Rapid Prototyping

Ingenicomm provides a full range of rapid prototyping services, including hardware and software prototyping. Rapid prototyping can help verify a design, communicate an idea, and fix design issues early in the development process, preventing costly changes once a product is in production or operation. Ingenicomm’s prototyping support capabilities include proof-of-concept and risk-reduction development, preliminary design qualification and testing, and fast-turnaround hardware manufacturing and integration.

Hardware Prototyping

Ingenicomm offers rapid hardware prototyping services for custom design needs with unique challenges. Ingenicomm’s hardware development expertise spans the range of schematic design, PCB design, and FPGA design, and from micro-miniature microcontrollers to high-density designs using high pin count BGAs. Ingenicomm has extensive in-house fabrication, assembly, and test capabilities that allow us to rapidly build, test, and demonstrate custom designs and proof-of-concept assemblies.

Software Prototyping

Ingenicomm’s extensive software lifecycle expertise can be leverage to rapidly develop and demonstrate functional prototypes of high-performance software for unique mission requirements. Ingenicomm’s software engineering capabilities span the range from enterprise application architecture to driver development. Ingenicomm’s software engineers are proficient with a variety of operating systems, programming languages, and development tools.

System Prototyping

Ingenicomm provides comprehensive in-house prototyping for specialized integrated system assemblies, including, portable, ruggedized, and secure systems. Ingenicomm’s capabilities include subframe assembly and welding, component mounting, cable manufacture and integration, and environmental enclosure and isolation. Ingenicomm can provide prototypes for unique weight, size, and power requirements, including assemblies for manned and unmanned vehicles.

Prototype Integration

Ingenicomm’s expertise with all phases of mission support allows us to offer unparalleled capabilities for multi-stage prototype integration and demonstration. Ingenicomm can integrate multiple proof-of-concept hardware and software prototypes to demonstrate the feasibility of anything from a single integrated system to an entire multi-site ground segment. Ingenicomm provides a comprehensive range of functional and performance demonstrations to validate the technical capabilities of integrated prototype equipment.