PURPOSE and SCOPE:
We are looking for passionate Engineers with a desire to develop the next generation of productive harvesting equipment!

You need to be ready to participate within a team environment in the development and the continuous improvement of innovative, market leading product designs. Team compositions vary and change, but consistently involve multiple engineers, technologists, team leaders, prototype shop and test personnel. There are also cross functional interactions with supply chain, marketing, product support, publications, manufacturing, and other specialists.

RESPONSIBILITIES:
Participation as a team member in all team project activities as identified, including but not limited to:

- Embedded Programming/Software Development as the core function of this role
- Responsible for code documentation process, code revision & repository process
- Review and provide software spec improvements or maintenance for complex subsystems
- Assist in development and implementation of validation plans (unit testing, Hardware-in-Loop HIL, Software-in-Loop SIL, Design Verification Testing DVT)
- Component, subsystem, system designs to meet set objectives of performance, cost, durability
- Review and take appropriate action to all daily test reports
- Support current product design engineering, improve product and service-related publications
- Experience in project planning, vendor selection & development of risk assessments would be an asset
- Continuous learning of MacDon and competitive products

QUALIFICATIONS:

Education and Experience
- Graduate of an accredited Engineering, Technology and/or Computer Science program

Skills and Knowledge
- Experience in C, C++ programming languages required. Specify controls development experience for embedded systems using C and C++
  - Understanding of and ability to apply object-oriented concepts
  - Familiarity with Integrated Development Environments and setting up supplier compiler toolchains
  - Experience with any Real Time Operating System RTOS (ex. FreeRTOS)
- Experience with GIT-based repositories (GitHub, GitLab, etc.)
- Experience with closed-loop control systems, such as PID feedback control and tuning would be a large asset
- Understanding of electronics and electronic controllers, electrical theory, electrical schematics and ability to troubleshoot electrical systems would be a large asset
- Exposure to Parker IQAN environment or other graphic based programming languages would be an asset
- Knowledge in the following communication protocols/standards: J1939, MISRA-C, ISOBUS, ISO25119 (ISO26262), Ethernet and TCP/IP, UDP would be an asset
- Experience with electrical, mechanical, and hydraulic systems on off-road heavy equipment would be an asset
- Other assets; good understanding of memory management, MS Office products, understanding the use of data structures and algorithms, and experience with Doxygen documentation

Interested applicants can submit resume and cover letter to Tara Bees-Cook at: tbeescook@macdon.com, Removal Date: December 29th, 2023