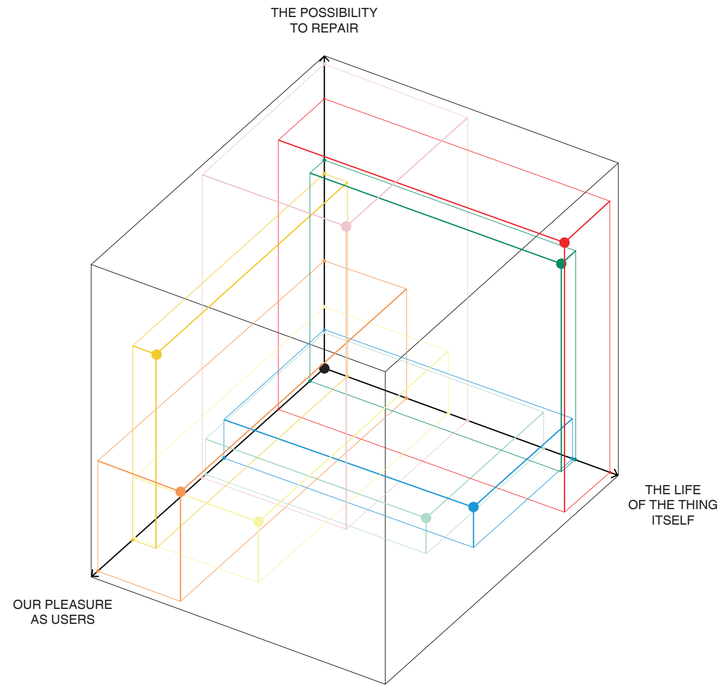
AESTHETIC DURABILITY

& REPAIR

Each year, over 50 million tonnes of electronic waste is generated globally, with the Netherlands averaging more than 20 kg per capita (Compendium voor de Leefomgeving, 2023). The shift from a linear to a circular economy is crucial in addressing this issue, emphasizing the importance of durability and repairability in product design. Additionally, the forthcoming legislation from the European Commission (2023) regarding the "right to repair" highlights the need for designers to create products that are both durable and repairable.

This project delves into a product's durability, considering not only its physical repairability, but also how it can retain aesthetic value over time. Central to this exploration is the question: **"How can appliances be re-designed for retainment, considering repairability and aesthetic durability?"** Drawing upon literature research, a design space is formulated, guiding the several re-designs of the same appliance, in this case a sandwich maker, with each re-design focusing on a specific aspects of repairability and aesthetic durability theory.

The literature review addresses repairability through the challenge of fault diagnosis, particularly as products are often perceived as 'black boxes'. Practical design implications for improving ease of disassembly and part replacement, alongside the value of awareness of components in having a product repaired, are discussed. Aesthetic durability is explored from the perspectives of 'living with things' and the 'life of things'. The former examines aesthetic pleasure from a multisensory point of view, and the role of familiarity and novelty in design. The latter discusses the dimension of temporality in product design throughout a product's lifetime, and the concept of products becoming 'things' when they break down.



The construction of a design space with three axes based on this theory—'the possibility to repair', 'our pleasure as users', and 'the life of the thing itself'—provides a framework for creating eight diverse prototypes reflecting various perspectives from the theory. Evaluation by 3010 Dutch Design Week visitors identifies one prototype, featuring an 'oven mitt'-like top, as standing out for its emotional qualities such as 'connection' and 'beauty.' This re-design is selected for further development into a functional prototype, highlighting repairability improvements and offering the opportunity for ergonomic testing.

● the original appliance

● opening hood for repair

● inviting familiarity of screws

● opposite of a black box

● visibility of assumed form

● silent presence of components

● breathing of functionality

● robust familiarity of ceramics

● encouragement to touch

the functional prototype

The sandwich maker gives us a sense of temperature: the soft click of the thermostatic switch, lights, a crackling sound of expanding aluminum. Touching the appliance in the wrong spots might even result in an unwelcome burn.

This re-design purposefully communicates through another sense than vision through an oven mitt-like top. Touching is not something that should be avoided, but is necessary in the use of the product. Over time you hopefully become more accustomed to its use, as your hands get to know the product better. The removable fabric top allows easy access for washing and possible repairs, fostering familiarity with the product's internals over time.

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