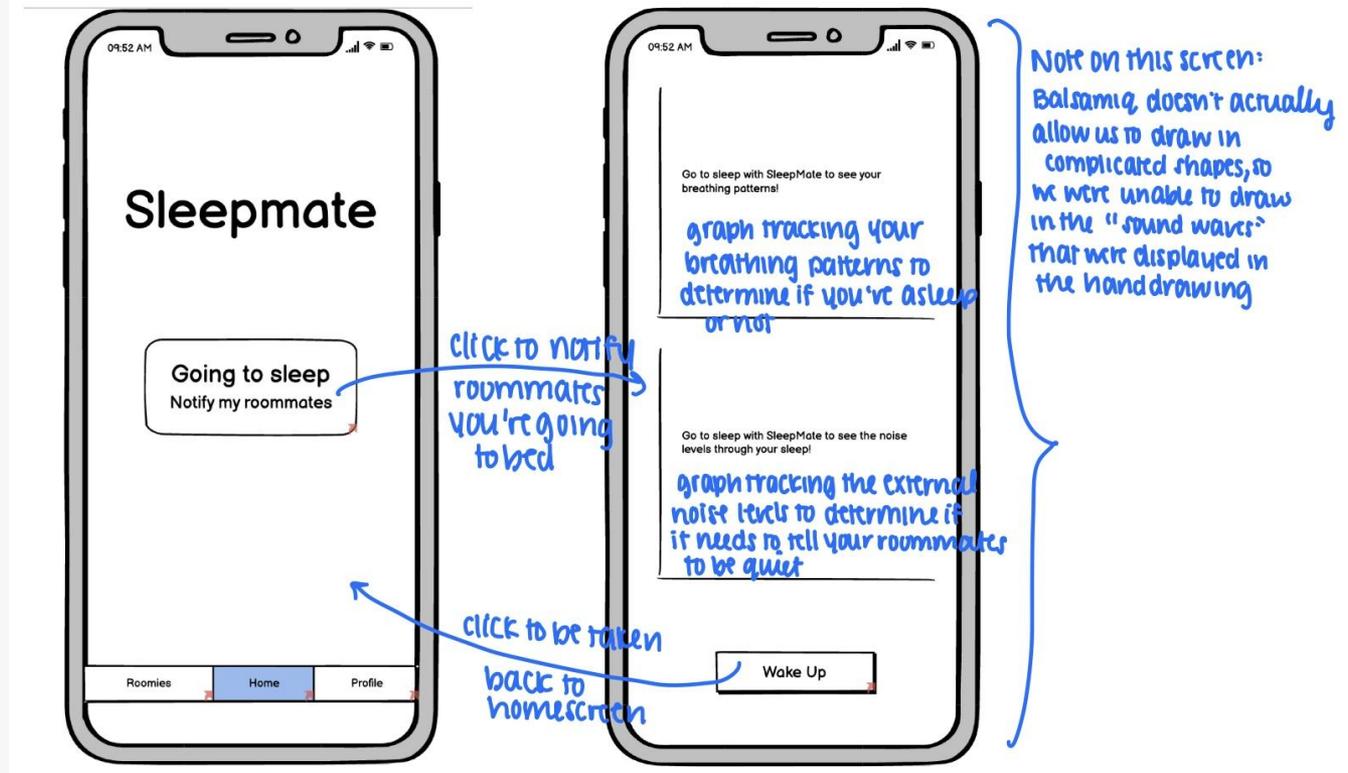
One participant thought it would make more sense to be able to **send a roommate a request to join a household** and spoke about **privacy concerns**.



