Firmware Engineer

REQUIRED FOR SOLAR PANEL DESIGN & MANUFACTURING COMPANY

Location: 100 Symes Rd, Unit 100 A, Toronto, ON M6N 0A8, Canada
Position Title: Firmware Engineer
Starting Date: Immediate
Salary: Commensurate with experience
Date Posted: 2018/05/08

About Morgan Solar

Founded in 2007, Morgan Solar is a Toronto-based company developing new solar power technologies that are unlike anything else. We are performing original research and have a growing portfolio of cutting-edge, high-efficiency solar and illumination technologies in the pipeline, all combining innovative optics with well-established manufacturing processes. Among our technologies we have the Sun Simba™, a highly efficient, low-cost Concentrated Photovoltaic module, the Savanna™ tracker, a self-ballasted, dual-axis sun-tracking system as well as several building-integrated solar products under development.

The company has tremendous potential and needs an enthusiastic, hard-working, and intelligent team to help us achieve our goal of making solar energy affordable and accessible.

About the Position

The successful candidate will have strong knowledge of and affinity for software/firmware algorithm development. Comfort working with various embedded devices and experience with microcontrollers such as STM32/ARM is critical. The candidate will work on mission critical, high availability, low-downtime applications. The candidate will work within the Control System team to create firmware for electro-mechanical systems that are remotely deployed.   The candidate will also be expected to liaise with members of the mechanical design, hardware and software teams to collaboratively develop and improve products.

 Morgan Solar is a dynamic company; we require people who can thrive within our fast-paced development schedule.

Qualifications

- Minimum Bachelors Degree in Electrical Engineering, Mechatronics Engineering, Computer Science or similar
- Experience in related position for a minimum 3+ years

Required Skills and Expertise

- Design and development of firmware / software in application specific embedded devices
- Control systems algorithm implementation, fundamental control theories and digital control systems concepts
- Experience with real-time operating systems such as FreeRTOS
- Understanding of electro-mechanical devices and systems
- Interfacing with peripherals and external hardware – SPI, I2C, UART
- Experience with communication protocols such as CAN , RS485, Modbus
- Software knowledge: C/C++, embedded software development and debugging on ARM
- Strong research, problem solving and troubleshooting skills
- Maintain and document code using source control

Additional Skills and Attributes

- System architecture experience
- Familiarity with various development environments such as IAR, Eclipse, Visual Studio
- Strong experience in testing (unit, integration, whitebox)
- Ability to work well in both independent and team settings
- Familiarity with electronic circuits and reading schematics
- Familiarity with oscilloscopes, DMMs
- Self-motivated
- Excellent communication skills
- Well organized

What We Offer

- Opportunity for early-to- mid stage engineers to immediately take on a large amount of responsibility on advanced engineering projects. Creativity and boundary-pushing are encouraged, and often see quick implementation.
- Join a motivated team, committed to making solar energy significantly more affordable and accessible. We are a global company, undertaking important projects in very interesting parts of the globe.

To Apply

Please send a cover letter and résumé to **careers@morgansolar.com**, quoting job reference number **FE100518** in the subject line.