

Wire Harness Assembly

Built to Power What Matters Most

Power + Integration, not just manufacturing SBR Tech is a U.S.-based electronics manufacturing partner built for programs where reliability, precision, and integration matter. Our wire harness capabilities extend beyond build-to-print, delivering custom cable assemblies, electrical harness design, and high-voltage wiring systems engineered for demanding applications. From connectorization, terminal crimp validation, and overmolding processes to full system assembly, every step is executed with controlled, repeatable workflows. Our expertise in signal integrity, power distribution architecture, and ruggedized wiring solutions ensures consistent performance in harsh environments. SBR Tech helps OEMs simplify complex electrical systems while improving durability and long-term reliability.

At SBR Tech, wire harness assembly is approached as vehicle power integration systems, not just manufacturing . We design and build integrated cable systems with multiple terminations and complex configurations, supported by core capabilities such as:

- Cut, strip, and preparation
- Crimping and terminal crimp validation
- Soldering, tinning, and heat shrink application
- Routing, bundling, and final assembly

Our process is driven by digital work instructions and step-by-step execution, ensuring repeatability across every program. Each harness is constructed through a layered architecture designed for performance and protection:

- Conductors for power and signal transmission
- Insulation to prevent shorts and maintain integrity
- Optional shielding for EMI resistance and signal stability
- Outer jackets for mechanical strength and environmental sealing

From wire preparation through final QC and packaging, our workflow supports prototype-to-production scaling while maintaining strict quality assurance testing and supply chain integration.

We also bring engineering into every stage of development, evaluating space constraints, installation preferences, electrical load management, and environmental conditions such as temperature, chemicals, humidity, and flexibility. Our teams support automotive electrical integration, CAN bus systems, and mission-critical electronics across military, aerospace, industrial truck, and machinery markets. This combination of electromechanical assembly expertise and real-world application knowledge allows us to deliver harnesses that meet the highest expectations for reliability, on-time delivery, and performance. The result is a partner that moves beyond components – providing complete, application-ready systems designed to perform when failure is not an option.