

# soneme

vertical music discovery

## **Team**

Emmerich Anklam - Team manager and designer

Robert Fearon - Developer and designer

Jorge Pozas Trevino - Developer

## **Introduction and Mission Statement**

Even with the current proliferation of tools for hearing music, there is a major lack of new applications directed specifically toward cooperative music discovery. Soneme introduces an interface that helps its users find great, lesser known music in just a few minutes. We aim for an exciting listening experience that prioritizes finding music over archiving users' favorite songs. We also want to make music discovery a vivid social experience, letting everyone broadcast their discoveries in real time, in the vein of classic radio DJing.

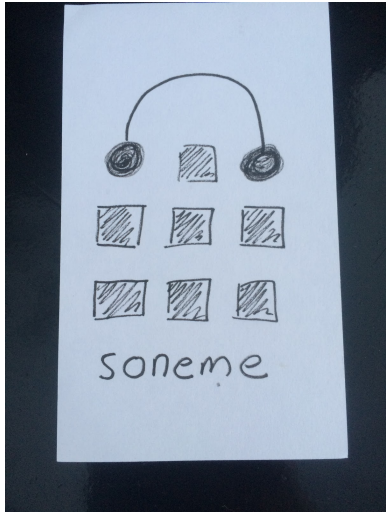
## **Prototype Description**

Currently our prototype demonstrates all the main features of our app. On first use, the app takes the user directly to a minimal tutorial page. Once that's done, the user is directed to the search screen, where users can enter up to three search fields. Searches are auto-completed and can vary by song name, artist name, album name, and etc.

An initial grid of nine songs (displayed by album cover) appears, kicking off the discovery process. The song in the middle is the one playing currently, and the bottom bar on the screen displays the song info and run time. The INFO button gives further info about the artist, including links to artists' websites and digital music stores. Holding down one of the surrounding album covers for three seconds starts the new song corresponding to that cover. The grid changes completely every time a new song is selected, but up to ten songs can be queued by tapping the QUEUE button (which currently shows a hand on a vinyl record). The bottom bar now stores queued songs, and dragging an album cover into the bar queues it. Tap the radio tower button (on the top right of the screen) allows the user's music to be broadcast to other users.

A sliding menu allows a user to start new searches, share music discoveries via social media or email, and find other Soneme DJs in the area. The "Find DJs" option allows the user to look for DJs within a user-specified radius, scan through DJs' profiles, and tune in to DJs' Soneme broadcasts.





