**Designing Layout’s/Keyboards**

One of the first tasks that I had to do when first starting project was to help design a rough plan for how we wanted the Iconic Keyboard to look. During this time I was just doing some brief research on visual aid icons before being told about the Communicator 5 software which I quickly installed so I could test and play around with a professionally developed application which provided a similar service that aligned with our project goals. After briefly exploring these resources I came up with a quick Design with the help of Emerson and David. Later on about half-way through we did have to edit the overall design of the project which was a little annoying simply because it meant a lot fiddling around with data to rearrange it as best as possible.

**Evidence**

**Getting the EyeX Working**

After coming up with a brief Design for the layout I had to install my Tobii EyeX so that I could test out the full functionality the OptiKey provided. However this proved to be much more difficult for me then my other group members. After a few days of repeatedly uninstalling it and trying different software drivers and consulting there support team it was suggested that my USB 3.0 Controller might not possess enough bandwidth or could be somewhat faulty. After finding this out and talking with Rob, He suggested I simply changed computers because the USB 3.0 Controller was built into the motherboard which would have made it very difficult to simply replace.

**Evidence**

Link to the Tobii EyeX help article [help article](https://help.tobii.com/hc/en-us/articles/209529749-Recommended-USB-3-0-Controllers).

**Creating Keyboards and Adding Icons**

The Third main task I had was to read through Emerson’s documentation so I could start creating Keyboards and adding icons. This took me a while to do at the start because it was a little confusing having to flick through so many different classes just to add one keyboard and just generally getting used to the code base. While doing this I was working with Emerson so that he could update the documentation to make it clearer for future Users. After helping to make the documentation a little clearer I was able to steadily begin creating various keyboards and filling them with icons found from a few main sources. After searching for a while we decided to use icons from **flaticon and EmojjiOne**.

**Evidence**

Links to flaticon, EmojiOne and Code

**Working on the Prototype**

After I was able to create my own keyboards my main task throughout the project was to keep creating keyboards and filling them with suitable icons. Adding keyboards and Icons was what took up most of my time throughout this simply because of difficulty of thinking of things that the user may want to communicate. After coming up with things we thought they might like to use the next problem was finding appropriate icons that was able to effectively communicate what we wanted. Altogether this process was fairly tiresome and boring because most of it revolved around searching for suitable Icons to communicate needs and then creating the Keys for the icons to be displayed with. One of the hardest sections to find suitable icons for was the quick links section on the main menu as well as the Time Keyboard simply because you have to think very out of the box to communicate some of these items.

**Evidence**

Picture of Time and Quick links

**Exploring and Learning the Solution Space**

This was another important task of mine simply because I’m taking over and need to know as much as I can about how it functions and where things are located. I was luckily able to learn the solution space while I was working on the project just by fixing a few bugs here and there as well as Creating Keyboards was very helpful learning where a lot of the complex operations were being handled **“something something evidence**”. However this is still a Continues effort simply because it is such a large application and hopefully I will be able to keep learning more intricate ways in which this application works.

**Evidence**

## Sizing Options

Overall I didn’t do very much work on this section of the project simply because I was stuck on Filling out Keyboards for much of the project. However near the end of it I did get to play around with some of the Sizing settings to fix a bug where the Iconic Keyboard was not minimizing correctly. I was able to fix this bug with the guidance of Emerson so that I had some Idea what it was to look for to fix it and make the Iconic Keyboard minimize correctly.

**Evidence**

Code from some of the sizing options

## Looking into User Customization

This was a big section of our project however I didn’t personally look into it as it was one of the last tasks and by far the hardest. Emerson was able to look into and after talking with him I now have the relevant information which should be able to give me a great head start next semester.

**Evidence**

## Conclusion

Throughout this project I learnt various things such as the importance of time management, documentation and effective communication as well as having to learn how such a massive code base functions.