

Realizing your envisioned solution.



In today's world of connected devices, customers are no longer satisfied with great performance of individual parts, but expect seamless and flawless performance throughout a holistic system. Choosing a partner who can translate these needs into breakthrough technologies has never been more critical.

Manufactured Assemblies Corporation, a Compass Electronics Solutions Company, combines a highly skilled, full-service team of experts in design and systems with electrical, software and mechanical engineers. When our award-winning designers work seamlessly with our experienced engineering team, the result is synergy that propels clients' businesses beyond their expectations.

DESIGN

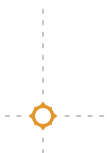
- Product design
- Design research
- Interaction design
- Industrial design

CERTIFICATIONS

- ITAR Registered
- ISO 9001
- ISO 13485
- FDA 21 CFR 820 Registered

ENGINEERING

- System engineering
- Mechanical engineering
- Test development
- Software engineering
- Electrical engineering
- Device technology





We operate as an extension of your team and tackle your most complex problems.



DESIGN CAPABILITIES

With nearly 60 years of product design experience, MAC has the expertise to guide you in putting together all the pieces to make a great user experience.

Design Research

- Contextual inquiry
- Ethnographic studies
- Co-discovery research
- Persona development
- User experience models
- Collaborative design
- Scenario development
- Trend analysis

Interaction Design

- Graphical and natural UI design
- Physical interface & visual design
- Heuristic analysis
- Interface prototyping
- Usability testing

Industrial Design

- Concept development & visualization
- Platform strategy
- Competitive product, market analysis
- Compact product packaging
- Wireless technology integration
- Product identity and graphics
- DfX and sustainable design
- Class A surface dev. – Pro/ENGINEER

ENGINEERING CAPABILITIES

Our firm grasp on the latest technology, including embedded systems and connected device development, helps us solve tough technical challenges when others fear them.

Systems Engineering

- Cross-functional technical leadership of complex system development
- Requirements management
- Human factors and usability
- Risk management
- Systems integration and testing
- Regulatory expertise

Mechanical Engineering

- Material selection
- Electronics packaging
- Rugged and sealed enclosures
- DfM and design for assembly
- Thermal simulation and analysis
- Complex mechanisms
- Rapid prototypes
- Regulatory & certification testing

Electrical Engineering

- Electronic system architecture
- High-speed digital and analog design
- Single- and multi-core microprocessors from a 8- to 64-bit
- Single- and multi-radio RF integration
- Optimized battery-powered systems
- Single- and multi-touch user interfaces
- Digital audio and video systems
- Networks and communication
- Signal processing
- Signal integrity simulation
- High-complexity PCBA design
- FPGA design & simulation
- Microprocessor subsystem design

Software Engineering

- Architect, design and develop for:
- 8- to 64-bit processing systems C, C++, C#, Java, and other languages
- Bare metal, uCOSIMII, freeRTOS, Linux, iOS, Android, and Windows

Test Development

- In-circuit, Flying Probe, AOI
- Functional (board & system level)
- Environmental stress test

Device Technology

- Fast boot
- Battery power design
- Thermal/Power management
- DSP and PCB design
- SOM embedded & connected devices

MORE SOLUTIONS FROM LOGIC PD, MAC, QUALITRONICS, AND PROTECH



Learn more about our capabilities at MAC-Cable.com

Logic PD, MAC, Protech and Qualitronics have teamed up to form Compass Electronics Solutions: The premier partner for the design, development, manufacturing, and support of the world's most innovative products.



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