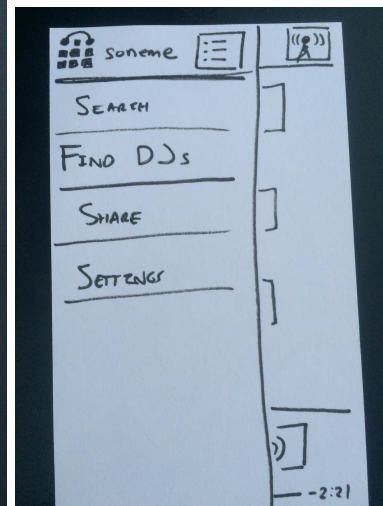
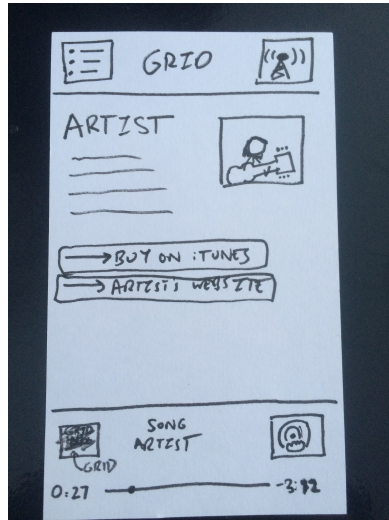
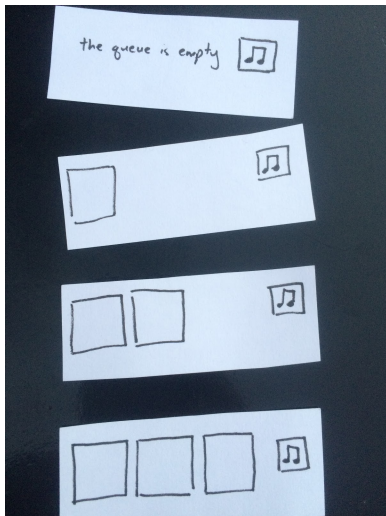
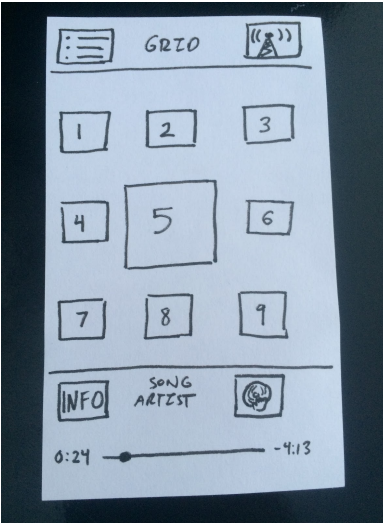
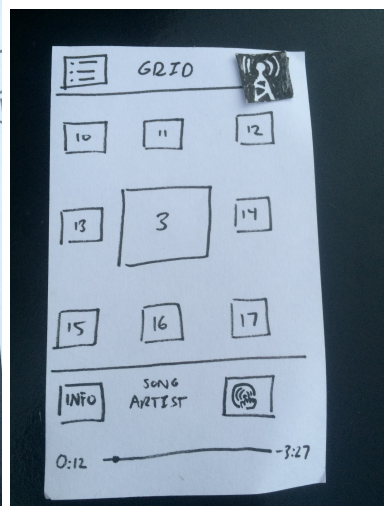
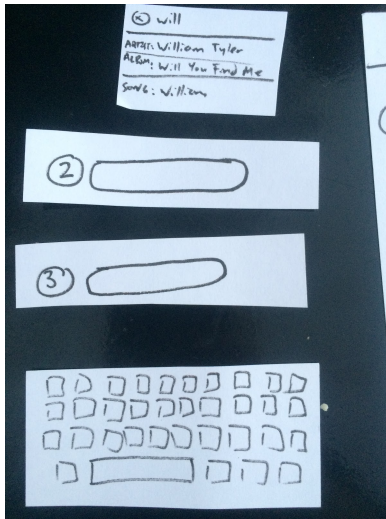
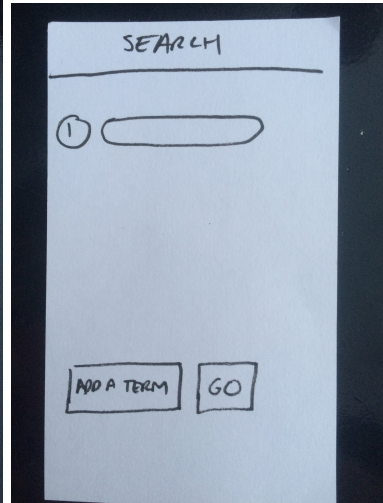
Welcome!

