



SoundPrints

Med-Fi Prototyping

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Mission Statement & Value Proposition

Our Mission: Enable people to connect with and inspire one another through collective, location-based audio journaling.

Value Proposition: Audio spaces that connect and inspire.

Problem and Solution Overview

SoundPrints is a location-based audio journaling app that enables its users to **connect with** and **inspire** one another in the face of daunting obstacles that people often encounter as they try to achieve their goals. We hope users will be inspired by listening to the motivational recordings left by others at the places they visit, and that they will celebrate their successes by making their own recordings. We hope users will share their audio recordings with others in their community to inspire others to follow in their “soundprints.”

Values Encoded

Inclusion: Ensuring all users feel connected, safe, and included in the SoundPrints community.

Giving and Receiving Motivation: Enable users to motivate one another to achieve their goals.

Privacy: Enabling users to have privacy while still enjoying the benefits of the app.

Values Encoded: Inclusion

Inclusion: Connecting users and creating community

- Users can listen to the recordings left by others
- Users can leave their own audio recordings that will inspire others
- Users can chat with and share audio recordings with their friends

Values Encoded: Inclusion

Inclusion: Ensuring users are protected from psychological harm, including negative speech and insults. This can conflict with connecting users and creating community.

- We only allow users to Chat with users who are in their Contacts (like Whatsapp) to avoid potentially uncomfortable contact with strangers
- However, the recordings left by others could still cause psychological harm to users.
- Features that could help but that we did not have time to include in our Medium Fidelity prototype:
 - Community guidelines: Each user reads and signs community guidelines form. Pledge to be respectful towards and supportive of others in the community.
 - “Report a recording” and “report a user” features: Allow users to report those who make them feel unsafe. Users will be banned from the app if they don’t follow the community guidelines.
 - Run a hate speech detector on each recording.

Values Encoded: Giving and Receiving Motivation

Giving and Receiving Motivation: Enable users to motivate one another to achieve their goals.

- Users can listen to motivational audio recordings left by others near the location they are in. This creates an immersive experience for users to listen to motivation recordings related to the activities they are engaging in.
- Users can make their own recordings to inspire the next person who visits that location.
- Users can share their recordings and chat with their friends on the app, providing personalized support, accountability, and validation.

Values Encoded: Privacy

Privacy: Enable users to preserve their privacy while still enjoying the features of the app.

- We allow users to post recordings Anonymously in case they want to preserve their privacy while still enjoying the recording feature
- We only allow users to Chat with users who are in their Contacts (like Whatsapp) to better protect their privacy from strangers

Tasks

Simple: Listen to recordings made by others near your location.

- Subtask 1: Listen to recordings made within 500 feet of your current location until the playlist resets.
- Subtask 2: Listen to the recording “My Fave Spots.”

Moderate: Add your own recording to the set of recordings made near your location.

Complex: Share an audio recording that you made with a friend.

Usability Goals & Key Measurements

- **Robust:** Minimal error rates
 - Primary Metric: How often does the user complete the task without going down the wrong path
 - Secondary Metric: How often does the user ask us questions due to confusion about what to do?
- **Pleasant:** High user satisfaction
 - Measure by understanding what users like, dislike, find confusing, or find frustrating by:
 - Noting moments during prototype test when users appear to find an experience enjoyable or confusing.
 - User feedback in follow-up questions after prototype test

Revised Interface Design

Major Design Change: Navigation Bar

- Helps us achieve usability goal of creating a more **pleasant** user experience
- Integrated all homepage buttons as a bottom navigation bar in all frames so that they can be quickly accessed from any other screen.
- Removed home button from top right corner, instead only including it in the bottom navigation bar.
- **Rationale:**
 - Low fidelity prototype testers suggested that a bottom navigation bar would increase efficiency and make user experience more enjoyable
 - Placing both the Back and Home buttons at the top of the page created extra confusion about the purpose of the Back button
 - Following design patterns used by other successful apps



Listen SubTask 1

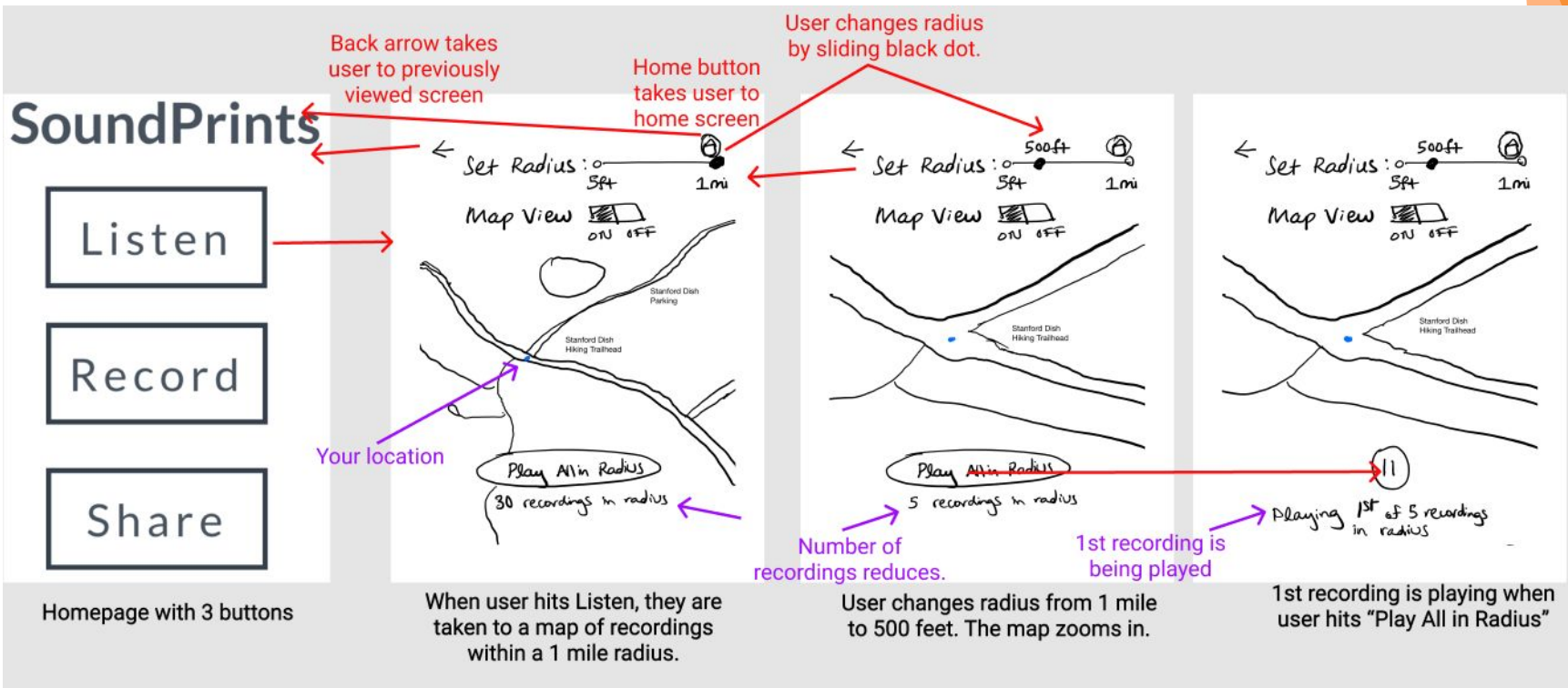
Listen to recordings made within 500 feet of your current location until the playlist resets.