# Revised Interface Changes

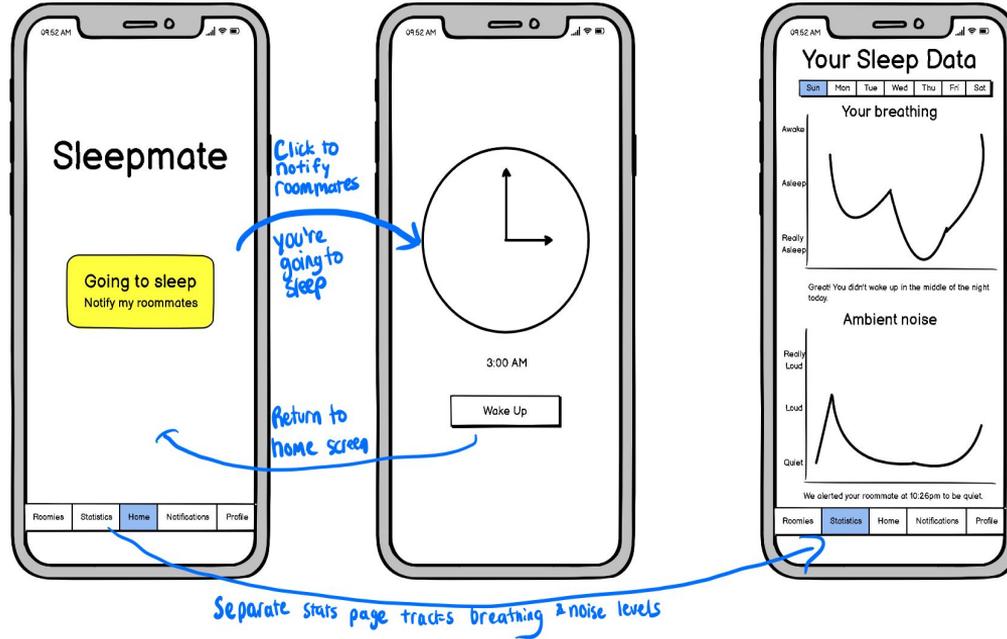


# Change 1: Tracking Sleep Stats



Before

# Change 1: Tracking Sleep Stats



After

# Change 1: Tracking Sleep Stats

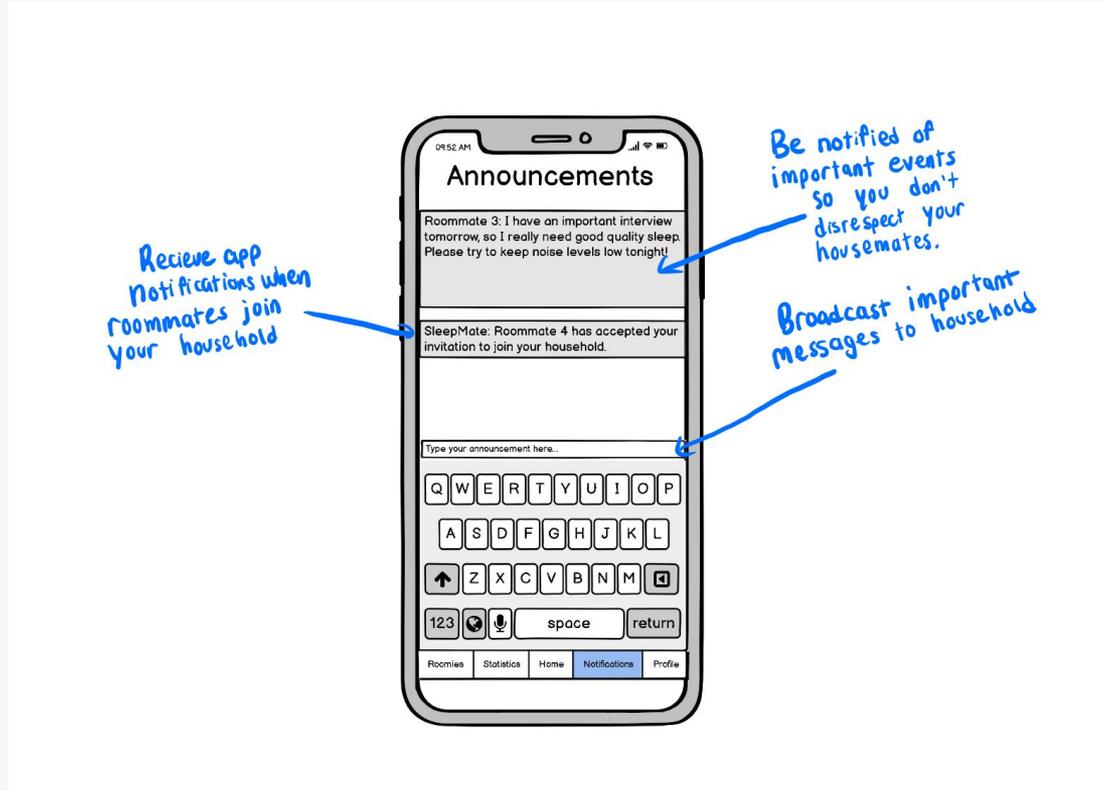
## Changes

-  Add color to the sleep button to highlight the button better
-  Separate the breathing and noise trackers into a separate “stats” page
-  Replace the statistics on the sleeping page to a clock that shows current time

## Rationale

-  Participants frequently missed the “go to sleep” button; adding color to highlight the button should lead to easier identification of the button
-  Participants also did not pay much attention to the sleeping statistics as it was on the sleeping screen, separating it out should bring it more attention

