



Control Software Engineer – Arcola Energy

Job Description

Control software development from concept through to production control of fuel cell and battery systems for automotive, off-highway and stationary applications.

Purpose

Working within Arcola's Control Software team to develop control software forming part of fuel cell hybrid vehicles and stationary applications. The role comprises requirements capture, control strategy design, test results, diagnostics, and communications & system integration. Ensuring software meets safety, reliability and compliance requirements, and follows industry best practices for control system code including redundancy.

Outline

- Model-based System Design and auto code generation using Simulink & MATLAB.
- Hands on work testing prototype systems.
- Developing and implementing test plans (DVP).
- Capturing functional, safety and compliance requirements of control software.
- Contributing to FMEAs.
- Working with Simulation, Electrical and Mechanical teams to support effective whole system design.
- Working with Quality and Compliance Manager to ensure designs meet codes, standards and regulations.
- The position is based at Arcola's office in London but some remote work at customer sites will be required.

Person Specification

Required:

- Good degree in Computer Science, Electrical Engineering or other related engineering discipline.
- Knowledge in programming languages MATLAB/Simulink, C.
- Willingness to work cross-functionality in the Arcola team.

Beneficial:

- Knowledge of classical control theory, adaptive controls, optimal controls, and state space modelling.
- Experience using version control, ideally git.
- Knowledge of CAN bus and higher protocols e.g. SAE J1939, CANopen.
- Experience in development and undertaking of SIL, PIL and HIL tests to prove designs.
- Understanding of electrical systems e.g. batteries, power electronics, electric machines etc.
- Knowledge of DFMEA and V-Model software development process.
- General knowledge of functional safety and ISO 26262.

Terms and Conditions

Salary:	£35-40k dependent on experience.
Hours:	40 hrs/week. 9.30am-6pm Monday to Friday with half-hour lunch break. Occasional evening and weekend working (TOIL system in operation).
Holidays:	28 days annual leave, including public holidays.
Probation period:	3 months.
Access:	Arcola Energy is wheelchair accessible throughout.
Benefits:	Free tickets to Arcola Theatre shows (subject to availability). Arcola staff discount on food and drink in café/bar.