LOVESTEP – Medium-Fi Prototype

Mobile Music Collaboration

The Team

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Problem and Solution Overview

Music collaboration is easy: just get a couple instruments, sit in a circle, and jam. But what if you only have your phones? Despite the great advances both in Electronic music marking and in Mobile technology, to date there's no platform for collaboratively creating music using only mobile devices. Enter Lovestep - an intuitive yet powerful App that allows users to record, mix, and share their tunes in real time. Friends (and even strangers) can create loops using Lovestep's easy musical interface, and send those loops back and forth whilst the loops play and layer on top of each other. Lovestep makes digital jamming not just a possibility, but a reality.

Tasks

This design iteration, the overarching desired results of our tasks remained the same. However, by studying our low fidelity prototype we discovered that our proposed application was a little bit clunky and could be made much smoother. Our tasks remained the same, but they were reframed in the context that we want everything to be achievable easily. We do not require our users to have a musical background, so our design was reiterated with this in mind. To recap our tasks…

SIMPLE:

The basic 'task' that our application enables is recording a single loop using an intuitive interface. These custom loops will be the building block of the Lovestep jam session, and can come in the form of piano, guitar, bass guitar, and drums.

MEDIUM:

The next task is mixing several loops together: these loops might involve different timespans and instruments, but they will be forced to the same underlying tempo. Even a novice user can arrange a rhythmic melody.

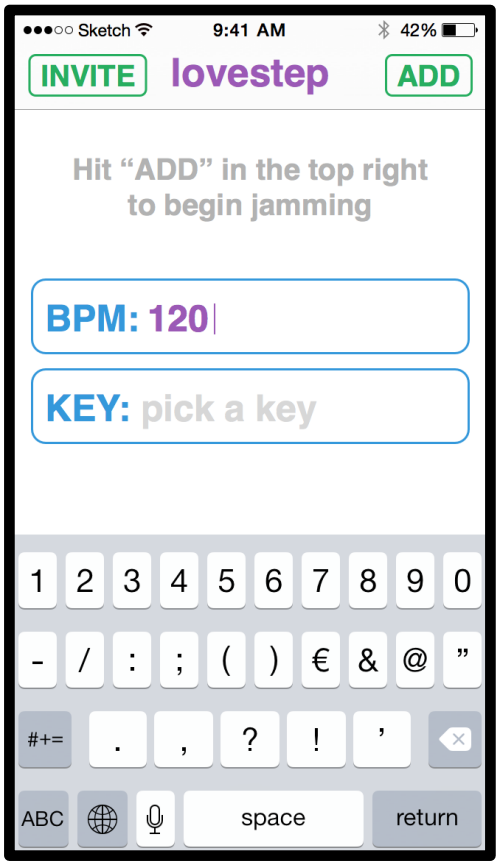
COMPLEX:

Finally, users will share loops between them to build an song collaboratively. This is our most sought after prize. It is the most complex because it builds off every other task.

Revised Interface Design

SONG SETTINGS:

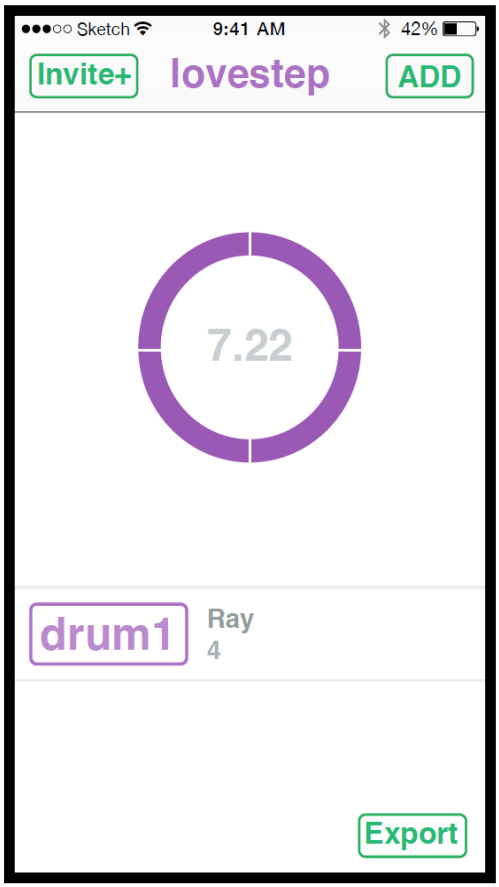
Our low fidelity prototype raised a lot of questions regarding how the actual song creation component of LoveStep would be implemented. If a user wanted to make a slow, sad song or a happy, upbeat song, they should be able to let the application know that and the application should respond accordingly. This was the inspiration for our "song settings" page below. Here, the user can enter in how fast they want the song to run and can also specify what key they would like to play in.



