Embedded Systems Engineer

Full-Time • Seattle, WA

Last Modified: Apr 7, 2026

Company Overview

Chiplytics streamlines access to mission-critical electronic components through a scalable testing platform and growing network of supply chain partners. Mature nodes power nearly every electrical system, yet dependence on overseas manufacturing and complex distribution channels introduce significant risk to critical supply chains and national security. The Verified by Chiplytics program will mitigate these risks by delivering secure sourcing, procurement, and testing for high-reliability electronics.

Job Description

We're hiring an **Embedded Systems Engineer** to lead the development of custom firmware, mechatronics components, and machine vision applications for Chiplytics' automated inspection products. You'll work closely with our Chief Technology Officer and engineering team to define requirements, build prototypes, perform testing and feasibility studies, and develop production-ready mechatronics and perception systems. You'll serve a key role in launching our next generation of inspection products, including the General External Visual Inspection (GEVI) system and Micro Inspection Platform (MIP).

Responsibilities

1. Design, develop, and deploy custom firmware for Chiplytics electro-mechanical inspection systems, including custom controls, sensing, and computer vision
2. Work closely with mechanical engineering to perform trade studies and select mechatronics components such as cameras, lighting, motors, drivers, and microcontrollers to satisfy high-level requirements and achieve top performance
3. Develop and execute test plans to validate feasibility and quantify performance of designs against requirements throughout the development process
4. Write APIs to interface with firmware as well as test scripts and simple UIs to execute test plans and contribute to Chiplytics software products
5. Develop custom robotics routines and interfaces for off-the-shelf robotics equipment such as robot arms and linear stages
6. Assist CTO in performing testing for government contracts including customizing hardware to meet specific test requirements and automating test routines for large data capture
7. Design custom microcontroller architectures optimized for Chiplytics inspection systems
8. Maintain thorough documentation including comments, wikis, requirements, schematics, test plans, and reports outlining embedded systems design decisions, architecture, testing, functionality, and interfaces

9. Help integrate artificial intelligence into Chiplytics automated systems
10. Troubleshoot and resolve issues related to mechatronics systems and components.
11. Perform a mixture of theoretical analysis and empirical research to achieve minimum viable solutions in a time- and cost-effective manner
12. Stay up to date with the latest technologies and industry trends to ensure best practices are implemented
13. Travel for onsite customer visits and industry conferences and events, as appropriate
14. Assist with interdisciplinary engineering work including hands-on electronic component testing

Requirements

- Bachelor's degree in Computer Science, Computer Engineering, Electrical Engineering, or related field
- Programming experience in Python and embedded systems such as Arduino and Raspberry Pi
- Project experience with robotics, machine learning, and data science
- Familiarity with unit testing and basic quality assurance principles
- Strong problem-solving and analytical skills
- Excellent communication and teamwork skills
- Self-driven and able to work well with ambiguity
- Capacity to work 40 hours per week in-person in the Chiplytics Seattle, WA office
- U.S. Citizen

How to Apply

Send an email to join@chiplytics.com with your resume and short paragraph about yourself and why you're interested in applying.