

**Gavin Guinn**

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Dear Hiring Manager,

Re: Application for Embedded Software Engineer at Fulcrum Air

I am writing to express my interest in the Embedded Software Engineer contract position for hybrid work in Calgary. With three years of professional experience developing C language firmware, I am confident in my ability to effectively contribute to the Engineering team at FulcrumAir. My background in Computer Science (BSc) has been enriched by hands-on experience in embedded systems development, where I collaborated closely with cross-functional teams to solve challenging debugging issues and improve product quality.

In my previous role, I particularly enjoyed working alongside Electrical Engineers. This collaboration occasionally involved long hours to troubleshoot faults in the latest batch of PCBAs, gaining practical skills such as schematic reading and debugging with digital logic analyzers. I thrive in environments where disciplines intersect, and I am eager to bring my skills to FulcrumAir to help advance your mission of deploying innovative robotics and drone systems for the electrical utility industry.

I have extensive experience developing firmware for a range of sensors for IoT products, communicating efficiently with peripherals using protocols like UART, SPI, and I2C. I have written drivers and optimized data acquisition routines in FreeRTOS to ensure reliable real-time performance. Additionally, I have used Git to manage third-party middleware dependencies, providing a strong foundation for integrating sensors into embedded systems for IoT and robotics.

I would love the opportunity to discuss how my experience and enthusiasm for embedded systems align with FulcrumAir's engineering goals. Thank you for considering my application.

Sincerely,

Gavin Guinn