# Change 2: Adding Notifications



New section

# Change 2: Adding Notifications

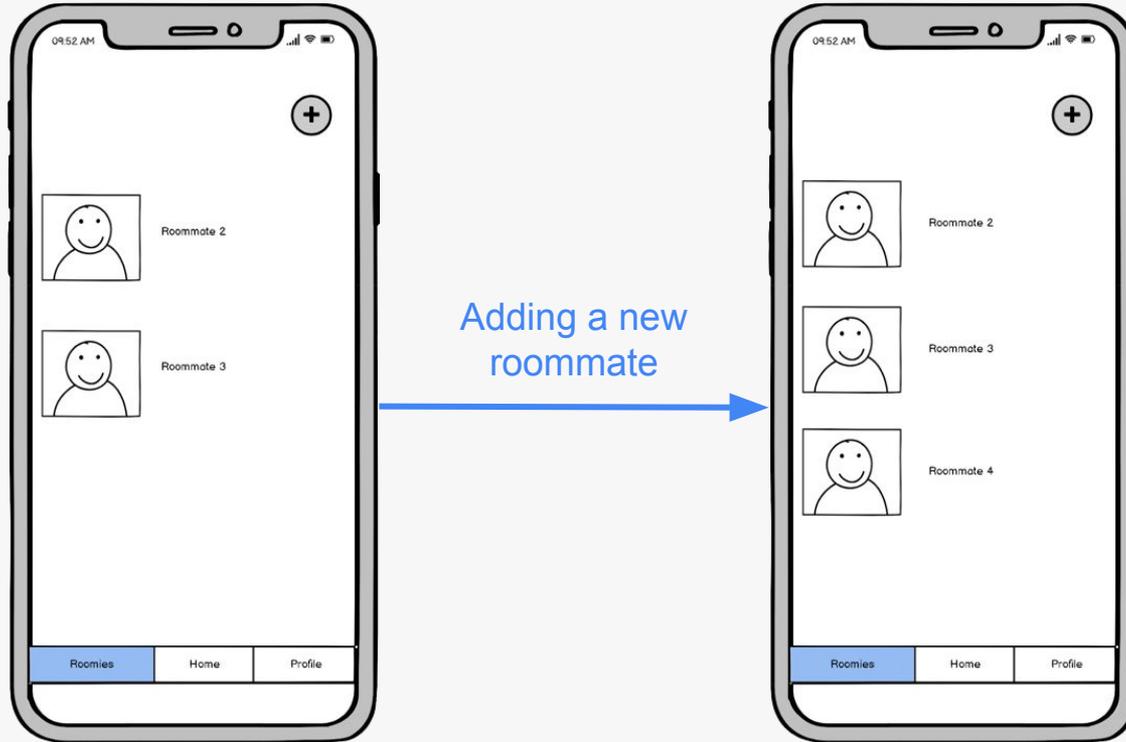
## Changes

-  Add a separate notifications tab where roommates can type out announcements
-  The tab will also contain system notifications, such as new roommates being added or sleep schedules changing

## Rationale

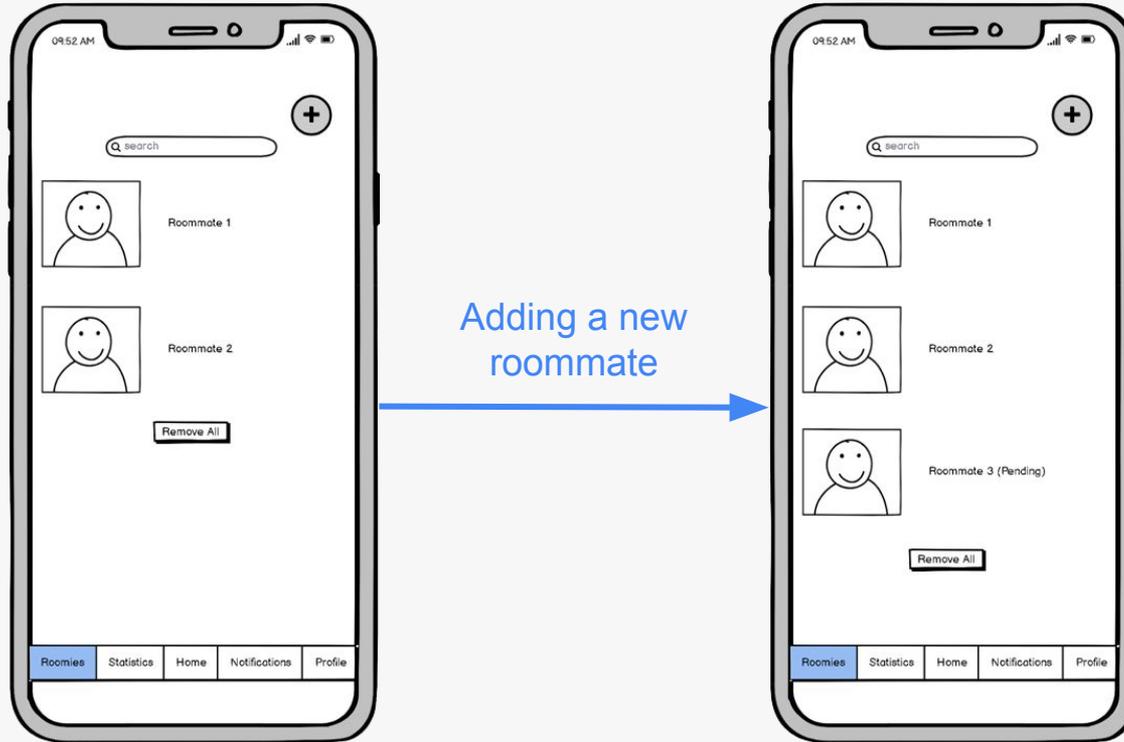
-  A participant said that it'd be helpful to be able to communicate with their roommates beyond just “going to sleep”
-  A separate notifications tab where roommates can message each other as well as see system notifications (e.g. a new roommate being added to the household) would help users track events in the household

