UNITED ROBOTICS GROUP
the CobiotX company

UGO — THE OPERATOR INTERFACE ON THE ROBOT

User Manual

uGo

Operating and setting up the interface on the tablet at the robot — for the operator in daily use and for the technician who commissions the robot.

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Applies to	Robots with the uGo operator interface on the tablet – uLog and uServe. Sections that apply to only one range are marked in place.
State described	uGo 1.0.8, Kiosk 1.0.3, Netzschranke 1.1.9 – frozen on 10.09.2026
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Version state and change history

Version	Date	What has changed
1.0.1	12.09.2026	Two screenshots cleaned up: figure 06 (device identifier and serial number in the footer) and figure 24 (name of an entry in the map archive). Those places now carry neutral entries; the text of the manual is unchanged.
1.0	11.09.2026	First released version. Brought to the frozen state uGo 1.0.8 / Kiosk 1.0.3 / Netzschranke 1.1.9: tab bar of the technician page (section 3), Building tab with modules, calls, doors and lift (section 13), service access with a time window of 15/60/240 minutes and the Netzschranke (section 13), passwords and service key in the Device tab, sign-in from the building network (section 3), appendices VI and VIII updated. Six language versions.
0.9	02.09.2026	First complete version in the URG layout: front matter I–III newly written, manual text adopted, 28 image places set, appendices IV–IX added. superseded
0.8	20.08.2026	Manual text as a raw version without layout and without images. superseded

Every change of content to this manual is recorded here. The German text is the source version for the further language versions: a change to the German entails reworking all the other versions.

Contents

FRONT MATTER

I. Safety and usage notes 4
II. Application scenarios — what uGo is for and what it is not for 6
III. What you see — the two sides 6

BASICS

0. The status bar — on every screen 7

PART 1 — SETTING UP (TECHNICIAN PAGE)

1. Commissioning from nothing 10
2. Setting the language 11
3. Opening the technician page and signing in 11
4. Recording a map 13
5. Locating — the step that is forgotten most often 15
6. Setting stations — the two ways 17
7. Setting up the charging station 20
8. Zones — drawing a slow-speed zone 21

9.	After every change: reload the map and re-locate	23
10.	Map archive — backing up and restoring	24
11.	Tours	25
12.	Rules and the queue	27
13.	Further settings of the technician page	28

PART 2 — OPERATING (OPERATOR SIDE)

14.	The start screen	34
15.	Choosing a destination and driving	35
16.	Starting and stopping routines	37
17.	Back to the charging station	38
18.	Understanding faults	39
19.	No connection to the robot	40
20.	Journey log	40

APPENDIX

IV.	What to do if — fault list	42
V.	Terms	43
VI.	Technical details	45
VII.	All screens at a glance	46
VIII.	What is still open at the device	46
IX.	What is still open in this booklet	47

Sections 0 to 20 are numbered consecutively; front matter and appendix carry Roman numerals as in the rest of the URG range. References in the text always name the section number.

FRONT MATTER

Before you start

Safety, intended use and the two sides of the interface. Anyone who only operates the robot reads the front matter and then Part 2 from section 14.

I Safety and usage notes

This manual describes the uGo operator interface on the tablet at the robot. It does not replace the safety documents of the robot itself. Read this section before you trigger the first driving command.

The notes in this booklet have three levels. They look the same in every edition – printed booklet, PDF and web page:

NOTE

Something that makes the work easier or explains why the interface behaves as it does. No danger.

CAUTION

If this is disregarded, work is lost, the robot does not drive or it drives to the wrong place. Damage to property or a lost set-up, no danger to persons.

WARNING

If this is disregarded, people can be harmed. These boxes are the few you must not skip over.

The five points that matter with uGo

WARNING — DRIVING COMMAND ONLY WITH THE ROBOT IN SIGHT

Trigger a driving command only when you can see the robot and nobody is in the way. Tapping the destination tile sends the robot off immediately. On the Technikerseite (technician page) every driving command asks explicitly: „Is somebody standing by the robot?“ Whoever answers yes without anybody being there has sent the robot off unsupervised.

The emergency stop must be within reach.

WARNING — ZONES DO NOT SAFEGUARD A HAZARDOUS AREA

Do not safeguard a hazardous area with a zone on the map. On the technician page only the slow-speed zone is released. Stairs, ramps, drop edges, loading ramps and areas the robot must not reach are to be safeguarded structurally or organisationally – by doors, railings, barriers or operating instructions. See section 8.

WARNING — EMERGENCY STOP

The red mushroom head on the robot is the emergency stop. Press it if the robot endangers somebody, threatens to trap something, or you have to get the robot out of an unclear situation.

