**TECHNICAL SPECIFICATIONS**

**OMNI BASE**

Simulation model available at [wiki.ros.org/Robots/PMB-2](http://wiki.ros.org/Robots/PMB-2)

---

**GENERAL FEATURES**

<table>
<thead>
<tr>
<th>Payload</th>
<th>Dimensions</th>
<th>Max. speed</th>
<th>Traversable gap</th>
<th>Wheels</th>
<th>Shock absorber</th>
</tr>
</thead>
<tbody>
<tr>
<td>70 kg</td>
<td>50 x 72 x 31 cm</td>
<td>1,5 m/s</td>
<td>150 mm</td>
<td>4 mecanum motor</td>
<td>4</td>
</tr>
</tbody>
</table>

---

**TIAGo OMNI Base**

Mobile base with omnidirectional mecanum wheels

Two LIDAR sensors for an unobstructed 360° FOV secure movement, including autonomous navigation, obstacle detection and path planning. Move and navigate the omnidirectional base with ease thanks to its precision positioning in constrained environments.
## USER PANEL
- **Audio**: 1x 5 W audio speaker
- **Expansion**: 10x GPIO (5x IN / 5x OUT)
- **Power**: Battery / +12V / 5V / +5V / 5A

## CONNECTIVITY
- **Wi-Fi**: 802.11ax Wi-Fi 6
- **Bluetooth**: Smart 4.0 Smart Ready
- **Ethernet**: 2x Gigabit
- **USB**: 2x USB 3.0 / 4x USB 2.0

## COMPUTER
- **CPU**: Intel i5
- **SSD**: 250 GB

## ELECTRICAL FEATURES
- **Battery**: 1x 36 V 20 Ah Li-Ion

## INTEGRATED
- **LiDAR**: 2x Laser SICK TiM561 360-degree LIDAR FoV 10m
- **IMU**: 6DoF
- **Omnidirectional platform**: ✓
- **Speaker**: ✓
- **User panel**: ✓
- **Indication lights**: ✓
- **Power connector**: ✓
- **On/Off button**: ✓
- **Emergency stop**: ✓
- **Electric switch**: ✓
- **Power charger**: ✓
- **Tactile control display**: ✓
- **Ubuntu LTS + ROS**: ✓
- **Navigation software**: ✓
- **Encoders on wheels**: ✓

## OPTIONALS
- **CPU**: i7
- **RAM**: 16 GB
- **SSD**: 500 GB
- **Additional battery**: 36V 20Ah Li-Ion
- **2x channel CAN Board**: ✓
- **Dock station**: ✓
- **LiDAR**: 2x Laser SICK TiM571 360-degree LIDAR FoV 25m