

igus
ReBeLMove
Mobile Robots



igus ReBeLMove Mobile Robots Instruction Manual

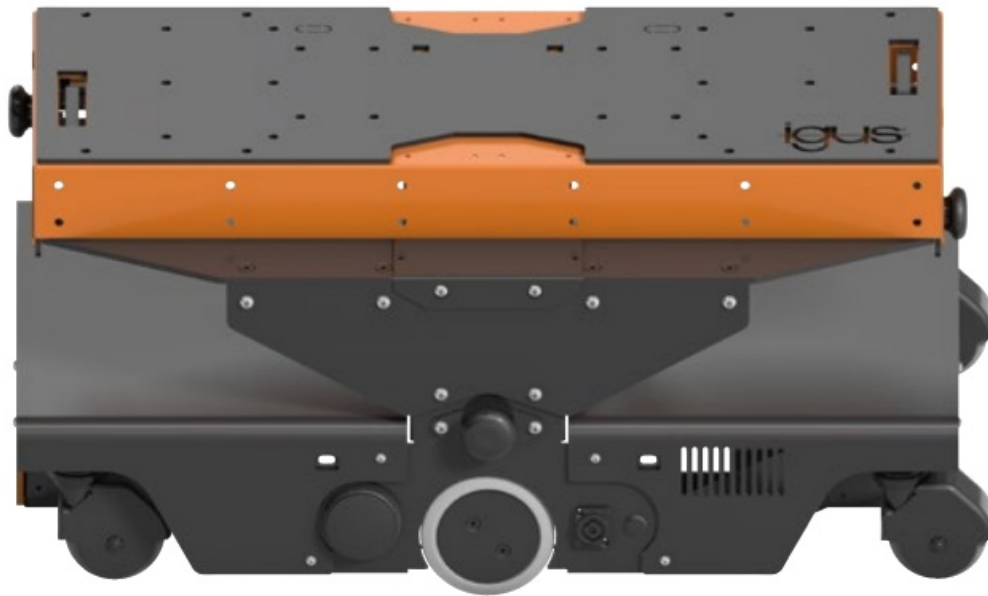
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igus ReBeLMove Mobile Robots



Specifications

- **Product Range:** ReBeLMove
- **Part No.:** REBEL-MOVE-KIT-01
- **Dimensions:** 710mm (L) x 410mm (W) x 270mm (H)
- **Weight:** 35kg
- **Approx. Load Capacity:** 100kg
- **Speed:** 1.2 m/s
- **Nominal Voltage:** 25.8V
- **CE:** CE/Performance Level D
- **Ampere-hour:** 24Ah

Sensor Technology

The ReBeLMove utilizes various sensors and components to meet CE requirements and achieve Performance Level D:

- Laser scanner in the center
- Two ToF sensors on the sides
- RealSense front camera
- Two-channel emergency stop

Product Usage Instructions

• Applications

The ReBeLMove automates various production processes such as supplying and emptying machines, transporting goods, carrying out quality processes, and more.

• Fleet Management

The ReBeLMove is compatible with VDA5050 and can be easily controlled by other fleet managers like fleet-executer, Kinexon, and Naise from Idealworks.

• Intuitive App

The Coordinator app serves as the central hub for setup, customization, and operation. It features an intuitive

user interface compatible with multiple operating systems.

- **Standard SLCs**

The ReBeLMove can transport crates in standard formats like 300x400mm and 400x600mm, with customization options available for specific transport packaging needs.

- **Separator**

The separator feature allows for seamless SLC changes without human intervention, ensuring continuous production flow.

- **Stations**

The ReBeLMove supports profile stations for SLCs, container stations for various applications, and buffer stations for flexible storage needs.

- **Tilting Protection**

Tilting protection prevents boxes from tipping during stacking, enhancing safety and efficiency in storage and shipping processes.

Autonomous mobile robot (AMR) with a wide range of benefits

- The ReBeLMove intralogistics system is ideal for transporting small load carriers (SLCs) in various applications and can be adapted to new tasks. Compared to similar AMRs, the ReBeLMove offers a cost advantage of around 40%.
- The ReBeLMove can be set up quickly and easily with the user-friendly app. It enables seamless communication via virtual (REST API) and physical IoT devices, which ensures automated process control.

