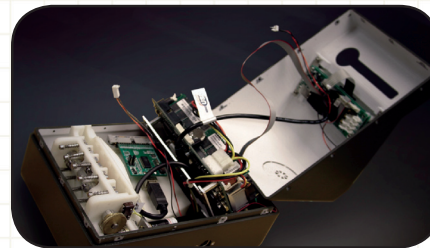


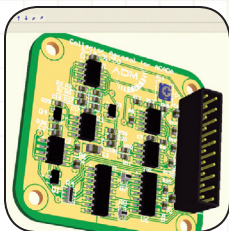
ECBC ENGINEERING
Design→Build→Test→Support

ECBC ENGINEERING PRODUCT DEVELOPMENT FACILITY ADVANCED DESIGN AND MANUFACTURING ELECTRONIC DESIGN AND INTEGRATION

The Edgewood Chemical Biological Center (ECBC) Engineering Directorate Advanced Design and Manufacturing (ADM)'s Electronic Design and Integration Branch combines expertise in Electrical Engineering, Electronics Engineering, and Computer Science. ADM's emphasis is on custom electronic and electrical design support activities including electronic circuit board design, electronic circuit analysis and simulation, and electronic circuit board layout. ECBC's capabilities also include electronic module and cable assembly, and computer software development to support functional integration.



CONCEPTUAL DESIGN



The ability to prototype, design and deliver electronic solutions that meet customer goals is our core mission. Concurrent collaboration with mechanical, electrical, and manufacturing engineers allows for the development of designs and models varying from conceptual through fielded products.

INTEGRATED ELECTROMECHANICAL DESIGN



Integrating the electromechanical design capability with current technology allows new design concepts and devices to be realized. Prototypes are developed for functional evaluation to determine the overall benefit to the war fighter. On-site capability of electronic circuit design, 3D modeling, and circuit board layout software provide support services

ranging from rapid prototyping to full program support integration. ADM also specializes in the electromechanical integration of specialized ChemBio payloads onto unmanned robotic platforms for hazard detection, collection and identification for military and first responder operations.

Capabilities

- IPC/EIA J-STD-001D Soldering Certification
- Focused network of organic and commercial partners
- Integrated system design approach
- Conceptual design
- Electronic circuit design
- Integrated electromechanical design
- Electronic circuit board layout design
- Electronic circuit analysis and simulation
- Automated testing and data acquisition
- Electronic module and cable assembly
- Circuit board and cable repair
- Real time software and embedded systems
- Detector design leveraging current detection technology
- System integration

Facilities Description

- Robotic and Unmanned Vehicle Integration Laboratory
- Robust Electronic Prototyping Laboratories
- Electrical Integration High Bay

Software and Hardware

- Altium Designer PC board design software
- SPICE circuit simulation
- FPGA and Microcontroller design software
- Topological auto-routing software
- SolidWorks, LabVIEW, Visual Studio



For more information, please call 410.436.5542 or e-mail ecbc-adm@conus.army.mil



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