Listen Subtask 1: Before

For all listen slides,

Red arrows = taps

Purple arrows = annotation without click



Listen Subtask 1: Before Continued

The image consists of two side-by-side panels, each representing a different state of a user's experience with a radius-based playlist. Both panels feature a hand-drawn interface at the top with a left-pointing arrow, a 'Set Radius' slider set to 500ft, and a 'Map View' toggle switch set to 'ON'. A location marker 'A' is shown at the 1mi mark on the slider.

Left Panel: The map below shows a network of paths. A blue dot is positioned at a junction, and a message bubble indicates 'Stanford Dish Hiking Trailhead'. Below the map, a circled '11' is followed by the text 'You have exited the radius. Once this recording finishes, your playlist will reset.' and 'Playing 4th of 6 recordings in radius'.

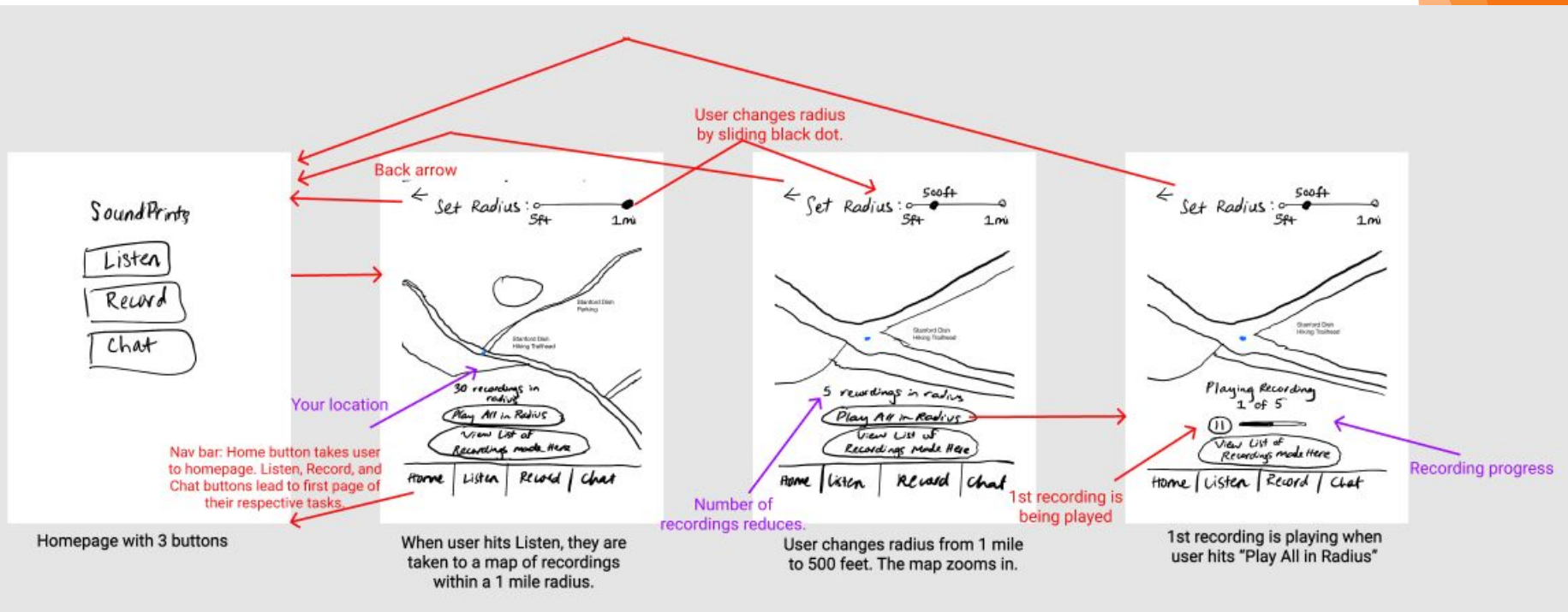
Right Panel: The map shows a different path with a blue dot and a message bubble indicating 'Stanford Dish Hiking Trail'. Below the map, the text 'Play All in radius' is circled, followed by '8 recordings in radius'.

Text below the panels:

Imagine that the user has walked away from the original location they were in, so that they have exited the radius. They get a message that they have exited the radius, and that the playlist will reset after the current recording finishes.

Map view resets and number of recordings in radius changes accordingly.

Listen Subtask 1: After



Listen Subtask 1: After Continued

← Set Radius: 500ft
5ft 1mi

NOTE: You have exited the radius. Once you finish this recording, your playlist will reset.

Stanford Dish Hiking Trailhead

Playing recording
3 of 5

11 View List of Recordings Made Here

Home | Listen | Record | Chat

← Set Radius: 500ft
5ft 1mi

Stanford Dish Hiking Trail

3 recordings in radius

Play All in Radius
View List of Recordings Made Here

Home | Listen | Record | Chat

Imagine that the user has walked away from the original location they were in, so that they have exited the radius. They get a message that they have exited the radius, and that the playlist will reset after the current recording finishes.

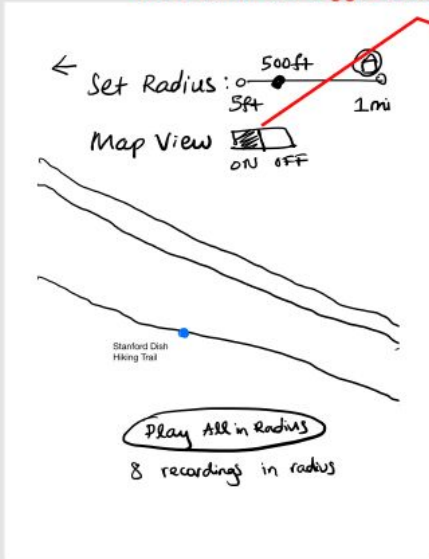
Map view resets and number of recordings in radius changes accordingly.

Listen SubTask 2

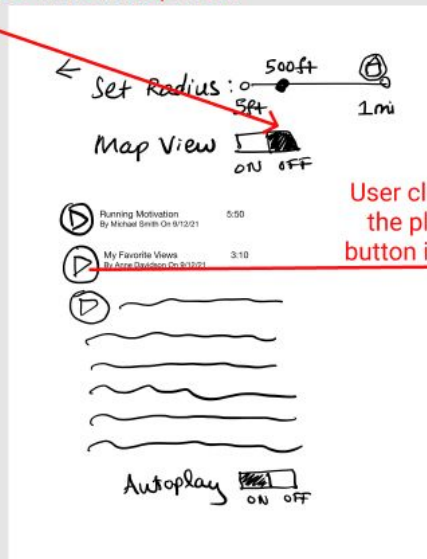
Listen to the recording “My Fave Spots.”

Listen Subtask 2: Before

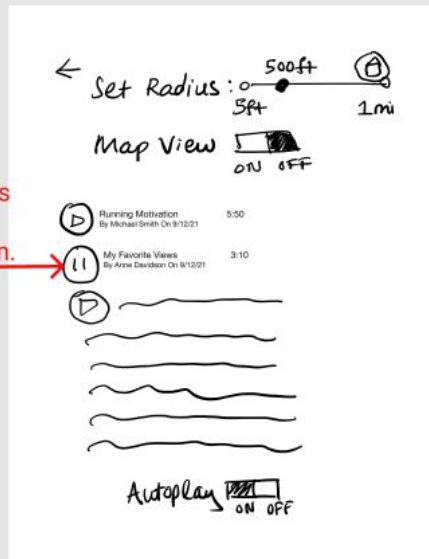
User clicks the toggle button to turn off Map View.