The pressed emergency stop releases the wheels and makes the robot pushable. Expect the robot to be able to roll on its own afterwards – on a slope, on a ramp, in a lift. Secure it before you let go of it.

To release: turn the red button until it springs out. The status bar is no longer red afterwards. Then check according to section 5 whether the robot still knows where it is – if it was moved by hand, it does not.

CAUTION — RE-LOCATE AFTER EVERY CHANGE OF MAP

Locating means: telling the robot where it is standing. It is due after every change of map, after every restart, after every reload of the map and whenever the robot has been moved by hand.

Without locating, the robot accepts jobs, shows „on the way to …“ and does not move. From the outside this looks like a defect and is none. Section 5.

NOTE — TWO SIDES, TWO ROLES

The technician page changes the device and is protected by a password. The operator side needs no password. Do not pass the service password on to people who only operate the robot – a wrongly placed station or a deleted map costs half an hour of work.

Intended use

- uGo is the operator interface of an indoor transport robot. It is operated through the tablet at the robot.
- **The robot does not carry people.** Nobody may sit or stand on the robot or let themselves be pulled by it.
- **The robot is not a safety device.** It replaces neither a barrier nor supervision.
- Load the robot only as the device documentation permits, and secure the load against slipping.
- Do not change anything about the interface that this manual does not describe.

II Application scenarios — what uGo is for and what it is not for

What uGo is for

Task	What uGo offers for it	Section
Bringing something from A to B	Tap the task, tap the destination, the robot drives. Progress, remaining distance and remaining time are shown on the journey page.	15
Recurring rounds	The technician creates a tour out of stops; the operator starts it with one button. Rules start it at a time of day or in a continuous loop.	11, 12, 16
Charging the robot	„To the charging station“ from every screen. The device finds the station itself.	17
Commissioning a robot	Record the map, locate, set stations and charging station, draw slow-speed zones, back up the map.	4–10
Connecting the building equipment	Set up u-IoT modules, call buttons, doors and lift in the Building tab.	13
Looking up what the robot has driven	Journey log with distance, driving time and number of journeys per period.	20
Classifying a fault	Plain language instead of a numeric code, plus the details the technical service wants to hear first on the telephone.	18, IV

What uGo is not for

- **Not hazard protection.** Zones on the map govern the speed, not safety. See the warning in section I and section 8.
- **Not remote control.** uGo is the interface at the robot. There is no screen with which the robot is driven from a distance, and no joystick.
- **No carriage of persons**, no pulling and no riding along.
- **Not a replacement for the configuration of the chassis.** Everything that lies deeper than map, points and zones belongs at the console and in the hands of the technical service.
- **Not for outdoors** and not for surfaces on which the robot does not stand safely.

> **NOTE**
>
> What is described is exclusively what really exists in this version of the interface. Everything that is not yet evidenced or not yet connected is expressly marked as open and is collected in appendix VIII.

III What you see — the two sides

uGo has two faces. Which one you see depends on what you want to do – not on who you are.

	Operator side	Technician page
Who uses it	Everybody who uses the robot in everyday work.	The technician who commissions or reconfigures the robot.
Password	None. Stopping a running tour also requires no sign-in.	Service password. The sign-in ends after ten minutes without access.
How to get there	It is there as soon as the tablet is running.	„Service“ button in the status bar, or press the top left or bottom right corner for two seconds.
What you do there	Choose a destination and send off, follow the journey, stop, start routines, send to the charging station, read faults.	Record the map, locate, set stations and charging station, draw zones, back up maps, create tours and rules, set up the building equipment, check device and services.
Language	Six languages, switchable in the status bar.	Always German.
In this booklet	Part 2, sections 14 to 20.	Part 1, sections 1 to 13.

NOTE — WHERE TO START

Anyone who uses the robot reads section 0 and then Part 2 from section 14. Nothing there needs a password.

Anyone who sets the robot up works through Part 1 from section 1 in order. The order is not a recommendation but the sequence in which the steps build on one another: no station without a map, no journey without locating.

What the two sides look like is shown by image 01 in section 14 and image 12 in section 3.

NOTE — ABOUT THE SCREENSHOTS IN THIS EDITION

The screenshots in this booklet were taken on 02.09.2026. In them the technician page is still shown in the earlier arrangement without a tab bar; the names of the sections and the working steps are the same. How the tab bar of state 1.0.8 is built up is described in section 3. The screenshots show the German interface, in the other language versions of this booklet as well.

Two screenshots have been cleaned up for publication: in figure 06 the device identifier and the serial number have been replaced by neutral entries, and in figure 24 the entry in the map archive carries a neutral name. Nothing else in the screenshots has been changed.

0 The status bar — on every screen

The same bar lies above every operating screen. It is the only place where the state of the robot can be read without a detour.

