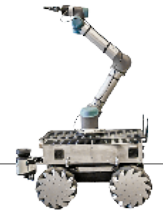
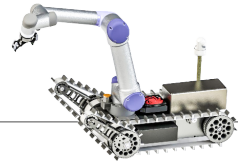


# MOBILE MANIPULATORS



	<b>RB-I</b>	<b>XL-MICO</b>	<b>RISING</b>	<b>FETCH</b>	<b>G-BALL</b>	<b>G-WAM</b>	<b>X-WAM</b>	<b>RB-KAIROS</b>
<b>Dimensions (mm)</b>	Spread out: Height: 1.029/1.379	Spread out: 1.270X613X392	Spread out: 967x540x510	Spread out: Height: 1.096/1.491	Spread out: 1.127x747x1.760	Spread out: 1.127x747x1.848	Spread out: 796x671x1.141	Spread out: 800x550x1.614
<b>Weight</b>	54 Kg	50 Kg	65 Kg	113.3 Kg	132.5 Kg	140 Kg	97 Kg	115 Kg
<b>Payload Arm</b>	MICO2 (6 DOF): 2,1 K JACO2 (6 DOF): 2,6 Kg	MICO2 (6 DOF): 2,1 K JACO2 (6 DOF): 2,6 Kg	5-7,5 Kg	6 Kg	6 Kg	WAM arm: 4 Kg	WAM arm: 4 Kg	5 Kg
<b>Speed</b>	1,45 m/s	3 m/s	2,5 m/s	1 m/s	3 m/s	1,25 m/s	3 m/s	3 m/s
<b>Enclosure Class</b>	IP51	IP54	IP54	IP54	IP54	IP54	IP20	IP54
<b>DOF</b>	12-13 DOF (6 arm, 1-2 gripper, 2 Pan tilt, 2 traction, 1 torso elevation)	11 DOF (6 arm, 3 hand, 2 traction)	6 DOF	13 DOF (base, torso lift, 7 arm, gripper and head)	6 DOF	16 DOF (7 arm, 7 hand, 2 traction)	18 DOF (7 arm, 7 hand, 3 traction, 1 elevation)	10 DOF (6 arm, 1 traction, 3 gripper)
<b>Autonomy</b>	7 h	5-10 h	3,5 h	–	3-5 h normal operation	5-7 h	5 h	8 h
<b>Batteries</b>	LiFePO <sub>4</sub> 30Ah@24V	LiFePO <sub>4</sub> 15Ah@24V	LiPO48V	Lead Acid	LiFePO <sub>4</sub> 415Ah@48V	LiFePO <sub>4</sub> 15Ah@48V	LiFePO <sub>4</sub> 15Ah@48V	LiFePO <sub>4</sub> 15Ah@48V
<b>Traction Motors</b>	2x250 W servomotors	4x250 W servomotors	–	–	2x500 W brushed servomotor	2x500 W brushed servomotor	4x500 W brushless servomotor	4x500 W brushless servomotor
<b>Applications</b>	<ul style="list-style-type: none"> <li>•R&amp;D</li> <li>•AAL (Ambiente Assisted Living)</li> <li>•Indoor mobile manipulation</li> <li>•Remote handing</li> </ul>	<ul style="list-style-type: none"> <li>•R&amp;D</li> <li>•Inspection</li> <li>•Medicine</li> <li>•Logistics</li> <li>•Remote monitoring</li> <li>•Access to harsh environments</li> </ul>	<ul style="list-style-type: none"> <li>•R&amp;D</li> <li>•Law enforcement and first responders intervention</li> <li>•Rescue and surveillance</li> <li>•Remote monitoring</li> <li>•Hazardous environments</li> </ul>	<ul style="list-style-type: none"> <li>•R&amp;D</li> <li>•AAL (Ambiente Assisted Living)</li> <li>•Mobile handling indoors</li> </ul>	<ul style="list-style-type: none"> <li>•R&amp;D</li> <li>•Search and disposal of IEDD or EOD</li> <li>•High mobility indoor &amp; outdoor navigation</li> <li>•Remotesurveillance</li> <li>•Remote measurement and mapping</li> </ul>	<ul style="list-style-type: none"> <li>•R&amp;D</li> <li>•Search and disposal of IEDD or EOD</li> <li>•Remote measurement and mapping</li> <li>•Military applications</li> </ul>	<ul style="list-style-type: none"> <li>•R&amp;D</li> <li>•Indoor mobile manipulation</li> <li>•Surveillance</li> <li>•Military</li> <li>•Remote handling</li> </ul>	<ul style="list-style-type: none"> <li>•R&amp;D</li> <li>•Indoor mobile manipulation</li> </ul>