

From Concept to Reality: Modular 6DOF Armrest Design for Enhanced Comfort and Functionality

The modular armrest was designed to provide adjustable support in six different directions, catering to individual preferences and reducing fatigue during long journeys.

The OEM thoroughly assessed the prototype and recognized its exceptional quality and functionality. This validation led to the decision to move the armrest into mass production.

As advanced technologies alter the requirements for functionality to the need for highest levels of comfort, convenience and connectivity, Design & development of automotive interiors demand design expertise and experience

Our teams are developing specialized automotive Seats, Headrests, Armrests, air vents, Glove box coolers, Seat table trays, Consoles & center consoles, Interior door trims and more for global luxury OEMs and suppliers.

Overview

Industry: Off-Highway Mobility

Location: India

Challenge: design and develop a modular, 6 DOF (Degrees of Freedom) robust armrest for Off-Highway Vehicles that would enhance comfort, functionality, and durability in the demanding off-highway environments

Solution: This project objectives were met through following stages

Requirements Gathering: Extensive research and collaboration to define design requirements.

Conceptual Design and Engineering Analysis: Generating design concepts and utilizing engineering analysis tools for performance optimization.

Component Development and Prototype Manufacturing: Developing individual components with a focus on modularity, durability, and ease of assembly. Creating prototypes using rapid prototyping techniques.

Testing and Validation: Conducting rigorous testing, including functional, durability, and user trials

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