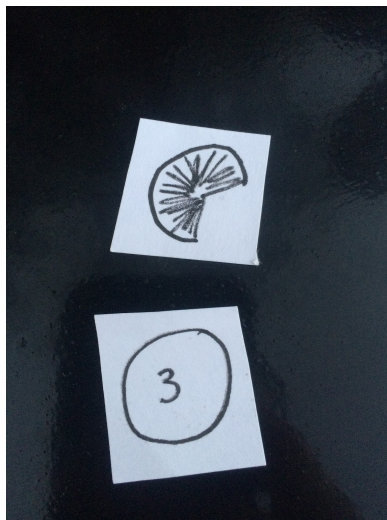
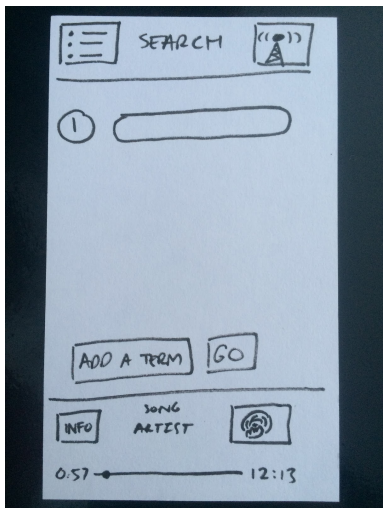
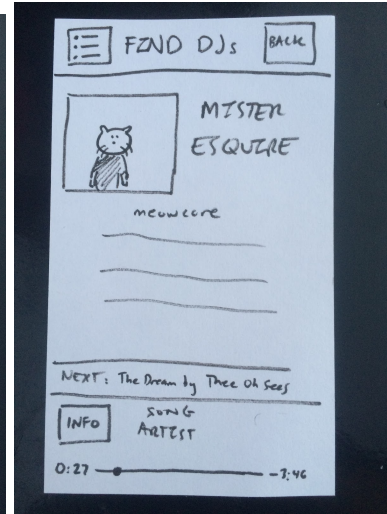
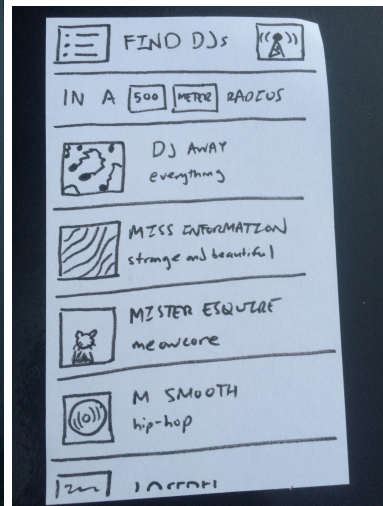
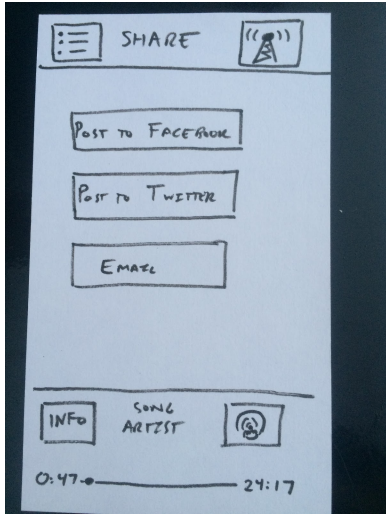
Enter a song to start discovering music.

Drag songs to the bottom bar to queue them.

To listen to DJs around you, or to see other options, open the side menu.

Have fun exploring!







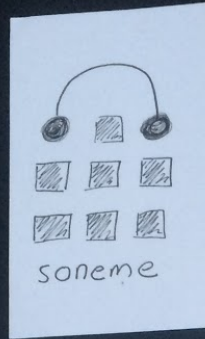


3

Will  
Name William Taylor  
Album Will You Find Me  
Genre Unknown

2

3



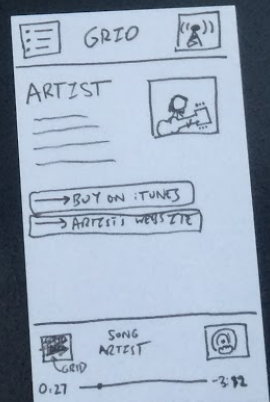
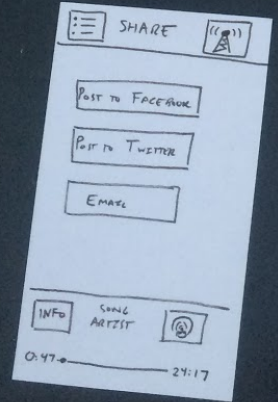
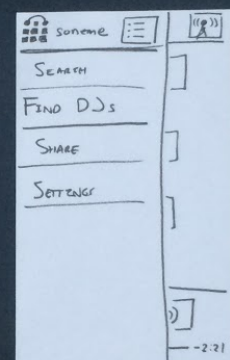
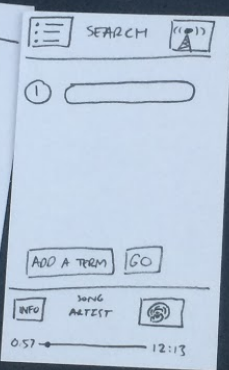
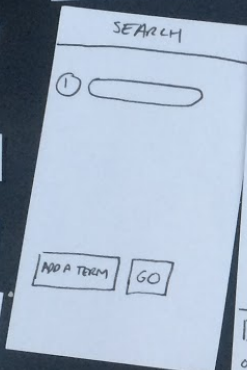
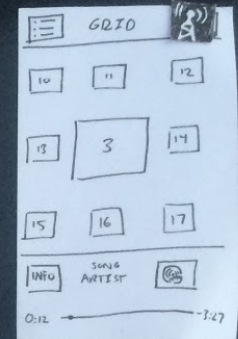
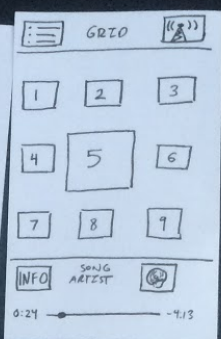
Welcome!