# Change 3: Roommates Tab



Before

# Change 3: Roommates Tab



After

# Change 3: Roommates Tab

## Changes

 Instead of instantly adding a roommate, send roommate requests

 Show a roommate to be pending if they have been sent a request and has not accepted yet

## Rationale

 One participant noted that allowing users to invite whoever and whenever would raise privacy concerns

 Changing roommate adding to be on a invite-basis should prevent most abuse that could've been caused from the previous design

## Usability Goal 1: Users perform tasks quickly.

Our low-fi prototype showed that it did not take more than 20 seconds to perform any task, which indicated that this usability goal has been well-met.

The changes we made in the med-fi prototype focused more on maintaining the app's simplicity. Our 3 main tasks should be unaffected as a result of these changes.

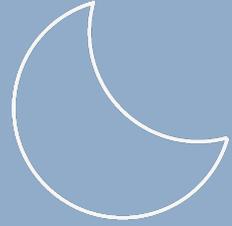


## Usability Goal 2: Users perform tasks without error.

The biggest issue in our low-fi prototype was that the users failed to interact with the sleep monitoring screen. To make our simple task (notifying roommates that the user is going to sleep) more straightforward, we made the “go to sleep” button more noticeable to allow users to interact with it more easily.

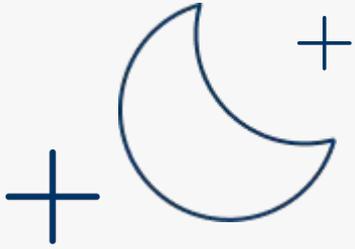
Users also rarely noticed the sleep statistics, which is an integral part to delivering our value proposition. To fix this, we placed the statistics in a separate tab.





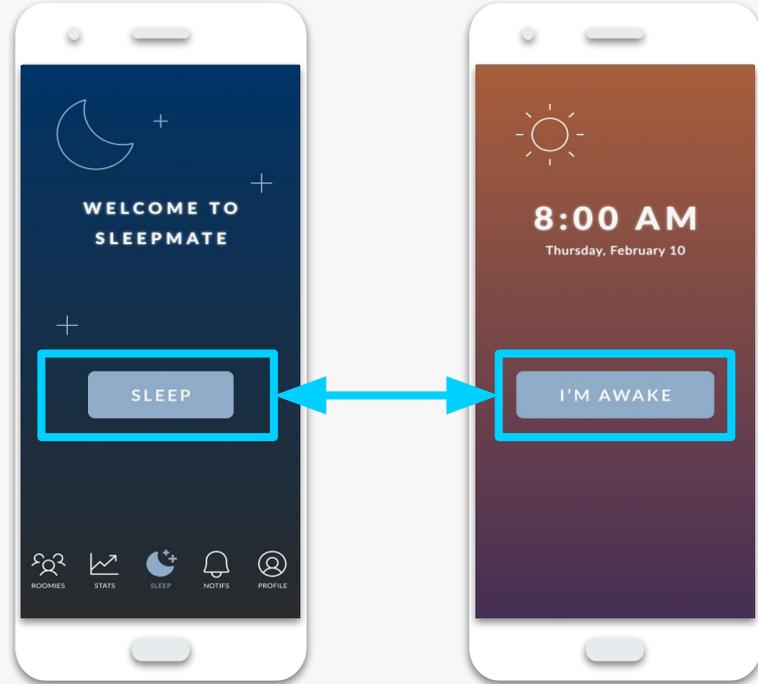
# Med-Fi Prototype Task Flows





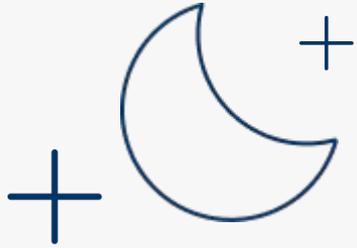
# Notify roommates you're going to sleep through the app

