



ELECTRONICS DESIGN AND DEVELOPMENT LABORATORY

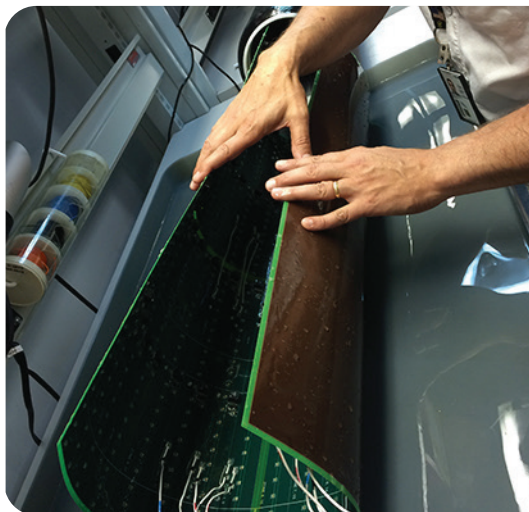
LABORATORY INFORMATION FACT SHEET

CONTACT US:

Technology Transfer Office

Email: usarmy.pica.devcom-ac.mbx.t2@army.mil

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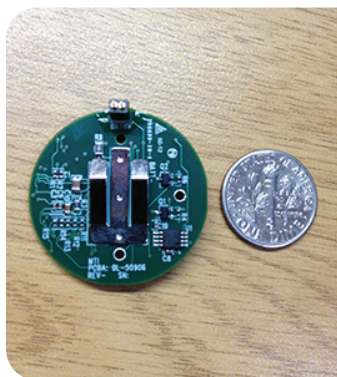


The Electronics Design and Development Laboratory, located at Benét Laboratories, is a multifaceted facility focused on armament related electro-mechanical components.

TECHNOLOGY/FACILITY DESCRIPTION:

The Electronics Design and Development Lab is responsible for electro-mechanical component design for all aspects of complete cannon systems, including cannon system controls and actuation, tubes, breeches, direct fire mounts, controlled actuation, ignition,

round retention devices, cooling systems, scavenger systems, and more. The Lab's technical capabilities include engineering design, fabrication, and testing using state of the art tools. The Lab helped to develop an armament health monitoring mechanism called the Electronic Thermal Warning Device (ETWD). The ETWD is a battery powered embedded system that can be mounted to recoiling components. Unlike older thermal warning devices, the ETWD does not use mercury to measure temperature. Therefore, it provides a more accurate measurement of tube heat without any environmental concerns.



EQUIPMENT AND EXPERTISE AVAILABLE:

- Mentor Graphics - PADS Schematic & PCB Design Software
- MathWorks - Matlab, Simulink, Stateflow, Simulink Coder, Simulink Real-Time
- MathWorks/Speedgoat Embedded Real-Time Hardware-in-the-Loop Platform
- Microsoft Visual Studio
- Cypress PSoC Designer & Creator
- Microchip MPLAB/MPLABX
- LTSpice IV
- National Instruments LabVIEW & SignalExpress
- DASYLab
- CREO+Pro/Cabling
- Diagnostic Instrumentation
- PCB Inspection & Repair Station
- Printed Circuit Board (PCB) Design
- Firmware Development
- Matlab Programming
- Embedded Controls
- Power Management
- Cable Design
- Electrical Integration
- Diagnostics & Repairs
- Project/Program Management