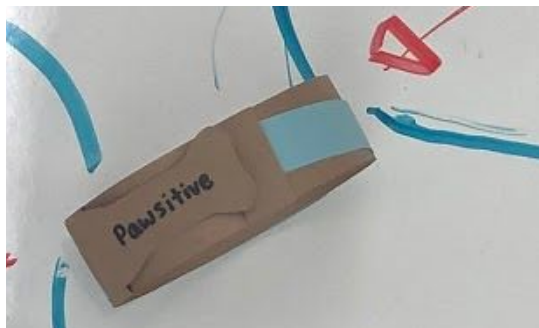


Paper Prototype

Task and Design Revision

Based on feedback, we decided to combine our original two task focuses -- finding neighborhood dog friends and avoiding awkward interactions between owners -- into one because of how similar they are. To add more depth to our design, we added the task of finding long-term companions for your dog (ie. suggestions for adoption based on compatibility with your own dog).

Our design has two main components: the wearable and a mobile app. We updated the wearable to consist of:



1) A bone-shaped device that contains user-inputted information about the dog and its social preferences (ie. what kinds of personalities or dogs it may or may not get along with).

2) A light up collar displays those preferences (yellow and blue).



3) A button on the leash handle to override wrongly read interactions or to inform the device of an interaction. Sliding the button towards the user signifies an incompatible interaction while sliding away means an compatible interaction.

Entire Paper Prototype

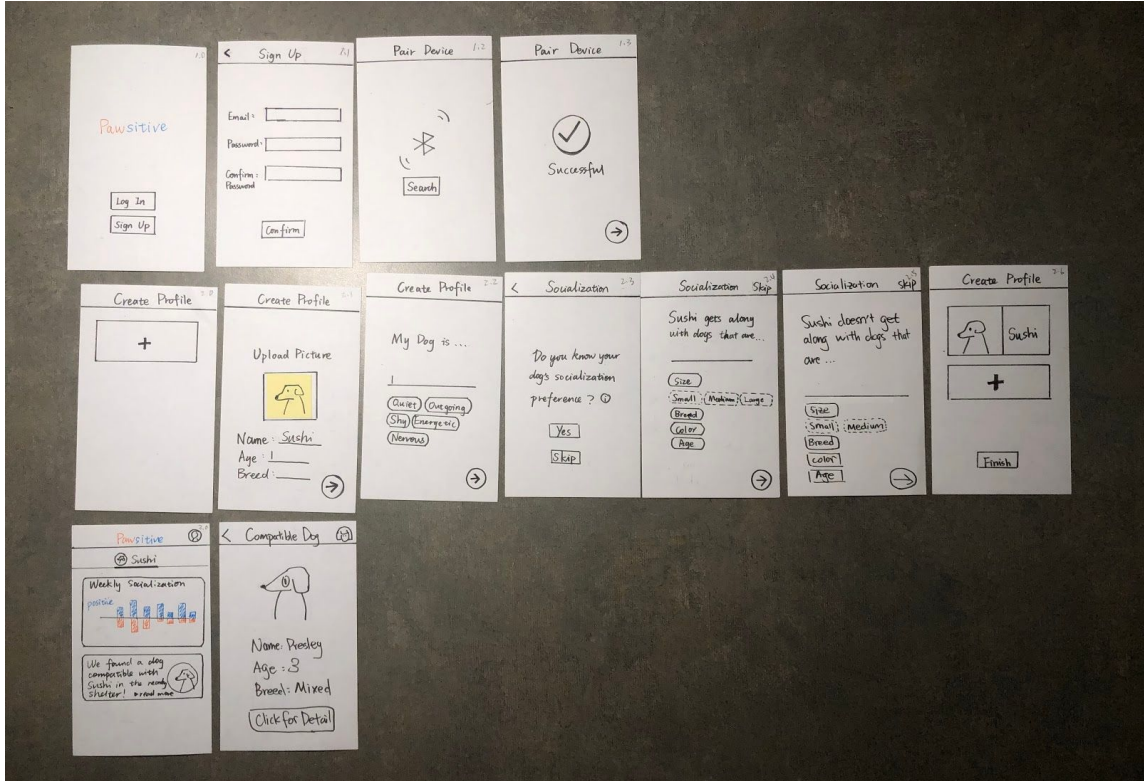


Figure 1. Entire Prototype - Mobile Application



Figure 2. Entire Prototype - Wearable Technology

Task 1: Identifying dog friends and decreasing negative owner interactions

This task now heavily relies on the participant information from the dog profile and owner interactions with the leash handle. To start, a participant owner pairs the wearable devices with the mobile application, so information about each social interaction can be recorded and stored.