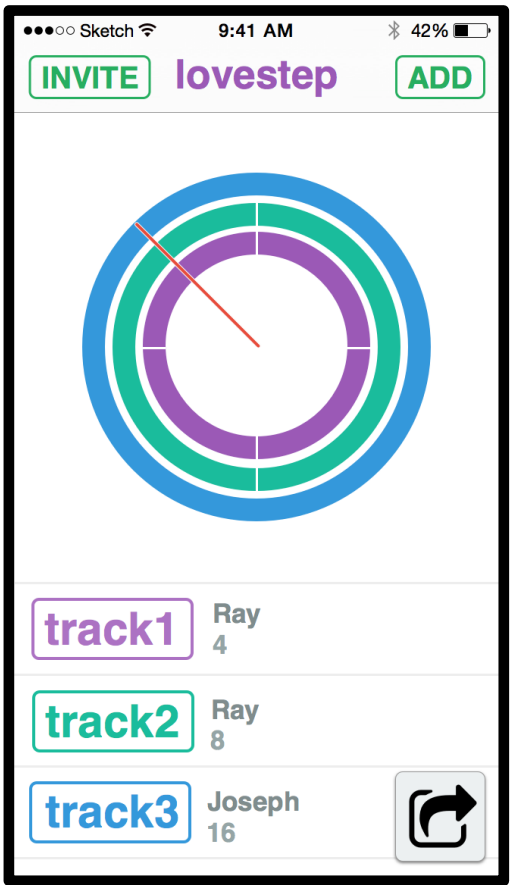
LOOP TICKER:

LoveStep plays music by running through user-created loops and giving the user visual feedback regarding what portion of the loop is playing at this moment. In the low-fidelity model, this visual feedback was a simple number representing what measure was being played at that moment (see “Before”, below). This has been updated to a much more intuitive, symbolic representation of a ticker bar that actually rotates around the loop circle at the tempo that the song is being played (see “Current”, below). The user is able to tell at a glance exactly where in the song they are.

