## Prototyping questions and answers

Author: Nils Verheyen

Matriculation number: 3043171

A functional prototype is an example or model of a product for testing a concept or one or more functions by the user. In contrast to simple, purely visual prototypes, which are made, for example, by paper or plasticine, these prototypes should be touched and used by the user. The creation of such prototypes shows designers and developers problems in the early stages of development that may occur later in the product design process. After creating a prototype, the user can test the visual and haptic properties. An optimal design for use can thus be determined.

The author describes four different methods for creating prototypes. Especially the haptic properties of a product can change drastically due to repackaged standard devices. Other materials make a product look or use completely different. Using products made of standard hardware, completely new systems can be implemented quickly in contrast to pure repackaging. By using standard hardware, the performance of the later product can be tested. The third form of design are add-ons. As with repackaging, an add-on is developed to an existing product, but it provides additional functions to the product. The last and most complex form is the creation of customized hardware that cannot be covered by standard components. The prototype developed in this process is closest in design and function to the product to be developed later.