The parameters of your process are monitored and the necessary transport requests started. For example, doors open automatically depending on the location and machines request refills via an IO module.

- Simple implementation thanks to intuitive app design
- Communication via virtual (REST API) and physical IoT devices
- Integrated fleet management
- 8 hours operating time
- 50kg load capacity, up to 100kg tensile weight possible

Applications

The ReBeLMove automates the following production processes, for example: supplying and emptying machines, supplying manual workstations, transporting empty containers, replenishing goods, transporting order picking trolleys, carrying out quality processes and providing tools to operatives.

Integrated fleet management

Would you like to transport pallets in addition to SLCs, for example, or do you already have other AMRs in use? The ReBeLMove can be easily controlled by other fleet managers. Fleet management is VDA5050-compatible and has already been integrated in the fleetexecuter, Kinexon and Naise from idealworks.

Intuitive app

The Coordinator is the central app for setup, customisation and operation. The intuitive user interface works on all operating systems: Android, iOS, Web, Windows and Linux.

Product range

Product range					
Part No.	Length* [m] m]	Width* ht* [mm] mm]	Heig [Approx. load capacity [kg]	Speed [m/s]
REBEL-MOVE-KIT-01	710	410	270	100	1.2
Part No.	Weight [kg]	Nominal voltage [V]	CE [Level]		Ampere-hour [Ah]
REBEL-MOVE-KIT-01	35	25.8	CE/Performance Level D		24
*Dimensions of the mobile robot platform					

Kit contents

- **ReBeLMove:** mobile robot platform
- **Charger:** reliable charger for constant machine readiness
- **Charging dock with frame:** makes charging easier and offers secure storage
- **Tablet with rugged cover:** robust tablet for demanding environments
- **Bluetooth controller:** simple and intuitive manual control system
- One-year update and support service



Sensor technology

By using the following sensors and components, the ReBeLMove fulfils the CE requirements and achieves Performance Level D:

- Laser scanner in the centre

- Two ToF sensors on the sides
- RealSense front camera
- Two-channel emergency stop

Standard SLCs

Transport crates (SLCs) in the standard formats 300x400mm and 400x600mm can be transported. Numerous customisation options make it possible to adapt the ReBeLMove to specific transport packaging and find the optimum solution for different requirements.



Separator

The separator allows for the seamless change of SLC so that the machine can continue production without interruption. No human intervention is required.



Stations

- **Profile stations 600 and 300:** for SLCs (400x600mm and 400x300mm) in material handling. Container station 600 and 300: low design, e.g. for injection-molding machines, can also be used as transfer stations.
- **Buffer stations:** they can be expanded flexibly for storing empties and full SLCs, ideal for night shifts without human intervention.



Tilting protection

The tilting protection prevents boxes and products from tipping when they are stacked, which is particularly useful when picking parts in their original packaging. It increases safety and efficiency in storage and shipping processes and minimizes the risk of damage.



Undercarriage

The ReBeLMove can pick up and put down trolleys in a flexible way. Customised superstructures such as order picking trolleys, tool trolleys and many more with loads of up to 100kg can be realised.



IoT-based

Easy integration and communication with additional infrastructure such as doors and machines. Communication via virtual interfaces (REST API) and physical IoT devices.



Customised products

We offer customized adaptations of our standards to best suit your specific applications or existing machines.

The benefits at a glance

- **Short ROI:** 12 to 24 months
- Profitable from an AMR
- Quick setup
- Easy to adapt to frequently changing processes
- No lane markings or tracks
- Add further AMRs at any time
- Can be fully integrated thanks to various interfaces: IoT, VDA5050, REST, SAP, ERP

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FAQ


Q: What is the operating time of the ReBeLMove?

A: The ReBeLMove offers up to 8 hours of operating time on a single charge.

Q: What is the maximum load capacity of the ReBeLMove?

A: The ReBeLMove has a load capacity of up to 100kg, with a tensile weight of up to 50kg possible.

Documents / Resources

	<p>igus ReBeLMove Mobile Robots [pdf] Instruction Manual REBEL-MOVE-KIT-01, ReBeLMove Mobile Robots, ReBeLMove, Mobile Robots, Robots</p>
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References

- [igus ReBeL® gearbox system](#)
- [User Manual](#)

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