Before



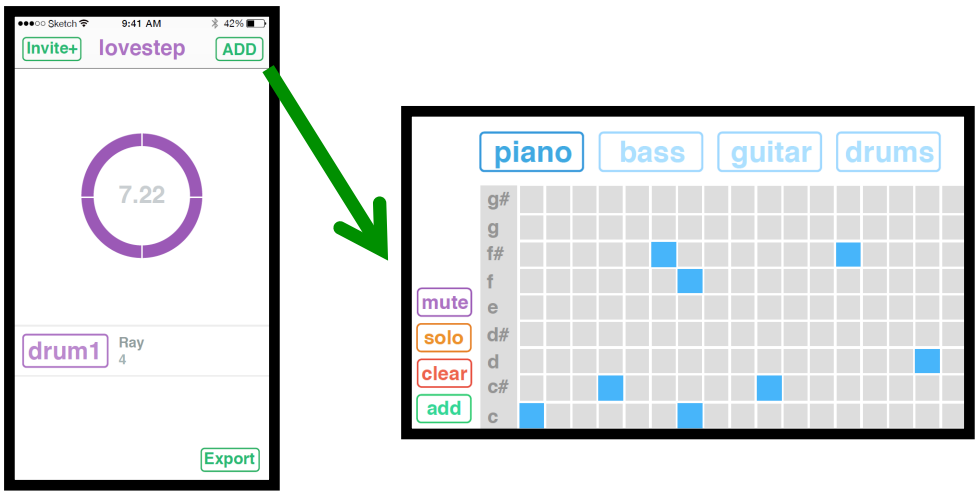
Current



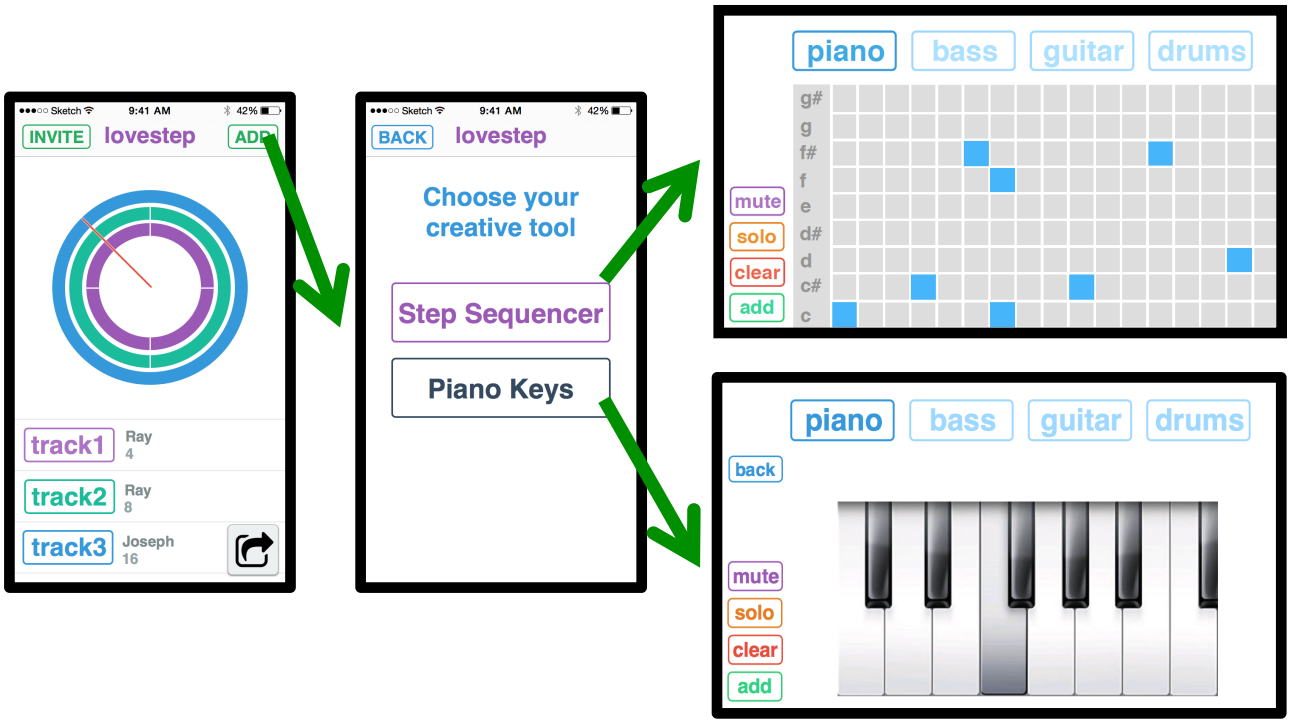
PIANO ROLL:

One of the largest updates to LoveStep is the introduction of the piano roll for playing music. Instead of being confined to only a step sequencer, users now have an option to play a virtual piano keyboard to play their music. Not only is this an extremely recognizable medium of musical expression, but it is something that both novice and advanced users can enjoy.

