Bimotal Embedded Software Engineer Job Description
[Bimotal Application Submission](#)

The Company

Bimotal was founded in 2019 to develop innovative micro-electric powertrains for right-sized personal vehicles. We are a group of Tesla, startup, and bike industry alumni working towards our mission of reducing barriers to car-free mobility. In addition to our direct-to-consumer product, Elevate, an easily retrofittable and removable powertrain that converts disc-brake bicycles into e-bikes, we have also partnered with vehicle OEMs (bikes and other micromobility vehicles) to provide them with high-performance powertrains specifically designed for their needs. Bimotal is positioning itself as a technology company with the aim of making the best microelectric powertrains in the world, and eventually, the best personal-sized electric vehicles. Come join us in building the future of transportation.

The Job

As an Embedded Software Engineer at Bimotal, you will write world-class software for Bimotal's electric powertrains. This is an opportunity to work on early-stage development for projects spanning motor control firmware, BMS firmware, test infrastructure, and more. As Bimotal builds highly integrated systems for a budding micromobility industry, you'll be able to creatively solve problems with fewer constraints. Bimotal is a fast-growing startup; be ready to take ownership of projects with real stakes, constantly push technical boundaries, and tackle unfamiliar and challenging problems.

Responsibilities

- Deliver high-quality C code for motor control, battery management, and/or wireless communication embedded systems
- Design unit and hardware-in-the-loop tests and infrastructure
- Take ownership of bring-up and debug of embedded hardware; provide feedback to hardware team
- Make software design decisions based on product feedback and roadmap
- Participate in code reviews and version control processes
- Thoroughly document your work

Qualifications

- Strong knowledge of C or C++
- Experience writing firmware for embedded systems with an RTOS
- Familiarity with common microcontroller architectures and capabilities
- Familiarity with the build process for embedded firmware (cross-compilation)
- Proficiency with source control tools such as git

- Experience bringing up and debugging circuit boards
- Strong electrical engineering fundamentals and experience interfacing components
- Strong knowledge of embedded communication protocols including I2C, SPI, and CAN
- Proficiency with laboratory equipment including oscilloscopes and logic analyzers
- Preferred - Strong knowledge of Python
- Preferred - Experience with brushless DC motor control, classical control systems, and/or battery management systems

Logistics

Please fill out a [Bimotal Application Submission](#) to apply for this position. Bimotal includes a health insurance stipend, allows for 1 remote work day per week (4 days in person at our Berkeley office), and has flexible PTO as well as regular holidays. Our office is in a beautiful location and is walking distance to many great lunch spots (2 blocks to our favorite burrito spot, Picante), Amtrak, and BART. All employees receive significant equity packages--we want you to have significant ownership in the work that you will be doing here.