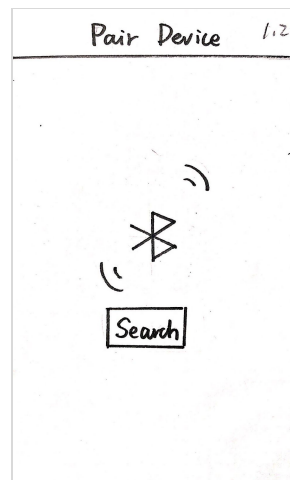


Figure 3. Pair the device

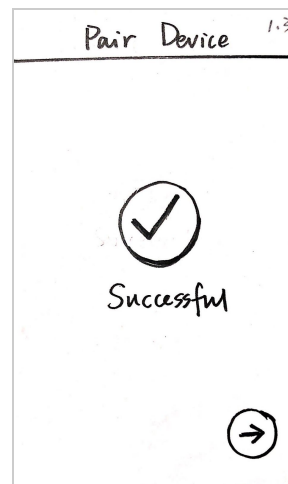


Figure 4. Successfully paired

Then, the participant creates a profile (Figure 5) in the mobile application and inputs information about the dog such as name, age, and breed (Figure 6). The participant is then taken to a screen that asks for the dog's personality (Figure 7). If the participant is knowledgeable, they also input information about their dog's social preferences (Figure 8-10); however, this part is skippable which means the device would rely solely on participant input from social interactions. Once the profile is complete, the participant can create another dog profile or "finish" which takes them to the data visualization page (Figure 11 and 12). This information will be used to inform the device during upcoming interactions.

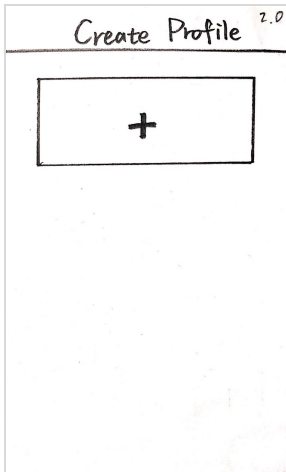


Figure 5. Create a dog profile

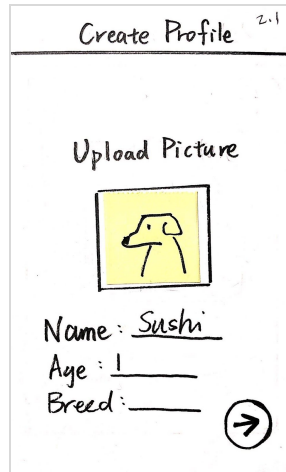


Figure 6. Edit basic dog information

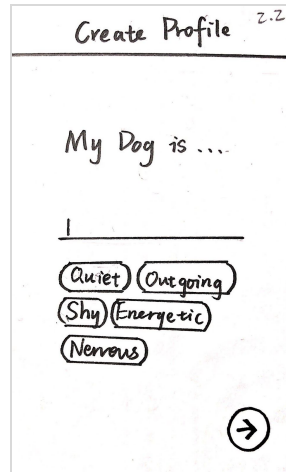


Figure 7. Edit dog personality information

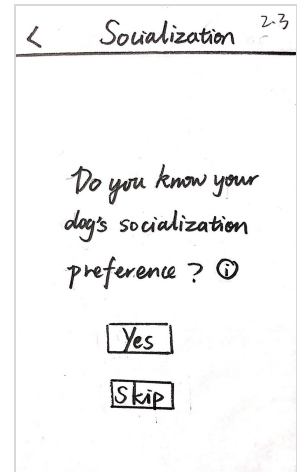


Figure 8. Ask for socialization preferences

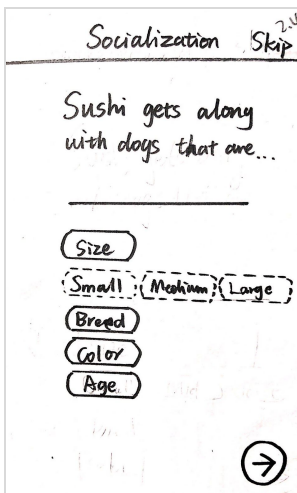


Figure 9. Specify socialization preferences (likes)

