

IoT Demonstrator

Condition Monitoring



Machine condition monitoring (MCM) helps operators understand a system's state and anticipate failures before they become critical. Planned maintenance reduces costs and prevents disasters. CMC has assembled an MCM demonstrator based on the industry-standard IO-Link protocol, which enables sensors to receive power and transmit updates to operators. These kits can be integrated with and monitored via STMicroelectronics or TEConcept IO-Link control panels, enabling your novel sensors to connect seamlessly with a larger system of industrial sensors and software.



What's Described

- > An environmental setup for HVAC monitoring
- > An IO-Link master, peripheral IO-Link device, and software control panels
- > How to connect, program the system, and view sensor data

For Sensor Developers

- > I2C interfaces provided for digital connectivity
- > Test packaged chips in the 24-pin DIL on the X-NUCLEO-IKS02A1 board
- > Test board-level sensors connected to standard M12 cabling used with I/O Link

Applications

- > Condition Monitoring
- > Predictive Maintenance when connected to an A.I. backend
- > Industry 4.0, HVAC, manufacturing
- > Sensor Fusion

Related Offerings

- > IoT Demonstrator for Smart Agriculture
- > Edge AI Demonstrators for IoT, Health Monitoring, and Video Surveillance.



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FABrIC Offers

Multi-Project Wafer (MPW) services from commercial vendors for prototyping through to high volume in micro-electronics, photonics, and MEMS.

Custom fabrication:

A network of university-based nanofabrication facilities and not-for-profit research organizations.

Technology Platforms:

Open-source hardware and software.

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sales@cmc.ca
+1.613.530.4666