Complexity: Simple



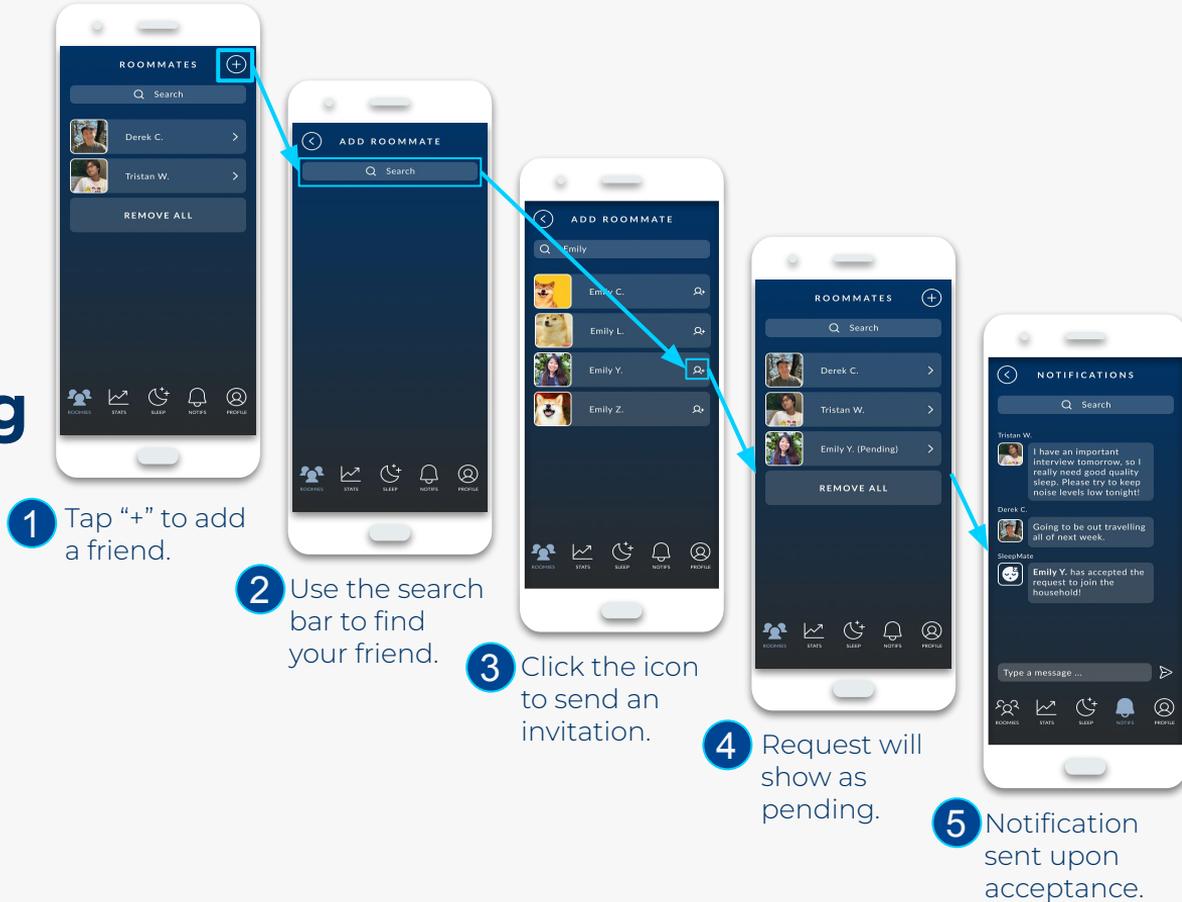
**1** Tap "Sleep" to tell roommates you're going to bed.

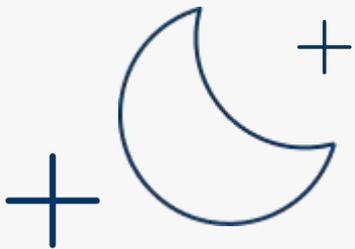
**2** Tap "I'm Awake" to return to the home screen.



# Modify your household by adding/removing roommates

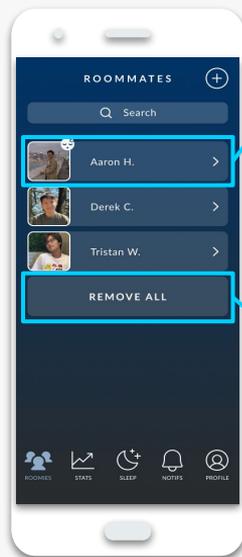
Complexity: Moderate



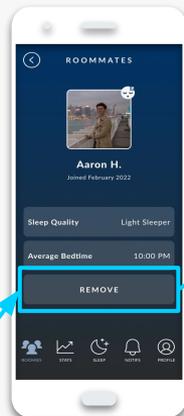


# (Continued) Modify your household by adding/removing roommates

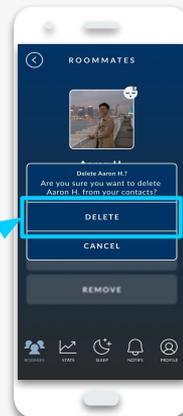
Complexity: Moderate



- 1 Remove single roommate or entire household.