Before



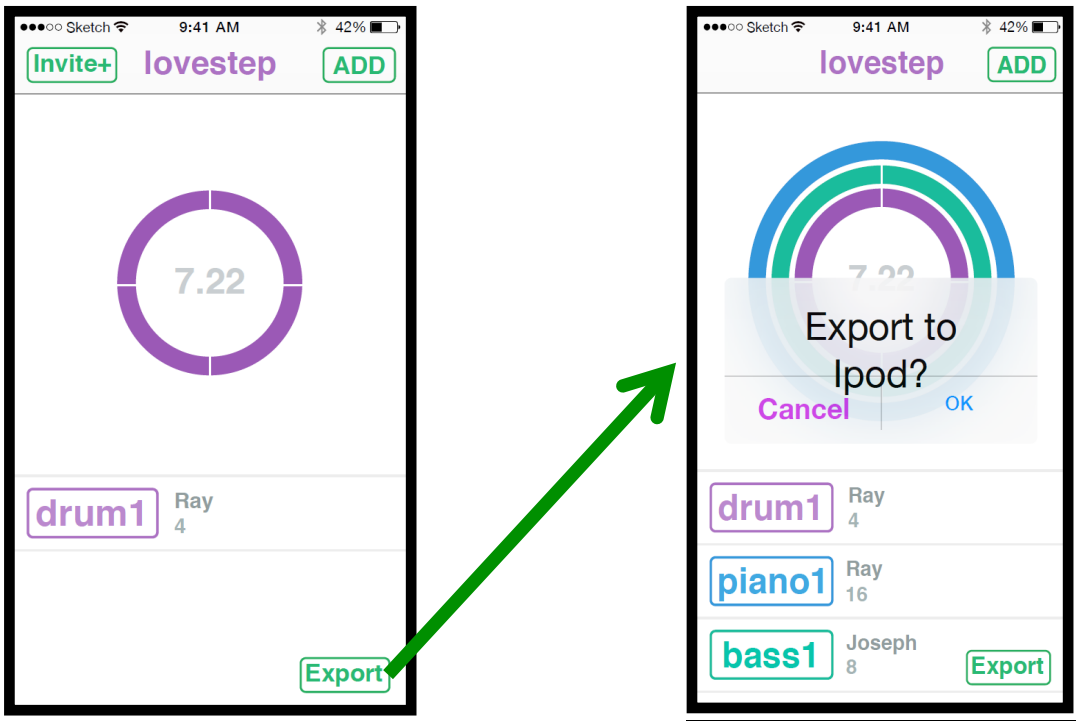
Current



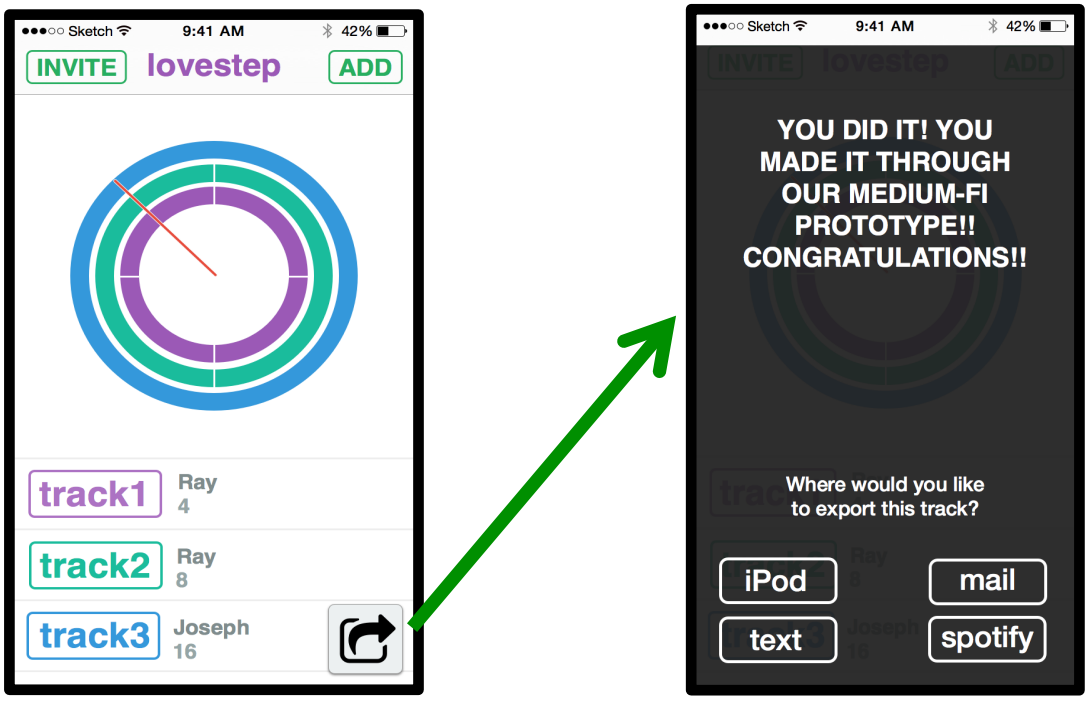
EXPORT FUNCTIONALITY:

Exporting a finished song is now a much simpler process. The export icon has been updated to a much more intuitive symbol, and users now have the option to publish their work through a variety of methods.

