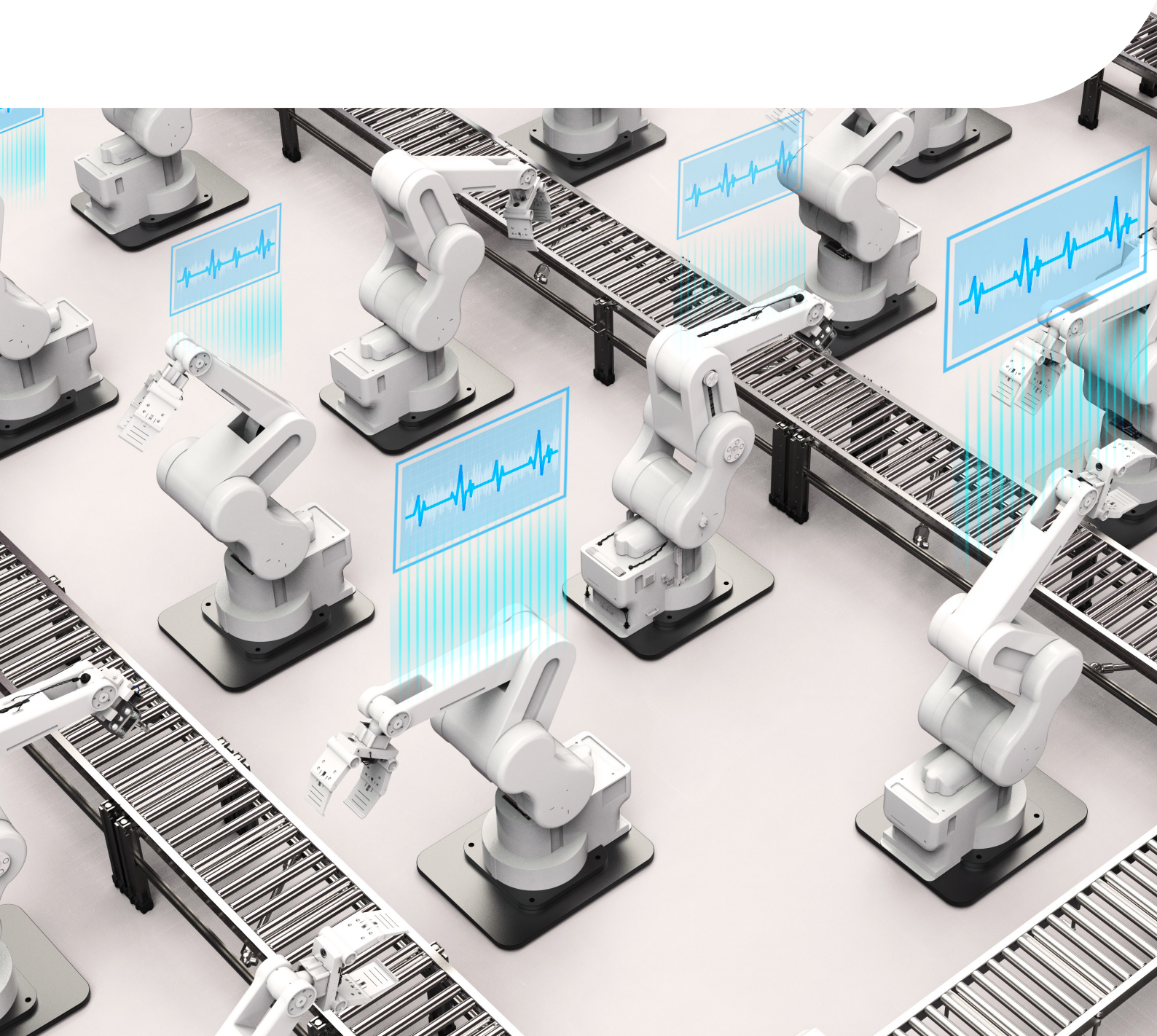


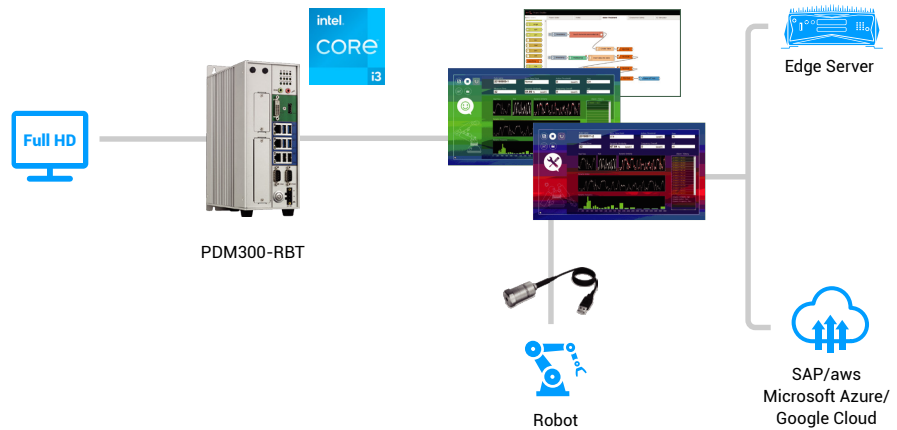
Solution Brief

NexCOBOT's Robot Predictive Diagnostic Maintenance Package: The Industry Game Changer



With the rise of Industry 4.0, robots have become increasingly prevalent and indispensable in manufacturing. However, malfunctions or failures could still bring unexpected consequences on businesses, sometimes catastrophic. Up to the challenge, NexCOBOT is proud to launch the Robot PDM Package, a ready-

to-use solution for robot diagnostics. The cost-effective offering features machine learning and quick model building as well as complete hardware and software integration, making configuring and fine-tuning robots a breeze, so you always stay ahead and keep downtime to a bare minimum.



Universal Solution for Training and Optimizing Industrial Robotics

Based on field applications and feedback from robotics end users and vendors, the Robot PDM Package was designed for wherever fast response and quick AI-based robot predictive diagnostics are priorities. It works with various robot types, such as Delta, SCARA, and Articulated Robots. As a total solution, any applicable devices are included: a gateway, sensors, and, a control software suite for monitoring, adjusting, and optimizing robot performance. Thanks to the intuitive GUI and clear application usage of our software suite, dedicated diagnostic engineers is no longer a prerequisite for monitoring robot optimization. Project delivery now can be more budget and time efficient than ever.

Fast Deployment, Rapid Action

Unlike traditional and cumbersome solutions that take weeks to complete installation or even months be ready for mass production, the compact Robot PDM Package from NexCOBOT could be set up in mere minutes and gets working immediately. The built-in adaptive AI engine takes only three minutes to complete the first robot predictive diagnostic through a close track of formulating motion patterns of paired robot system. The auxiliary magnetic sensors are effective standalone and could be attached to any surface near the robots, without having to be tightly mounted on the robots.