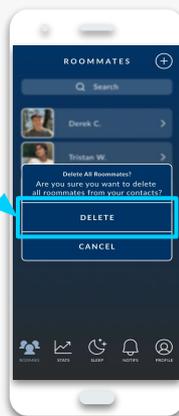
- 2 Tap "Remove" under profile.



- 3 Tap to confirm.



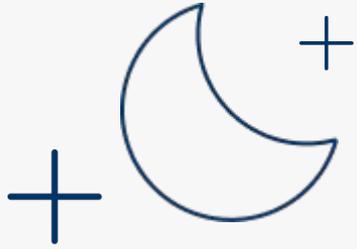
- 4 User removed from household.



- 2 Tap to confirm.

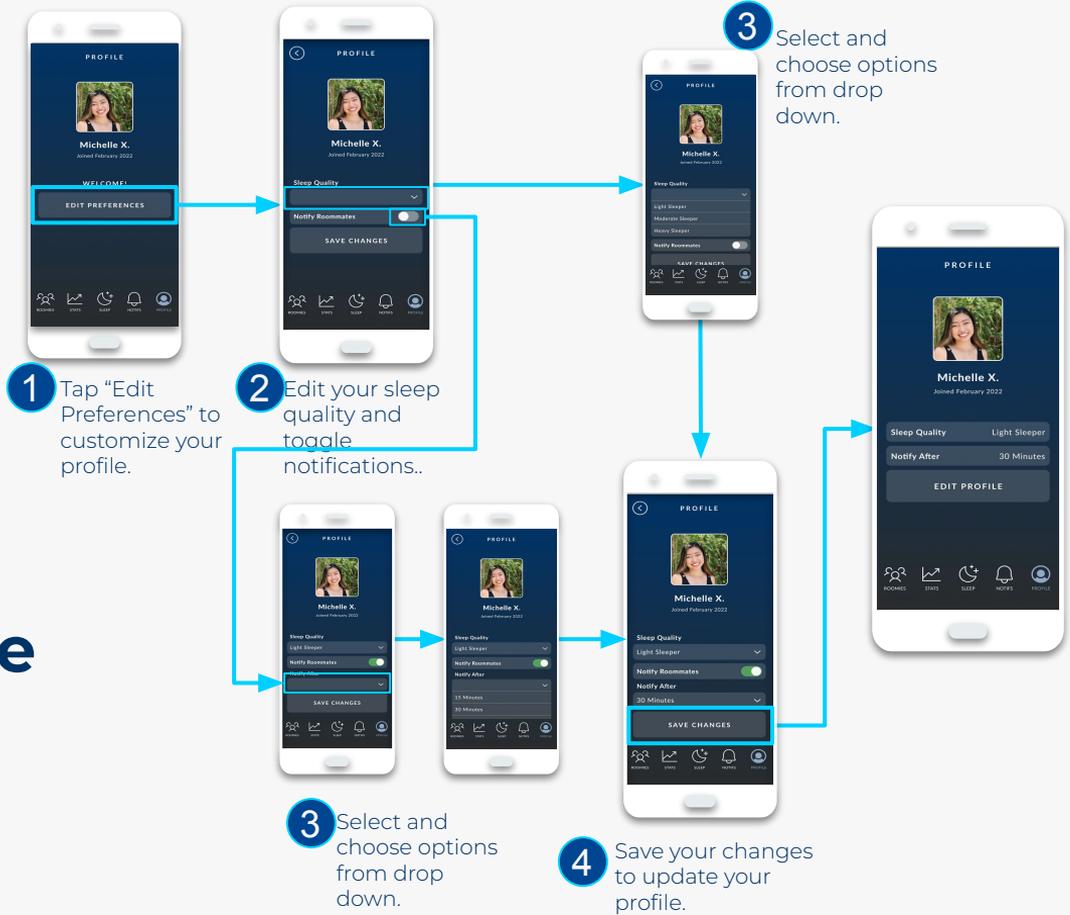


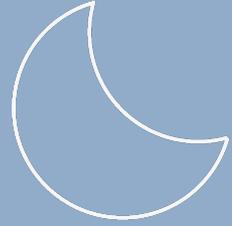
- 3 Household removed.



# Update your sleeping preferences and notify your roommates that you're still awake

Complexity: Complex





# Prototype Overview



# Prototype Overview: Tools

We used Figma to design and demo our prototype.



