



## MiKoSHIFT

Bednar, N., Fernandez, D., Köhl, R., Petz, J., Solomonidis, G.

Interdisciplinary Product Development (M.Sc.)



Fig. 1: Distraction while driving and impractical use of the car interior

### Problem statement

As electric vehicles become more prevalent, drivers are confronted with the need to pause their journeys to replenish the vehicle's battery charge. There is no center console that combines the effective use of charging time and reduced distraction during operation while driving (Fig. 1).

### Approach

A functional prototype for a transformative lightweight center console is to be created. This console includes a transformative, foldable work setup, as well as a sophisticated system for securing smartphones which includes an inductive charging solution, augmented with ambient lighting to enhance the vehicle's interior atmosphere and customizable shortcut buttons for personalized control and accessibility.

### Practical implementation

The functional prototype was realized using different manufacturing technologies, partially combining additive and subtractive methods. To reduce distraction while driving, a non-slip smartphone holder with inductive charging capability (Fig. 2) was installed. Additionally, individually configurable shortcut buttons (Fig. 4) were included. To effectively utilize charging time, a foldable table (Fig. 3) was integrated into the center console. Furthermore, ambient lighting (Fig. 5) was incorporated.

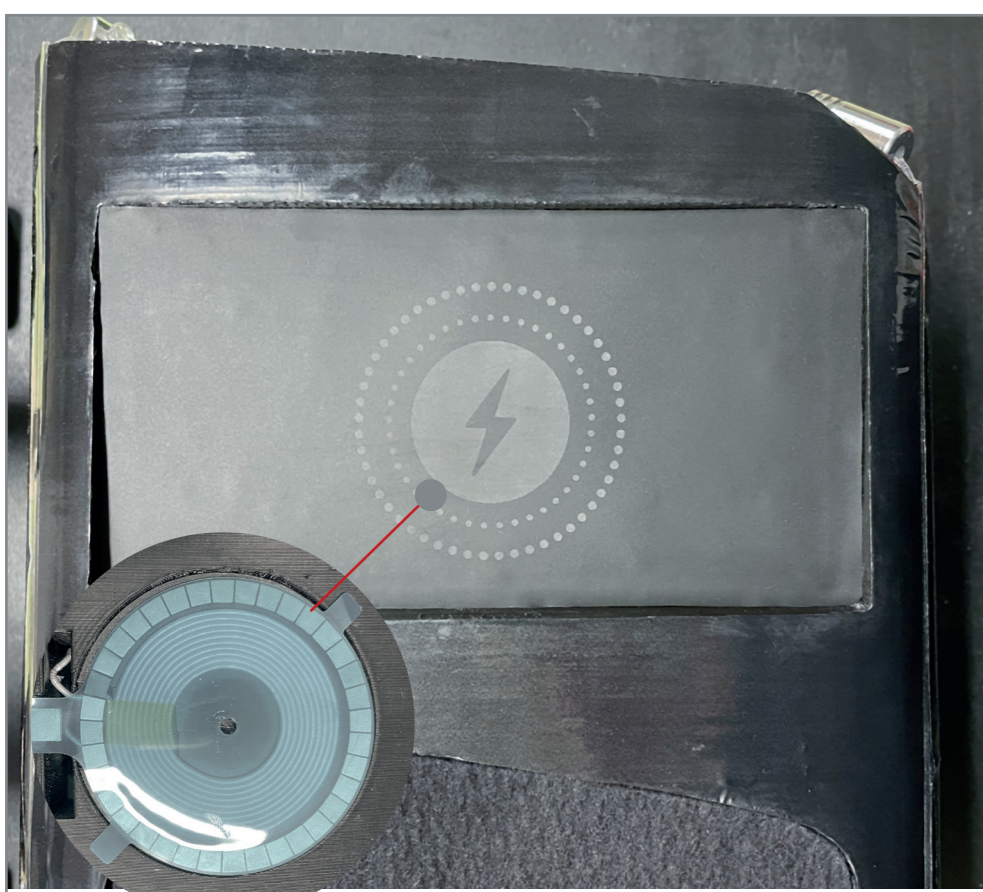


Fig. 2: Smartphone fixation with inductive charging and „MagSafe“ mechanism

