



FADEC SOFTWARE DEVELOPER (for UAM ELECTRIC PROPULSION)

Corporate Description

MANNARINO Systems & Software Inc. is a leader in COTS software products and providing safety-critical systems / software / programmable hardware engineering and certification services to the aerospace, defense, space, simulation, rail & power generation industries. We work with many of the top players within their industries giving our employees exposure to the most interesting and challenging development projects. This stimulating and invigorating working environment allows our team to be at the technological forefront constantly broadening their expertise and honing their skillset to fulfill the ever-growing global high-tech market needs.

The MANNARINO culture is focused on high quality, hard work, professionalism and team work within a highly respectful, motivating atmosphere geared towards long-term business growth.

As a member of our team, you will benefit from:

- a comprehensive group insurance and RRSP plan
- a flextime policy with paid overtime and off-site placement premiums
- discretionary bonuses
- a fitness reimbursement program
- other office perks such as catered weekly lunches and free hot beverages (espresso, coffee, hot chocolate and tea)
- regular company outings

MANNARINO is a privately-held Small & Medium Size Enterprise (SME) and was recently awarded the [AIAC's Innovation Technology Award](#)

Career Opportunity and Primary Roles / Responsibilities

MANNARINO is engaged with a major industry leader developing a Full Authority Digital Electronic Control (FADEC) for an electric propulsion unit installed in an autonomously and/or Remotely Piloted Aircraft System (A/RPAS) targeted for the Urban Air Mobility (UAM) market. We are currently seeking software engineers/analysts to support the development of embedded software for an electric propulsion unit that will be included in a cutting edge vertical take-off and landing aircraft. The positions are based in Montreal and might require occasional travels to our customer in North America.

The candidate's excellent technical skills will be used to design, develop and maintain software based on system specifications. The software is developed in C-language and address both low-level operating system software components and higher level application elements. The candidate will ensure the use of appropriate standards, processes, procedures and tools throughout the product development life cycle to support the embedded software generation.

Interfacing with customers, suppliers, application users and other technical and support personnel may also be required. The candidate must be able to work independently and in collaboration with other team members and project stakeholders. Excellent communication skills will be required.

Although the primary role would be to develop embedded software, opportunities for professional growth in other areas like software verification, systems engineering, and airborne electronic hardware development & verification, and design assurance may arise.

Required Competencies

- Bachelor's degree in related engineering disciplines from an accredited institute (Computer science or software engineering preferred)
- Demonstrated experience in FADEC software design and development
- Knowledge of RTCA/DO-178C or other safety-critical software life cycle process
- Significant experience with C Programming Languages
- Experience in Designing & Integrating Real-Time Embedded and Application Software, including Hardware/Software Integration

Other Competency Assets

- Experience with ST microcontrollers and/or ARM Cortex-M7 cores
- Experience with other programming languages (e.g. Assembly, Ada, C#, Microsoft .Net/WPF)
- Experience Developing Real-Time Operating System Executives and/or Kernels
- Knowledge of Integrated Modular Avionics (RTCA/DO-297, ARINC 653, ARINC 661, ARINC 664)
- Knowledge of Communication Protocols (Ethernet/AFDX, ARINC 429, RS 422, CANbus and USB 2.0)

Miscellaneous Requirements

- Ability to communicate effectively in English and French (oral and written)
- Occasional travel required to customer sites (usually within North America)
- Possibility of assignment to customer site within the Montreal area
- Must be eligible to work in Canada

At MANNARINO, we believe that passion and a desire to learn is crucial. Diversity of thought and experiences leads to innovative solutions and creativity. This is why we would like to encourage all those interested to apply.

Please submit your application by
E-mail: rh@mss.ca

*We are an equal opportunity employer.
All applicants will be held in strictest confidence.
Only those selected for interview will be contacted.*