Before



Current



Prototype Overview

Link to our prototype: http://marvl.in/22fgg3

SKETCH

"Sketch" is a drafting tool specifically catered to creating iPhone and iPad mockups. It was an indispensable tool for putting together realistic looking application screenshots. Sketch had its disadvantages as well. It could only produce flat images, so to bring the application to an interactive start something else was needed.

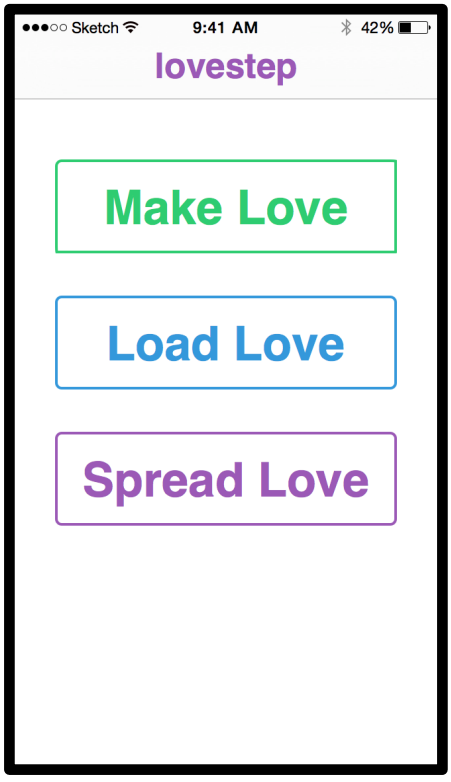
MARVEL

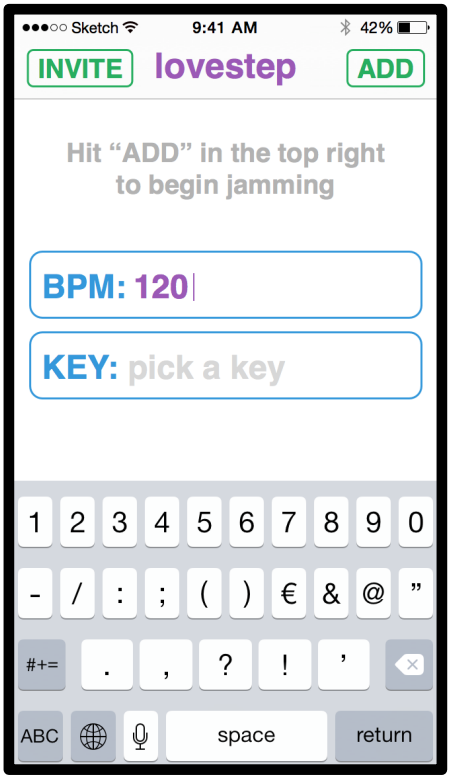
"Marvel App" was the tool we used to link our screenshots together. It was extremely easy to move from screen to screen, and covered that aspect of our application very well.

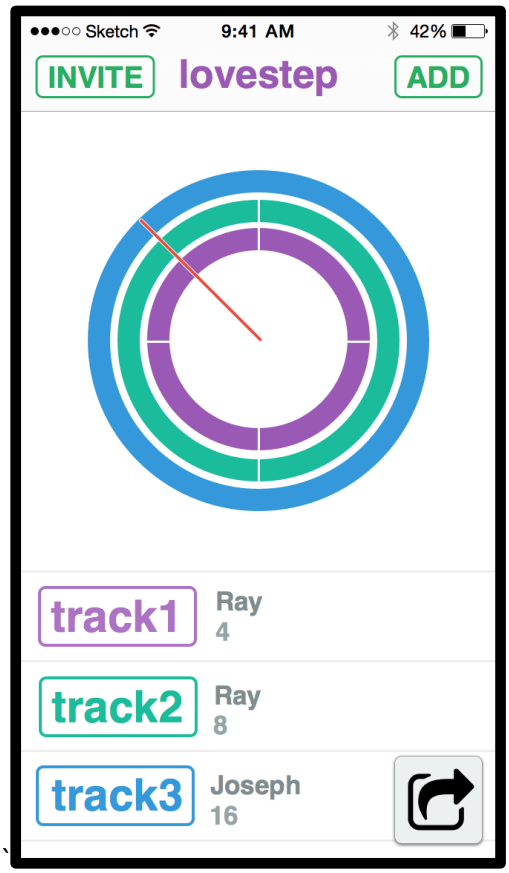
However, all it could do was move from image to image, so we were unable to create an actual step sequencer simulator (would have 2^170 different images). Even something as simple as switching between instruments required intricate wiring between all versions of the same image. Furthermore, because the instruments were brought up in multiple stages of the prototype, multiple copies of the instrument images had to be uploaded so they could be wired to different places.