Map view resets and number of recordings in radius changes accordingly.



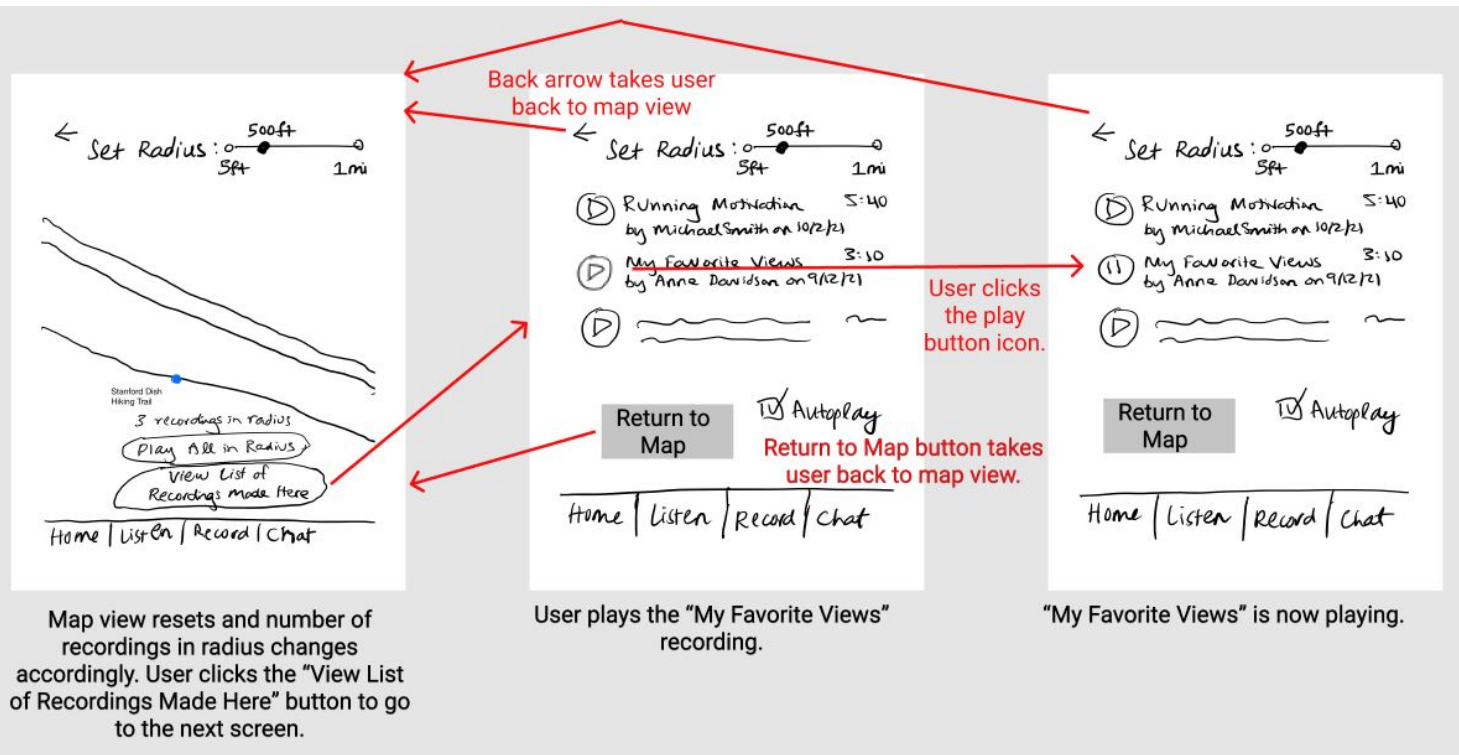
User plays the "My Favorite Views" recording.



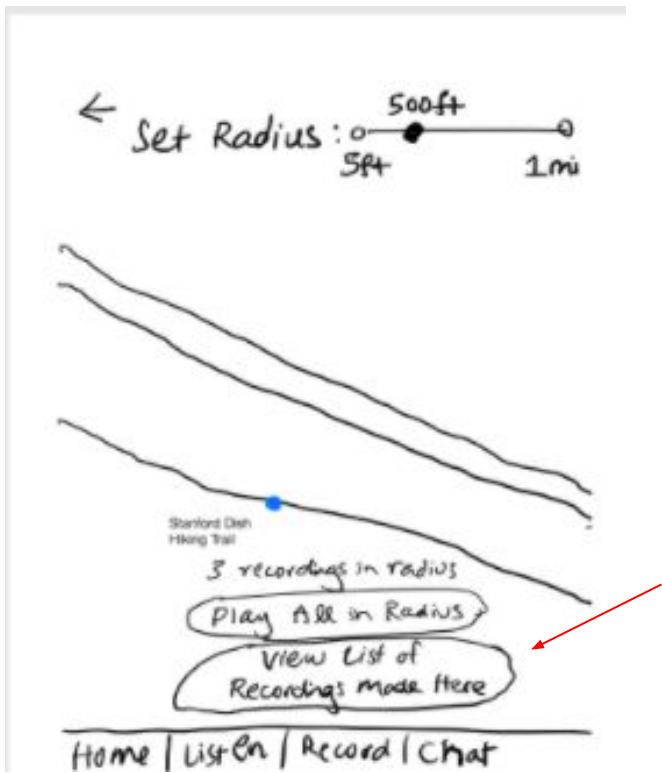
"My Favorite Views" is now playing.

User clicks the play button icon.

Listen Subtask 2: After



Major Design Changes: Listen Task



Map View: Removed the Map View On/Off toggle and replaced with “View List of Recordings Made Here” and “Return to Map” buttons

Buttons in a prominent location in order to call attention to them

Rationale:

Helps us achieve usability goal of making the app more **robust**

Users were all unable to perform Listen Subtask 2 without significant help from the facilitator

Major Design Changes: Listen Task

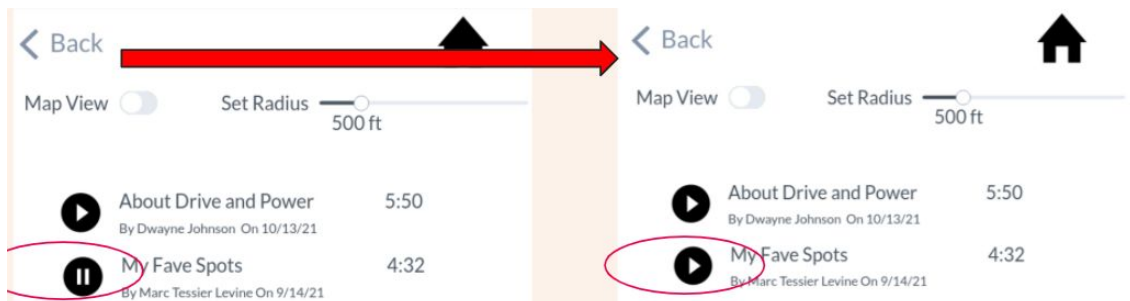
Back Button Consistency:

Previously, always linking the back button to the previously viewed screen caused confusion in the Listen task