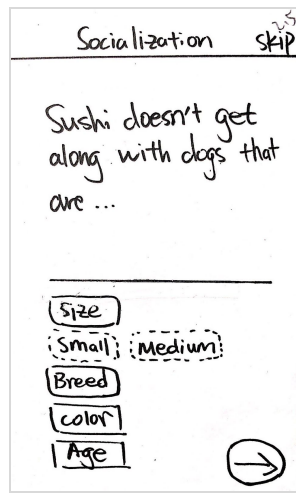


Figure 10. Specify socialization preferences (dislikes)

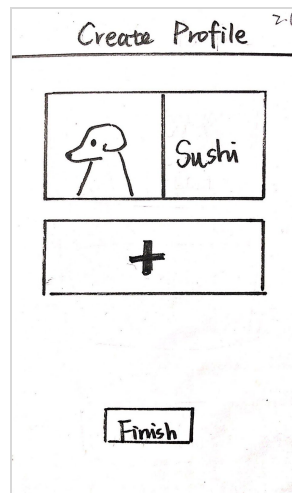


Figure 11. Finish creating a profile or add another

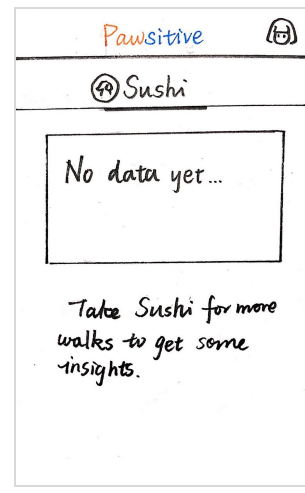


Figure 12. Landing page for dog profile

Next, the participant takes their dog, Sushi, on a walk. When they come across another dog, based on the profile information, Pawsitive decides that Sushi is likely to enjoy the interaction. To signify this, the leash lights up blue (Figure 13).

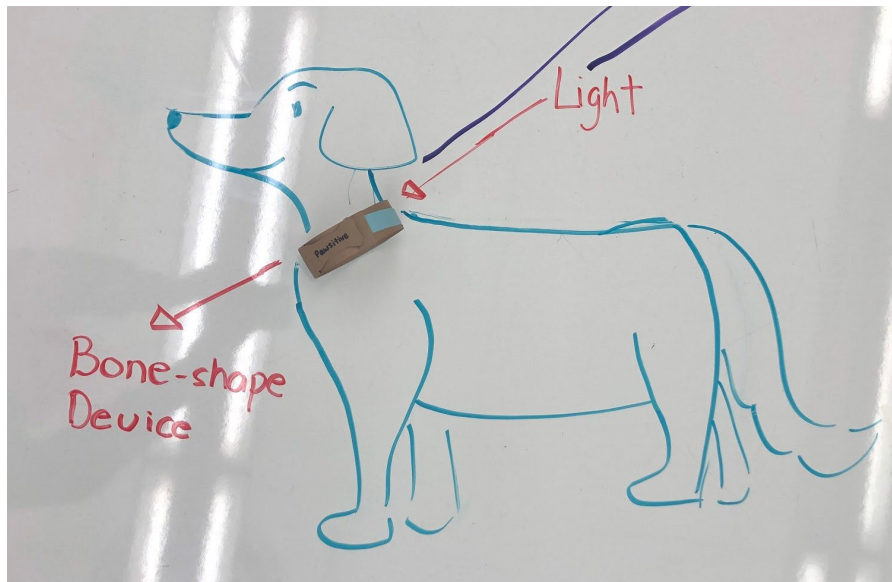


Figure 13. Collar wearable lights blue

However, the owner senses that Sushi is growing anxious in the presence of the other dog, so the owner manually slides their button towards themselves (Figure 14). The light on the collar then turns yellow, and the application begins to learn that Sushi is anxious around dogs like this one (Figure 15).



