

Quality, Service, Value

Military & Aerospace Testing Systems

Exceeding Expectations from Requirements to Delivery

Innovative Test and Measurement Systems, Developed with CMMI Practices, Delivered On Time, and On Budget for Results that Exceed Expectations

VETERAN OWNED

V I Engineering is a Veteran Owned Small Business that specializes in providing test and control systems, consulting services, and staffing services. With sustained growth since 1992, V I Engineering has delivered the results that Aerospace, Defense, and Advanced Technology customers require.

TEST AND CONTROL SYSTEMS

V I Engineering integrates advanced software skills and state-of-the-art hardware and electrical design knowledge with an expert understanding of the test and measurement domain. Past applications include controller simulation, mechanical test systems, electrical test systems, RF and communications test systems, real time control systems, and combinations of each. Capable of handling projects of any size, V I Engineering offers flexible and scalable services that are designed to meet specific budget, quality, and schedule requirements, while delivering maximum customer Return On Investment.



ATE SERVICES

- ◆ Specification Development
- ◆ Mechanical Subsystems
- ◆ Electrical Subsystems
- ◆ Vision Inspection
- ◆ Interface Test Adapters
- ◆ Test Program Sets
- ◆ System Self Test
- ◆ Data Management

CONSULTING AND TRAINING SERVICES

For organizations that develop ATE systems internally, V I Engineering provides technical and process consulting services. Technical consulting is available in all of the ATE service areas. V I Engineering's process consulting services tailor CMMISM practices to meet each customer's test engineering requirements. In addition to customized consulting services, V I Engineering also offers advanced LabVIEWTM and TestStandTM training.

STAFFING SERVICES

For customers requiring onsite support for six months or longer, V I Engineering provides a wide range of test engineering specialists on a contract basis.



Data Acquisition and Control System for Jet and Rocket Engine Testing

EXPERTISE IN MULTIPLE SOFTWARE LANGUAGES

- ◆ LabVIEW and LabVIEW RT
- ◆ LabWindows CVI
- ◆ C# .NET
- ◆ Visual Basic
- ◆ TestStand
- ◆ DIAdem

For more information, visit the new V I Engineering web site at viengineering.com

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VI ENGINEERING, INC.
VALUE • INTEGRITY

Complete Test and Measurement Solutions that Exceed Expectations

ATP Test Station for Communication Payloads



VI Engineering developed the Test Program Sets for executing the system level Acceptance Test Procedure for a military communications payload. The test system includes both manual and automated execution options for testing interfaces (Ethernet, RS-232, RS-422/423, Key Fill, GPS, Intercom, BIT), RF characteristics (Spectrum, Power, Sensitivity), and waveform communication (SINCGARS, WNW, SRW).



ATE FOR ALL PRODUCT LIFECYCLE PHASES

- ◆ Modeling and Simulation
- ◆ Qualification and Design Validation
- ◆ Functional Performance
- ◆ Environmental Stress Screening
- ◆ Component & Integration Test
- ◆ Acceptance Test

Jet and Rocket Engine Data Acquisition and Control System

VI Engineering developed a turn key data acquisition and control system for Wyle Laboratories' Jet and Rocket Engine Test Site. The system provides real time control and data acquisition for test articles with thrusts up to 50,000-lb. The system uses LabVIEW RT and distributed PXI controllers and chassis to control 192 channels and acquire data for 288 channels.



Electric Brake Actuator Test System



VI Engineering developed a turn key system for verifying the performance of the electric brake actuator on the Boeing 787 aircraft. This system verifies the force and linear displacement of the brake actuator and includes built in self test. A predefined test sequence executes the behavior of each actuator, compares that behavior to expected limits, and generates a report.

On-Wing Engine Diagnostic Tool Kit

VI Engineering developed an On-Wing Engine Diagnostic Tool Kit for a large aircraft engine manufacturer. The tool kit allows testing of aircraft engines that are mounted in flight position and powered up, saving maintenance time and money previously associated with removing the engines. The test procedure follows a pre-programmed schedule for RPM, Temperature, or Pressure set points and logs the steady value at each set point for the duration of the test.



VI Engineering

VI Engineering's headquarters are located in Farmington Hills, MI. with engineering offices in White Bear Lake, MN. and Indianapolis, IN.

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Tactical Bridge Vehicle Crossing Simulation

VI Engineering developed a data acquisition and control



system for a tactical bridge vehicle-crossing simulation system for TACOM. The system controls 100 klb hydraulic cylinders that are used to simulate a tank crossing a portable bridge. Data acquisition capabilities provide measurement and storage of load stresses on the bridge.

Ammunition Handling System Emulator



VI Engineering created an R&D simulator to emulate the Turret System Electronic control Unit (TSEU) that controls General Dynamics' MGS ammunition handling system. The TSEU Emulator is a PXI-based system that allows for control and validation of the complex MGS auto-loading and replenishing systems.

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For more information visit our new web site at viengineering.com