RB-1

MOBILE MANIPULATOR WITH A 12-13 DOF CONFIGURATION & FOCUSED ON THE RESEARCH FIELD OF INDOOR APPLICATIONS

RESEARCH & DEVELOPMENT AMBIENT ASSISTED LIVING INDOOR MOBILE MANIPULATION REMOTE HANDLING
TECHNICAL SPECIFICATIONS

MECHANICAL

Dimensions 608 x 500 x 1.029 mm (Folded)
Base diameter 500 mm
Speed 1.5 m/s
Environment Indoor
Enclosure class IP51
Elevation axis range 350 mm
Weight 54 Kg
DOF 12-14 DOF (6-7 DOF Arm, 1-2 DOF Gripper, 2 DOF Pan tilt, 2 DOF Traction, 1 DOF Torso elevation)
Autonomy 7 h continuous motion
Batteries LiFePO4, 30Ah@24V
Traction motors 2x250 W servomotors
Temperature range 0° to +50°C

Arm load capacity

6 DOF
2.6 Kg (Half range)
2.2 Kg (Complete Range)

7 DOF
2.4 Kg (Half range)
2.1 Kg (Complete Range)

PC

Processor 4th generation Intel i7
RAM 8 Gb
Hard drive capacity 120 Gb

CONTROL

Controller Open architecture ROS
Embedded PC with Linux
Communication WiFi 802.11ac, 4G
Connectivity 2 x USB, 1 x Ethernet and 1 x HDMI

Arm reach

6 DOF 900 mm
7 DOF 984 mm