



## A44 COMPANY — Contractor Profile

Independent Controls, Software & AI-Accelerated Engineering Consultancy

### Who I Am

I'm a multi-discipline engineering consultant specialising in control systems, full-stack software development, HMI/UI, and AI-accelerated engineering workflows across locomotives, agricultural machinery, off-highway equipment and industrial automation.

### Core Expertise

Parker IQAN – MC43, MD4, XC41

Control logic, state machines, safety interlocks

Hybrid traction, HV bus & inverter control

BMS logic – SoC, thermal, protection strategies

CAN/J1939 architecture, diagnostics & DBC design

HMI development using Qt / MD4-7

Full-stack tooling – React, TypeScript, Electron, Node.js

AI-assisted debugging, workflows & automation

### Consulting Services

Control system development & architecture

Hybrid traction logic & HV system integration

BMS modelling & protection logic

CAN/J1939 diagnostics & network design

HMI/Qt development for industrial systems

Deep debugging, diagnostics & project rescue

Full-stack tools, internal apps & automation

AI-engineering workflow integration

### **Industries Served**

Hybrid/Electric Locomotives

Agricultural & Off-Highway Machinery

Industrial Automation & Hydraulics

EV/Hybrid R&D; Platforms

Robotics & Prototype Systems

### **Why Organisations Choose A44 Company**

Cross-discipline skillset – Controls, HMI, Software & AI

Rapid onboarding, minimal oversight required

Strong analytical communication & documentation

AI-accelerated workflows & rapid turnaround

Outside IR35 • PI Insured • Remote-first consultancy

### **Contact**

A44 Company

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