

Methodology

The purpose of the initial meeting was to explore the initial project specifications. We intended to gauge whether the client's interest as to what type of investment had a particular area of interest they wished to pursue. Discussions from this meeting allowed us to develop the product specifications listed above. The team also used the first meeting to gain an understanding of how involved the client would like to be in the design process and what style of communication best suited them. This information was used to guide how often the team met with the client and how ideas were presented. Since the project specifications gathered from the first meeting were quite broad, the team decided that the best approach would be to present a wide range of concepts and use the client's feedback on each design to narrow down an area of focus. Following the first client meeting, the team researched areas that had been most affected by the covid pandemic. Areas that had already been addressed using robotic solutions were discounted and, based on the areas left, the team developed seven concepts, each with different market applications and levels of complexity.

The purpose of the second meeting was to present the team's market research and range of ideas and see if anything in particular stood out to the client (whether it be an aspect of a design or an area of application). Due to the client's preference for visual communication, the team presented these ideas in a PowerPoint presentation with concept drawings for each design. This proved effective and the client was able to visualize each solution and immediately provide feedback on which ideas seemed overly complicated and which showed promise. The client expressed interest in solutions to high touch surfaces as there was a gap in the market and the concept seemed cost effective and simple to implement. Based on this, the team moved forward in developing designs for three high touch surface solutions.

The purpose of the third meeting was to narrow down the three ideas presented into a single concept which the team would then research further and refine into a preliminary design for the product pitch. When preparing for the meeting, the team put most of their focus on the infrared button design as it seemed the most effective and simplest design of the three solutions. The client raised concerns with aspects of all three designs which allowed the team to further refine one of the solutions. A notable question that was raised was how the design of the contactless traffic light button would account for the significant change in user experience as well as dirt and grime. Based on the feedback from this meeting, the team spent a lot of time deeply researching and refining the options - leading to the development of a more simplistic yet safe UV-C cleaning system that would leave the current user experience unaltered. The client showed new found interest in this design compared to the previous one after seeing the sales pitch presentation.