What are we doing?

We will develop a website where users can view and post guides on how to repair electronics. We will have a search bar where users can search for guides. Guides can also be upvoted, and the search algorithm will factor in the upvotes for the guides, where guides with a lot of votes will be promoted to be more discoverable. Users will also be able to view a rating, estimating the difficulty of completing a repair, as reported by other users. The author of a guide can also provide an estimate of the repair cost, which will also be conveniently displayed on the page for the guide.

The site will attract users by appealing to their desire of cheaply repairing their electronic devices. For example, a screen replacement is costly if carried out by a repair technician from a first party source. Third party repair services could also do the repair and might provide better prices. But repairs are always cheaper if they could be manually done by the users themselves “DIY”. Our website will empower its users to service their electronics by themselves, and as a result save money on repairs. Another consequence would be a reduction of climate impact caused by the electronic industry field since manual repairs can extend the lifespan of products and thus significantly reduce the need to regularly replace your older electronics with newer versions or models therefore reducing electronic waste.

Furthermore, we plan to include general estimates and tips on how doing self-repairs / third party-repairs can have lower climate impact compared to buying first party parts or new devices. For example, fixing a damaged screen vs buying a whole new screen. This feature will only include estimates for common and general repairs without getting into details on specific products and brands in order to keep it feasible within the time limit.

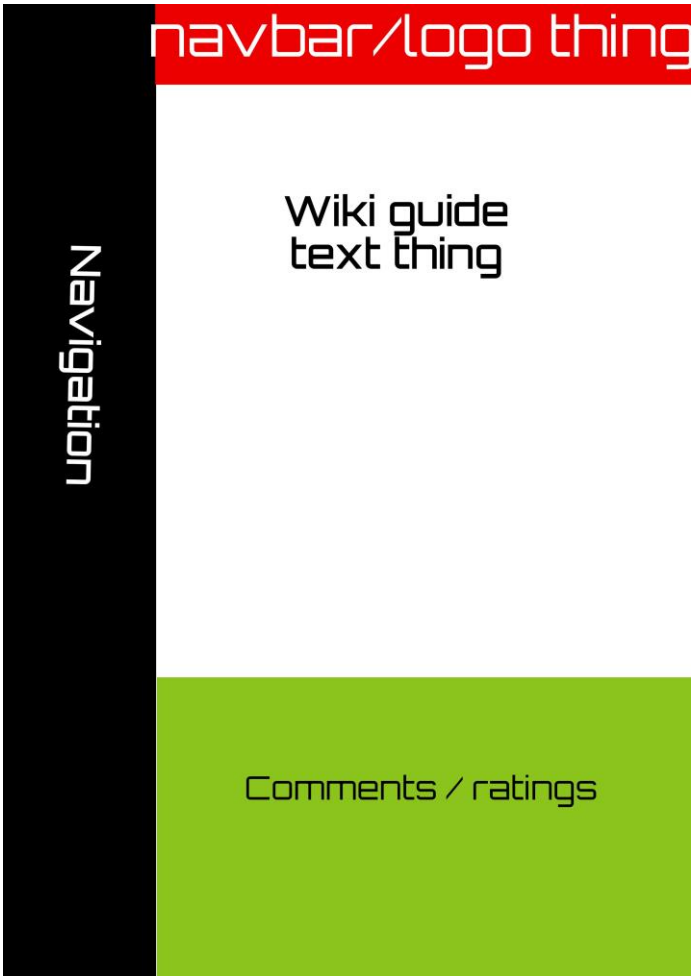

Figure 1. A visual mockup of how the user interface might look like.

How are we doing it?

Our project will be developed with different technologies for different aspects of the project. For our backend we are planning on using Java. For the Frontend, we plan to use HTML for the general contents of the website and CSS to add visual appeal for our users. To make the site more interactive, we will use the JavaScript framework React. Our project will also need a way to store information relevant to the website such as user login details and the guides themselves, to accomplish this we will use a database with JavaDB.

In order to make our project a reality we are planning on starting small and iterating on our project. We will begin with barebones functionality, just an HTML view of guides with their titles and instructions.

How does this project align with the UN’s sustainability goals?

Our project aligns with the U.N. goal Responsible consumption and production. Imagine being able to replace your broken cellphone screen yourself! By creating a platform that empowers our user’s ability to mend, craft or upgrade their own products. By being able to fix your own product a user will be able to drastically reduce their consumption patterns. Our community aims to help create a sustainable consumption pattern. By creating a platform which promotes and assists in self-repairs rather than discarding old products, a user will reduce the waste they produce as less new products are created to replace their old products. Our platform will enable users to explore the do-it-yourself space by offering various rating systems, such as difficulty levels, which help users select guides that match their skill level, creating a more inclusive and accessible experience for everyone.

In addition to encouraging sustainable consumption, we are promoting innovation and sustainable industrialization by offering educational resources for digital device representatives, aligning with Goal 9: Industry, Innovation, and Infrastructure. This provides users worldwide with easy access to sustainable methods for extending the lifecycle of devices, contributing to Target 9.4, which aims to upgrade infrastructure and retrofit industries to make them sustainable.

By empowering users with knowledge for efficient digital device use, we support Goal 12: Responsible Consumption and Production. This helps in extending the lifespan of devices, reducing electronic waste, and decreasing the consumption of Earth's valuable resources. This aligns with Target 12.5, which focuses on substantially reducing waste generation through prevention, reduction, recycling, and reuse, rather than production of new products.

Our educational platform also contributes to Goal 13: Climate Action by promoting practices that minimize the environmental impact of overconsumption. Producing new devices requires significant resources and energy, impacting our planet. By encouraging sustainable usage and reducing waste, we support Target 13.3, which aims to improve education and awareness. Thereby strengthening the human and institutional capacity for adaptation, impact reduction, and early warning of climate change.

Describe what you as a team think is the most difficult aspect of your project.

One of the biggest challenges we expect is the management of the team, especially in regard to the time limitations for the project. This might be especially difficult as we are all new to Agile development and its principles. As such, we expect prioritizing stories and estimating the time to complete them might be difficult at first, due to no prior experience working in an agile setting. Furthermore, scheduling meetings and timeslots to work together might be difficult at times as some of us study different courses and have unique schedules.

Additionally, the agile group consists of people studying different programs, and having read different courses, resulting in varying technical knowledge prior to this course. We believe this could create extra difficulties and a bigger need for efficient communication, as some people might need additional help or time to learn about the technologies needed for the project. Lastly, dividing the work equally and efficiently, ensuring all members contribute during each agile sprint, could be challenging with this large of a group.