To be form

Apollo Lighting is an app that approximately 100,000 people use almost every day. This app was reviewed over 500 times in the google play store, with more than 50% of reviewers giving the app 1 star. User - Christian Casablancas - left a 1-star review saying “This has to be one of the useless apps to control a light strip. Whoever designed these needs to seriously take some App Development courses. Just use the cheap remote that comes with the light and you're better off.” Or from Savanna Nelson - “Downloaded the app so I could connect MY music to the app like the lights say you can do. Turns out you only get 9 songs to pick from. Immediately uninstalled. Waste of my time and I'll be buying different lights next time.” And many more examples with many different problems across the app as a whole.

Apollo Lighting is losing customers left and right because a bad app interface ruins a perfectly good product. Improving the functionality and usability of the interface will attract many users, as this system has many attractive selling points, and a functioning app will tie them all together.

The redesign focused on aspects verified users talked about in their reviews on the Apple app store and Google Play Store, as this is the widest sampling of users, and you are able to specifically find users with issues.

The first method used to evaluate the suability was an “Issue inventory” during personal app usage.

**Personal App Usage: Issues Inventory**

Over the first two weeks of the study, I took notes as to usage of features, time spent on app to achieve desired outcome, total time spent on app, and several other variables that will be useful later in the redesign.

**Voice of Customer (VOC) App Review Evaluation**

Looking at the reviews proved to be the best source for improvement. Taking note of the positive aspects ensured no current users were alienated, and focusing on the negative points allowed the redesign to have the greatest impact in the shortest amount of time.

**Qualitative Usability Test (round 1)**

The first round of usability testing called for 7 people to execute 5 tasks, rate the difficulty of each, then suggest 3 possible ways to change the task process. Each test was timed for future reference.

**Collaborative Brainstorm**

The first usability study yielded many user suggestions for improvements, those of which made the app flow better, improved the function of the menu, selected a color scheme and schema, and many more suggestions. Working with the users from the first usability test, they brainstormed ways all of these improvements could be implemented and compared with current apps to develop wireframe prototypes for testing.

**Low-Fidelity Wireframe**

The various users were put into groups to generate wireframes for each page of the app. The groups were asked to develop 3 wireframes and consult with each other in between. This process allowed for the refinement of many advanced features and implementation of basic ones based on users’ suggestions.

**Qualitative Usability Test (round 2)**

A usability test was conducted on the final rendition of the wireframe diagram process, based heavily on user feedback. Each user was given the opportunity to use both versions and give a suggestion as to what 1 thing they would change, regardless of why. Accessibility was a major concern for this factor and individuals who would have a difficult time interacting with this app were considered, and improvements to help their usability were implemented.

**High-Fidelity Wireframe with Rapid Feedback Collection**

A high fidelity prototype was developed in Figma - a free design tool designed for rapid prototypes of designs- with the intent on gathering feedback and proposing a polished, interactive model that could be shown to prospective programmers or development teams. The final design included 11 screens: home screen, color wheel, menu, light show, music multiple pages of settings, among other screens. Using RITE I developed a model in Figma that was appealing to users, and provided a stress free experience.

When picking which aspects to focus on, I looked at many reviews to see what issues plagued users the most, and I used my own experience with the app, as I have been using this app almost daily and have been experiencing several issues myself when we started this project. The issues I chose to focus on included the main color selection wheel, the music menu, and the settings page, and the icon menu at the bottom.

I chose these parts of the app because looking at the reviews, many users had issues with the limited ability of the music player, including the lack of songs, and no way to import your own. Users, including myself did not like the user interface chosen to select the colors, and felt that the wheel given when opening the app was overwhelming, and pointless, as they had to dial in the exact color they wanted, instead of pressing a preset button. Users did express however that the wheel was a good option but should not be the focal point of the app, as it is not as efficient. Next there is a menu in the top left corner to select devices, and a settings menu on the top right corner. I think these two are redundant and should be in the same tab to avoid confusion. Finally, the icon menu at the bottom can do a better job combining tabs, as the music and microphone tab can be under the same tab, and the tabs do not really flow well.

Looking back at this study, the methods used, while did not follow standard usability study protocols, they still followed a similar structure. Elements of Rapid Iterative Testing Evaluation, Wireframe development, Think-aloud Protocol, the K-J Technique, artifact analysis,