

Capabilities Statement

Control & Automation Engineering LLC (CAE)

Broken Arrow (Tulsa), Oklahoma | Founded 2007 | Small Business
DUNS: 031639928 | UEI: N844FQQ2Y585 | CAGE: 9L4M9

NAICS Codes: 238210, 334112, 335311, 334513, 334515, 335314, 335931, 334519, 335999, 541330, 541512, 811310, 8112.

Company Overview

SECURE AUTOMATION | MISSION-CRITICAL ENGINEERING

CAE provides turnkey industrial automation and control systems engineered for defense-grade reliability, cybersecurity, and compliance. From concept to commissioning, our solutions enhance operational readiness, safety, and regulatory alignment across DoD environments. We deliver responsive, high-quality services tailored to mission objectives—supporting installations, logistics, and defense manufacturing with precision and accountability.

Core Capabilities

ELECTRICAL ENGINEERING

Power Distribution Center (PDC) Design
PDC Piers and Elevation Drawings
Structural Support Drawings
4160 VAC Switchgear Design
480 VAC MCC Design
Short-Circuit Analysis with SKM/ETAP
Load Studies

Variable Frequency Drives (MV/LV)
Single-Line Drawings
3-Line Drawings
Motor Starter Schematics
Soft start / Shared VFD Start
Transformer Design
Voltage Drop Calculation

Cable Tray Design and Layout
Tray Loading and Cable Sizing
Automatic Transfer Switch (ATS)
Uninterruptible Power Supply (UPS)
Backup Generator Design
Electrical Systems Troubleshooting
SEL Motor Protection Design (MPR)
RTAC Motor Protection Monitoring

AUTOMATION AND CONTROLS ENGINEERING

Distributed Control Systems (DCS)
Safety Instrumented System (SIS)
ISA S84 Compliant
Cabling System Solutions

PLC Design / Fabrication / Programming
Control Panel Design & Fabrication
Graphics Configuration
Jet Engine Test Platforms

PIE Historian
SCADA system design
PID Tuning (ZN Closed & Open Loop)
Automated Testing Systems



INSTRUMENT ENGINEERING

Transmitter Selection
 Instrument Data Sheets
 Legacy Transmitter Upgrades

Flow Coefficient (CV) Calculations
 Instrument Index Integration
 Reverse Engineering

Thermowell Wake Frequency Calculations
 Alarm & Setpoint List Integration
 Loop Checks and Transmitter Calibration

PROJECT MANAGEMENT & CONSTRUCTION SUPPORT

Total Installed Cost (TIC) estimates
 Expense Tracking

Gantt Chart and Schedule Administration
 Customer Oversight Support

Resource Allocation monitor & control
 Factory Acceptance Testing (FAT) inspectors

AUTOCAD AND DESIGN SERVICES

P&ID Creation and conversion from PDF
 Paper Drawing Recreation

Redline Drawings
 Drawing Block Creation

CAD Design Services
 Custom Title Block Creation

PROJECT HISTORY

PROJECT

- Stealth Bomber IDG / Load Bank / Thrust Reverser / Hoist JB
- Universal Power Supply (UPS) Systems GC1/2/3
- Medium Voltage (MV) and Low Voltage (LV) Switchgear and MCC
- Power Distribution Center (PDC) 3D scan and Drawing Creation
- Honeywell Experian Control System GC1
- Honeywell Experian Control System GC2
- Honeywell Experian Control System GC3
- Air Separation Unit (ASU) Control System
- Burner Management Systems (BMS) per NFPA85
- Computer Control System for Paint Booth
- Instrument Transmitter Racks
- Chemical Plant FEED study (Front-End Engineering & Design)

CAPITAL

\$400k
 \$300k each
 \$3MM each
 \$500k
 \$1.5MM
 \$2MM
 \$2MM
 \$750k
 \$25k each
 \$50k
 \$100k each
 \$3.3MM