Job Description – Model Maker/Fabricator

About e-Zinc

e-Zinc is an energy storage startup based in Toronto with a breakthrough technology poised to disrupt the market. As the global energy grid moves to higher levels of penetration of renewable energy, there will be an exponential increase in demand for low-cost, flexible, long-duration energy storage. This is the market targeted by e-Zinc, the first in the world to “metalize” electricity. e-Zinc technology is also fire resistant, made of fully recyclable materials, does not rely on precious metals, and has a fast response time.

e-Zinc has recently won several awards for its technology and business plan including:

- Raised $3.5M in an oversubscribed round and was featured in Greentech Media
- Won a $1.6M grant through Breakthrough Energy Solutions Canada
- Won a $2M grant from SDTC
- Won a USD $1.3M grant through California Energy Commission
- Named to Cleantech Group’s Top 50 companies to watch
- Won a $700k grant as a finalist in NRCan’s Charging the Future Challenge
- Raised $2.3M in a private round funded by BDC Capital

This promising cleantech venture is now looking to expand its talented team to bring its technology to market to support the renewable energy transformation.

Opportunity

e-Zinc is searching for an experienced and talented Model Maker/Fabricator to work with the Prototype and Build Team, creating the next generation version of our electro-chemical energy storage cell. This is a rare opportunity that will provide a platform for the right person to help realize a young company’s technology and contribute meaningfully to its success. The ideal candidate is a “Maker” that thrives in an entrepreneurial environment, is intelligent and technically savvy, has a passion for success, and will stop at nothing to ensure we achieve our goals collaboratively and collectively.

Accountability

Reporting to the Shop Manager, you will assist with building and testing prototype components and assemblies of the of our electro-chemical cell. The cell is a mechatronics device with internal mechanical apparatus, pumps, motors sensors, electronic control boards with embedded firmware. The person should be “hands-on” with strong mechanical aptitude, experienced with a wide variety of shop equipment, fabrication techniques and
types of fabrication. The right candidate will have the mindset of a “Craftsman” where quality and precision of their work is a given. You will take ownership and responsibility for your work, look to others for input when necessary and work efficiently to meet various deadlines.

If you thrive in a team environment, can adapt to changing demands, are able to multitask, and all the while stay positive, enjoying the challenge, then this opportunity could be the right one for you.

**Position scope and responsibilities**

- **Primary responsibility to assist with prototype turn-around speed.**
  - Participate in the prototype fabrication/pilot production of the e-Zinc energy storage cell.
  - Assist the engineering team with authoring assembly instructions and quality control procedures and installation/service instructions for each new product generation.
  - Design of production and assembly jigs/fixtures as needed during prototype builds.
  - Assist with design and fabrication of “special’s” various test fixtures used for side bar specific testing and subsystem builds for development experiments, accelerated life testing and certification testing.

**Qualifications**

**Required:**

- Highly proficient in the use of hand/electric tools, including but not limited to: table saw, miter saw, milling machine, drill press, metal sheer, metal bending tools, router, sanders, grinders, etc.
- Experience working with various materials and the techniques associated with them
  - Sheet metals (copper/nickel/steel): cutting, bending spot welding, etc.
  - Acrylic: cutting, gluing, routing, tapping, heat bending, etc.
  - Electrical: soldering, assembling, crimping, etc.
  - POM Acetyl: machining, cutting, joining
  - Cast Polyurethane/Epoxy: mixing, pouring, etc.
  - Stainless Steel Tubing: cutting, bending, etc.
- A self-starter and adaptive learner.
- Superior time management and organizational skills
- Must be legally eligible to work in Canada.

**An Asset:**

- Having a diploma in mechanical technology/mechatronics or relevant experience in product development, design or manufacturing.
• Knowledge of mass production methods including sheet metal, injection molding, machining, plating, and coatings.
• Hands-on experience with CNC machines, creating g-code. Creating tool paths for CNC machines using Solidworks CAM, HSM Works or Fusion 360
• Ability to create SolidWorks models and communicate ideas through freehand sketching.
• Experience with CMM/FaroArm measurement.
• Hands-On experience pumps, fans and DC Electric motors.
• Solid understanding and experience in all associated aspects of product development including product specifications, design, prototyping, tooling, manufacturing, etc.

Other Skills
• Motivated to strive and succeed in a start-up environment.
• Disciplined and hard working.
• Exceptional communications skills – oral, written, and presentation skills.
• High level of maturity, integrity and personal effectiveness.
• Personal accountability and commitment to achieving and exceeding goals and objectives.

Application Deadline
Please send resumes and cover letters via email using “Model Maker-Fabricator” in the subject line to: careers@e-zinc.ca and address your cover letter to Mr. Ned Ivanovich, Shop Manager/Sr. Mechanical Designer.

Due to a high volume of applicants, please make our job easy to identify you as a match for this role. In your cover letter please explain your interest in the position and how your skills and experience are a match to the job description.

Applications will be reviewed and interviews will be held on a rolling basis as applications comes in. The position will be filled as soon as the right candidate is found. We thank all applicants for their submission, but only those selected for an interview will be contacted.

Please apply ASAP if you are a strong fit to the requirements of this role.