#### **ECBC ENGINEERING**

Design→Build→Test→Support

# ECBC ENGINEERING PRODUCT DEVELOPMENT FACILITY ADVANCED DESIGN AND MANUFACTURING

Mission Statement: Use integrated design, engineering and manufacturing to get the right technology to the right place, at the right time.

The Edgewood Chemical Biological Center (ECBC) Product Development Facility (PDF), Advanced Design and Manufacturing (ADM), is a division of the Engineering Directorate that provides design and manufacturing services using state-of-the-art equipment following rapid development processes. ADM maintains the stateof-the-art technologies and qualified personnel to rapidly execute complex projects covering all aspects of interdisciplinary design and development specializing in Chemical, Biological, Radiological, Nuclear, Explosive (CBRNE) requirements. Fully integrated with extensive manufacturing capabilities, ADM provides rapid response lifecycle solutions. ADM's concept-to-product process allows efficient optimization of design, performance, manufacturability cost and schedule.

The ADM division of ECBC, with a staff of over 140 technical specialists, is organized into functional teams surrounding it's core capabilities. The core competencies are listed below, including a more detailed description of each area.



### ENGINEERING DESIGN AND ANALYSIS

This interdisciplinary group combines expertise in mechanical engineering, physical science and computational analysis. The focus is product development from initial concept thru low-rate production, with an

emphasis on sound engineering principles and solution optimization.



# ELECTRONIC DESIGN AND INTEGRATION

ADM combines expertise in electrical/ electronics engineering, and computer science to develop custom designs and prototypes including electronic circuit boards, electronic circuit analysis and simulation, software development, integration of sensors

and the rapid development of electro-mechanical prototype systems.



### RAPID TECHNOLOGIES LABORATORY

The Rapid Technologies Laboratory is a state-of-the-art facility equipped with an array of high-end Additive Manufacturing and 3D Data Capture

capabilities. The suite of five labs is home to nine different RP machines, non-contact laser scanners, a touch probe portable coordinate measuring machine and a variety of supporting software packages. The facility was developed to support ADM's rapid product development and quick turn-around design solutions by providing the ability to produce functional parts within hours of design concept.



## FABRICATION AND INTEGRATION FACILITIES

ADM's 90,000 square feet of manufacturing and high bay integration facilities are staffed with highly skilled craftsman and manufacturing specialists, operating versatile facilities for the prototyping of complex

systems and rapid production of mission critical items. Fully integrated with design and engineering, this facility enables ADM to rapidly design, prototype and produce a wide variety of items.



### CONCEPTUAL MODELING AND ANIMATION:

ADM's Conceptual Modeling and Animation capability provides the ability to accurately represent a customer's vision by creating specific visual depictions. Emphasis is placed on the creation of precise virtual models, constructive models, and realistic animations

for concept development, command briefing, interactive training aids and informative multimedia.



ADM combines world class engineering, state-of-the-art manufacturing, and additional Engineering services to provide an unbeatable comprehensive capability from concept to production with solutions that are **better**, **cheaper**, **and faster**.

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





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