



Date Requested: 11/12/18
Job Classification: Temp.-Contract Position

Project: Product Firmware Coding
Title: Firmware Engineer – MSP430

Position Summary: As Firmware Engineer, write/rewrite and test Texas Instruments' (TI) MSP430 firmware on embedded platforms for power conversion products. You'll be supporting a product upgrade effort and will leverage your understanding of power electronics, signaling, processing and control loops. You should have knowledge of Power Electronics, Switch-Mode Power Supply hardware/controls and Communications, as well as real time programming expertise in C. You should be a team player with attitude and disciplined focus to rapidly support design projects in a high velocity, dynamic environment.

Responsibilities Include:

- Investigate, debug and modify existing MSP430 firmware code for power conversion products
- Design, develop, implement, debug and maintain embedded real-time software and control algorithms for power conversion functions based upon careful math modeling techniques for optimum performance.
- Firmware development for a new or existing advanced power conversion products aimed at high reliability military and industrial applications
- Develop documentation and test plans for software
- Develop standard and custom communication protocols for new systems, if required
- Other tasks assigned for integration & completion of project.

Education: BSEE, BSCS, or equivalent degree

Experience: 3 to 5 years of progressive hardware and software background in:

- Switch mode power converters
- Analog & digital electronics circuits
- C programming plus other languages
- System design and use of Microcontrollers and Digital Signal Controllers, especially Texas Instruments MSP430 and/or TMS320F28xxx and technologies for high reliability power systems
- Computer models of control systems & ability to convert them into algorithms
- Writing low level device drivers (ADC, PWM, Timers, SPI, SCI, UART, CAN, etc.)
- Strong analytical and problem-solving skills
- Good oral and written communication skills

Physical Requirements: Ability to perform detailed work for extended periods of time.

Other Requirements: Position requires U.S. Citizenship or Permanent Resident pursuant to Federal Law & Export Compliance

If you are interested in this position send your qualifications to FMunro@custom-mfg-eng.com or Human Resources