

# Vehicle Security

We welcome your inquiries.  
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Southwest Research Institute® is a premier independent, nonprofit research and development organization. With multiple technical divisions, we offer multidisciplinary services leveraging advanced science and applied technologies. Since 1947, we have provided solutions for some of the world's most challenging scientific and engineering problems.



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**Multidisciplinary**  
**Extensive Lab Resources**  
**Client Confidentiality**  
**Independent / Nonprofit**

# Security & Vehicular Systems Capabilities

## Why SwRI?

- Independent, nonprofit, applied R&D
- Client-confidential design, test and evaluation services
- Patent rights arising from sponsored research at the institute are often assigned to the client\*
- Multidisciplinary approach
  - Security
  - Automotive research
  - Embedded systems
  - Connected / autonomous vehicles
  - Hardware / software / wired / wireless
  - Digital circuitry
- CMMI Level 5 rating

\* SwRI generally retains the rights to Institute-funded advancements.

## Experience

- Vulnerability analysis
- Penetration testing
- Security risk assessment and best practices
- Vehicle-to-vehicle (V2V)
- Autonomous vehicles
- Dedicated short-range communications (DSRC) radio
- Consumer, commercial, military and off-highway vehicles
- Requirements analysis, design, prototyping, integration and testing
- National and international standards-based development
- Serving the automotive industry since 1947
- Industry experts on EV charging cybersecurity

## Facilities & Resources

- 1,200-acre campus instrumented with DSRC radios, signage and representative obstacles
- Over 1,000 staff members working on automotive-related projects
- State-of-the-art dynamometers with computer-based control systems
- Automobile test track
- Vehicle-size chambers and open ranges for RF testing
- More than 2 million square feet of laboratories and offices
- Reverse engineering and penetration testing tools
- Broad range of network, communication and security tools
- Configurable EV charging test environment

