Habit

Cleaning a project: Restyling of smartphone sanitizer, control interface design & App

Project overview

THE CHALLENGE

In this project, the client entrusted us with the development of a household sanitizer specifically designed for smartphones. The company had previously invested in a prototype for industrial production, but unfortunately, it did not meet the required standards. This presented us with the challenge of designing a second version of the product. The goal was to enhance the product's design, ensuring it aligns with the initial budget. Our overarching objectives were to enhance the value of the product and elevate the overall user experience, ensuring a solution that exceeded expectations while remaining cost-effective.

- **Enhance the value of the product**
- **Improve the user experience**

Project goals

THE SOLUTIONS

To achieve these goals, I focused on implementing a range of effective solutions. These included designing an intuitive product interface, developing a complementary mobile app, refining the product's design, and introducing innovative features.

- Design product interface
- Design control App
- Product Design restyling
- Design new features

Project research

USER NEEDS

I conducted research to identify user pain points and preferences, extracting key insights to drive our problem-solving approach.

Tools

- Surveys
- Interviews
- Usability test

Key insights

1. Users face challenges in quickly understanding how to use the product upon their initial interaction.
2. Users express frustration over the lack of information provided during usage, such as not knowing the remaining time or the status of the sanitization process, leading to a sense of uncertainty.
3. Users desire the ability to use the product remotely or while being in a different location.
4. Many users find themselves lacking sufficient time to complete a full sanitization cycle.

PROBLEM STATEMENT

User are struggling to understand how to use our product due to a lack of intuitive design and unclear informations. This is leading to frustration and low engagement. Need to improve the usability of the product by redesigning and adding user interface be more intuitive and user-friendly.

Project design

DESIGN PROCESS HIGHLIGHTS

Highlights of product design:

Enhance Product Appeal

I switched from a cylindrical shape to a flat rectangular design, reducing the footprint while expanding the sanitization area in terms of materials. I replaced the nylon cover with one made of recycled PET and glass, adding precisiveness and elegance to the product.

Clearer Status Indicator

During usability tests, it became evident that users instinctively attempted to open the sanitizer like a book as their initial natural reaction, rather than sliding the sanitization drawer. To enhance simplicity and intuitiveness, I decided to implement this opening system, allowing users to experience a sense of ease and directness.

Ergonomic Design

To enhance the perception of the device's sanitization status during sanitization, I designed an indicator that serves as a handle. This design not only enhances ergonomics but also creates a gap between the body and the transparent gel inside, which emits internal light.

Control Button

Crucially, I made the decision to incorporate a capacitive touch screen as a control interface, enabling users to interact directly with the device. Additionally, I designed a compromise app to allow remote control of the device.

Interface design

WIREFRAMING

I explored various solutions and established the foundational layout and functionality of the product incorporating user feedback gathered from tests. I iterated on the wireframes, making necessary design adjustments based on their input. The primary focus was to create a streamlined and minimal pattern that enabled users to quickly and effortlessly learn how to use the product. Additionally, I ensured that the design choices aligned with the client's request to maintain low development costs.

Here are some examples of key design changes:

- In version 2, we addressed user complaints regarding the inability to change program selections after the start screen was displayed.
- Version 3 introduced a differentiation between selection keys and action keys. The cycle selection icons were merged into a single box, while action buttons remained circular in shape.
- To enhance user guidance during the process, I implemented backlights on the sizes and a progress bar to provide visual cues at the ongoing activities.

HI-FI MOCKUP & PROTOTYPE

In terms of visual style, I explored two concepts: a "neat" aesthetic and a "neuropunk" design approach. The objective was to evoke a sense of cleanliness, essentiality, and a touch of medical aesthetics. After careful considerations, I ultimately chose the neuropunk style as it aligned better with the technological concept and had a more captivating appeal.

neat

neuropunk

APP design

DESIGN PROCESS

The app design maintains **continuity** with the control interface of the physical product, focusing on enhancing the user interface (UI) and refining interactions. While preserving the core user experience (UX), I dedicated efforts to improving visual aesthetics, optimizing layout, and adding interactions.

The process, I introduced an interaction to adjust the countdown time: a circular swipe with haptic feedback. This intuitive interaction allows users to drag their finger around the timer element to increase or decrease the time. The haptic feedback confirms the action, providing an engaging and rewarding experience. This design choice aims to enhance the app's usability and accessibility, offering users a quick and precise way to adjust the countdown time.

Furthermore, I incorporated a range of minor interactions, including drag gestures, swipe-back functionality, and notifications for the completion of sanitization cycles. These additions contribute to an enhanced user experience and provide intuitive ways for users to interact with the app.

APP design

RESULTS

To evaluate the effectiveness of the implemented improvements, we adopted an approach based on measuring results. We utilized various metrics to assess the impact of the changes on product usability and user engagement.

We conducted user tests to evaluate the ease of use of the new design, measuring task completion times, success rates, and user satisfaction. The results of these tests demonstrated a clear improvement compared to the previous version, with faster task completion and a significant increase in user satisfaction.

Finally, we evaluated the product's commercial success, with over 1000 units sold and positive feedback from customers. Through these measurements, we confirmed that the implemented changes had a positive impact on product usability, user engagement, and commercial success.