

## Job Application for Embedded Systems/DSP Engineer

July 28, 2025

Dear Sir/Madam,

### About Me

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I've recently returned from a three-month career break spent travelling, and I'm now looking for a fresh challenge that allows me to grow both personally and professionally. I've always been passionate about audio technology and after several years working in other industries I feel a strong desire to join a project that aligns with this passion.

I have a solid foundation in firmware engineering and I thrive in small teams where I can balance technical ownership with collaborative effort. I'm often recognised for driving progress independently while bringing energy to those I work with, and engaging effectively with stakeholders.

Outside of work I spend a lot of time listening to music, enjoy woodworking and hands-on projects, and find balance through time outdoors; whether that's cycling, skiing or hiking.

### Why Humbl?

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After being introduced to HUMBL and seeing your upcoming loop pedal, I was immediately reminded of my first electronics project - a guitar distortion pedal! Fifteen years later, the chance to contribute to a device that plays a role in a musician's creative process would be a dream come true for my teenage self.

Bringing this product to life clearly presents exciting challenges across embedded software and signal processing. A rewarding combination that aligns perfectly with my experience and is exactly the kind of challenge I've been searching for.

### Why Me?

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I bring deep experience in embedded software development across several industries, with a particular focus on audio, DSP, and real-time systems - making me a strong fit to lead development of HUMBL's core audio platform.

Especially relevant to this role is my time at Meridian Audio, where I worked across both MCU and DSP platforms. I established both projects, designed reusable frameworks, and implemented the core audio I/O and DSP pipeline. Despite being relatively early in my career, I played a key role in the architecture of a multi-product audio platform and successfully led its firmware development.

Since then, I've continued working on complex embedded products, taking a wireless tracking system from early development through to launch at Sportable, and later architecting and testing a safety-critical platform at Pod Point. Alongside this, I've been sharpening my DSP skills in my personal project, rayDance.

Across my career I've been comfortable working at all levels of abstraction, from hardware bring-up and driver development to full system architecture. More recently I've gained hands-on experience with firmware testing infrastructure, which I believe will be invaluable in validating a product where precision and timing are critical.

Overall, I believe my technical expertise, hands-on experience, and genuine enthusiasm for music tech make me a great fit for HUMBL.

Sincerely,

**Christopher Paine**