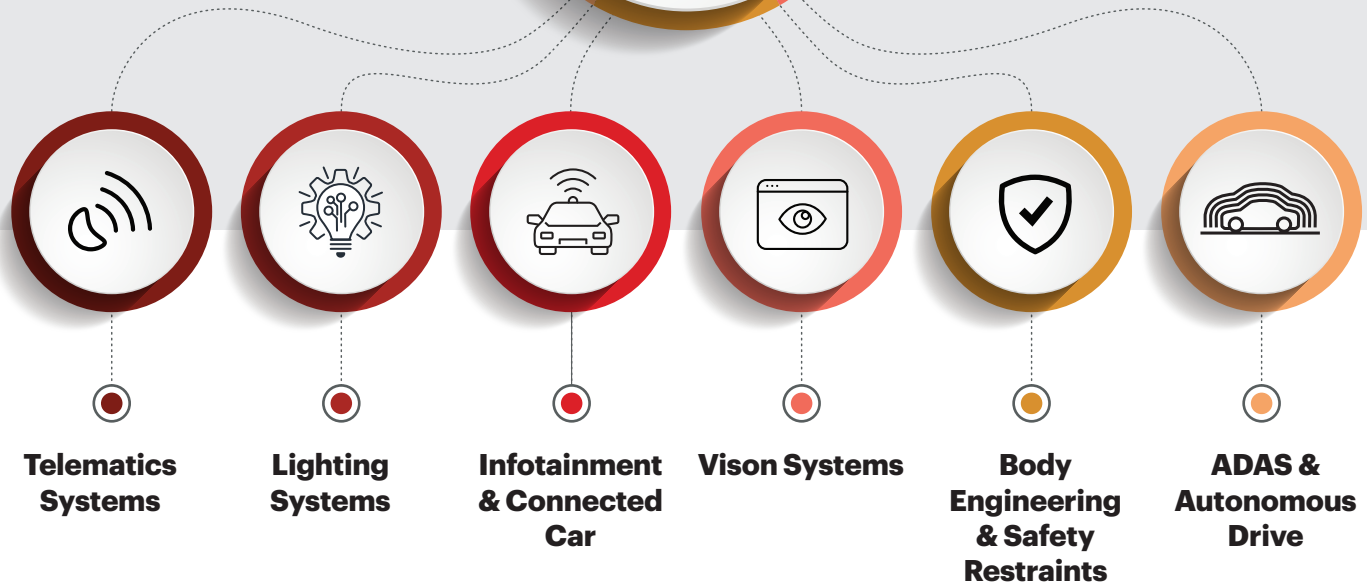


# Automotive Engineering Services

Transforming Product Vision into  
Successful Real-World Designs



# Automotive Engineering Services



We help automobile manufacturers in designing, engineering and verifying the vehicles of tomorrow. Our engineering and design offerings enable clients to innovate, producing new products, from individual components to complete vehicles. Our team of thousands of skilled designers, engineers, and program managers is the best in the industry.



**Who We Are**

- 1600+ Engineers & Specialists
- 30+ Years of Experience
- Working with almost 80% of the Global Automotive OEM
- World's First in Vision Systems & Electricals with Over 600 Patents



**Key Initiatives and Investments**

- Design Assurance Lab, ISO/IEC 17025:2017 [NABL] Certified Laboratory
- Infotainment Platform
- Comprehensive Telematics platform/solution
- World No 1 in Vision & Mirror System, Electric Design & Displays

# Automotive Engineering Competencies

We address technological demands of today and tomorrow to help you offer world-class products and services. Our services spectrum includes providing design, development, and verification & validation solutions tailored to accelerate the product development process



## Mechanical Engineering

- Chassis & Axle Design
- Interiors and Cab Design
- HVAC
- Electrical Design
- Plastics engineering
- Manufacturing Engineering services
- Body Engineering (CFD, FEA & Correlation)
- PLM and VAVE



## System Engineering

- Requirements Specification
- By-traceability of Requirements
- Functional Safety : ISO 26262
- System Architecture
- Signal flow
- Vehicle msg data base
- Vehicle Integration
- Vehicle Verification



## Software Development

- AUTOSAR Compliant software development
- Model Based Engineering
- Functional Safety: ISO 26262
- HMI
- Control Algorithms Development
- Diagnostics
- Platform Software



## Hardware Design

- PCB Design
- Schematic creation
- Safety Engineering : ISO 26262
- Design Analysis (thermal, Reliability, EMI/EMC, Timing, WCCA)
- Hardware Software Integration
- Prototype Production



## Verification & Validation

- Interoperability Testing
- System & Integration Testing
- Road Testing
- Functional Test Automation
- HiL/SiL/MiL
- Pre-Compliance testing (EMI/EMC/ ENV)
- EOL / Bed of Nails Test Fixture
- In-house accelerators



## Specialized Services

- Cloud to Cockpit
- Solutions
- Product Localization
- Sourcing
- Should Costing

## Case Study



### New Product Development of Golfcart ORVM for American Manufacturer

- Developed 3D Model for class - A surfaces
- CAD Model with ORVM mounting positions
- Developed and tested prototype as per DVP and SAE Requirements
- 2D manufacturable Drawing created



### Transforming customer services using Telematics Solution for leading Off-Highway OEM

- Features Enabled: Vehicle Tracking – Vehicle Health Monitoring – SOS & 24/7 Support – Predictive Analytics
- 10000 + installments in quick time



### Turnkey New Product Development of Flexible switches for leading German Tier 1 Company

- LIN stack generation from GENy tool
- Switches – Push Button and Rocker Switch
- Battery Monitoring and short Circuit Protection using ADC

# Reach out to us



Founded in 1975, Motherson Group is an industry leader and one of the world's largest manufacturers of components for the automotive and transport industries. The group's diversified portfolio makes it a complete solutions provider across the globe. Motherson Group serves its customers with a wide array of products and services through multiple business divisions including wiring harness, vision systems, modules and polymer, technology & software, aerospace, health & medical, logistics, retail and metal products. Motherson Technology Services is a global technology company that offers a consulting-led approach with an integrated portfolio of industry leading solutions that encompass the entire enterprise value chain. Our technology-driven products and services are built on two decades of innovation, with a future focused management philosophy, a strong culture of invention and co-innovation, and a relentless focus on customer-centricity. A CMMI Level 5 company, we have delivered best-in-class services to 430+ clients in 41+ global locations across all continents. We are a business division of Motherson Group, one of the largest manufacturers of components for the automotive and transport industries worldwide with 150,000 employees across the globe.

Visit us online at <https://mothersontechnology.com/>

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