ASIX launches AxRobot EtherCAT 7-Axis Force-Assisted Control Robot Solution

Using ASIX AX58200 AxRobot EtherCAT slave servo drive modular design to effectively reduce the motor drive board PCB space and hardware design cost for each robotic arm joint.

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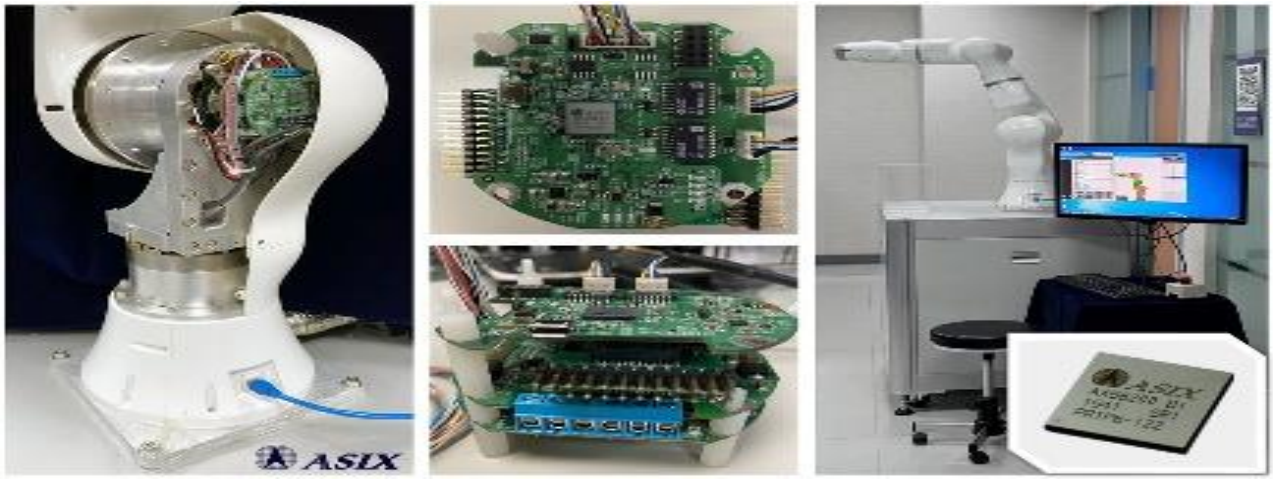
In response to the strong demand for Human-Robot Collaboration (HRC) between human and machine in the global smart manufacturing industry, ASIX launched AX58200 2/3-port EtherCAT slave controller SoC in 2019, and actively invest in the research and development of industrial Ethernet EtherCAT collaborative robot technologies. Today, ASIX launches a cost-efficient AxRobot EtherCAT 7-Axis Force-Assisted Control Robot solution based on AX58200 EtherCAT slave controller SoC. Designers can easily evaluate the AxRobot software force-assisted control robot functionalities by using AxRobot Controller worked as EtherCAT master and AxRobot EtherCAT 7-Axis Force-Assisted Control Robot with seven AxRobot servo drive modules worked as EtherCAT slave devices. This solution is suitable for smart manufacturing collaborative robot applications.



The AxRobot EtherCAT 7-Axis Force-Assisted Control Robot solution uses AxRobot servo drive modular design with AX58200 EtherCAT slave controller SoC to effectively reduce the motor drive board PCB space and hardware design cost for each robotic arm joint. Using EtherCAT Daisy-Chain network topology technology to communicate between AxRobot controller and AxRobot servo drive modules, all robotic arm joints can be easily wired together in sequence. It provides the simplest network wiring in each robotic arm joint and reduces the difficulty of equipment maintenance.

Normally, the collaborative robots are equipped with force sensors skin to obtain external contact forces information for realizing the Human-Robot Collaboration functionalities. AxRobot EtherCAT 7-Axis Force-Assisted Control Robot solution needs not be equipped with extra expensive force sensors skin, and supports the external forces assisted controller for realizing the collaborative robot functionalities. While detecting sudden external forces collision events, it can stop the operation of the robotic arm in an emergency and send out error alarm messages to ensure the personal safety of nearby operators.

ASIX offers AxRobot EtherCAT 7-Axis Force-Assisted Control Robot development kit for designers to easily evaluate AxRobot software force-assisted control robot functionalities. In addition, ASIX also offers the engineering design services for AxRobot EtherCAT 7-Axis Force-Assisted Control Robot solution. ASIX has outstanding engineering teams to provide customers the professional and timely technical services. For more information, please contact ASIX Electronics Corp. via e-mail: sales@asix.com.tw.