Figure 14. Owner slides button

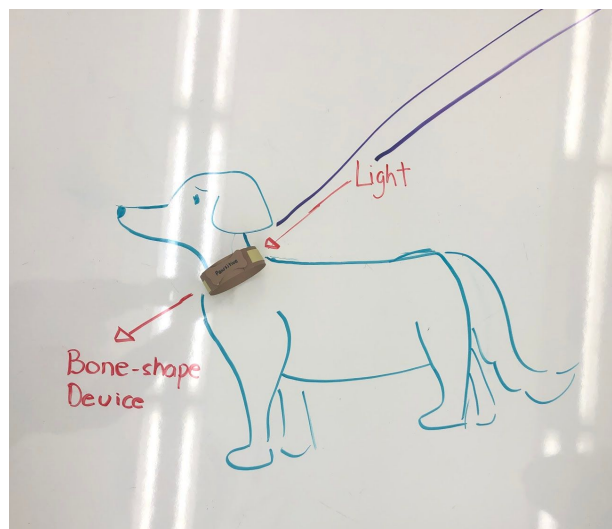


Figure 15. Collar wearable lights yellow

Task 2: Identify compatible dogs as a permanent companion for current dog

After a few months of using Pawsitive, this owner decides that their dog, Sushi, would benefit from a permanent companion. They utilize Pawsitive's information on their Sushi's social preferences to find a good match for Sushi. Pawsitive suggests Presley, a dog at a local shelter which has matching physical and personality types as most of Sushi's friends. The owner can press "Click for Detail" to be sent to the shelter website to gather more information about adopting Presley.

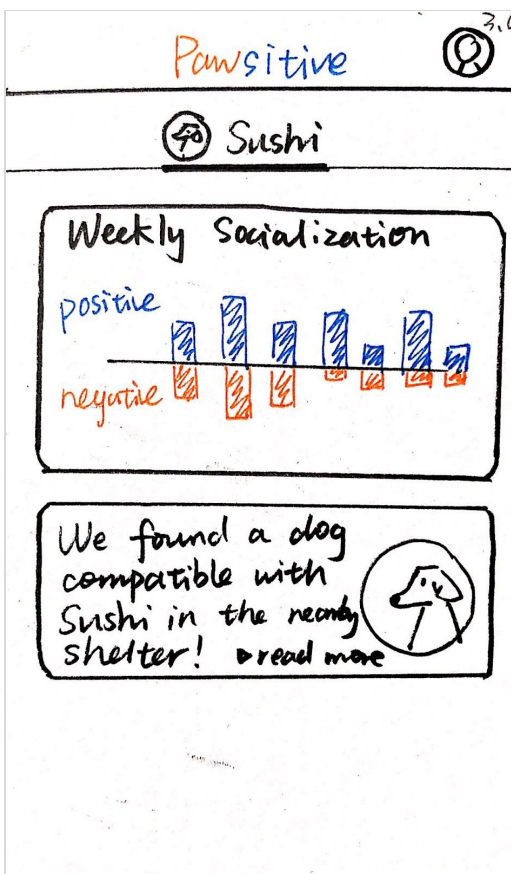


Figure 16. The main page of the app shows a weekly report and suggests potential adoptable dog

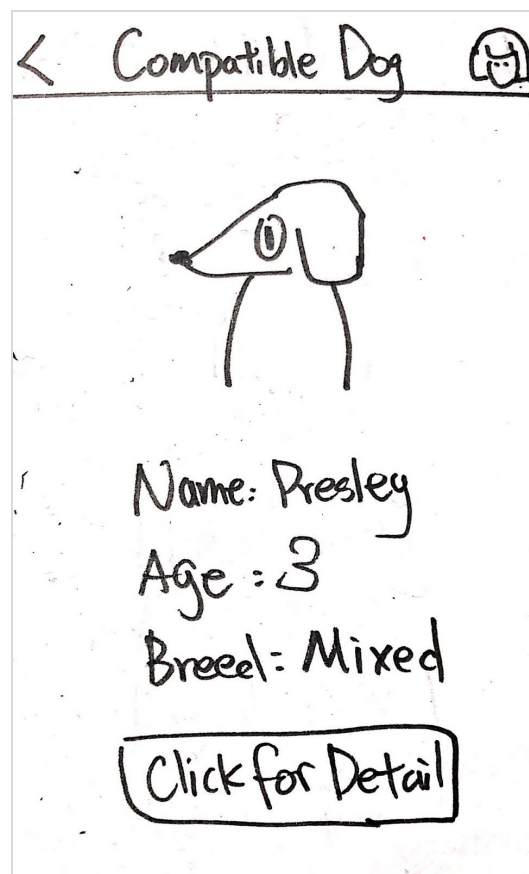


Figure 17. Basic information and a link to the shelter website for more details are provided