Enter a song to start discovering music.

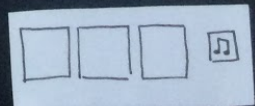
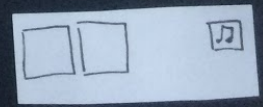
Drag songs to the bottom bar to queue them.

To listen to DJs around you, or to see other options, open the side menu.

Have fun exploring!



the queue is empty



## **Method**

### Participants:

First participant was a non-Stanford acquaintance, 30 year old female, who agreed to do it as a favor. Second participant was a Chemistry alumni, male, and was approached when sitting by himself. Agreed to help just out of goodness. Third participant was a current undergrad student, male, and was also approached when sitting by himself.

### Environment:

The test environment represented a mobile user's lifestyle, meaning that our app could be used anywhere while on the go. We interviewed subjects outside of Stanford and in the Tresidder area.

### Tasks:

We asked users to carry out three tasks and broke these tasks into subtasks.

Task 1 – Start searching for songs; pick song 3 to start playing immediately; find info on the song playing

Task 2 – Add music to the song queue; Remove songs from the queue; Start broadcasting your music

Task 3 – Tune into another person's broadcasts; Exit the station and go to another station; share out the song which is playing

### Procedure:

We began our tests by introducing ourselves to participants, asking them to sign a consent form, and then sitting down with them to explain the goals of our app. Once we had given them a brief demo showing how our prototype worked, we asked them to show us how to complete a series of pre set tasks. We broke our three tasks into subtasks that were necessary or important to complete the super-task. While the subjects were working on the tasks, we recorded their reactions, areas where we thought the subject was struggling, and the time it took to complete the task.

The first participant was shown the prototype using Pop, while the second and third got a paper prototype (switching screens manually), due to technical difficulties with Pop.

### Test Measures:

Once we completed our tests, we ranked task difficulty and problem areas on a scale from 0-4, where 0 meant no problems and 4 meant catastrophic UI problem.

## Results

### Positive Observations

- The three participants responded positively to the prototype tests.
- They all liked the idea of the app, and thought it was a great concept
- Everyone understood the concept of the broadcasting button right away
- All 3 found DJs and knew how to do the basic navigation
- Everyone was able to find artist information right away
- Adding and removing songs from queue was straightforward once they knew where the queue was

### Things to Improve

- 2 users thought that the top left menu was the list of music, instead of the main navigation menu (1/4 on the problem scale)
- Queue button was not clear for users, they didn't understand what it was (3/4 problem)
- 1 user found the concept of adding three songs at the beginning confusing, thought the songs would all be added to the queue (2/4 problem)
- The concept of sharing was confusing, as we already has broadcasting, and they didn't understand what they were sharing (3/4 problem)

### Other Observations

- There was confusion about whether a song was playing once you clicked on it in the grid, but this is more due to low-fi prototype than UI failure (1/4 problem)
- Question about what would happen once a user decided to stop broadcasting and you had stopped listening to it (2/4 problem)

### Product Suggestions

- 1 user thought DJs by location was irrelevant, found friends or genre to be more fitting, wanted favorite DJs
- User suggested being able to choose music to add to broadcast by searching, not just discovery

## Discussion

Having done a low-fi prototype on paper lead to a semi-pivot where we decided that broadcasting should be a big part of the app. If we had been doing this on a computer, or hi-fi design, we probably wouldn't have gotten to iterate so much. This allowed us to incorporate ideas from the previous sketching session we had in the previous sketching section.

Having done the test and run through the low-fi prototype with users, led to a lot of great insights. First, we were able to discern the fact that the concept of sharing and broadcasting existing together confused users, and in fact, confused us as well. It made us realize that our design for the queue was a good one, but discovering the queue in itself was not. It helped

clear up that the way we intend to turn broadcasting on and off actually works, as we were wondering if it would be good enough or not.

The suggestions from the test subjects was extremely valuable and will probably lead to a few changes, including maybe removing sharing altogether (leaving only broadcasting), re-evaluating adding a mode in which you can preview songs while your queue is still broadcasting, finding a new entrance or way to display the queue, and figuring out a simpler more straightforward to choose the initial song.