Our changes improve **robustness**

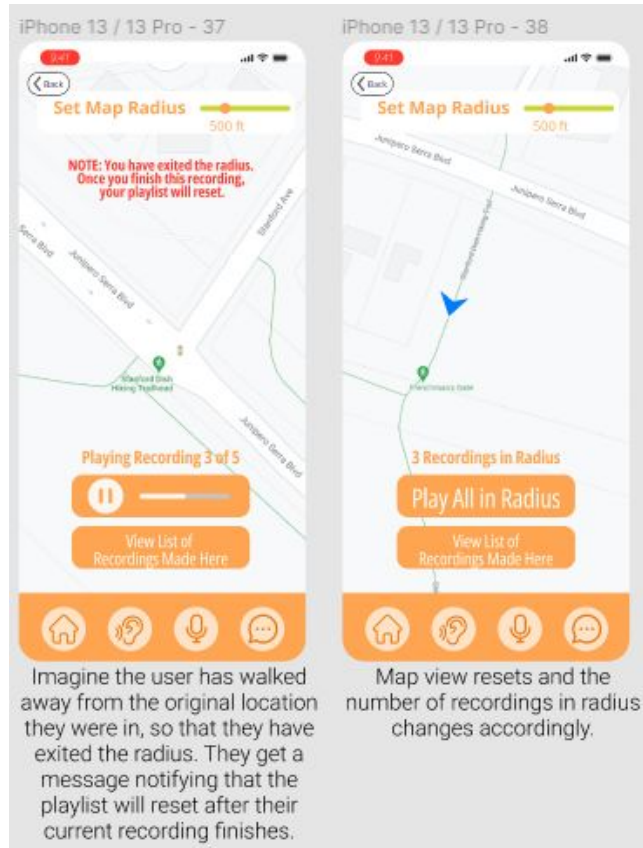
Back button for all Listen task frames now either 1) links back to the home screen or 2) if the user has switched between Map and List view of the recordings, the back button takes the user to previous type of view

Return to Map button provides an additional way to go back to Map View in case users are still confused by the Back button.



Old use of back button, which caused confusion, especially when Pause turned into Play.

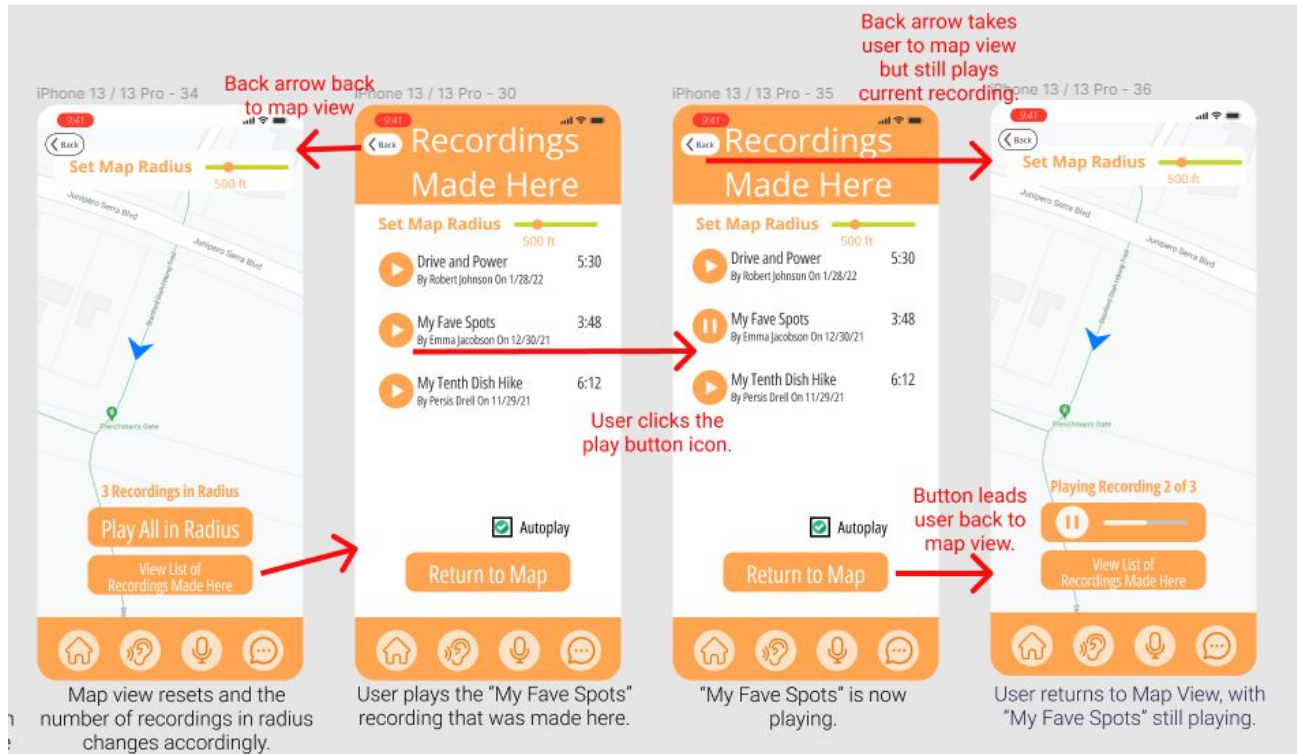
Listen Medium Fidelity: Subtask 1 Continued



All interactions are tap, except for “Set Map Radius,” which is drag.
All back arrows on this slide lead to home page.

Listen Medium Fidelity: Subtask 2

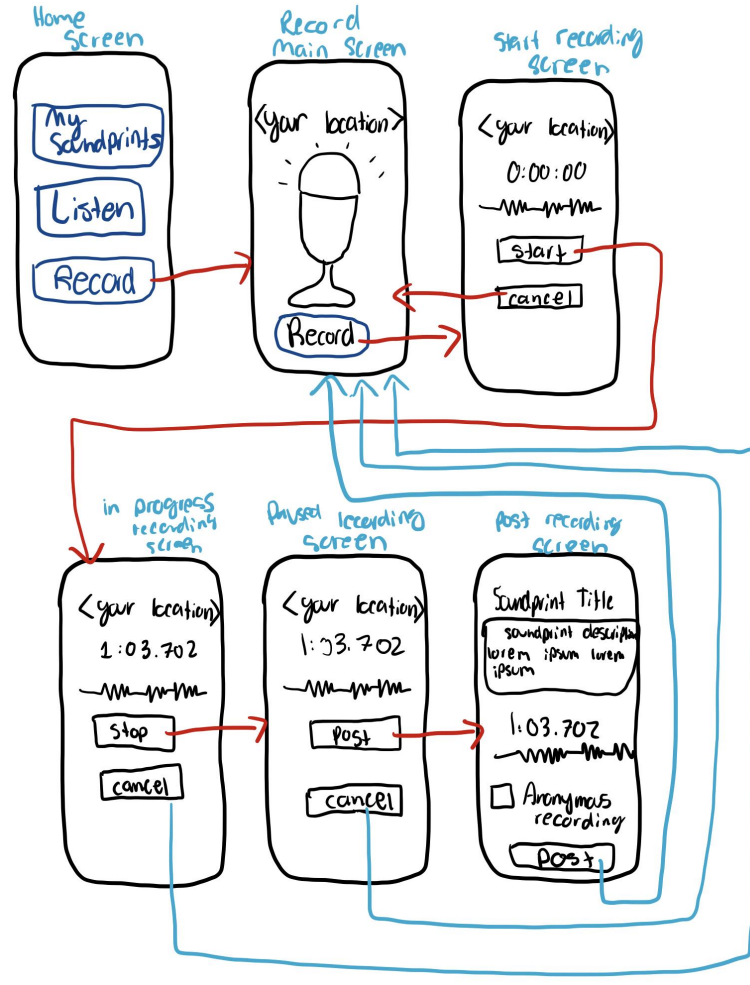
All interactions are tap, except for “Set Map Radius,” which is drag. When user switches to “Recordings Made Here” screen (List View), both the Back and Return to Map buttons go back to Map.



