Articulated Robot Solution

Main Features
- Standard EtherCAT communication
- Robotic function APIs provided
- 1 ms control cycle time

Product Overview
NexROBO solution provides an open programming environment for users to develop their own robot applications. It consists of robot body and NEXCOM’s robot controller in the control cabinet. Motor drives, I/O signals and related circuits are all integrated based on EtherCAT control network. I/O and motor control can easily be expanded through EtherCAT communication. Beside general system configuration, NexROBO solution always allows the flexibility to change components in the robot system for unlimited possibilites.

Specifications

Robot
- Degree of freedom: 6
- Nominal load capacity: 5kg
- Motion range
  - Maximum reach radius: 710mm (Point P)
  - J1: ±165°
  - J2: +85°—125°
  - J3: +185°—55°
  - J4: ±190°
  - J5: ±115°
  - J6: ±360°
- Position repeatability: ±0.02 mm
- Cycle time: 0.5 s
- Weight: 40 kg
- Installation: floor, ceiling, wall-mounting

Controller
- Intel® Core™ i5-3610ME processor pre-installed
- 2 x 2GB DDR3 SDRAM, pre-installed
- 500GB HDD
- 1 x EtherCAT port (Intel® 82574L)
- 1 x Intel® GbE LAN port
- 2 x DisplayPorts and 1 x VGA or 2 x DisplayPorts and 1 x DVI-D
- 4 x USB 3.0 & 2 x USB 2.0 ports
- 1 x CFast socket
- 5 x RS232 & 1 x RS232/422/485 with Auto Flow Control

Programming
- Language: visual C/C++
- Command set: position command, velocity command, torque command
- Parameters: position, velocity, torque
- RT example (RTX project)
- User API example (win32 dll project)
- GUI example (C# project)

Ordering Information

Robot Package
- NexROBO 6R Edu package (P/N: 7900000115X00)

Optional
- Robot stand (P/N: 7900000160X00)
- Teach pendant (P/N: 10IH0010001X00)
Robot Operating Space

Software Architecture

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| NexRobotkernel (Lib) for Articulated Robot | NexECMRtx | |