



Form follows sustainability:

A packaging concept design for OneThird's fruit scanners

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OneThird was founded due to a shocking truth: a staggering one-third of the world's produced food goes to waste. Motivated by the desire to combat this issue and reduce such wastage, the founders chose to name the start-up after this impactful statistic. OneThird specializes in designing scanners to offer customers shelf-life information for fresh produce. With this data, clients can make informed logistical decisions, to minimize costs and waste.

Currently, OneThird sends its tabletop scanners in a heavy plastic injection-moulded case filled with foam. This solution was chosen to protect the product and its sensitive components from being damaged during transport. Once the scanner arrives at the client and is unpacked, the case is then put away to be never used again, unless the scanner must be sent back to OneThird. And this is a shame, as these plastic cases are designed to be indestructible and withstand the most extreme conditions. And are made to be reused over and over again. Considering that OneThird is a company focused on sustainability, they recognise that this is not an environmentally friendly solution and want to come up with a more sustainable packaging, in line with the values of the company.

Therefore, this bachelor thesis aims to “Design a sustainable packaging for OneThird's sensitive scanners which protects it during transport, is in line with the look and feel of the company and is ideally cheaper than their current solution.”. Consequently, this thesis is a design-based assignment where the focus lays on finding a balance between function, form and sustainability.

The packaging needs to address challenges related to potential rough handling during shipment, considering the delicate components of the scanners. While prioritising durability in the existing solution, the new packaging aims for sustainability without compromising protection. The assignment specifies an order volume ranging from 100 to 1500 units, requiring a production technique compatible with these quantities. Scalability and cost-effectiveness are deemed crucial, especially with increasing order volumes. Aesthetically, the packaging must represent the brand identity of OneThird while also emphasising sustainability to reflect OneThird's mission. Moreover, the packaging will be used only in business-to-business environments.

The thesis follows a structured design process, only focussing on the analysis phase and concept development due to time constraints. The analysis phase includes extensive sustainability research to comprehend what sustainable packaging entails and how it can be utilized to design a sustainable alternative. Then, an analysis is conducted on the company's wishes, values, and objectives for the project. The insights gathered from both sustainability and company analyses are synthesized and presented to the company to determine the focus and preferences for the assignment. Subsequently, all this information is combined into a comprehensive requirement list, laying the groundwork for the design process.

During the design phase, a broad spectrum of ideas is generated and developed, drawing inspiration from the company analysis. From this brainstorming phase, a selection of concepts is made and further refined. These refined concepts are evaluated and reviewed by the company, leading to the identification of a final concept. In the detailing phase, material selection is carried out, and all relevant information that the packaging must include is collected. The chosen concept is then finalized and subjected to evaluation through prototypes.

The evaluation concludes that the design effectively balances form, function, and sustainability. Functionality requirements are largely met, incorporating protective elements like a stronger flute type and double walls. The sustainability focus emphasizes the use of renewable and recycled materials, optimizing recyclability. Aesthetic considerations align with the company's branding and provide a simplistic, natural, and sustainable unboxing experience.

This thesis highlights the interconnected nature of form, function, and sustainability in product design and offers a new version of the famous quote "Form ever follows function". The revised quote being: "Form ever follows function & sustainability." Marking the importance that sustainability has nowadays and highlighting the influence that these three pillars have on each other.