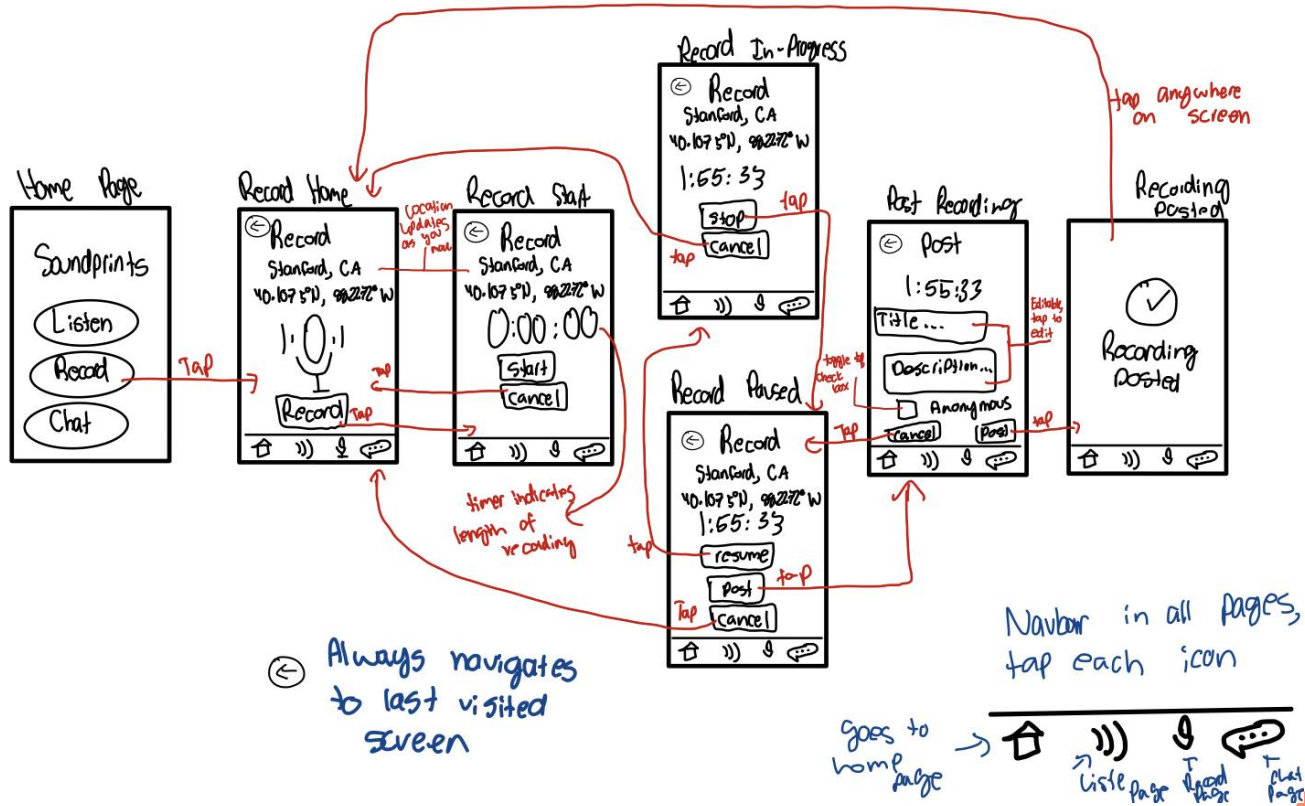
Record

Add your own recording to the set of recordings made near your location.

Record Task: Before



Record Task: After

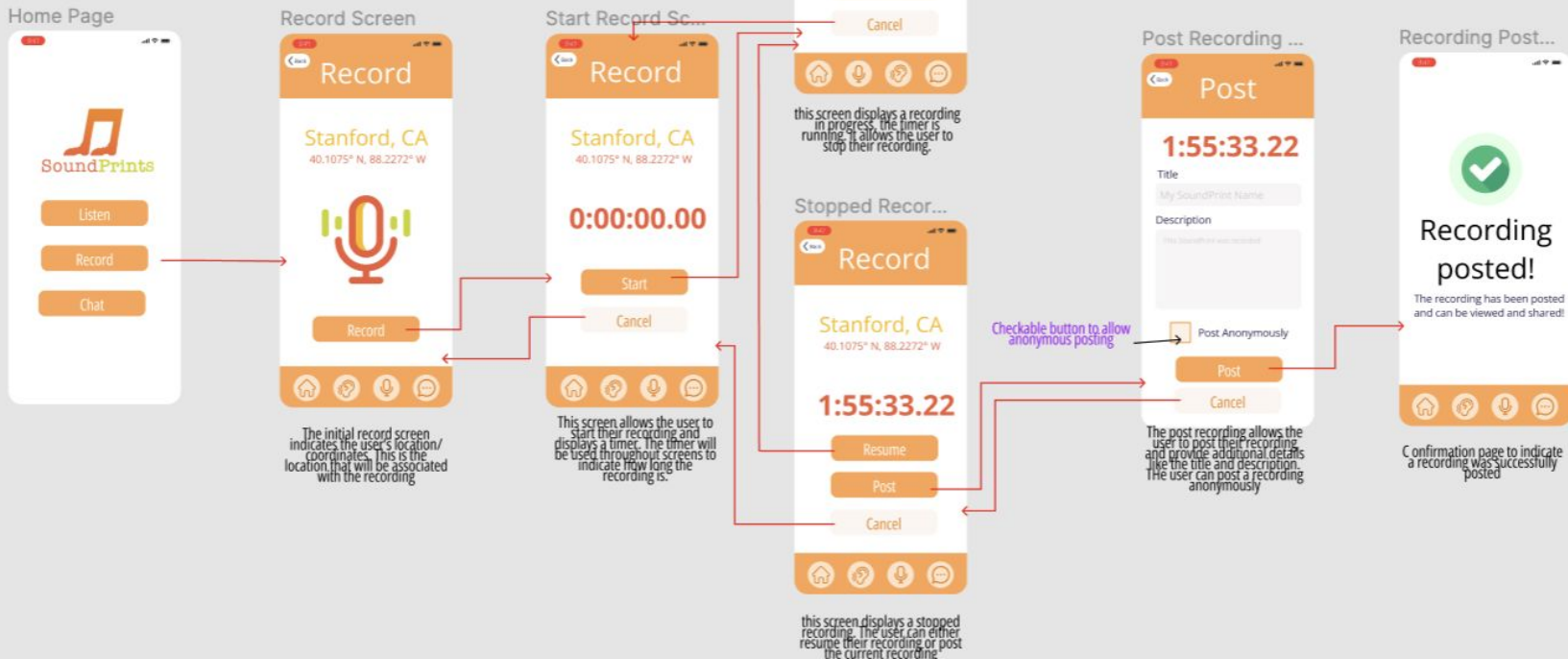


Major Design Changes: Record

- Add a screen confirming the recording was posted
 - This allows for a graceful transition, making the experience more **pleasant**
- Add a back button in all screens
 - Before, the back button was only present in some screens
 - Making the back button available on all screens prevents user confusion
 - This addresses our usability goal of increasing **robustness**

