

MPO-500

Welcome to the Neobotix Documentation for MPO-500



The mobile robot MPO-500 features four Mecanum wheels which provide an extraordinary manoeuvrability. Each Mecanum wheel has several independent rollers mounted along its circumference. The axles of the rollers are rotated at 45° to the wheel's main axle. This design enables the robot to instantly move into any direction: the **Mecanum wheels make it truly omnidirectional**.

This kinematics offers a number of interesting advantages over other systems like Omni-wheels or the Omni-Drive-Modules of the MPO-700:

- Mecanum wheels have proven themselves worldwide since 1973,
- they require only a very simple and robust drive system,
- they allow instantaneous motion without alignment and
- the required control software is very simple.

These extraordinary features have made Mecanum wheels a very popular solution especially in robotics research.

Specification

Payload:	Default 50 kg, high payload 150 kg
Dimensions:	986 x 662 x 409 (LxWxH, in mm)
Speed:	<0.8 m/s
Uptime:	up to 7 h or up to 3 km
Sensors:	1 or 2 x 2D laser scanner 8 x ultrasonic sensors (optional)
Control via:	External PC (WLAN) On-board computer

Range Of Application

The mobile robot may be used in a large variety of applications:

- Autonomous transportation tasks in industrial environments
- Automatic measurement of physical data in large areas (e.g. gas concentrations, temperatures, noise, etc.)
- Autonomous operations within large areas (e.g. surveillance, part handling, etc.)
- Telepresence while controlled via wireless LAN

Contact information

For more information please visit our website at www.neobotix-robots.com. If you have any questions, just get in touch with us:

- General information: <http://www.neobotix-robots.com/company-contact.html>
- ROS related questions: ros@neobotix.de