

Converge Engineering Services

Converge owns and operates a 27,000 sqft innovation center housing all of the tools and equipment required for the design, development and testing of innovative electrical and mechanical products and processes. Converge is led and staffed by a diversified set of engineers experienced in product design and development across multiple industries and consumer segments. Our primary focus is electro-mechanical integrated systems and systems of systems directed to aerospace, defense, automotive, manufacturing, consumer products, and medical devices.

Converge is a cost-effective and efficient product development company with a history of successfully assisting our customers with their engineering, prototyping and production needs.



Industrial Design

Component and System Level Modeling; Solidworks, Keyshot, Adobe Suites, Motion Capture; Sketching and Conceptualization; Form, Fit, Function, Feasibility Analysis

Mechanical Design

2D and 3D Modeling; Process and Product Design; Discreet Finite Analysis; Trade-Off Analysis; Shaping, Molding; Printing, Bending, Joining of Materials; Physical Testing

Developmental Prototyping

Prototype development from functional component through launch ready functional beta product. Testing services to pre-qualify systems for standardized UL, FCC, MIL-STD or other certifying tests.



Product Ideation

Concept to product on paper through lean-canvas; BOM Build-ups; Supply Chain Analysis; Design to Manufacture Methodologies

Electrical Design

Component Level Design; PCB Layout; Assembly and Test; System Modeling; Hardware Testing; Micro-Controllers; Integrated Systems; Automation; Robotics

Software/Firmware Design



Applications; Apps; Embedded Development; Custom Communication Stack Development; IoT; Boot Loaders; Custom Testing Software; Automation; Automated Hardware Testing

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Contact Us

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Engineering Case Study GhostWave

GhostWave is an innovative radar design and development company founded based on technology exclusively licensed from The Ohio State University. Converge has supported GhostWave throughout its all phases of its product design and development cycle.

> Converge supported the development of the software required to operated the radar system. This included controllers, processors, networking, embedded and Matlab code.

Converge created the digital electronics design for the radar system which was used to identify components and fabricate the PCB. Converge was able to design a very complex system which was also low-cost. Converge completed numerous product ideation sessions with GhostWave and potential OEM customers. These sessions focused application/integration of the radar into everything from UAVs to self-driving cars.

GhostWave licensed patents for a novel radar system from Ohio State. Converge provided modeling, simulation and design support required to turn the issued patent into a realworld functioning system. Converge worked with GhostWave and Ohio State Researchers to develop functional prototypes of a series of radar systems with specific requirements. Converge follows a design to manufacture process. Converge designed the PCB layout, the radar housing and mounting mechanisms for the radar. Additionally, Converge design and developed a low-cost high-capability UAV system to provide a platform for testing.

"From product design throughout development and manufacturing, Converge has delivered exemplary engineering support for GhostWave's innovative radar systems." Dean Zody, Founder of GhostWave



Go to **www.convergetechs.com** for more information.