Record Medium Fidelity

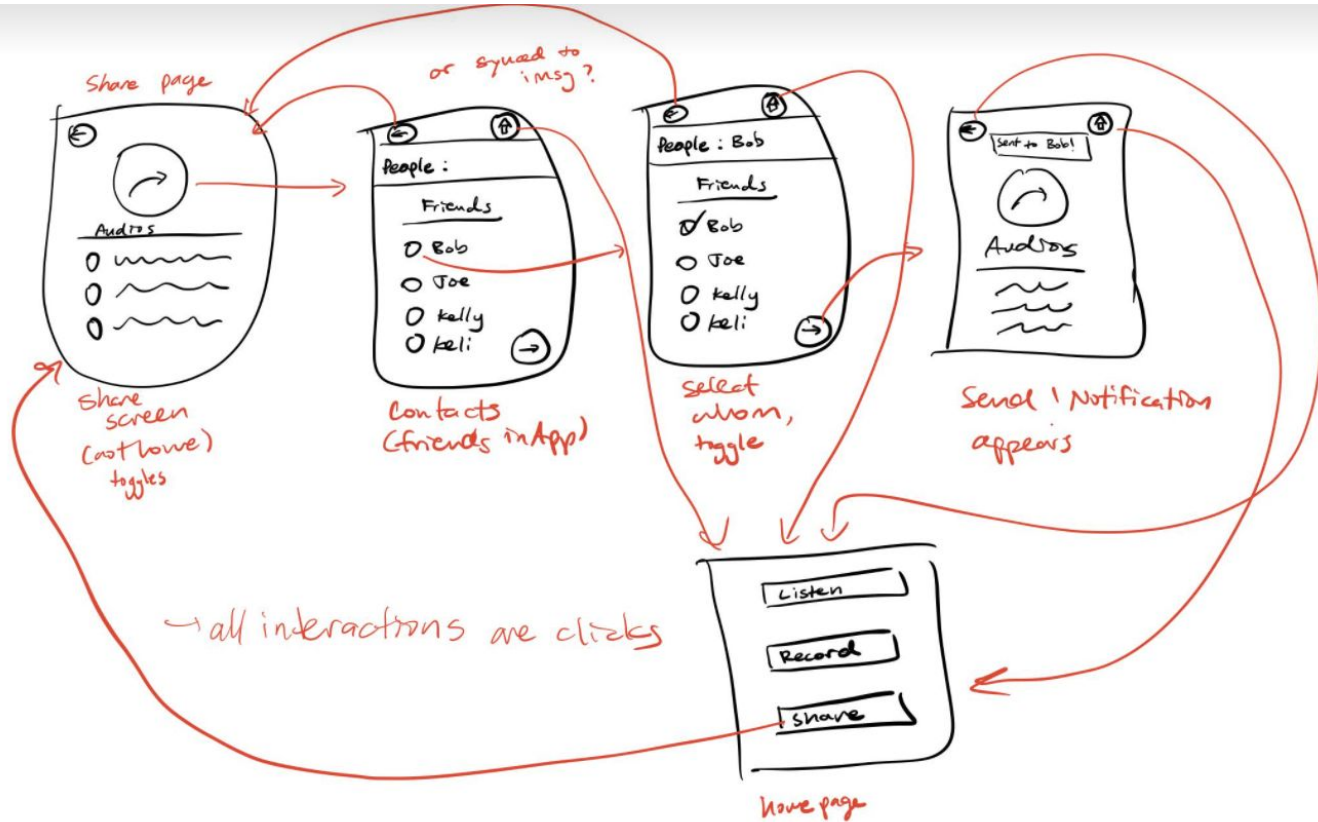
All red arrows indicate a screen change that results from a TAP action



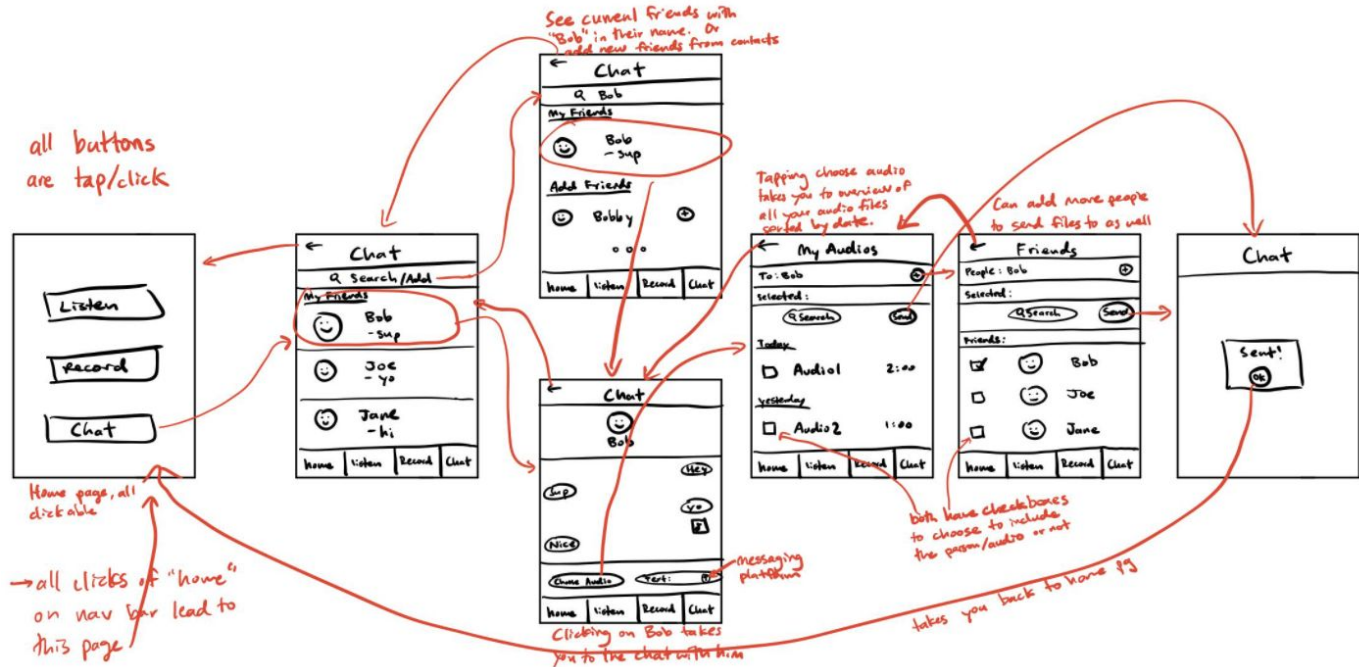
Share

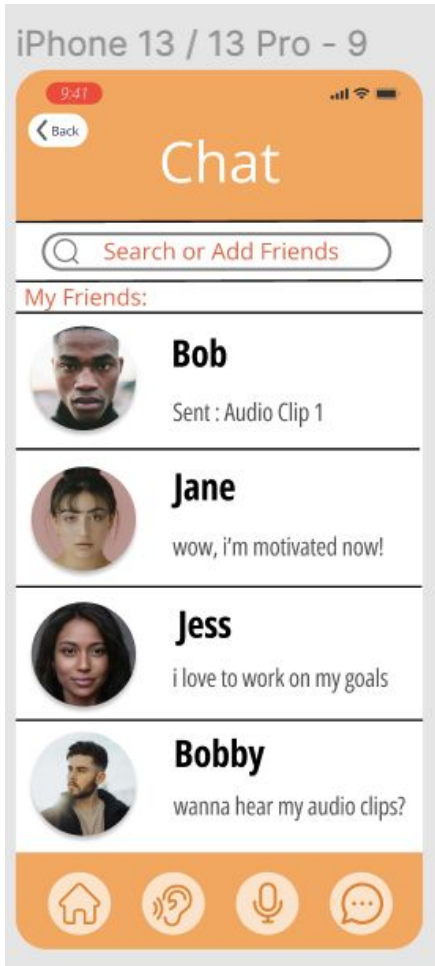
Share an audio recording that you made with a friend.