## Pros

- Easy collaboration among team members—it's helpful seeing teammates' cursors on the page
- Ease of copying and pasting elements
- Wide expanse of design assets that took our med-fi above and beyond the low-fi
- Saves color palette for easy access



## Cons

- Difficult to generate custom shapes
- Copied frames have identical names—sometimes forget to rename manually
- Wiring frames is easy to mess up and gets tedious

# Prototype Overview: Limitations



 No actual ambient noise-tracking feature, so the stats data was “hard-coded”

 The Figma prototype does not have typing capabilities, so we had to autofill for search queries and text messages

 Too many permutations for functions under the “Roomies” and “Profile” tabs, so only certain functions were implemented (only can add/delete a certain roommate, etc.)

 Too many permutations for the menu bar due to five page options, so we ended up wiring each page back to the home page. Users would have to go back to the home page before trying to go to a new page

# Prototype Overview: Wizard of Oz Techniques



Time travel to 8:00 AM next morning after 'sleeping'



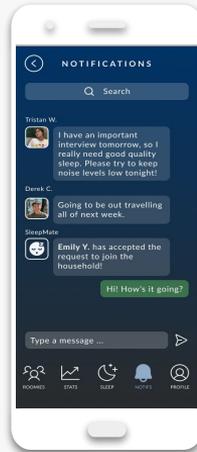
Simulated noise graphs and sleep statistics



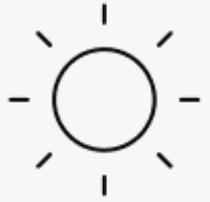
Simulated message responses in "Notifications" Tab



Autofills roommate info for searching, adding, and deleting roommates



# Prototype Overview: Hard Coded Features



Time and date of waking up



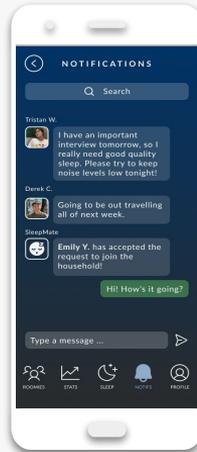
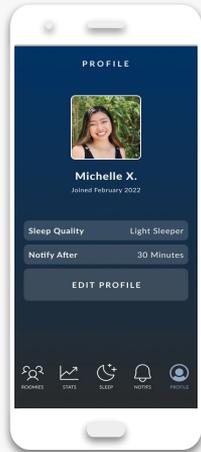
Roommate & profile information

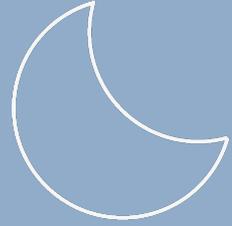


Household message board content



Sleep statistics graphs

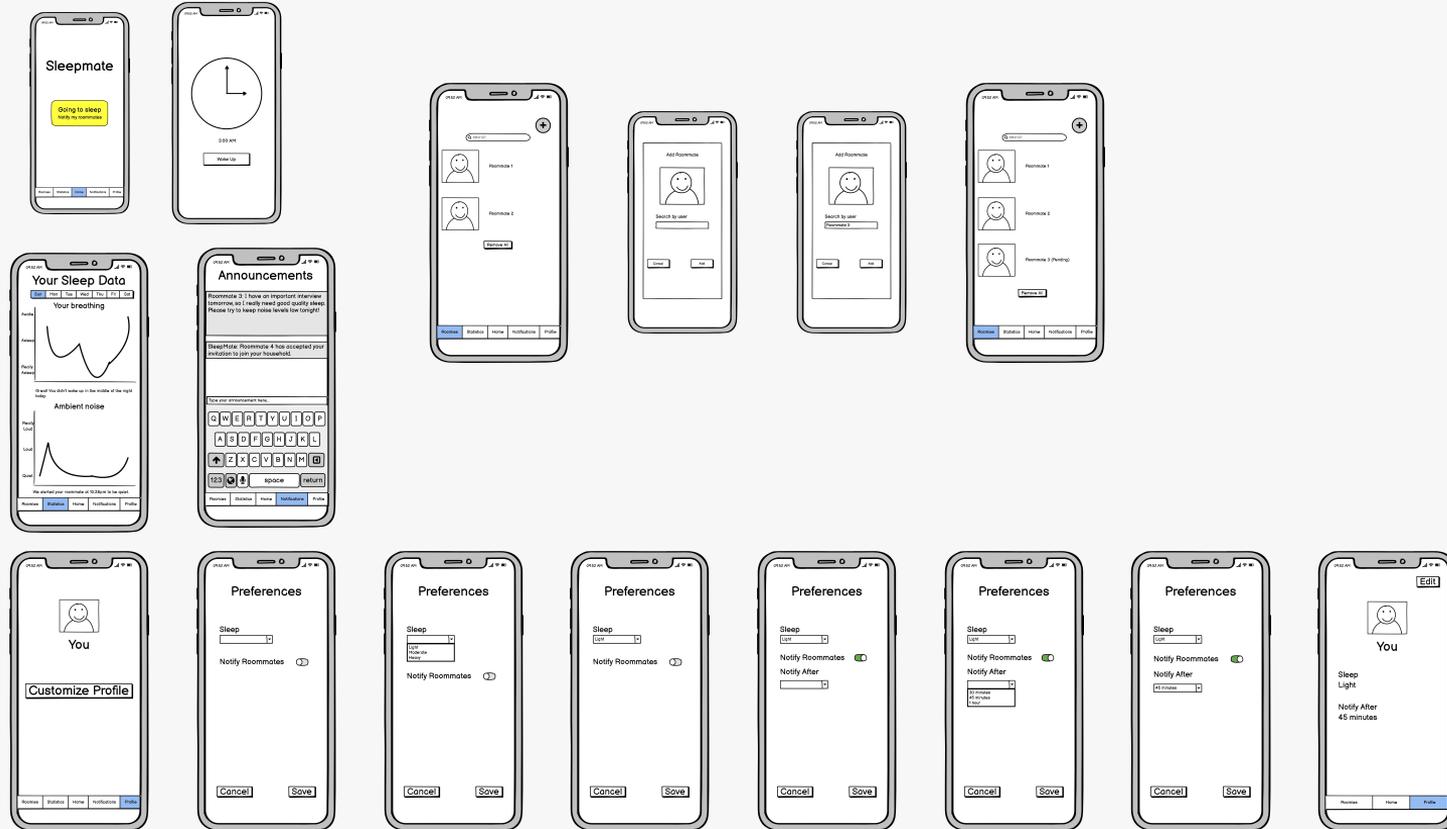
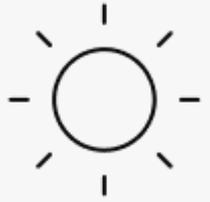




