



ELECTRICAL ENGINEER

Employment Type: Permanent, Full-time

JOB SUMMARY

At Applied Companies, we are committed to satisfying our customers' needs and expectations by providing reliable products and outstanding service. As an Electrical Engineer, you will be responsible for the development of requirement-compliant designs in a DoD contracting environment. Design activities for this position focus on the development of unique electrical control designs, performing system load requirement analysis, component selection, control systems and packaging. This position is also responsible for the documentation of designs and generation of CDRLs/SDRLs using DoD guidelines.

SPECIFIC JOB RESPONSIBILITIES

- Develop electrical schematics and update those schematics through design, fabrication, and testing.
- Selection and programming of control solutions for HVAC units using mechanical devices as well as PLC controllers.
- Program Environmental Control Unit (ECU) operations (heating, cooling, PID controls, fault conditions, etc.) using ladder logic.
- Create high quality Programmable Logic Controllers (PLCs) and/or Human Machine Interfaces (HMIs) that allow for intuitive system control with multiple menus and submenus.
- Develop manual text and graphic based control interfaces, with the capability for remote monitoring and control via the network.
- Responsible for the design and fabrication oversight of multiple concurrent developmental efforts.
- Contribute to R&D efforts through a broad understanding of current state of the art electrical advances and an eye to emerging technologies.
- Responsible for the specification of electrical components, layout, and manufacturing approaches.
- Support design, manufacturing, test, and troubleshooting of electrical systems.
- Compose operation and maintenance manuals.
- Generate Software Interface Control Documents for ethernet or serial interfaces to customer machinery via industrial communications protocols and/or custom communications scripts.
- Draw system I/O diagrams for large distributed control systems with multi-input, multi-output steps.
- Electrical diagram creation using a combination of point to point and ladder techniques as required.
- Utilize 2D CAD programs such as AutoCAD or DraftSight to develop control system schematics for automated equipment.
- Test/debug equipment along with all integrated devices to ensure proper functionality.
- Install and test programs in a manufacturing/assembly environment.
- Complete engineering change notices, redlines, and software updates.
- Review customer specifications to determine and identify program requirements.
- Provide technical documentation including but not limited to ATPs, FATPs, System Requirements, Control Strategies, Software ICDs, etc.
- Implementing and having testing knowledge in Military or NIST standards for software development, cybersecurity, EMI/EMC and environmental ratings.

KEY RELATIONSHIPS

The Electrical Engineer reports directly to the Operations Manager and works hand in hand with the Chief Engineer, Technicians, and the Engineering department. They are also expected to work/collaborate with the Manufacturing, Purchasing, Program Management, and Business Development departments.



MINIMUM REQUIREMENTS

- Bachelor's Degree in Electrical Engineering and a minimum of 2-5 years of directly related work experience.
- Proficient in software programming languages such as C, VBA, Java, MATLAB, Python, Ladder Logic, etc.
- Knowledge of Programmable Logic Controllers or similar off the shelf devices.
- Understanding of engineering concepts and procedures and a familiarity with electrical circuits and devices.
- Proficient in 2D CAD programs such as AutoCAD or DraftSight.
- Theoretical understanding of PID (proportional-integral-derivative) control algorithms.
- Self-starter who's not afraid to deep dive into unfamiliar areas and learn quickly in order to be efficient.
- Impeccable attention to detail.
- Strong communication and people skills.
- US citizen or permanent resident (Green Card holders) due to Government ITAR regulations.

DESIRABLE

- Master's degree in Electrical Engineering from an ABET accredited institution
- Experience with webpage development for control and monitoring. SCADA experience applicable.
- Knowledge with industrial control systems hardware including relays, contactors, disconnects, circuit breakers, push buttons, toggle switches, indicator lights, etc.
- Experience implementing FDs and EC motor controls.
- Understanding of NFPA 70 and UL508 electrical standards, wire sizing, contactor sizing, NEMA ratings, IP ratings, etc.

TRAVEL: Some travel may be required.

ABOUT APPLIED COMPANIES

Applied Companies, Inc. is a Southern California manufacturer of ruggedized Environmental Control Units (ECU's) and Pressure Vessels for tactical military systems. As a small company, Applied Companies relies on the capabilities and good judgement of its people. We provide a pleasant, professional, and dynamic entrepreneurial work environment where creativity is encouraged. Every person at Applied is expected to help when and where needed. We have been in business since 1958 and offer a competitive salary and benefits package that includes medical, dental, and vision, along with a generous 401K match and profit-sharing program. Veteran-Founded | Woman-Owned