

# Front End: Elderly Wearing Wearable

## User Goals:

- Gaining a sense of independence from companion
- Quick contact with Companion if anything were to go wrong
- Wearable that will not disrupt their day to day tasks

## Features:

- Little alarm or input needed
- Accelerometer within device to be able to Feel if one would fall that would also notify Adult child on app similar to if the red button Was held in.
- Speaker and Microphone feature to talk to adult child without the use of Phone for emergencies using Cellular



This is the back of Watch. The circle Is where the Near Field Communication Is held. Upon Putting phone up To NFC, a six-digit Code will be asked To insert. This code Is on the back of the Watch and helps Connect the elderly Wearable to the Companion with The phone app.



Default screen. Minimal interaction. Can touch the call Button to call Companion. Since There will be minimal Input needed for this Wearable, calls and Notifications will Simply pop-up Over this default Screen.



Red Button on the side must be held for 5 seconds. If button is held For 5 seconds, a Pop-up will appear To acknowledge or Dismiss to reduce Error before companion Is notified by a notification And then a call.



The watch will have Cellular to allow The user to call And answer phone Calls by using the Watch. The watch Will have a speaker And a microphone. This will benefit the user If they are in need To call their Companion and Cannot make it to Their real phone.

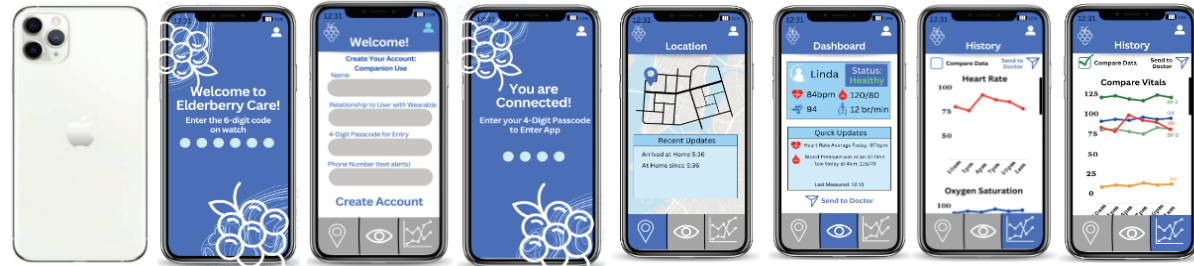


The screen for when A call is active, giving The option to end call. A noise from the speaker Will ring to notify elderly That they are being called.

# Front End Part 2: Companion Checking on Loved One

## User Goals:

- Sense of comfort knowing loved one is being monitored
- Gets fulfillment of having a little control over loved one health
- Communicate directly with loved one if they are not feeling well or vital signs are abnormal
- Communicate with 3rd Party Health Professionals to get time effective care for their loved one



Scan watch on back where NFC is to connect app and Phone to wearable

A 6-digit code will be asked to enter. Code is On the back of Watch. Second Way of securing The connection of elderly wearable with companion app.

This app is used for The companion only. They must enter their information so the Elderly understands Who is calling to their Watch. They must Also create a personal 4-digit code that will Get them into the app Each time they try to open it. (Another barrier to Getting data)(HIPAA)

Once connected to the wearable And has created an account, they Must enter their pin to enter the app and view their loved ones data. HIPAA security of elderly data. This 4-digit password will be required Every time they try to open the app.

Location feature for Knowing where they are, If they have traveled safely, And then made it back home.

If Compare Data is checked, It will layout the data all together. This will be useful When seeing if there was A consistent spike in All vitals at a certain time.



A notification if the loved One is in Monitor status.

A notification if the loved One is in Urgent status.

A notification if the loved one Has fallen.



Within the profile section Of the companion app, There is an option for Messages as they can Message the 3rd party Medical professionals Questions.

Here is a more personal Look of a conversation Between a companion And a doctor.



The History page lays out And compares the data over A 24 hour period. If the compare data is unchecked, It will show The vital signs by themselves. The Send to Doctor allows the Companion to send the results To the doctor where it will Pop up on their default screen.

Quick glance to see how They are doing currently. Best For Adult children who are Busy and need a quick glance. This Displays the 3 levels of condition The elderly may be in and the possible Pop-up notifications that may come From it.



If the notification is left unread for 1 minute where The elderly had fallen or was in Urgent Status without an acknowledgement, it will call the elderly for a sense of urgency.



