

The Challenge

The Larson Institute at Penn State needed a turnkey data acquisition system for acquiring timestamped strain, acceleration, and temperature data from anti-ram barrier crash testing.

The Solution

The Larson Institute's Crash Safety Research Team conducted full-scale testing of anti-ram barrier protection system for the U.S. Department of State. These tests involved many different types of structural systems for protecting DoS interests worldwide. In these tests, 50-plus channels of dynamic strain, acceleration, and temperature were monitored using a Chameleon data acquisition system. The system timestamped input events for synchronizing with high speed motion analysis.



System Features

The Chameleon System –

- 48 Strain Channels
- 16 DSA Channels
- 32 Thermocouple Channels

Hardware:

- PXIe-1075 18-Slot Chassis
- PXIe-8133 Controller
- PXI-4498 Dynamic Signal
- PXIe-4353 Thermocouple
- PXIe-4331 High Speed Strain
- PXI-6682H Synchronization Module



Benefits of Using Chameleon

- Flexible, Scalable, Turnkey
- Time and Frequency Acquisition
- Live Signal Monitoring
- Data Display and Processing
- Data Export to .mat or CSV
- Easily Re-Configured
- Multiple Repeated Acquisitions
- Pre-Triggered Acquisition
- Rugged and Reliable

www.ChameleonDAQ.com

Contact us for more information about the Chameleon System or custom-engineered Data Acquisition, Automated Test & Measurement, Machine Vision, and Process & Motion Control systems.



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SYSTEM INTEGRATION