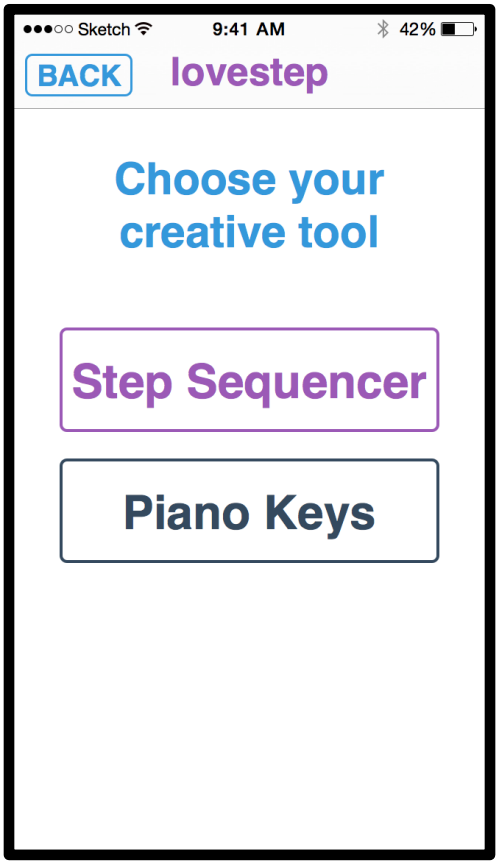
Lastly, Marvel does not support audio in its prototypes. The musical side of LoveStep has yet to be realized.

