

Electrifying the past: conceptual interior design for electric classic FIAT 500

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Title	Electrifying the past: conceptual interior design for electric classic FIAT 500
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Topic	Analysing original design values and modern electric cars' characteristics to develop ideas for interior components for an electrified classic car.

Background

Carbonara Vintage Automobiles is a small classic car dealership in Maastricht, the Netherlands. They can be seen as a specialist on the classic FIAT 500. In recent months, they have been working on a project to convert these cars to battery electric vehicles, using imported conversion kits from Italy. At the start of this assignment, a prototype had been built, and the author was shown this prototype upon request. After noticing that certain interior components that display information, such as the battery state of charge screen or the charging notification light, were not designed to the expected standard, the author offered to design substitutes for these components. The client agreed with this observation and allowed the author to design such parts.

Relevance

In its current state, the electrified FIAT 500 will not sell, since there are badly finished components in the interior that do not match the design language of the original design. Designing new and unique parts that match the original design language will not only help to create a more refined end product, but will also establish a unique selling point, as it is a significant advantage over competitors.

Assignment objective

Design new components for the interior of the electric FIAT 500 that match the original styling, show necessary information, improve controlling the car, and offer a unique selling point as an advantage over competitors.

Approach

The assignment was approached with a relative emphasis on the analysis phase. During this phase, the goal was to create empathy with the original design language, the design values of the car, its comparison to modern electric vehicles, its target groups, and other competitors in the market. Creating empathy helps to establish a personal, 'designerly' vision on the problem that can be used as a starting point for generating ideas.

Firstly, an original design analysis was performed, in which the original design values and design language were extensively explored. The history of the design, its evolution throughout the FIAT 500's lifetime, and the differences between various editions were defined. During this analysis, the conclusion was made that new interior components should match the original design language of the car, since introducing a new design language to the car implied changing other interior components as well, to fit this new design language and avoid a clash of different design languages.

From the market analysis, in which other companies in similar markets were researched, the conclusion was made that most other manufacturers of classic electric cars did not have an outstanding unique selling point. Therefore, adding functionality, custom-made parts, and a unique new design to an electrified classic car was deemed essential to stand out from the competitors.

Finally, in the target group analysis, the general factors that define people's relationships with the FIAT 500 were explored, and some demographics of the existing group of classic car owners were defined. Eventually, the conclusion was also made that the electrified FIAT 500 will appeal to a younger group of people than classic cars currently do. Therefore, it was decided that focusing on high-tech functionality and appearance was important to convince this target group of buying an electrified FIAT 500.

The conclusions from the different analyses were processed into a design vision, on which further design choices are based. The design process resumed with generating different ideas that would solve the problem. From these ideas, the four best combinations were chosen and elaborated into further detail. Costs of these concepts were analysed, as well as manufacturability. Based on these factors, a concept was chosen that would be worked out into a final product. The chosen concept comprised a digital screen that replaces the original speedometer, while the ash tray in the centre of the dashboard is transformed into a phone holder for navigation and music streaming. The charging notification light is removed, and the drivetrain control buttons are redesigned.



Results

The design of the digital screen brings back details from the original speedometer, such as the circular concentric layout and the four warning lights with Italian labels. Added functionalities are a battery percentage meter, and a menu that shows, among others, the average power consumption. The phone holder in the centre of the dashboard is styled to look like the original ash tray. When not in use, it looks unchanged and original. The charging progress is now shown on the digital display, which makes the charging notification light of the prototype redundant. Finally, the drivetrain controls between the front seats are redesigned to match the original materials of the classic FIAT 500.

Conclusions

The final design solves all the problems of the original prototype for the electric FIAT 500. It comes at an extra cost, but brings with it an important unique selling point.