

**Gavin Guinn**

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Dear Hiring Manager,

Re: Application for Embedded System Developer at Gradient Thermal

I am writing to express my interest in the Embedded System Developer position at Gradient Thermal in Calgary. With three years of experience in C firmware development, I am confident in my ability to contribute effectively to the engineering team. My Computer Science (BSc) background is enriched by hands-on experience in embedded systems, collaborating closely with cross-functional teams to solve challenging debugging issues and improve product quality.

In my previous role, I worked alongside Electrical Engineers, dedicating long hours to troubleshoot faults in PCBAs. Through this collaboration, I gained practical skills in schematic reading and debugging with digital logic analyzers. I thrive in environments where engineering disciplines intersect and am eager to bring my skills to Gradient Thermal to support your mission of delivering innovative, energy-efficient home comfort products.

My commitment to responsibility is demonstrated by my experience in developing automated processes for testing hardware and flashing firmware during assembly. I took ownership to ensure each product was rigorously tested throughout the assembly process, including sub-assemblies and finished goods. This dedication has been key to maintaining high standards and delivering reliable products.

I have extensive experience developing firmware for IoT sensors, communicating with peripherals using UART, SPI, and I2C protocols. I have written drivers and optimized data acquisition routines in FreeRTOS to ensure reliable real-time performance. Additionally, my use of Git for managing third-party middleware dependencies has provided a solid foundation for integrating sensors into embedded systems for IoT and robotics.

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

Sincerely,

Gavin Guinn