Share, before proto (low fi) sketch



Share, after proto (low fi) sketch

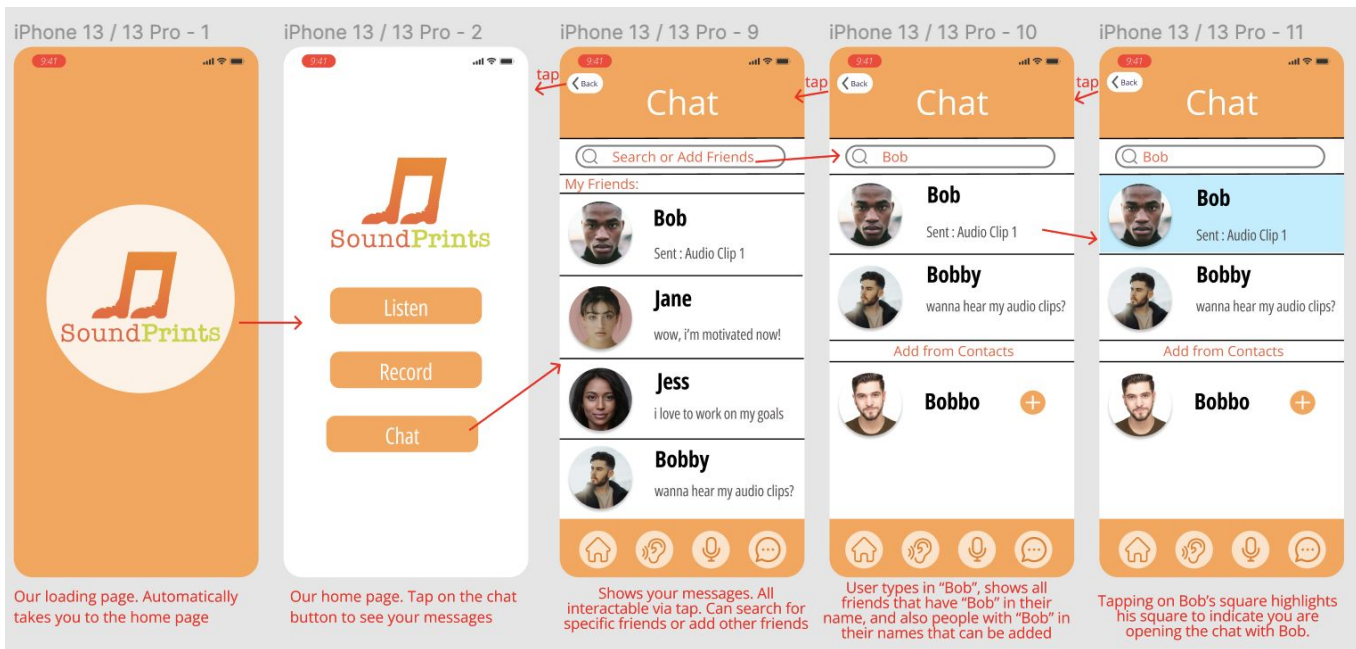




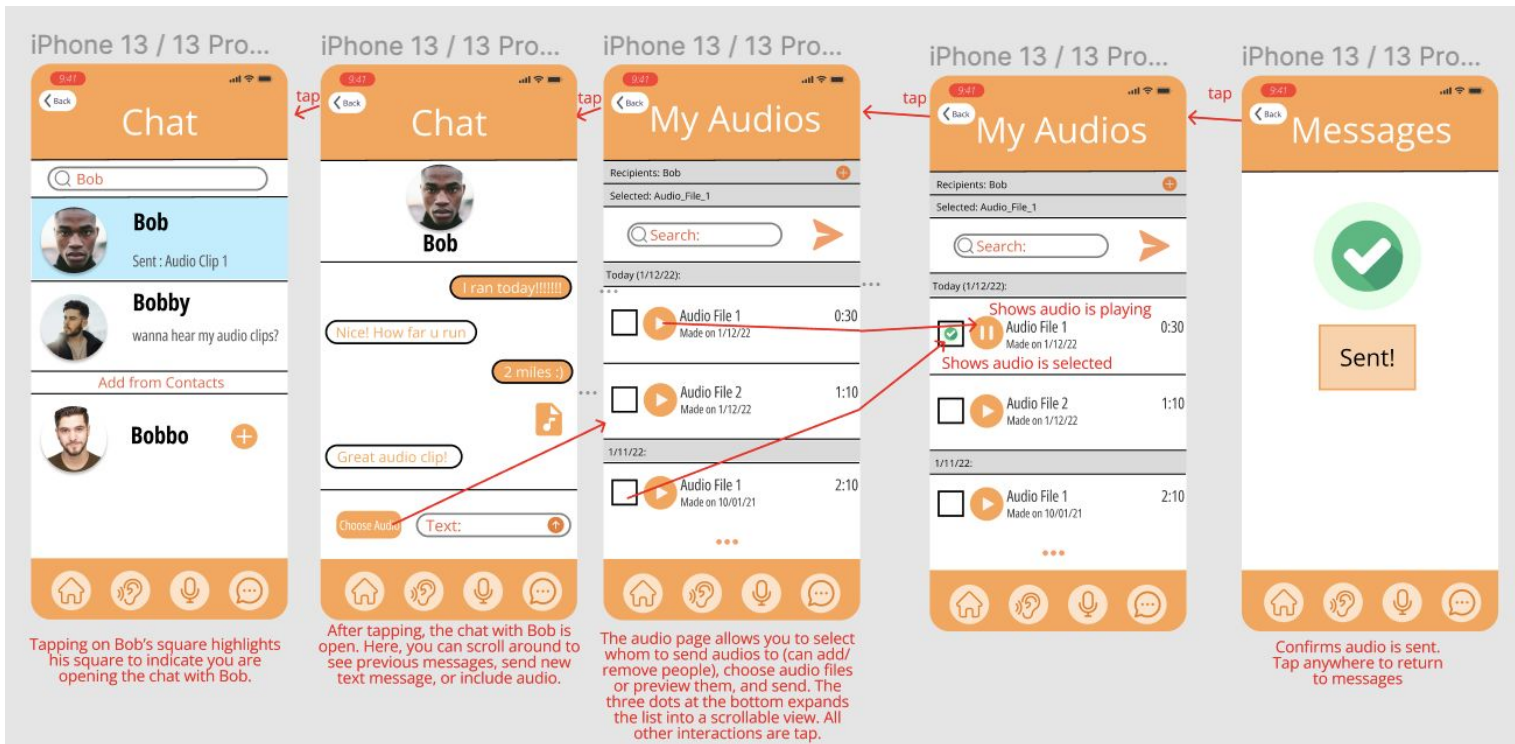
Major Design Changes: Share

- “Chat” with friends instead of only sharing recordings
- Able to share audio, exchange text messages, and add friends
- Able to keep conversations you have with others
- Makes user experience more **pleasant**
- Only add friends from contacts list to better promote inclusion and privacy