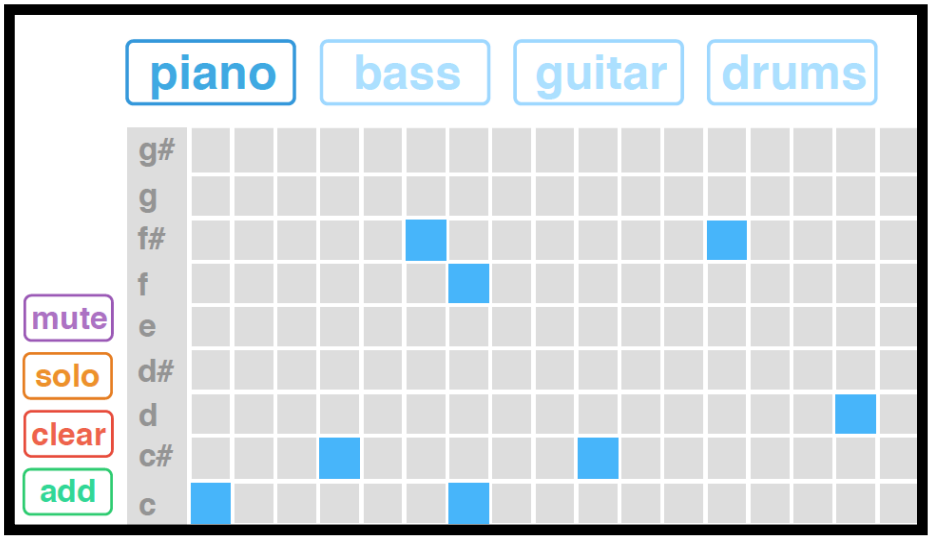
Prototype Screenshots

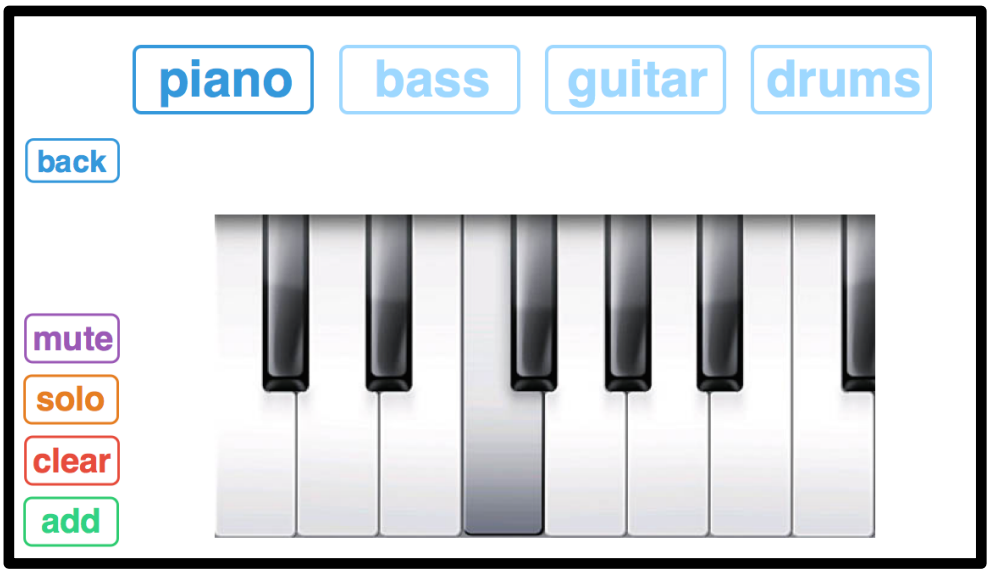


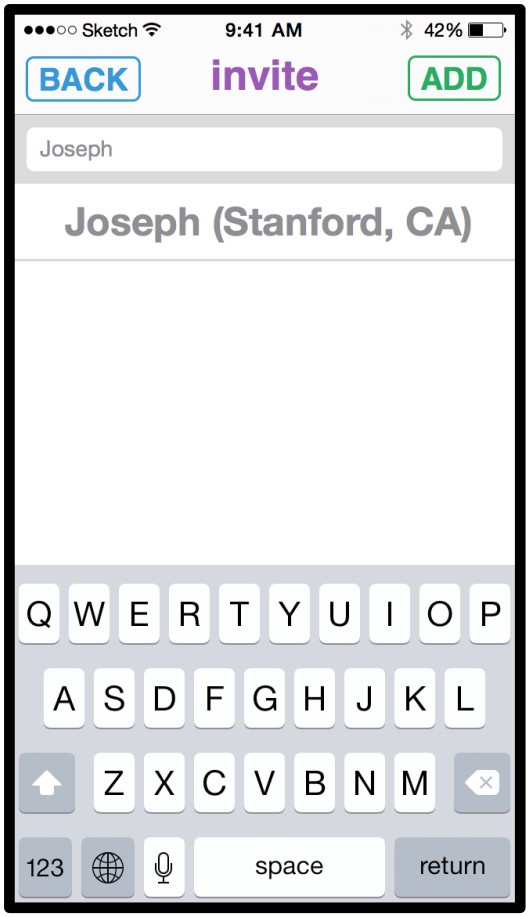


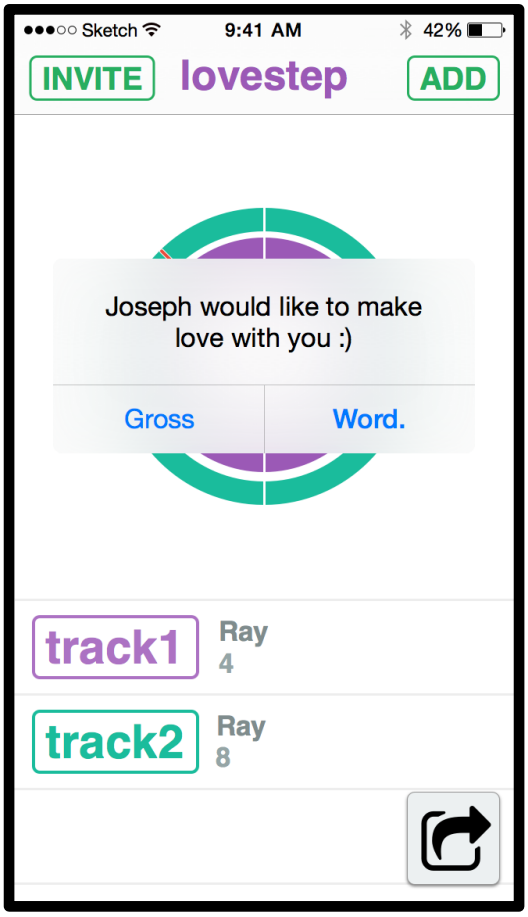

●●●○○ Sketch
9:41 AM
42%
INVITE
lovestep
ADD
track1
Ray
4
track2
Ray
8
track3
Joseph
16

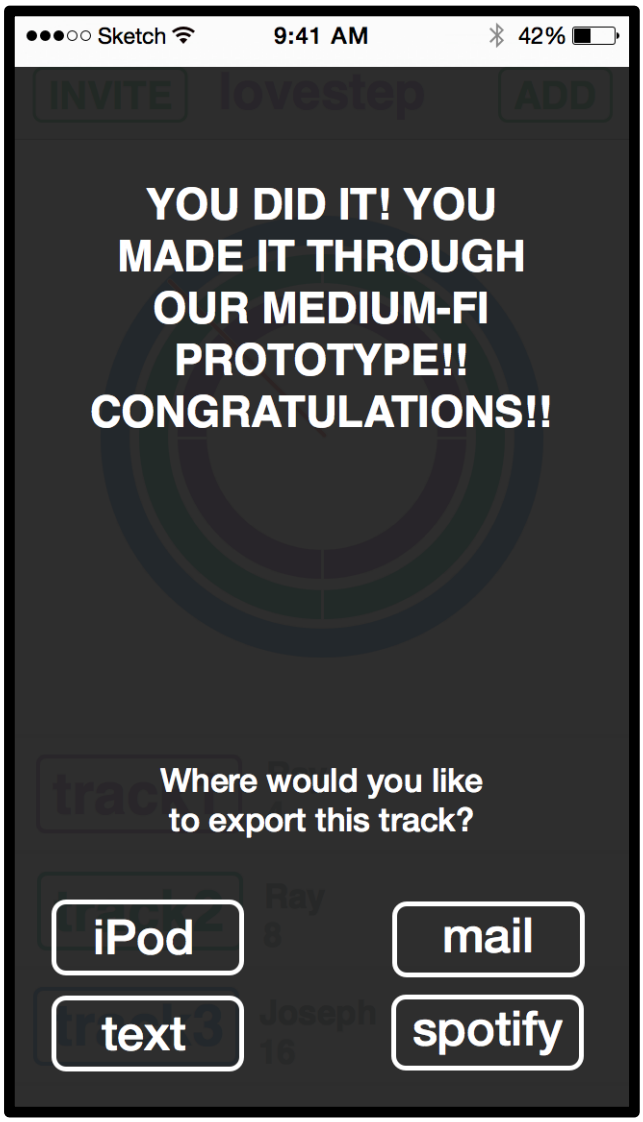

●●●○○ Sketch
9:41 AM
42%
BACK
lovestep
Choose your creative tool
Step Sequencer
Piano Keys


piano
bass
guitar
drums
g#
g
f#
f
e
d#
d
c#
c
mute
solo
clear
add


piano
bass
guitar
drums
back
mute
solo
clear
add


Sketch
9:41 AM
42%
BACK
invite
ADD
Joseph
Joseph (Stanford, CA)
Q W E R T Y U I O P
A S D F G H J K L
Z X C V B N M
123
space
return


Sketch
9:41 AM
42%
INVITE
lovestep
ADD
Joseph would like to make love with you :)
Gross
Word.
track1
Ray
4
track2
Ray
8


●●●○○ Sketch
9:41 AM
42%
INVITE
lovestep
ADD
YOU DID IT! YOU MADE IT THROUGH OUR MEDIUM-FI PROTOTYPE!! CONGRATULATIONS!!
Where would you like to export this track?
iPod
mail
text
spotify