Sensoric Arm Master - SAM

MARKETS

Research Robotics

Safety & Security Robotics

Medical & Surgery Robotics

Space Robotics

Exploration Robotics

Hazardous Applications

Nuclear Facility Robotics

Glove Box Robotics

SERVICES

Technical Support

Installation and Setup

Application Development

Maintenance

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CHALLENGE

The control of robot arms by humans, especially in hazardous or changing environments requires the development of specific expert skills that are time consuming and require costly training.

With the Sensoric Arm Master, robot arm control is intuitive, the robot arm moves as your arm moves and the operator feels the forces that the robot arm senses increasing the feeling of presence.

When an unexpected situation occurs, just move your arm to perform new operations, without training.

OVERVIEW

- SAM is worn on your arm and is adjustable to each individual.
- SAM is lightweight and due to gravity compensation is not tiring to use, even for long periods.
- SAM can be used within sight of the robot it is controlling or many kilometers away.

SAM customers include the European Space Agency.

THE PRODUCT

- a 7 kg 7-DOF SAM portable arm exoskeleton providing force-feedback comprising 5 adjustable passive joints to adapt to the operator's morphology.
- on-board actuation (DC motors) and sensing (torque sensor and encoders).
- a joint dispatcher that communicates with the joint controllers. It integrates the joint controllers' data.
- a description how to gather data from and actuate the exoskeleton.

OPTIONS

- TCP/IP Interface to the Joint Dispatcher to make it easier for the customer to implement the controller.
- SAM controller software including joint to joint control and a TCP/IP high level interface to communicate with a slave.
- a full haptic chain comprising the exoskeleton controller software, a virtual robot slave simulator and 3D visualisation tools.

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