U.S. ARMY

DEVCOM GROUND VEHICLE SYSTEMS CENTER

U.S. ARMY COMBAT CAPABILITIES DEVELOPMENT COMMAND GROUND VEHICLE SYSTEMS CENTER

Growing your business with Tech Transfer	**05 SEPT 2023**

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GROW YOUR BUSINESS WITH TECH TRANSFER

Through technology transfer, businesses of all sizes have partnered with DOD labs to significantly cut time and resources from their R&D efforts, bringing new products and services to market with speed and efficiency.

U.S. Investment in R&D

- Federal research and development efforts strengthen the U.S. innovation base and promote job growth, national security, and leadership in essential and emerging technologies.

Tech Transfer Enables Private Sector Opportunity

- U.S. policies and legislation over the decades have established a framework for the federal government to transfer its technology to the private sector. These laws enable the nation's investment in R&D to promote economic development and invite private sector investment.

Get Products to Market with Speed and Efficiency

- Technology transfer mechanisms like licensing allow U.S. companies to develop and commercialize products derived from government-funded R&D advances.

Move Technology from Lab to Market

- Technology transfer moves technology from lab to market, meeting global and national challenges with solutions that promote economic growth and secure our future.

WHAT ARE TECH TRANSFER MECHANISMS

1) Cooperative Research and Development Agreements (CRADA)

2) Testing and Services Agreement (TSA)

3) Patent Licensing (PLA)

WHAT IS A CRADA

- A Cooperative Research and Development Agreement (CRADA) is a Technology Transfer (T2) mechanism that **establishes a cooperative relationship between a federal laboratory and its collaborator(s).**
- The purpose of a CRADA is to leverage each Party's resources toward a common or mutually beneficial objective.
- Parties may contribute resources including access to personnel, facilities, equipment, and intellectual property (IP).
- **CRADAs allow federal laboratories to receive funds from collaborator(s), but they are unable to provide any funds to collaboration partner(s).**

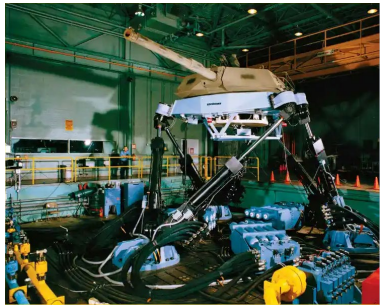
CRADAs are appropriate **when ideas, staff, materials, equipment will be exchanged over a period of time** to advance science and technology efforts consistent with their Army mission, while having potential commercial viability.

Get Started Go to: https://www.usarmygvsc.com

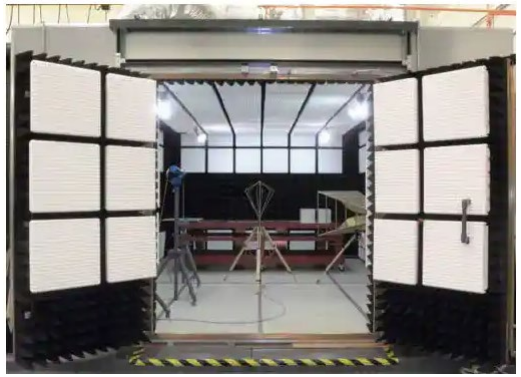
TESTING AND SERVICES AGREEMENTS (TSA)

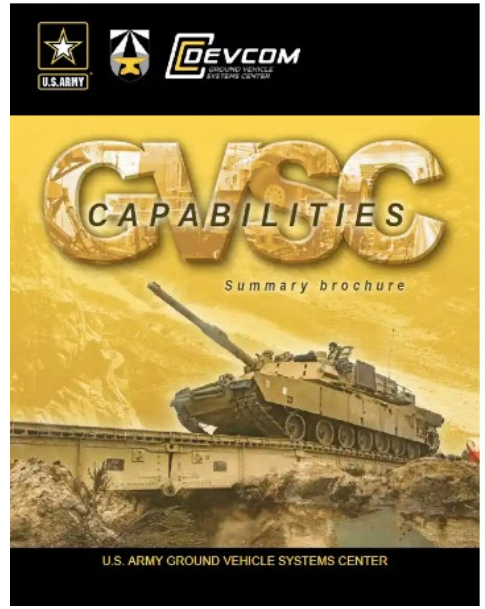
GVSC Laboratory Facilities/Capabilities are available for Testing Purposes

1) Testing can be purchased “at cost” (Laboratories do not make a profit).
2) Government does not derive any rights in or to the purchaser’s Intellectual Property
3) Test Results are confidential and may not be disclosed outside of the Federal Government without the consent of the purchaser



