COBOT SIMULATOR

Our IIoT virtual robot demo presents a groundbreaking innovation to revolutionize industrial Safety. Leveraging a combination of cutting-edge technologies such as a reliable platform with SIL 2/3 and powerful hypervisor from SYSGO to showcase the fusion of Safety and efficiency in Industrial IoT environments for the future of Industrial Automation.

Platform Overview
The SCB 100 platform (x86) from NexCobot is a reliable hardware solution with SIL 2/3 to comply with demanding industrial environment requirements. Managed by an EtherCAT-enabled Linux system, this platform serves as the control hub, facilitating precise and responsive interaction with the virtual robot.

Technological Advancements
Utilizing laser scanner technology, our demo achieves real-time obstacle avoidance, enhancing Safety and mitigating risks in industrial environments. Additionally, smart wheel systems provide adaptive mobility, ensuring smooth navigation through dynamic environments.

Virtual Robot Interface
The on-screen virtual robot, powered by Vectioneer's application Motorcortex interface offers users a glimpse into the future of Industrial Automation. This interface enhances situational awareness and facilitates intuitive control and programming of the virtual robot.

Safety and Security Certification
The PikeOS RTOS provides a certified SIL 2 platform with a hypervisor hosting two guest operating systems for control and Safety features. To provide highest standards of Security, PikeOS 5.1.3 is certified according to Common Criteria EAL 5+.

Components
Robot wheel, emergency button, and laser scanner, combined with a monitoring featuring Motorcortex software for 3D visualization, complete the hardware and technology stack. With this setup we are illustrating the potential of advanced technologies to enhance safety and efficiency in industrial facilities.

CUSTOMER BENEFITS

Safety & Security
- Ready for upcoming standards
- Certifiable up to SIL 2/3 (functional Safety)
- Certified to Common Criteria EAL5+ (Security)
- Functions consolidation on different levels of Safety & Security

Real-Time and Hardware Virtualization
- Multi-level safe and secure separation of applications on multi-core
- Demonstration of PikeOS layered Security architecture

SYSGO
EMBEDDING INNOVATIONS

OUR DEMO PARTNERS

SYSGO
EMBEDDING INNOVATIONS

SYSGO is the leading European manufacturer of embedded software solutions with its real-time operating system and hypervisor PikeOS and the embedded industrial-grade Linux ELinOS. Since 1991, SYSGO has been supporting customers in the Aerospace, Automotive, Railway and IIoT industries in the development of Safety-critical applications on highest industry levels. For security certifications PikeOS also meets the Common Criteria EAL 5+ level. SYSGO is part of the European Thales Group.

www.sysgo.com

intel.

Intel is an industry leader, creating world-changing technology that enables global progress and enriches lives. Inspired by Moore's Law, we continuously work to advance the design and manufacturing of semiconductors to help address our customers' greatest challenges. By embedding intelligence in the cloud, network, edge and every kind of computing device, we unleash the potential of data to transform business and society for the better.
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VECTIONEER.

Vectioneer provides Advanced Motion Control solutions for your projects or products. Vectioneer's mission is to provide a Human-Centered solution for collaborative machines, where usability and safety are key factors of a good design. At the center of the solution is Enbedded Software that control the machine and interfaces with the outside world. Our clients can be found in the fields of Aerospace, Industrial Automation, Robotics, Offshore and Semiconductor manufacturing.

www.vectioneer.com

nexCOBOT

NexCOBOT is committed to being your trustworthy partner in building open and modular intelligent robot control and motion control solutions. NexCOBOT provides key components for any robot systems, from industrial, collaborative application to specific task application. We have experience in robot controller for over 10 years. Our products are in-house designed by own R&D teams. Also, we provide high-quality after services with trustable FAE teams. With these core strengths, NexCOBOT aims to provide flexible open platforms for customers to get their robot system from concept to market faster.

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