Share Medium Fidelity



Share Medium Fidelity



Prototype Overview

Design/Prototyping Tools

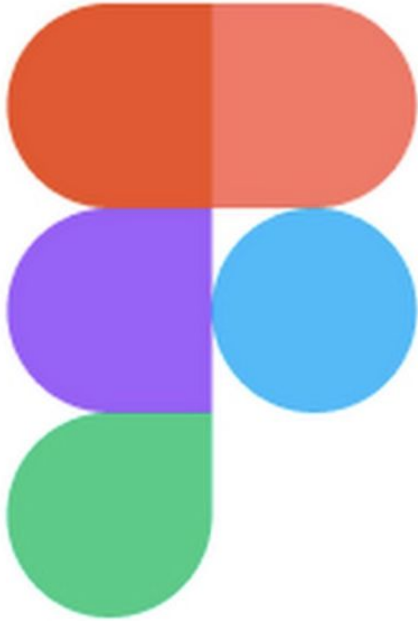
Used in medium-fidelity prototype

Pros:

- Collaborative environment
- Efficient prototyping
- Easy to make duplicate slides
 - Experiment slide designs

Cons:

- Limited toolkits, had to import
- Steep learning curve



Figma

Design/Prototyping Tools

Used in low-fidelity prototype



Marvel

Pros:

- Collaborative environment, Figma was better
- Easy to design simple sketches

Cons:

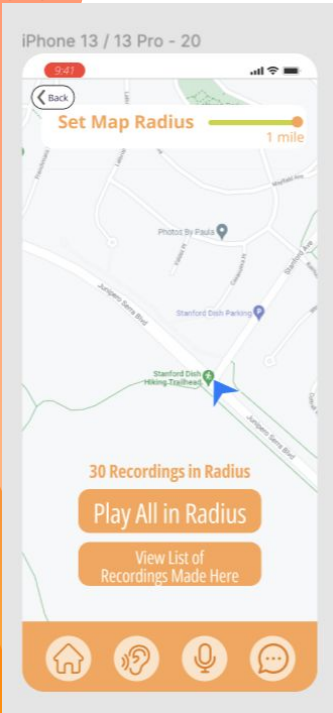
- Prototyping was from single screen view (hard to see overview)
- Hard to learn, also felt less advanced than Figma

Limitations/tradeoffs of the current prototype

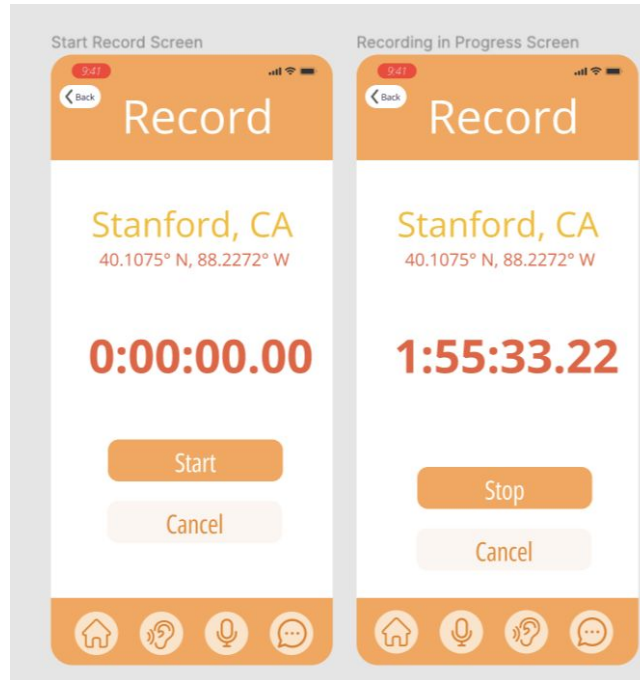
- Location Real Time Updates
 - Our app depends on real time updates based on a user's location, however Figma doesn't allow for this feature. Instead, we include location context in our User README
- Audio Input Output
 - Our app also depends on audio input and output, but Figma doesn't allow for this either. We hard-coded timestamps and pause/play to indicate audio input/output
- Not all buttons are interactive
 - Not feasible for prototype

Wizard of Oz Techniques

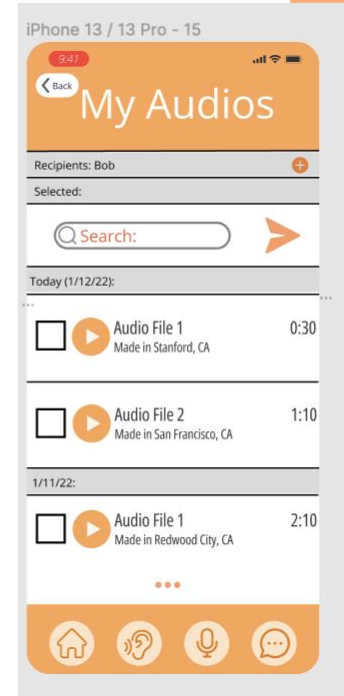
Location + Hearing
the audio



Using Start/Stop to
indicate timer

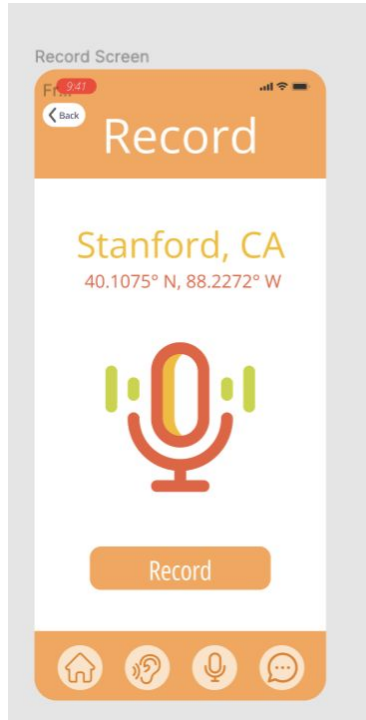


Some button
Functionality

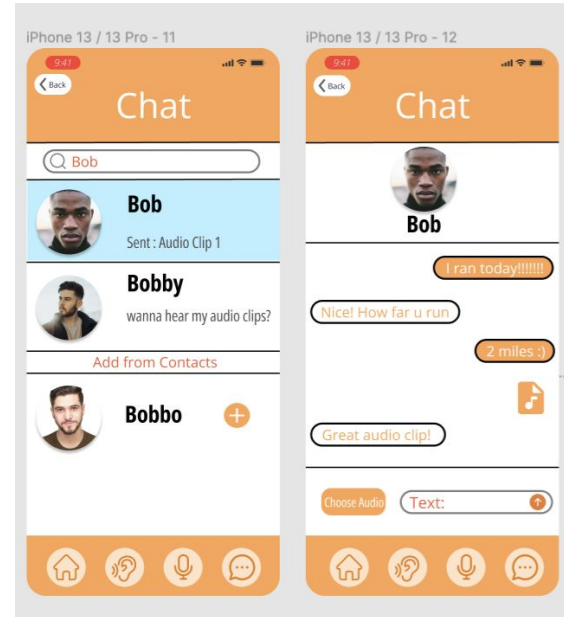


Hard-Coded Features

Location & Map



Chat Contacts & Messages



Appendix

The background features abstract, overlapping wavy shapes in shades of orange and red, creating a modern and dynamic aesthetic.