EOS M290 - Metal Printer





GVSC Lab Capabilities

LABS AVAILABLE FOR TEST SERVICE AGREEMENTS

- **Durability Test Laboratory (DTL)**
  - Electro-Dynamic Shaker Tables
  - Full Vehicle Environmental Chamber (VEC)
  - Full Vehicle Shakers (N-POST)
  - Heavy Suspension System Tester
  - Multi-Axis Shaker Table (MAST)
  - Noise and Vibration Data Acquisition and Analysis
  - Trailer Shaker, Pintle Motion Based Simulator (PMBS)
  - Uniaxial Tension Compression Testers
  - Vehicle Inertial Properties Evaluation Rig (VIPER)
  - Vehicle Suspension Dynamometer
- **Force Protection Technology (FPT)**
  - Army Petroleum Laboratory (APL)
  - Bridge Technology Laboratory BTL)
  - Fuel and Water Equipment Branch Laboratories
  - Fuel and Lubricants Laboratory (FLL)
- **Force Protection Technology (FPT)**
- **Ground Systems Cyber Engineering (GSCE) Laboratory**
  - Compact Custom Development Lab (CCDL)
  - Heavy Truck Systems Integration Lab (SIL)
- **Ground Systems Power and Energy Laboratory (GSPEL)**
  - Air Flow Laboratory (AFL)
  - Electric Component Laboratory (ECL)
  - Energy Storage Laboratory (ESL)
  - Power & Energy Vehicle Environmental Laboratory (PEVEL)
  - Robotic – Power & Energy Vehicle Environmental Laboratory (R-PEVEL)
- **Ground Vehicle Materials Engineering (GVME)**
  - Advanced Material Applications & Manufacturing
  - Environmental, Coatings & Corrosion
  - Joining – Welding/Mechanical Fasteners/Adhesives
  - Rapid Prototyping Laboratory
- **Ground Vehicle Robotics (GVR)**
- **Ground Vehicle Survivability & Protection (GVSP)**
  - Occupant Protection Lab (OPL)
    - Anthropomorphic Test Device (ATD) Certification Lab
    - Component Impact Simulator (CIS)
    - Crew Compartment Underbody Blast Simulator (CCUBS)
    - Floor Interface Technology Accelerator (FITA)
    - Head Impact Lab (HIL)
    - Occupant Protection Laboratory Off-Site Testing Support
    - Ride Motion Simulator (RMS)
    - Sub-System Drop Tower (SSDT)
  - Rapid Evaluation Capability (REC)
  - Special Systems and Component Engineering Lab
  - Survivability and Ballistics Lab (SABL)
  - Vehicle Protection Integration Lab (VPIL)
- **Propulsion Systems Laboratory (PSL)**
  - Combat Vehicle Powertrain Laboratory (CVPL)
  - Engine Research and Development
  - Engine Testing and Development
  - Power & Inertia Simulator (PAISI)
- **Prototype Integration Facility (PIF)**
- **Real Time Control Systems (RTCS) Laboratory**
- **Software Engineering Center (SEC) Ground Systems Software Integration Laboratory (GSSIL)**
  - Armored Multi-Purpose Vehicle
  - Bradley Fighting Vehicle (BFV) Systems Integration Lab (SIL)
  - Mine-Resistant Ambush Protected-Integrated Bridge (MRAP-IB)
  - Predictive Logistics (PL) Systems Integration Lab (SIL)
  - STRYKER Family of Vehicles (FoV)
- **Vehicle Electronics and Architecture (VEA)**
  - Electromagnetic Compatibility (EMC) Laboratory

GVSC PATENT PORTFOLIO - TECHLINK

https://techlinkcenter.org/

DEVCOM Ground Vehicle Systems Center

The U.S. Army DEVCOM Ground Vehicle Systems Center develops and sustains technologies for manned and unmanned Department of Defense ground systems and combat support systems.

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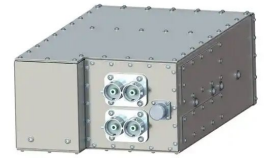

FEATURED

Zeus 200 kW silicon carbide inverter

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DEVCOM Ground Vehicle Systems Center

The Zeus is a fully matured high power DC/AC inverter developed by Alexander Soles at the U.S. Army's DEVCOM Ground Vehicle Systems Center in Michigan.

The technology uses a silicon carbide (SiC) half-bridge unit and a liquid-cooled cold-plate cooling unit to enable high power applications in an ultra-compact container (411x249x140mm) at high operating temperatures.

The Zeus, which was developed to support vehicle power generation, can enable a 600V bus from an integrated starter-generator.

Interested in learning more about this technology?

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Featured

Express License

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Composite enclosures for explosive reactive armor
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Adjustable spacer assembly for electromagnetic compatibilit...

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Defect detection system using finite element optimization an...

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THANK YOU.

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