Autonomous mobile and collaborative robot for material handling and order picking
SHERPA®: a collaborative, multipurpose and configurable robot

- **Safe**: Operates safely regarding people, obstacles and transported material
- **Smart**: Highly flexible regarding initial set-up and configuration, mixed use of the follow-me and autonomous modes
- **Hands-on**: Quick and comfortable handling, the operator is keeping control with a progressive and smooth carry over
- **Plug and Play**: It requires no changes neither to existing facilities nor to customer’s IT system

**Ergonomy**:
- The hands of order picking or line feeding staff are free
- It carries heavy loads instead of operators
- It saves long walking distances

**More productivity and agility**:
- It allows employees to focus on value-added activities
- It is fast and responsive, and adapts to the working pace of operators
- It replaces fixed and dedicated equipment so to streamline flows and to bring flexibility and space saving

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**His operating modes**: follow-me, autonomous and in fleet

Thanks to the “Driven by Balyo” technology, SHERPA® is able to work:
- in a safe « follow-me » mode, avoiding obstacles, reversible, suitable for narrow routes
- in an « autonomous » mode, identifying its surroundings, operating sequential work orders, and selecting the most efficient route to its destination, safely avoiding obstacles and people without need to alter facilities
- in a « fleet management » mode automating work orders and transport tasks, and selecting best-suited robot on position and availability

It also has a tool (Mission Manager), that allows the customer to program his sequences himself according to his own applications, and to connect with a WMS if required.

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**Example of application in mixed use**

![Diagram of application in mixed use](image-url)

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**Customized sequential steps**

1. Picking
2. End of picking
3. To the conveyor 1
4. Arrival at CV 1
5. Unloading full box
6. Box absence
7. To the conveyor 2
8. Arrival at CV 2
9. Loading empty box
10. Box presence
11. To the parking
12. Follow me
13. Autonomous
Available configurations

With a tray for carrying bins
With a conveyor

Main components

- Control panel
  - Simple and intuitive commands
- Customized top module
- BlueSpot*
  - Better visibility in the area nearby
- Extractable battery rack
- Identification Leds
  - Indicate the status of the robot
- Sensitive bumper*
  - Stops the robot in case of an impact with an obstacle
- Touchscreen
  - Unlocking and starting a sequence
- Lidar*
  - 360° navigation sensor
- Wifi
  - Connection for administration and maintenance
- Avoidance sensor*
  - Spot obstacles in both directions
- 3D Camera*
  - Navigation aid option, increases safety in some environments

*Contributing to safety

Simple and intuitive configuration tools

- An initial set-up facilitated, for mapping and definition of working areas
- Ability to set assignments, and to optimize and control routes
- Visualization of operations and maintenance data
**Technical characteristics**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading capacity</td>
<td>Up to 200kg</td>
</tr>
<tr>
<td>Speed</td>
<td>7 km/h (max load 100kg)</td>
</tr>
<tr>
<td></td>
<td>4 km/h (max load 200kg)</td>
</tr>
<tr>
<td>Safety</td>
<td>360° around the robot</td>
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<tr>
<td></td>
<td>CE compliance according to EN1525-1998</td>
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<tr>
<td></td>
<td>TÜV certificate</td>
</tr>
<tr>
<td>Battery type</td>
<td>Li-ion battery racks</td>
</tr>
<tr>
<td>Operating autonomy</td>
<td>8 - 10hrs depending on usage</td>
</tr>
<tr>
<td>Weight</td>
<td>75kg with battery rack</td>
</tr>
<tr>
<td>Operating environment</td>
<td>Indoor</td>
</tr>
</tbody>
</table>

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**About**

**NORCAN**

NORCAN is leader in France and one of the key players in Europe considering customized solutions based on aluminium profiles.

For more information, visit our website at www.mynorcan.com.

Based on this experience, the Robotics & Distribution department supports you from the definition of your needs to the integration of the complete solution on site, including related equipment.

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**BALYO**

BALYO is a key player in robotics intelligence, transforming standard manual forklifts into autonomous vehicles thanks to its proprietary Driven by Balyo™ technology. For more information, visit www.balyo.com.

NORCAN has entered into a strategic partnership with BALYO to develop the intelligence of the SHERPA® family. BALYO has a true business vision, ensures technological continuity and scalability, and operates a worldwide network (trading and maintenance).

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