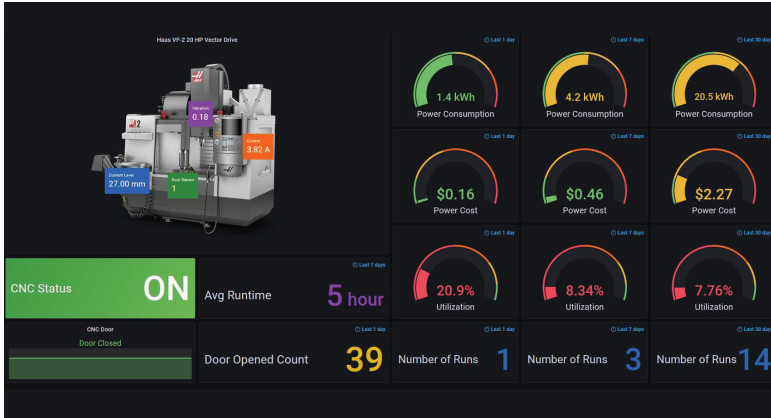**ECTRON CORPORATION®**

Measure all aspects of your CNC Machine to optimize settings, track production profile deviations in real-time, compare machine performance, reduce energy consumption and implement preventative maintenance.

- ✔ Spindle Vibration
- ✔ Lubricant Level
- ✔ Coolant Level
- ✔ Number of Emergency Shut Downs
- ✔ Door Status (Open/Closed)
- ✔ Environmental Factors (Temperature, Humidity, Pressure)
- ✔ Yield Per Job
- ✔ Job Duration
- ✔ Cost Per Unit, Cost Per Run (Material and Energy)
- ✔ Machine Utilization/Uptime

Ectron's Market Ready Kit is plug-and-play. Start measuring data and get analytics to optimize production and save costs. Make your operation more efficient and product quality more consistent.

- ✔ Monitor machine characteristics for anomolies during production run.
- ✔ Monitor fluid levels to enable proper machining and prevent machine damage.
- ✔ Compare output and product quality of various machines.
- ✔ Root cause product nonconformance caused by equipment deviations.
- ✔ Pinpoint equipment deviations for predictive maintenance and repairs.
- ✔ Track environmental effects on product quality and machine performance.
- ✔ Forecast and track per run production cost (including energy cost).
- ✔ Track environmental effects on product quality and machine performance.
- ✔ Check machine usage hours to trigger notification for routine maintenance.
- ✔ Run simulations to see what changes in the process yield efficiencies.
- ✔ Get OEE numbers for each machine.
- ✔ Utilize energy data to support a Sustainability Program.

The entire kit is built around Ectron's Edge Node (for Cloud data analytics) or Intelligent Edge Node (for Edge data analytics). Both aggregate and interpret sensor data. The data can be viewed on a customized dashboard or sent directly to your existing ERP solution or other business intelligence software.
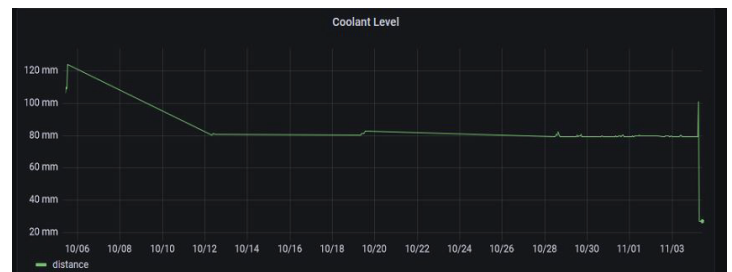
Standard Configuration of the Market Ready Kit is:

- ✓ 1 Edge Node or Intelligent Edge Node
- ✓ 1 Multifunction Sensor (Vibration, Environmental Data)
- ✓ 1 Power Sensor Module
- ✓ 2 Ultrasound Sensors (Tank Level)
- ✓ 1 Proximity Sensor (Door Open/Close)
- ✓ 1 Computer Tablet for Operator Data Entry

- ✓ Plug-and-Play
- ✓ Installed in 1 Day
- ✓ No Changes to Equipment
- ✓ No Engineering or IT Staff Required
- ✓ Instant Access
- ✓ Installation Assistance Available

Multiple Variables Available For Edge And Cloud Analytics

This Market-Ready Kit is offered by Ectron and its partner Balluff

BALLUFF