Controls and Functional Safety Engineer

Robot Cell Integration · Founding Team 2027 · AUX-ENG-SD-03

Reference	AUX-ENG-SD-03	**Level**	Senior, 6+ years
Reports to	Dr. Mamdouh Yanni, Founder and CTO	**Location**	On site in Dubai, at the first service bay and the pilot workshops
Employment	Full time, UAE employment contract	**Start**	Among the first hires once our Seed round closes (target 2027)

About Auxionetics

Auxionetics Artificial Intelligence L.L.C S.O.C is an IP-led robotics company in Dubai. Our patent-pending technology aims to let people and robots work safely side by side, and its first use will be the Smart Robot Mechanic: a car-service bay in which two collaborative arms will take on the repetitive, physically demanding work while a skilled technician stays in charge of every job. Six US patent applications and an international (PCT) application have been filed. We will run our own workshops in Dubai and license our Human-Robot Collaboration platform once it runs reliably in daily operation.

Why this role matters

People will work beside our robots every day, so safety is our product as much as speed. You will engineer the controls and safety architecture of the bay, lead its risk assessment, and take it through an independent assessment to ISO 10218 before any customer car enters it.

What you will own

- **Safety concept.** Define the bay's safety functions: speed and separation monitoring, safety-rated stops, zoning, interlocks and the lift interface.
- **Risk assessment.** Lead the risk assessment to ISO 12100 and the bay's application requirements under ISO 10218-2:2025.
- **Safety design.** Specify and validate safety functions to ISO 13849-1 (performance levels and verification).
- **Controls.** Design the electrical controls: PLC or safety controller logic, panels, I/O and fieldbus, with the Embedded and Electronics Engineer.
- **Assessment.** Prepare the technical file and support the independent safety assessor through to sign-off.
- **Procedures.** Write lockout, recovery and safe-intervention procedures with Operations and HSE.
- **Interns.** Mentor our summer intern AUX-INT-SD-04 each year: a defined 16-week project, weekly reviews and the final assessment.

Minimum qualifications

- A degree in electrical, control or mechatronics engineering.
- 6+ years in robot cell or machinery controls, including safety functions taken through validation.
- Working knowledge of ISO 10218, ISO 12100 and ISO 13849.
- Safety PLCs or safety controllers, safety laser scanners and light curtains.
- Clear written English.

Preferred qualifications

- A functional safety certification (for example TÜV FS Engineer).
- Collaborative robot applications and ISO/TS 15066 concepts.
- IEC 60204-1 electrical design.
- Experience supporting a third-party safety assessment.

Your first year

By	What success looks like
3 months	Safety concept and preliminary risk assessment approved; controls architecture defined.
6 months	Safety functions implemented and verified on the first bay; technical file in progress.
12 months	Bay independently assessed to ISO 10218 and released for supervised public service in the first pilot workshop.

How we work

- Safety by design. The bay will be engineered to ISO 10218-1/-2:2025 from day one; all work near robotic equipment follows a documented risk assessment and safety induction.
- **Measured, not claimed.** Targets are measured on real vehicles; simulation before hardware, review before merge.
- **Planned tools:** Safety PLC or safety controller, EPLAN-class electrical CAD, SISTEMA-class verification tools.

What we offer

- A founding role, working one-to-one with a founder who has almost 30 years of engineering experience, including 12 in Silicon Valley.
- A competitive salary; company-paid visa, work permit and health insurance; annual leave and end-of-service gratuity under UAE law.

Conditions. Every offer is conditional on the close of our Seed round, satisfactory checks, a UAE work permit, and an agreement assigning to the company the IP created in employment.

> **How to apply.** Email your CV and a short note on a safety system you have taken through validation to careers@auxionetics.com, quoting AUX-ENG-SD-03. Shortlisted candidates will have a technical interview and a risk-assessment exercise with Dr. Mamdouh Yanni. CVs are used only for recruitment and deleted within 12 months unless the candidate joins us. **Auxionetics is an equal-opportunity employer** and selects on merit alone.