

NUTRI-MATE DESIGN ABSTRACT

Nutri-mate is a personalized food management tablet-device that can be placed wherever you want in the kitchen. It has a connective app (available for phones) and two cameras. It's a simple pack which allows to turn a normal kitchen into a smart one. It's a device designed for people who are always in a hurry, who are tired to think about what to cook every day, and for people who do not want to be malnourished but keep fit. All of this can be reached by not over-buying food and consequently not throwing away the surplus.

In Nutri-Mate consumers will find: a section where they can upload personal data: weight, height, age and health concerns (allergies, intolerances and food related diseases) in order to create a personal profile. Personal preferences and tastes can also be added. More than one profile can be created, so all the family can upload their data. Nutri-Mate software will calculate through a universal algorithm the BMI, lean and fat mass, daily/weekly intake expected; moreover, it generates personalized shopping list automatically that can be easily checked through the app, while shopping.

With the app, users scan products directly at the supermarket and items are automatically charged in Nutri-mate device that memorizes all products and their expiry dates. This way, when they're close to expiry, the system alerts you. Adding cameras to the Nutri-Mate system allows the user to look inside fridge and pantries with a simple click from the phone app, even when not at home. This is useful when at the supermarket and unsure if you miss something at home. Moreover, with the aim of reducing food waste, the device suggests recipes according to the ingredients that users already have at home and with the ingredients that are going to expire.

An additional and unique feature of Nutri-Mate device is that it can be detached from its base in order to be used as a smart scale.

Nutri-mate is the result of a design thinking process. Through the empathy step, we looked for the most important topics of greatest interest among the population and which of them have some pain points. We decided to focus on malnutrition and food waste management as our main goal. We defined a series of actors that can be involved in our product design. The selected targets were people between 25 and 45 years-old, since they are the most technology friendly. Health influencers were targeted as early users to promote the product. Our initial idea, developed after evaluating the "black hats", was creating an app which helps in monitoring the calories content of what you buy, giving you suggestions of what is healthier. After exposing our aim to friends, tutors and professionals, we started thinking about something other than an app. Since there are too many app competitors in this field, it would be difficult to succeed. Because feedbacks are really important to us, we decided to modify our idea and finally settled on the Nutri-Mate system. With this innovative system, people can easily manage their kitchen, reduce food waste and live a healthy life.

Based on our target customers, we developed an empathy map, the story board of our idea and presented it to our class. The feedback we received was to find something that can make this device worth to be bought - some features that make it unique were missing. We decided to add two cameras to our Nutri-mate system and make the tablet a special device that can be detached from its base and be used as a smart scale. The following step was developing a value proposition canvas in order to see if our product satisfy our customers' needs. Finally, we developed the prototype tablet, app and cameras, with all the features described. We then tested them through interviews in order to receive feedbacks for further improvement. The results of the interviews were very positive. We received some suggestions like the possibility to choose different languages, the possibility to connect also smart watches, develop a version for whom has already a tablet, the possibility to suggest recipes according to the physical activity. Since we know that customer has a centric position in product development, we adjusted our final prototype according to all the feedbacks we received.

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