Due to the nature of gestures we want to use to explore/add to queue, we were able to test them only partially and are not yet sure if the chosen gestures will complete their function and be intuitive. We will need to conduct further testing with more high quality prototypes to test this out.

## Appendices: Forms, Data, Extra Figures

### Consent Form

**Consent Form**

The SONEME application is being produced as part of the coursework for Computer Science course CS 147 at Stanford University. Participants in experimental evaluation of the application provide data that is used to evaluate and modify the interface of SONEME. Data will be collected by interview, observation and questionnaire. Participation in this experiment is voluntary.

Participants may withdraw themselves and their data at any time without fear of consequences. Concerns about the experiment may be discussed with the researchers Emmerich Anklam, Robert Fearon, Jorge Pozas or with Professor James Landay, the instructor of CS 147.

James A. Landay  
CS Department  
Stanford University  
650-498-8215  
landay@cs.stanford.edu

Participant anonymity will be provided by the separate storage of names from data. Data will only be identified by participant number. No identifying information about the participants will be available to anyone except the student researchers and their supervisors/teaching staff.

I hereby acknowledge that I have been given an opportunity to ask questions about the nature of the experiment and my participation in it. I give my consent to have data collected on my behavior and opinions in relation to the SONEME experiment. I also give permission for images/video of me using the application to be used in presentations or publications as long as I am not personally identifiable in the images/video. I understand I may withdraw my permission at any time.

Name Andy  
Participant Number 0002  
Date 23/10/14  
Signature [Signature]

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Name Megan Morris  
Participant Number 0003  
Date 23/10/2014  
Signature [Signature]

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Name Luisa Garcia  
Participant Number 0001  
Date 10/22/2014  
Signature [Signature]

### Script for test

Hello and welcome to the Soneme pre-alpha test. We would like you to show us how to use the app

#### Task 1:

- Please start searching for songs and music.
- Ok, now pick song 3 to start playing immediately
- Now find info for the artist you are listening to.

#### Task 2:

- Please show us how you would add music to the song queue?
- How would you add another song to the queue?
- How would you scroll through the queue?
- How would you remove a song from the queue?
- Now turn on your radio broadcasting. Leave it on for a second and then turn it off.

#### Task 3:

- Show us how you would tune into another person's radio station
- Now exit that station and go to another station
- Now go back to the search screen and start looking for more music.

#### Task 4:

- Share the currently playing song to facebook or twitter.

### ***Interview Raw Data***

#### **Interview 1**

##### Task 1

- Clicked Add a term instead of Go once she had chosen a song
- Thought songs were accessed through the top left menu
- Her interpretation in the search screen was that she had picked the three songs to add already, not that they were parameters for search
- When clicked on album 3, she realized that the music around 3 was related music, but she didn't understand whether the song playing changed or not
- Once I told her that didn't play the song, she said she would click and leave it clicked to make it work
- When asked to find artist info, found it right away

##### Task 2

- Didn't understand the queue icon, and what it means
- Once she was inside the queue (after having shown her), she was able to add and remove songs from the queue
- She immediately knew how broadcasting worked

##### Task 3

- "What happens if someone turns of their broadcast? What do I listen to?"
- I think location is irrelevant, it should be based on the music that I like, genre, a song that I like, or from friends, or something
- I would love to add favorite DJs or something
- Give me an option to look for DJs

#### Task 4

- What am I sharing? A song? My station? Or what?

### **Interview 2**

#### Task 1

- Instructions for finishing the tutorial
- Is "Go" too ambiguous?
- Laughed at the paper prototype but enjoyed it
- Was able to easily perform all the initial tasks
- Confused the top left menu with the song list
- Once he found the queue, didn't know where to get songs from, asked about editing
- Removing songs, he said he would hold for some time then dismiss

#### Task 2

- The queue/return button is definitely the most confusing thing.

#### Task 3

- No problem finding DJs
- Confusion between broadcasting and sharing

#### Task 4

- What exactly is being shared?

### **Interview 3**

#### Task 1

- How to remove the tutorial screen?
- Holding down to change songs is unclear.
- Mild between queue + play.
- Spent the time to read the text in the instruction screen
- Dragged song 3 to 5
- Expected song 3 to start playing when it went to the center

#### Task 2

- No trouble adding or removing songs to from queue
- 

#### Task 3

- No problem finding DJs
-



#### Task 4

- we kept changing what Share did every time, which means that the context of where we were at changed it's meaning