

Automation & Controls Engineer (f/m/x)

Permanent employee, Full-time · Essen

Let's build the fossil-free future

At Greenlyte, we are reshaping the global fuel economy with our novel, IP-protected, direct air capture to fuels technology, which shows superior economic potential compared to existing approaches, even reaching fossil prices. Backed by leading European VCs and with commercial agreement from Lufthansa and MB Energy, we are deploying our first commercial facilities to prove commercial viability in the next 12 months.

Where Ambition Meets Purpose

We are not waiting for change. We are building it together. At Greenlyte, speed and collaboration define how we work. Our culture rewards initiative, learning, and teamwork. If you want to grow fast, take ownership, and shape real impact, this is the place to do it.

How you'll contribute

You'll play a crucial role in our Automation & Controls, bringing your deep experience in controls to implement groundbreaking products and automation to streamline how we assemble and test these products.

- Design, develop, and manage automation projects, including initial factory ideation, machine commissioning, proof of rate capability, and eventual hand-off to operational teams.

- Design and Implement code meeting non-functional requirements such as reliability, re-usability, maintainability, security and conforming to industry standard IEC 61131-3 at the highest quality
- Ensure factory safety and reliability by implementing products and test infrastructure compliant with applicable EN standards.
- Create aesthetically simple HMI screens to make complex processes and products easy to understand, operate, and troubleshoot.
- Design electrical systems compliant with VDE regulations.
- Program and implement machine safety software using safety PLCs.
- Work with Field Bus Networking protocols, preferably EtherCAT, Profinet, Profisafe, and Ethernet/IP.
- Apply industrial software to mechanical assemblies, electrical systems, sensors, and pneumatics/hydraulics, including safe checkout of these interdisciplinary systems prior to production implementation.

Your first 12 months in the role: expectations and deliverables

Months 0-3

Build your foundation. You will dive into project documentation and create electrical schematics, I/O lists, and network topologies for one of our test stands. You'll also play a hands-on role in Factory Acceptance Testing (FAT).

Months 3-6

Transition into software development. Partnering with the core team, you will develop PLC or HMI software for one of our test stands and support commissioning activities and system troubleshooting.

Months 6-12

Drive future upgrades. Support the design of future plants and independently drive upgrades for our existing test stands.

About you

Basic Qualifications

- Bachelor's degree in engineering, physics, or computer science.
- 5+ years of automation experience in a manufacturing and production environment.

Preferred Skills and Experience

- Enthusiastic about a quick and iterative design and manufacturing role.
- Demonstrated ability to solve complex problems with simple solutions in both design and implementation stages, while adhering to ISO 13849 safety requirements, with experience in international standards such as ANSI/RIA15.06/OSHA being a plus.
- Excellent written and verbal communication skills, and capable of collaborating with a diverse range of people and effectively working in a team.
- Able to perform in a high-pressure, dynamic environment and juggle multiple tasks simultaneously.
- Enjoys field work and hands-on tasks.

Experience in the following areas is required, and the ideal candidate should be eager to learn the fundamentals of any areas they are not yet proficient in.

Industrial Software:

- PLC programming in Structured Text according to IEC 61131-3 standards.
- Programming and implementing machine safety software using safety PLCs.

- HMI, SCADA, IoT (MQTT, OPC-UA), Ignition systems focusing on user-friendly navigation and machine health monitoring and control.
- Field Bus Networking protocols, preferably EtherCAT, Profinet, Profisafe, Ethernet/IP, Modbus.
- Applying industrial software to mechanical assemblies, electrical systems, sensors, and pneumatics/hydraulics, including safe checkout of these interdisciplinary systems prior to production implementation.
- Experience in power plant or chemical process industrial systems, or related fields
- Experience with electrical test equipment such as oscilloscopes, multimeters, and power supplies.
- Strong understanding of Control Theory topics (PID, Fuzzy Logic, MBC)

Electrical:

- Sizing cables, circuit protection, VFDs, motor starters, and other motion systems.
- Designing fail-safe electrical circuits using both safety logic controllers and safety-rated relays.
- Hands-on experience troubleshooting industrial electrical systems with tools like multimeters, oscilloscopes, and EMI probes.
- Proficiency in understanding and creating electrical schematics ~~~~(EPLAN, SolidWorks Electrical, or similar).
- Experience in designing and commissioning high-quality electrical panels and electro-mechanical systems with appropriate safety considerations.
- Knowledge of ISO 13849 and the ability to ensure compliance with control system safety standards.

What we offer

- 30 days vacation plus public holidays.
- The opportunity to shape and grow your role in a high-impact climate tech company.
- Founders who prioritize building a sustainable and transparent organization.
- A flat hierarchy and open communication culture where your work makes a visible difference.

Noteworthy points

This role cannot be done remotely. We require someone who lives within commuting distance to Essen or is open to relocate which we are happy to support.

About us

Greenlyte is an energy tech company enabling the scalable, cost-competitive production of resilient e-fuels for heavy industry, aviation, and shipping. The company's core technology, LiquidSolar™, converts CO₂ and renewable electricity into essential feedstocks for e-Methanol, e-Diesel, and Sustainable Aviation Fuel. Founded in 2022, Greenlyte has secured €55+ million in funding, secured 4 patents, and proven its technology with over 15,000 hours of system operation. Today, a team of more than 80 experts is working with major industrial partners to develop Greenlyte's first commercial plants. By 2050, the company aims to convert 100 million tonnes of CO₂ annually.

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