This neat but powerful package offers an add-on solution that elegantly slips in and out of any industrial setting on demand.

Predictive Diagnostics Improve Operation and Eliminate Downtime

Sensitive to even the most minor changes in behaviors, including patterns, energy, or activity, Robot PDM Package's sensor arrays detect vibrations to gauge robot output and overall machine health. Alerts and alarms inform you of any sudden decline in robot performance or other suspicious events, while our AI learns your environment to suggest an optimal workflow that you then use to fine tune robot units to achieve better operation.

Should any robot show even the slightest deviation from desired parameters, a system notification will be sent so that timely maintenance could be done to prevent major failure. Consequently, one of the most common sources of downtime could thus be avoided.

High Speed Detection Perfect for Burst Operation Robots

Not all machines operate in a consistent, predictable manner. Quick-action robots perform intricate and sudden moves are seen across industries. An equally fast and adaptable system are thus necessary to help monitor those constantly changing motions on the production floor. The lag-free sensors and diagnostics guarantees the Robot PDM Package stays ahead of the robots at all times. Advanced robot predictive diagnostics algorithms further enable tracing a complete workflow and employ diagnostic data to pinpoint the exact time any change took place, creating a clear context for robot conditions and performance.

Key Components

- PDM300-RBT controller based on Intel® Core™ i3-6700TE processor
- Accelerometer sensor and cable
- Robot PDM software (pre-installed)
- IoT studio (pre-installed)

nexCOBOT

Open Robots & Machines

NexCOBOT is leading technology provider in robot control and motion control, offering industrial robotic automation and EtherCAT solutions. NexCOBOT provides customized software and hardware design service and consultancy training through a world-class technical service team.

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