# Electrical Engineer – Embedded Systems & Sensor Integration (Full-Time, Permanent)

**Company: IoT Bearings** 

Location: Seattle, WA | Industry: Industrial IoT / Railway Systems

## About Us

IoT Bearings is developing smart roller bearings with embedded sensors for the railway industry. Our mission is to revolutionize predictive maintenance by integrating real-time wireless monitoring into core mechanical components.

We are a startup operating in the \$6.25B railway bearing market, building our firstgeneration prototype. You'll join at a pivotal stage and help define the electronic backbone of our product.

### **Position Overview**

We're seeking a full-time Electrical Engineer to lead the design, sourcing, and integration of sensors and embedded systems for our first prototype. You'll work alongside mechanical engineers and the company's founder to bring the product to life. Ideal candidates are hands-on, self-directed, and passionate about embedded hardware in industrial applications.

### **Key Responsibilities**

• Select and integrate sensors (e.g., temperature, vibration, acceleration) into the bearing system.

• Develop schematics and work with vendors or partners on PCB design and fabrication.

• Evaluate and select microcontrollers or embedded platforms suitable for rugged environments.

- Build and test prototypes using development boards and custom sensor assemblies.
- Collaborate on firmware development and wireless data transmission strategies.
- Assist in designing power delivery systems (battery or energy harvesting).
- Coordinate with mechanical engineering team on fitment, thermal considerations, and durability.
- Support data acquisition and logging during testing and validation.

## **Required Qualifications**

• B.S. or M.S. in Electrical Engineering or Computer Engineering (or completion expected by Summer 2025).

- Experience with embedded systems (e.g., ARM Cortex-M, Arduino, or similar platforms).
- Familiarity with analog and digital sensor integration.
- Basic knowledge of circuit design and debugging.
- Hands-on experience with lab tools (oscilloscopes, multimeters, soldering, etc.).

• Strong problem-solving skills and the ability to work independently.

## **Preferred Qualifications**

- Familiarity with low-power design and battery systems.
- Experience with wireless protocols (BLE, LoRa, or similar).
- Comfort working in early-stage hardware environments with fast iteration cycles.
- Exposure to PCB layout tools (KiCad, Altium, or Eagle).
- Interest in industrial IoT, condition monitoring, or transportation systems.

#### **Compensation and Benefits**

- Salary: \$80,000-\$95,000 annually (depending on experience and degree level).
- Health Benefits: Employer-subsidized medical, dental, and vision coverage.
- Paid Time Off: 2 weeks vacation + 10 holidays.
- Flexible Work: Some hybrid or remote flexibility, depending on project phase.

• Growth: This role has a clear path toward senior electrical engineer or systems architect positions.

### **Diversity, Equity & Inclusion**

At IoT Bearings, we are committed to building an inclusive workplace that values diversity in all forms. We strongly encourage applications from people of all races, ethnicities, genders, sexual orientations, abilities, and backgrounds. Diverse perspectives drive innovation, and we're building a culture where everyone has a voice.

#### How to Apply

Please send a resume and a short cover letter to Erik@IoTBearings.com In your cover letter, describe any relevant experience in embedded systems, sensor integration, or product prototyping.

#### **Note to UW Students**

We especially encourage recent or soon-to-be graduates from the University of Washington's Electrical & Computer Engineering program to apply. This is a hands-on opportunity to help shape a breakthrough industrial product at the earliest stage.