



*Location:* Raleigh, NC  
*Description:* Lead Mechanical Design Engineer  
*Job Type:* Full-Time, Immediate Opening

Voxel is seeking a lead mechanical or industrial engineer to design our electrochemical machining fixtures, electrodes, equipment, and processes. Voxel is a 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 an appreciation for these different fields who are willing to work in a team environment to develop innovative manufacturing solutions.

As the lead mechanical/industrial engineer, your job will include two core focus areas. First, you will design complex electrodes, jigs, and fixtures that are required for the PECM process. This requires an understanding of mechanical fundamentals as well as fluid flow phenomena, coefficient of thermal expansions, and manufacturing methods required to create this tooling down to micrometer tolerances. Second, you will be the lead design engineer for our custom PECM equipment including designing structures, choosing components, performing computational analyses/simulations, etc. Over time, we expect this role to include management of a small team executing these tasks and finding ways to do so more efficiently. The position will come with significant freedom to conceive and implement new ideas that advance the state-of-the-art for electrochemical machining and Voxel's capabilities therein.

## **About You**

We are seeking smart, creative, and determined individuals with a passion for industrial manufacturing and a growth mindset. Applicants should be self-motivated and able to work without significant oversight or direction. You should be organized and detail-oriented and able to work in the dynamic environment of a small business. Experience is important but passion and a willingness to learn are more valuable to us.

## **Job Description**

Job responsibilities may include, depending on skill set:

- Developing complex CAD models and drawings for fixtures, tooling, and custom equipment
- Perform analyses ranging from hand calculations to computer simulations (e.g. CFD, static and dynamic structural, etc.)
- Management of engineering projects including schedules, suppliers, in-house manufacturing, etc.
- Being hands on when required to assist with assembly, measurement, or testing of equipment

- Various other tasks as required in a small business

**Requirements**

- US Citizenship or Green Card
- CAD/parametric modeling experience, including GD&T knowledge
- BS, MS, or PhD in a mechanical, industrial, or other relevant field
- Able to take a task from conception to completion
- Ability to learn new skills quickly and must possess high initiative
- At least 5-10 years of work experience
- 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](mailto:careers@voxelinnovations.com)

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