



# BMS DESIGN & DEVELOPMENT

## Custom & Ready-to-Deploy Battery Management System (BMS) Solutions for Peak Performance

Re:Build Battery Solutions develops advanced BMS platforms that enhance performance, safety, and efficiency for lithium-ion battery packs across aerospace, automotive, industrial, and energy storage applications. Designed for seamless integration and scalability, our Custom and Ready-to-Deploy solutions offer intelligent control, real-time diagnostics, and advanced protection—delivering reliable, high-performance energy systems tailored to your needs.



## Custom & Ready-To-Deploy BMS Solutions

Every application has unique performance and integration requirements. That's why Re:Build Battery Solutions offers both Custom and Ready-to-Deploy BMS options—flexible solutions that align with your technical needs, timeline, and budget. Whether you're building from the ground up or accelerating deployment with a proven platform, our scalable BMS systems are engineered to perform.

### Custom BMS Development

Tailored engineering built around your unique system.

- **Seamless Integration**  
Designed to work effortlessly within your application—avoiding compatibility issues and optimizing performance.
- **Enhanced Performance & Safety**  
Engineered for real-time monitoring, fault detection, and thermal management.
- **Scalability**  
Future-ready designs built to evolve with your system and market demands.
- **Application-Specific Design**  
Optimized for power, thermal, and operational performance in demanding environments.

### Ready-to-Deploy BMS Solutions

Proven systems for fast deployment and integration.

- **Accelerated Timelines**  
Field-tested, pre-engineered systems to help you get to market faster.
- **Flexible Configurations**  
Modular designs that accommodate customization and system-specific needs.
- **High Reliability**  
Built for consistent performance across industries—from aerospace to industrial equipment.
- **Cost-Effective**  
Reduces NRE costs while maintaining high-quality standards.

### BMS FEATURES & FUNCTIONALITY:

- Real-Time Monitoring & Control
- Advanced Balancing & Power Management
- Safety & Protection
- Data Logging & Predictive Analytics
- Custom Firmware & Embedded Software

### INDUSTRIES SERVED:

- Electric Vehicles (EVs)
- Aerospace
- Industrial Machinery
- Drones / UAVs
- Defense Systems
- Stationary Energy Storage

## Comprehensive BMS Engineering Support

- Custom battery management systems (BMS)
- Pack configuration, power flow, and bus bar design
- Passive and active cell balancing
- Passive and active thermal management
- Disconnect devices (contactors, fuses, pyrotechnics)
- State-of-charge (SOC) and State-of-health (SOH) algorithms
- Trade-off studies and analyses
- Failure Modes Effects Analysis (FMEA) and Fault-Tree Analysis (FTA)
- End-application integration support (comm. protocols, telemetry, software)

### LEARN MORE ABOUT OUR CAPABILITIES:



### LOCATION:

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