

## 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

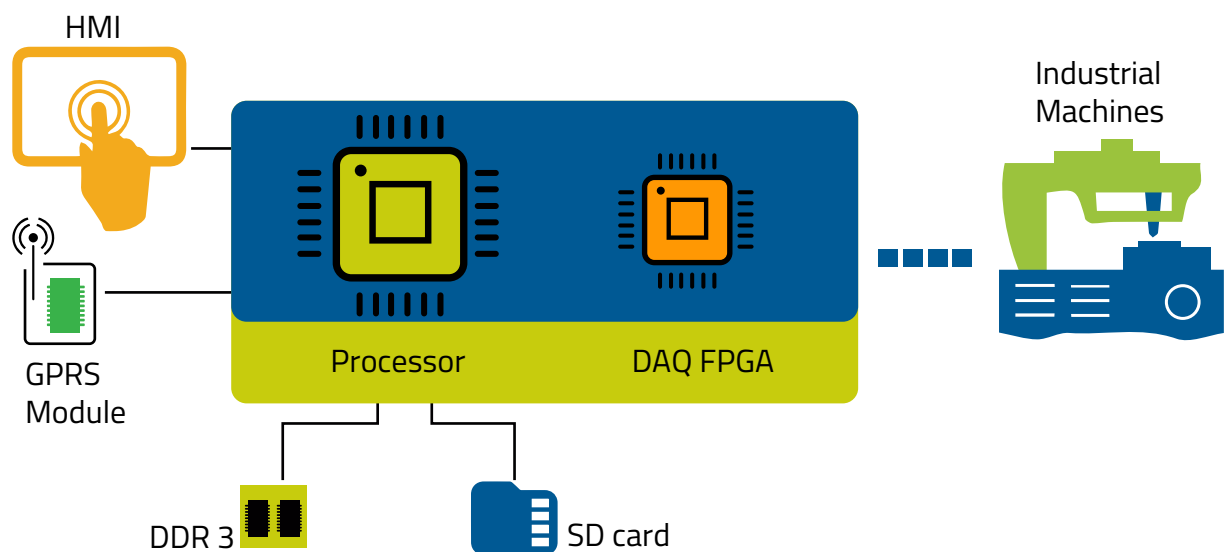


Custom solution replaces  
existing expensive  
off-the-shelf IO &  
processor modules



Proprietary architecture  
protects design against  
plagiarism

## SOLUTION OVERVIEW



### About Us

Happiest Minds, the Mindful IT Company, applies agile methodologies to enable **digital transformation** for enterprises and technology providers by delivering seamless customer experience, business efficiency and actionable insights. We leverage a spectrum of disruptive technologies such as: Big Data Analytics, AI & Cognitive Computing, **Internet of Things**, Cloud, Security, SDN-NFV, RPA, Blockchain, etc. Positioned as "Born Digital . Born Agile", our capabilities spans across product engineering, digital business solutions, infrastructure management and security services. We deliver these services across industry sectors such as retail, consumer packaged goods, edutech, e-commerce, banking, insurance, hi-tech, engineering R&D, manufacturing, automotive and travel/transportation/hospitality. Headquartered in Bangalore, India; Happiest Minds has operations in USA, UK, The Netherlands, Australia and Middle East.

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