

Firmware Engineer

About Us

Vivo Surgical is Southeast Asia's pioneering surgical technology disruptor, engaged in developing innovative medical device solutions for better surgeries. An ISO 13485 certified company with international accreditations such as the US FDA and EU CE Mark, our products target the medical needs of the world through innovative applications of science & technology.

Our technologies redefine healthcare accessibility, allowing for widespread adoption of such modalities to improve patient outcomes. These encompass such fields as *in vivo* surgical LED lighting, portable endoscopy and minimally-invasive robotic surgery, which are strategically co-developed with leading healthcare institutions and KOL collaborators in territories such as the USA, UK, France, Germany, Brazil, Vietnam and Singapore.

Join us as we build towards our vision of being Asia Pacific's leading medical device developer and manufacturer in surgical technology and robotics.

About The Role

We value the importance of having a robust Engineering team that would serve as a key pillar for sustained commercial success. To that end, we are looking for a **Firmware Engineer** to join us on this journey. You will be working on our key product's firmware development from the design and development phase all the way to manufacturing. Alongside our Electrical Engineering team, you will produce and test custom embedded circuit systems that will be integrated into our robotic system. Throughout the journey, you will also be involved in the Verification and Validation testing phase such as producing in-house testers, generating test protocols and reports, as well as liaising with external testing vendors.

Your responsibilities shall include the following:

- Be part of the planning and establishment of our system's design and software requirements.
- Involved in the design, development, and implementation of the firmware (architecture, coding and review).
- Participate in software risk management tasks such as the development of the Software Development Plan and the Software Hazard Analysis documents.
- Develop test protocols and reports to verify and validate the sub-systems and main system.
- Assist in developing in-house testers / test tools.
- Carry out firmware testing and debugging activities alongside other engineering teams.
- Contribute and watch your ideas materialize into the fast-paced iterations of our system to constantly strive to meet the end users' needs.

Your Qualifications & Experience

- Minimum Bachelor's degree in Computer Science / Engineering or Electrical Engineering or equivalent.
- At least 3 years' experience in Electrical and / or Firmware Engineering.
- Proficient in C/C++ code for real-time embedded systems (ARM processors).
- Proficient in using development platforms such as Visual Studio and Eclipse.
- Proficient in compiler / toolchain selection and configuration.
- Proficient in handling debugging tools (Multimeter, Logic Analyzer, Oscilloscope).
- Hands-on experience with embedded communication protocols such as UART, SPI, I2C, CAN, UDP, TCP.
- Familiarity with electronic circuits and PCB design.
- Knowledge of development procedures of embedded platforms such as Arduino, STM32, DSP, FPGA will be advantageous.
- Knowledge of real-time operating systems like 'ThreadX' / 'SafeRTOS' will be advantageous.
- Knowledge of medical device related standards such as IEC 60601-1, IEC 60601-1-2, IEC 62304 will be advantageous.

Contact

Please send your CV and cover letter to: hr@vivo-surgical.com. We look forward to receiving your application.

Vivo Surgical Private Limited