## Harmonic Arm 6M

Model 400 High performance arm for flexible manufacturing • testing • advanced R&D





Find and fetch objects using IR sensors both on the gripper and mobile platform

Navigate, locate, fetch, and put in a cage a ball using only a camera ounted on the Arm's gripper

- Small, agile, high precision robotic arm with user-friendly functions for easy programming
- · A new and feature-rich webinterface based on latest TCP/IP & web technology enables Model 400 to shorten program load and response times, to directly access logfiles, and to improve control pad functions and overall responsiveness
- Model 400 multi-stage controller allows more precise positioning, smoother movements, and stable position holding of the axes. Linear movements are now much more precise, quiet and smooth too
- Embedded LINUX processor makes fully stand-alone operation possible • External or built-in controller models for easier installation/operation
- logistics.
- Reduction in size and weight: only 4.3kg
- Low power consumption: 96w (24V, 4A) max. DC only operation • No safeguards are necessary for direct interaction with human workers.
- Available in a wide range of configurations (various available sensors, cameras, end effectors)
- · Intelligent control which rapidly adopts to specific operational situations using sensor signal feedback.
- · Distributed sensor and control systems enable quicker responses to any changes in local operational environment.
- · Pick-and-place objects of up to 500g
- Can also be used for repeat reliability tests of control panels, switches, and buttons for various equipments
- Offers an automation solution for complex high-precision sequences, various assembly tasks for which manual labor has been required, and operations that demand high degree of flexibility which conventional cell production systems could not cover
- Stand alone operation, controlled by a host computer through USB interface, driven by PLC, coordinated operation with mobile robot platform and controlled by WEBOTS simulation software



Separate controller to suit installtion logistics





Confirmation of delicate and sophisticated interplay between 2 arms using simulation.

Designing and "building' production line before expanding physical resources.

· Models and simulates any robots including wheeled, legged, arm, and flying robots.

Webots 5

- · Transfers control to real mobile robots, shortening software development time.
- Equipped with pre-defined models of popular robots, such as e-puck, Khepera, Koala, LEGO Mindstorm, Harmonic Arm, AIBO, Hemission.
- Uses ODE(Open Dynamics Engine) library for accurate physical modelling and simulation of your own custom robot.
- Includes a library of various sensors and actuators.
- Lets you program the robots in C, C++ and Java, or from third party software through TCP/IP.
- The graphical user interface of WEBOTS allows you to easily interact with the simulation while it is running.
- Creates AVI or MPEG simulation movies for web and presentations such as Power Point slides.
- Includes example applications with source code.
- Lets you simulate multi-agent systems, with inter-robot communication facilities.
- · Lets you simulate Harmonic Arm and a factory automation scenario without actually building facilities.
- Special package price when purchased with e-puck or Harmonic Arm.



Powerful multi-purpose robot simulator runs on PC and LINUX machines

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