# Appendix



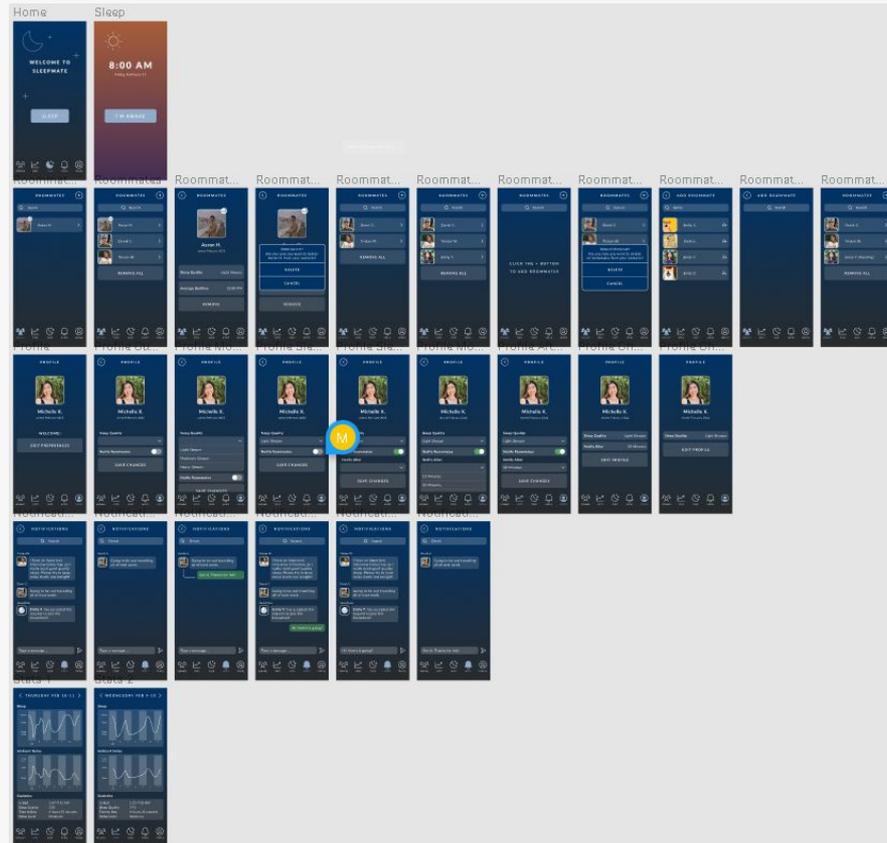
# Low-Fi Prototype



# Med-Fi Prototype

Link:

<https://www.figma.com/proto/pv2AVR3iqo2s9Pmk16wUeE/SleepMate-Med-Fi-Prototype?node-id=56%3A1051&scaling=scale-down&page-id=0%3A1&starting-point-node-id=56%3A1051>





**Website:**

<http://web.stanford.edu/class/cs147/projects/CaringFromWithin/Sleepmate/>

