

**Job Title:**

Controls Specialist/Engineer

Direct Supervisor:

Application & Design Engineer

Place of Duty:

CGC Group Head Quarters, Mississauga with occasional time at factory in Fergus

Technical Qualifications:

- Ability to program in C for embedded applications. Experience with PIC microcontrollers and MPLAB-X IDE would be a requirement.
- Basic knowledge of analog-digital-converters (ADC), digital-to-analog converters (DAC), relays, timer-based interrupts.
- Ability to read and interpret electronic schematic diagrams.
- Electronic troubleshooting skills; ability to test/verify control board operation with a multimeter, oscilloscope, software debuggers, etc.
- Knowledge of various communication schemes including Modbus RTU, and those related to IoT development, and remote-monitoring.
- Basic knowledge of HVAC principles and related equipment controls would be beneficial.

Other Qualifications:

- 5 years' experience preferred
- Completion of post-secondary program in Engineering, Electronics, Digital Controls, Mechatronics, or a related field of study
- Must be a resourceful self-starter capable of working and learning independently.
- Must have excellent oral and written communication skills, with a special emphasis on technical writing.
- Must be able to work harmoniously with factory/production staff, vendors, customers, engineers, tradespeople, and fellow co-workers.

Duties & Responsibilities:

- Create, update, and maintain product and job specific wiring and controls diagrams.
- Work with various parties to interpret and develop controls strategies for various products and applications.
- Write embedded applications for our proprietary PIC-based digital controllers, as well as future iterations using other development environments (ie. Raspberry PI, Photon, Arduino).
- Aid in the hardware/software design and manufacturing of application-specific embedded devices including digital controllers, instrumentation, and equipment-specific electronic devices.
- Prepare and maintain technical documentation including controls and sequencing guides, product bulletins, and application specific reports where required.
- Field work involving equipment troubleshooting, commissioning, adjustment, and testing will be a regular component of this role.
- Assist in any area as required from time to time.