If one applies HPPA, the medical professional must put in their staff code or scan their ID to get into the platform to see medical records. If Health Care provider is not active. On the screen for a minute, the screen will go back to this page requesting them to log in.



This is the default home page for the doctor/medical professional. The home screen will have their Patients that are in critical or monitor status, or data that the companion has sent for the doctor to read. These are on the default page because they are the patients that need the most attention at that moment.



This shows the new and many other options the Doctor has to view based on patients. In the top right hand corner There is a search bar where they can search for other patients to check on them if they are not in critical condition.



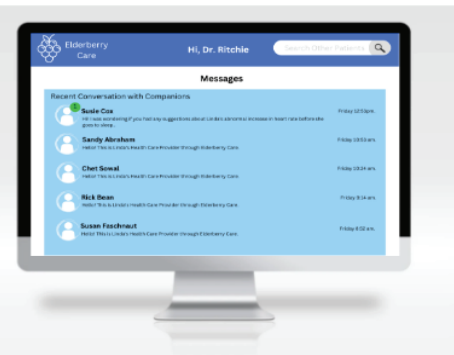
If one clicks on a certain patient, this is what their patient page would look like. This page would give them information on their Current status, notifications drawn from the most recent data, and data in the last 24 hours. The main graph shown is the comparison Of the vital signs but there are options on the side to view one vital sign by itself if only one is troubling.



This is more data visualization that will be seen upon scrolling. This is a more in depth graph to see how other abnormalities are happening in a days time. To see this in depth for all vital signs, the medical professional can select what vital sign they would like to see.



As a way of seeing other patients that are not on the default home page, the medical professional can filter patients based on their status Or amount of time they have been in an Urgent, Monitor, or Healthy Status. The side options let the medical professional message the companion To give them suggestions on how to go about their current position. If the medical professional would like to keep a closer eye on the patient, they Can hit the plus button to add that patient to their default Home Screen.



The messaging platform allows the doctors to talk to the companion about the condition of their loved one. This could be telling them to call 911, book an appointment, or to try to check up on their loved one more frequently while using the app.



More personal and up-close messaging screen allows doctors to introduce themselves to new Elderberry Care users but also Have companions ask the medical professional questions if smaller health issues start to arise.

## Back End: Health Care Professional Checking on Health Care Data

### User Goals:

- Monitor Patients that exhibit abnormal reading through data gathered from wearable
- Have less of a load as data is viewed and analyzed through app and companion before  
The problem is addressed to the health care professional
- Be able to separate the critical patients from the healthy by having a Dashboard  
With sent data from concerned companions and a filter option to add critical  
Patients to the dashboard for further monitoring
- Aide companions through processes of getting the best possible care for their loved ones

## **Memo:**

While there are wearables designed with the Elderly in mind, the goal was to create a brand/interface to accommodate all data users beyond the elderly wearing it. Elderberry Care is designed to provide data for the elderly in the moment of measure, but also for the concerned companion of the elderly and health care providers that will use the data to determine the best way to treat health issues.

The wearable, worn by the elderly, is designed to afford the minimal mental models some elderly may have with technology. Their goal is not to get stressed out about new technology but to get the freedom they need to live independently by having a device monitor their vitals. By wearing this for independence, they need a wearable that will not disrupt them while doing their day-to-day tasks. Elderberry Care will give them all of these goals by having minimal interaction required on the interface. The wearable does have Cellular, which provides them with the ability to answer calls directly from their companion on their watch if they ever were not feeling well or had fallen.

The companion, who may be the caregiver or child of the elderly, only wants what is best for their loved one and wants them to be healthy even when they are not around. The main goal for the companion is the comfort in knowing that their loved one is healthy and doing well by being able to look at their vital signs. With Elderberry Care, the companion can see their loved ones' data, contact them through the app to their wearable, and even connect with 3rd party health care providers about ways to combat health issues that may appear along the way.

The back end that receives and analyzes the data is the 3rd party healthcare provider. By being on the back end of data collection, the health care provider's goals are to monitor elderly health care data to check for abnormalities and reduce their load of patients to check on in person by using vitals to monitor their status. The companion seeing the data can send it to the health care providers, which will pop up on their dashboard to be reviewed quicker. Healthcare providers have the knowledge to help the companions and can advise them on the best ways to approach a health concern if experienced while not in the hospital through the use of Elderberry Care.