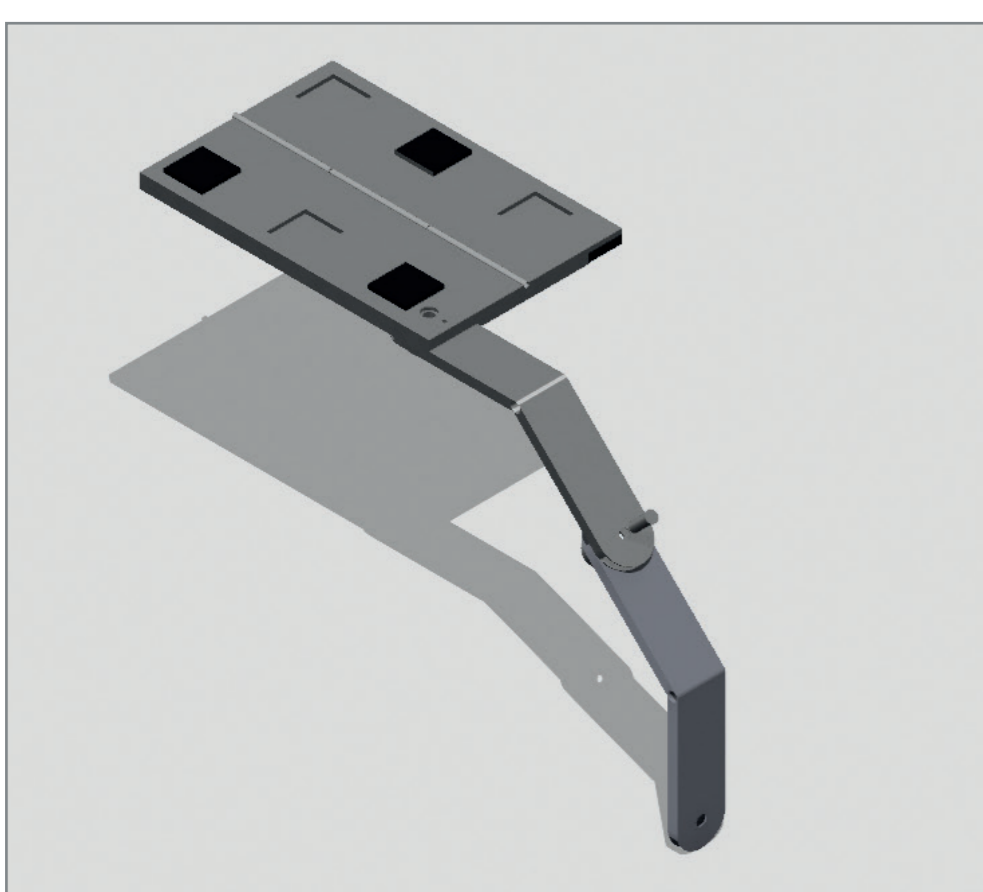


Fig. 3: Mobile Office Hub integrable and expandable table

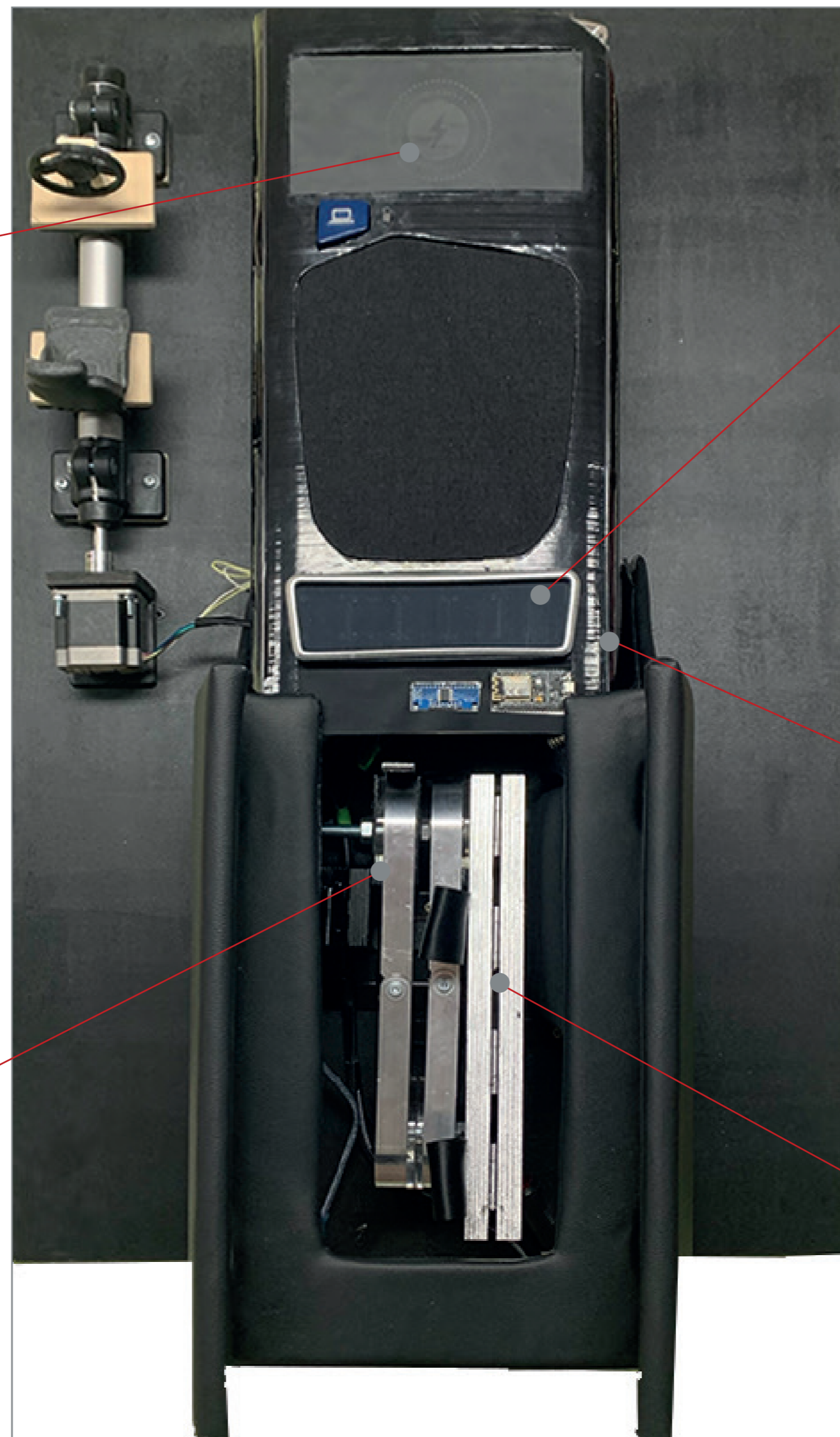


Fig. 6: Physical functional model of the MiKoSHIFT center console

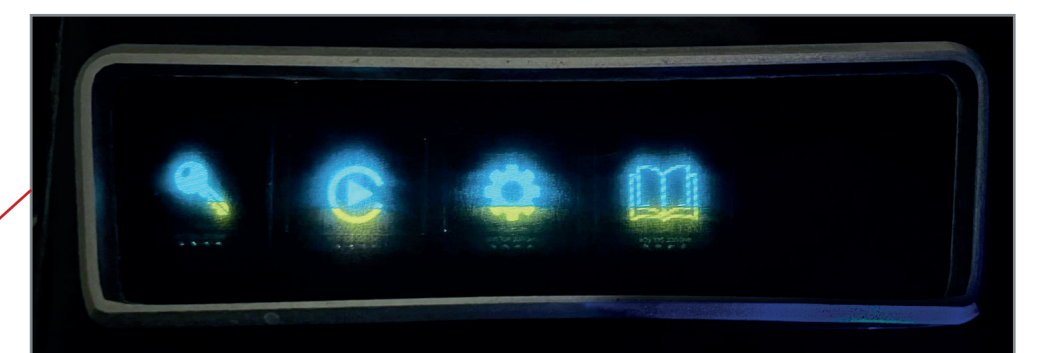


Fig. 4: Individually configurable shortcut keys for accessing the car interface

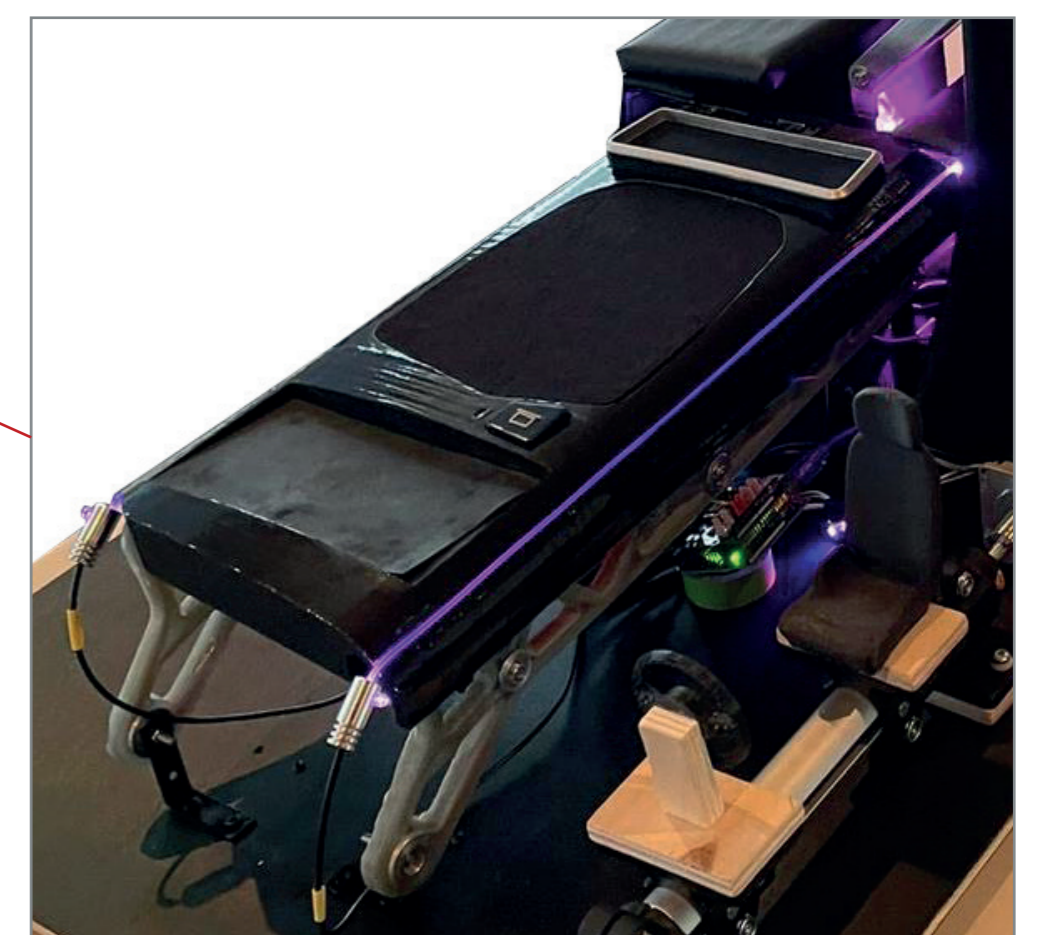


Fig. 5: Ambient lighting of the MiKoSHIFT

### Contact

Prof. Dr.-Ing. Tino Zillger  
tino.zillger@reutlingen-university.de  
+49 0 7121 271 8080