



Location: Raleigh, NC
Description: Process/Controls/Electrical Engineer
Job Type: Full-Time, Immediate Opening

Voxel is seeking an engineer to develop our advanced manufacturing equipment and processes. Voxel is a thought leader in Pulsed Electrochemical Machining (PECM), an advanced manufacturing process unrivaled in its ability to quickly and accurately machine specialty metal alloys. Our mission is to use PECM and related manufacturing technologies to supply critical, high-value parts to aerospace, energy, and medical customers.

As a company, Voxel is inspired by three core concepts. First, Voxel is focused on creating manufacturing solutions to important problems in aerospace, transportation, energy production, and healthcare. It is important that Voxel employees feel proud of their accomplishments and impact. Second, Voxel is devoted to producing tangible real-world products. Voxel employees will be able to feel the sense of satisfaction that comes from offering meaningful products and services. Third, Voxel maintains a culture of innovation found at the intersection of different disciplines. Successful implementation of PECM requires knowledge of material science, electrochemistry, and electrical, chemical, software, and mechanical engineering. Voxel is seeking employees with a range of expertise across these fields who are willing to work in a team environment to develop innovative manufacturing solutions.

As a process, controls, and software engineer you will be responsible for helping create the controls for a sophisticated electrochemical machining processes including software programs and motion control routines, feedback and controls schemes which help to automate the process, and integration of multiple feedback sources. The position will come with significant freedom to create and test new ideas that further advance the state-of-the-art for electrochemical machining and Voxel's capabilities therein.

About You

Should be self-motivated and able to work without significant oversight or direction. Smart, creative, and determined to solve problems. Experienced or able to learn object-oriented programming languages (e.g. C++, python), various controls concepts, data manipulation, and the requisite math. Electrical engineering experience including current/voltage measurements, electrical signal filtering, basic circuit designs, etc. - understanding of pulsed power circuits is a plus. Comfortable with machine tool components including motion controllers, servo drives, safety circuits, PLC controllers. Able to be hands-on to run the PECM equipment, perform wiring/assembly/troubleshooting activities, and generally lend a hand in the shop when needed. Relevant prior work experience is valuable but we are not specific on the years of experience - passion and willingness to figure it out is more important than experience alone.

Job Description

Job responsibilities may include, depending on skill set and current company dynamics:

- Writing custom software scripts to improve the operation of the machine. This could vary in complexity from short programs to full state machines, depending on ability/interest
- Conceptualizing and writing new control logic using multiple feedback devices
- Operating the PECM equipment for the purposes of debugging, testing, running prototype parts, and performing R&D
- Electrical design, wiring, and troubleshooting of custom equipment.
- Assist in writing and executing government grant/contract proposals.
- Various other tasks as required in a small business

Requirements

- US Citizenship or Green Card
- Curiosity, grit, determination, integrity
- BS, MS, or PhD in a relevant field
- Able to take a task from conception to completion
- Ability to learn new skills quickly and must possess high initiative
- Submittal of a cover letter describing why you are interested in working at Voxel

As a key employee you will have the opportunity to help shape the future of Voxel and your role therein. If you are excited about our mission and meet our requirements, we want to hear from you!

Submit your resume and a cover letter by email to:

Daniel Herrington

careers@voxelinnovations.com

Voxel Innovations Inc. is an equal opportunity employer. The above job description does not constitute a promise or guarantee of employment.