WatchDog aims to allow dog owners watch their dog’s actions and know about what their dog is upto from anywhere with the help of a wearable collar device for the dog and a wearable device for the owner. As our team is focussing on the design aspect of this project, we decided to develop user personas, user stories and some use case scenarios after doing some participatory research with other dog owners. In order to design our personas and user stories, we voluntarily spoke to a couple of dog owners and asked them during what situations/ scenarios would they want to be able to get notifications about their dog’s well-being.

In addition, we also created some auditory icons and earcons for some specific scenarios and gathered feedback on what the user perceived this auditory icons to represent from multiple users. These audio files are included in our T-square assignment submission. Users’ opinions of these have varied, but have generally been positive and enabled us to iterate upon our current designs. Rather than the sounds of a person crunching on ice as an earcon meaning that the dog is too cold or bacon sizzling when the dog is too hot, we’re looking more into creating a single noise that is modulated based on temperature when anything goes awry. We would also like to find a means of indicating to a user that their dog is barking without annoying them with microphone input: a gentle knocking on wood is our initial thought, but we will continue iterating on this to further improve our product.

Furthermore, our user studies to date have consisted largely of inorganic interviews, heuristic evaluations, and cognitive walkthroughs rather than entirely participatory design. This flaw was brought to our attention through our presentation Thursday, and we’ve worked to create a more organic approach to gathering user feedback and iterating upon our current design through participatory design. To maximize the element of participatory design in our product, we will conduct interviews with 10 different dog owners in public while they go about common tasks: calling a friend (one of us), searching for a specific item at the campus bookstore, and ordering an item at the Barnes and Noble Starbucks as a reward for the study. During this roughly 15-minute study, we will encourage think-aloud feedback from users, film their behaviors, and do our best to feed them uniform notifications from our app. After the test, we will ask for ways they think the sonification of data could be improved, specific hardware implements or options they might like to have on hand, and general feedback on their experiences. We will then compile this data in an easy-to-digest manner, and iterate on our design accordingly.

For now, attached to this assignment submission are several mockups for our sounds. Moving forward, we’ll build upon those based on prior user feedback, perform our user study, iterate further on our designs to finalize data sonification, and finalize hardware/software mockups of our product.

**USER PERSONA #1**

**Emily the Accountant**

**Age:** 28

**Location:** Atlanta, Georgia

**Status:** Single

**Quote:**

“I want to be able to know the well-being of my 6 month old Labrador puppy Bruno at home, without having to make several calls to my dog-sitter at home, in between my meetings. Often, I don’t have time to make these calls and it seems very unprofessional if I have to make calls during my meetings.”

**Day in the life:**

“ I get up at 6:30, go for a walk with Bruno around the neighborhood and then come back home, shower and get dressed for work. I have breakfast and leave for work which is a thirty minutes drive from where I live. I usually work from 8:00 am to 6:00 pm and come back home around 6:45 pm. I cook dinner and cuddle with Bruno whilst watching some Netflix or responding to important emails. I go to sleep at around 10 pm.”

**End goals:**

- To be able to get updates about the well-being of my 6 month old Labrador puppy without having to spend a lot of time making calls to my dog-sitters.

- To be able to get notified when there is a critical condition that my dog is going through such as: he is stressed, his body temperature is really high (as during summers, my dog overheats during walks with the dog-sitter) I would like to know if my dog is overheating so that I can make a call to the dog-sitter to make sure to keep him hydrated.

- To be able to carefreely work at my job and be able to focus on my work during the day.

**Fears:**

- Being worried about my dog’s well-being at home.

- Being unprofessional with my clients as I have to make calls now and then to check up on my dog.

