Turnkey Product Development of Data Acquisition System for a Leading Industrial Machine Manufacturer

**BUSINESS REQUIREMENTS**
- Real time data processing, Digital I/O, Single ended and Differential Analog inputs/outputs
- PID controller for control loop feedback implementation and error correction
- Predictive maintenance, remote debugging, Data logging

**OUR SOLUTIONS**
- Built around ARM9 processor, EtherCAT for real time communication
- PID controller, Data Acquisition logic implemented in FPGA
- Turnkey development - Board design, FPGA design, Software development, Regulatory compliance and pilot production

**TOOLS/TECHNOLOGIES**
- OrCAD capture, Cadence Allegro, Vivado design suite, ModelSim
- Isolated I/Os, High speed DAC/ADC, Analog design
- RTOS, Code Composer Studio IDE, EtherCAT Master/Slave stack

**BUSINESS IMPACT**
- Single design caters to different machines intended for diverse applications
- Custom solution replaces existing expensive off-the-shelf IO & processor modules
- Proprietary architecture protects design against plagiarism

**SOLUTION OVERVIEW**

**Case Study: Industrial Data Acquisition System**

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**PID controller for control loop feedback implementation and error correction**

**Predictive maintenance**, **remote debugging**, **Data logging**

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**Business Impact**

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