

# Public summary Brightbird assignment

This thesis paper shows the design process of the Utility Utensil for a client of Brightbird. This company produces lighters. Due to the fact that the lighter market is saturated, Cricket asked a company Brightbird Design to develop a new product. This product will help the client to reposition its market. This product will contain a smart cell, made by the client. This smart cell does not only serve as a container for butane gas, the smart cell can also give out a lot of heat. It can produce a heat of 130°C in 10 sec. In this paper, the following main research question will be answered: *"What type of products, that use a smart cell, can be developed?"*. Several research questions and sub-questions have been set in order to answer the main research question. This paper will walk through the design steps for a potential new product for Brightbird's client.

First, a product research was executed in order to understand the scope of the to-be-developed product by analysing the smart cell as well as existing products. The existing products were compared to the values of the client to see in which branch the client could potentially fit. During a brainstorming session several ideas were written down and drawn out. These ideas were based on products that use heat or release heat. Four specific themes resulted from the brainstorm session, outdoor/on-the-go, personal care, indoor/home, and terrace/balcony. Each of these themes could be sub-divided into categories. To get a better view of the product's potential users, a target group analysis was done for each category. To understand whether the categories have interesting insights for the development of a new product, the different target groups were narrowed down to one target group per theme. One category for each theme was chosen: outdoor/on-the-go food, personal care beauty, indoor/home indoor wear, and terrace/balcony. The categories have been compared to the design criteria: price; safety; mass production, and demand, in order to determine one idea direction with one target group. The idea direction with the best fit was outdoor/on-the-go food.

The next step was to choose three concepts based on ideation about outdoor/on-the-go food. Many sketches and ideas were made. These were assessed through a pros and cons list. Also, the ideas were discussed with professional designers and compared to the design values set by the client. The following concepts were chosen: the self-heating ladle, the travel can, and the food box. Before these concepts were translated into concept sketches, an analysis was made to determine style and design of the client with existing products of the client so they will look like the client's products as well. Each concept has been analysed and rated against each other on the client's values. The concept that had the most potential was the self-heating ladle.

To realize this concept, it was necessary to determine requirements. Therefore the next step was to determine the concept criteria. These criteria were the materials of the product, the technical feasibility of the product, and the working of the smart cell in the product.

Then based on the requirements, the final concept can be developed. This is done through a small ideation, where other design opportunities for the product were being explored. After the ideation, the final concept sketch could be developed. This is done together with a formal sketch. A formal sketch shows where the technology in the product is. Then a scenario was written and visualized to show how the product could be used with the target group.

After going through all the steps of this report, the main research question can be answered. A product idea with the most potential has been developed for Brightbird's client using their smart cell technology.