**USER PERSONA #2**

**James the College Student**

**Age:** 19

**Location:** Atlanta, Georgia

**Status:** Single

**Quote:**

“I am taking 19 credit hours this semester at Georgia Tech along with research, which requires me to spend several hours in the lab and also in classes. I have a twelve year old husky named Romeo who lives with me at my apartment on campus. Romeo is of age now and often suffers through certain breathing problems due to age. There is no one else to take care of Romeo as my parents live far away in Texas. I would like to be there to take care of Romeo all the time but my schedule does not allow me to be back to my apartment before 9 pm on weekdays. Fortunately, I live on-campus so it does not take me a long time to go back to my apartment from my classes and research lab. I would like to have a way that would specifically let me know if Romeo is going through any breathing problems whilst I am in class or in research.”

**Day in the life:**

“ I wake up at 8:15 am, feed Romeo, and go to my 9:00 am lecture class which lasts an hour and a half. I then have a meeting with my research professor that usually lasts until 11:30/12. Then, I go to the student center and eat my lunch. Next, I have an hour and a half lecture class from 1:30 to 3:00 and then a lab class from 3:15- 5:00. Next, I go to my research lab and spend around 2 hours there working on our research project. After my research lab, I usually head to the CRC and workout for an hour and a half before returning back to my on-campus apartment. I cook dinner and work on my assignments/ study for my lecture classes until I am ready to go to bed at around 12/12:30 am.”

**End goals:**

* To be able to get updates about Romeo’s breathing status and whether he is suffering through any breathing difficulties whilst I am in lecture, research or working out at the CRC.
* To be able to quickly return back to my apartment to take care of Romeo after being notified about a concern in his health.
* To be able to focus in class and research and get through a busy semester.

**Fears:**

* Worrying about Romeo’s breathing problems.
* Slacking off work in my classes and research because I have to stay home and look after Romeo.

**USER STORIES**

1. As a dog owner, I want to be notified when my dog falls asleep and wakes up so that I can be better aware of its behavior when I am away.
2. As a dog owner , I want to be notified when my dog is stressed so that I am aware that my dog is stressed and can do something about it.
3. As a dog owner, I want to be notified when my dog has eaten food so that I can keep a count of the number of meals my dog has eaten during the day.
4. As a dog owner, I want to be notified when my dog is drinking water and what is his/her quantity intake so that I can keep a count of the amount of water my dog is drinking.
5. As a dog owner, I want to be notified when my dog is too hot/cold so that I can respond in a timely manner.
6. As a dog owner, I want the wearable collar for my dog to be lightweight so that my dog is comfortable whilst wearing it.
7. As a dog owner, I want the wearable device for myself to be lightweight or wireless so that it is comfortable for me to use/ wear.
8. As a dog owner, I want the received notifications audio to not be distracting so that I am not getting distracted from doing other work.
9. As a dog owner, i want certain notifications to hold more priority over others so that I make sure that I am aware of these notifications.
10. As a dog owner, I want the wearable collar device for my dog to be adjustable so that I can use this collar at any stage for my dog.
11. As a dog owner, I want the wearable collar device to be able to also record audio surrounding the dog which I can hear at anytime they desire so that I can actively know what my dog is up to.

USE SCENARIOS

Assume Stella is a dog owner

**Scenario 1: Stella’s Dog is stressed**

1. Stella’s dog is stressed out because of thunder outside.
2. Stella’s dog collar detects that the dog is stressed out.
3. The collar sends a notification to Stella’s wearable device that the dog is stressed out.
4. Audio (in the form of a notification) is played on Stella’s wearable device that alerts her that her dog is stressed.
5. Audio is played via the dog’s wearable collar that is supposed to calm the dog.

**Scenario 2: Stella wants to hear about the surroundings of her dog.**

1. Stella is at lunch break during work.
2. Stella wants to hear about the surroundings of her dog.
3. She selects the “Hear surroundings” option on her wearable device.
4. Live recorded audio from the wearable collar is played via the wearable device to Stella.
5. Stella can now hear surroundings and choose to stop hearing the surroundings by selecting the “Stop” option on her wearable device.