What is shown there	Meaning	
United Robotics Group mark	Far left. Not a button.	
State of charge in per cent	With a flash symbol while the robot is charging. Below 15 % the figure is specially highlighted.	
connected / no connection	Connection of the tablet to the chassis.	
Name of the active map	If a different name than expected is shown there, the stations are different too. See section 9.	
Fault	Appears only when a message is present. Leads to the fault page.	
To the charging station	Reachable from every screen.	
Service	Access to the technician page.	
Language code (DE, FR, ...)	Opens the sheet with all six languages.	

WARNING — EMERGENCY STOP

If the red button on the robot is pressed, the whole bar turns red, a red frame is placed around the entire screen, and all other details disappear. The bar then only shows „EMERGENCY STOP PRESSED — robot stopped“ and next to it „What to do?“. As long as this state is present the robot does not drive – and it should not.

The wheels are free while this lasts: the robot can be pushed and can roll on its own on a slope. See section I.



Image 07 — Emergency stop pressed: the wheels are free.

NOTE — THE REST IMAGE

After an adjustable time without a touch – 60 seconds by default – the face of the robot takes over the whole screen. A touch brings the operation back. As long as the connection to the chassis is missing, the face does not appear – the page „No connection“ should then be shown.

PART 1

Setting up (technician page)

Sections 1 to 13. For the technician who commissions or reconfigures a robot. The sections build on one another – work through them in order. Access is protected by the service password.

1 Commissioning from nothing

Starting position: robot and tablet are unpacked, no map of its own has been created on the device. The robot is standing in the area in which it is later to work.

1. **Switch the robot on.** Switch on the main switch on the chassis and wait until the chassis has started up.
   > **Successful when:** the tablet comes on.
2. **Check the emergency stop.** The red button must be released – turn it until it springs out.
   > **Successful when:** the status bar is not red.
3. **Wait for the connection to the chassis.** The interface queries the chassis by itself: the state every second, the pose and the journey every 0.7 seconds, the battery every 5 seconds, the map every 15 seconds.
   > **Successful when:** „connected“ is shown in the status bar and a state of charge appears in per cent.
4. **On „no connection“:** instead of the screen the page „No connection to the robot“ is shown with a counter of the retries and the information since when and when last the robot was reachable. The interface keeps trying by itself every two seconds; the button „Try again now“ is only for the impatient.
   > **Successful when:** the page disappears and the operating screen appears.

What is shown while there is still no map

A robot without a map of its own is not a fault state but the delivery state. The interface shows this in these places:

Status bar	In the place of the map name it says „loading“ until the chassis reports an active map.
Start screen	„The robot will report in shortly …“ as long as there is no profile yet. If the device reports no capability at all, it says: „This robot reports no tasks that can be operated here. Please call the technical service.“
Destination selection	„No station is entered on the map ‚…‘. Please call the technical service.“ — exactly the state after a freshly recorded map in which no points have been set yet.
To the charging station	„No charging station is entered on the map ‚…‘.“ The button for setting off is blocked.
Map view	„Map is loading …“
Technician page	If the device reports no active map, it says: „The device reports no active map.“ The list under „Maps“ stays empty or shows only the maps from the manufacturer synchronisation.

2 Setting the language

Six languages are built in. The choice applies to the operating screens; the technician pages are always German.

1. Tap the **language code** on the right of the status bar (e.g. `DE`).
   > **Successful when:** a sheet with all six languages opens.
2. **Tap the desired language.** Every language is shown as it calls itself – „Italiano“, not „Italian“. The current one is marked as such. There are deliberately no flags: a flag stands for a country, not for a language.
   > **Successful when:** the sheet closes and the labels of the operating screens are in the new language; the code in the bar has changed.
3. **To cancel:** „Back“ at the bottom of the sheet or the Escape key.

For commissioning, the language can also be given through the address, for example `?sprache=fr`. That is meant for test runs, not for operation.

3 Opening the technician page and signing in

1. Tap **„Service“** on the right of the status bar.
   > **Successful when:** the page „Technician page“ appears, with the red line „This page changes the device. Every action asks first.“
2. **Second route**, if the button is not reachable: press the area at the top left of the status bar for two seconds – or the bottom right corner. A bar runs while you hold.
   > **Successful when:** the technician page opens after two seconds.

3 **Sign in.** If the page says „Not signed in“, the link *Sign in* leads to the sign-in page. There is a numeric keypad of its own there – in kiosk operation the on-screen keyboard is not reliably shown, which is why a password of digits is recommended. Typing into the field works nonetheless.

> **Successful when:** after „Sign in“ the technician page appears and „Signed in as technician“ is shown at the top.

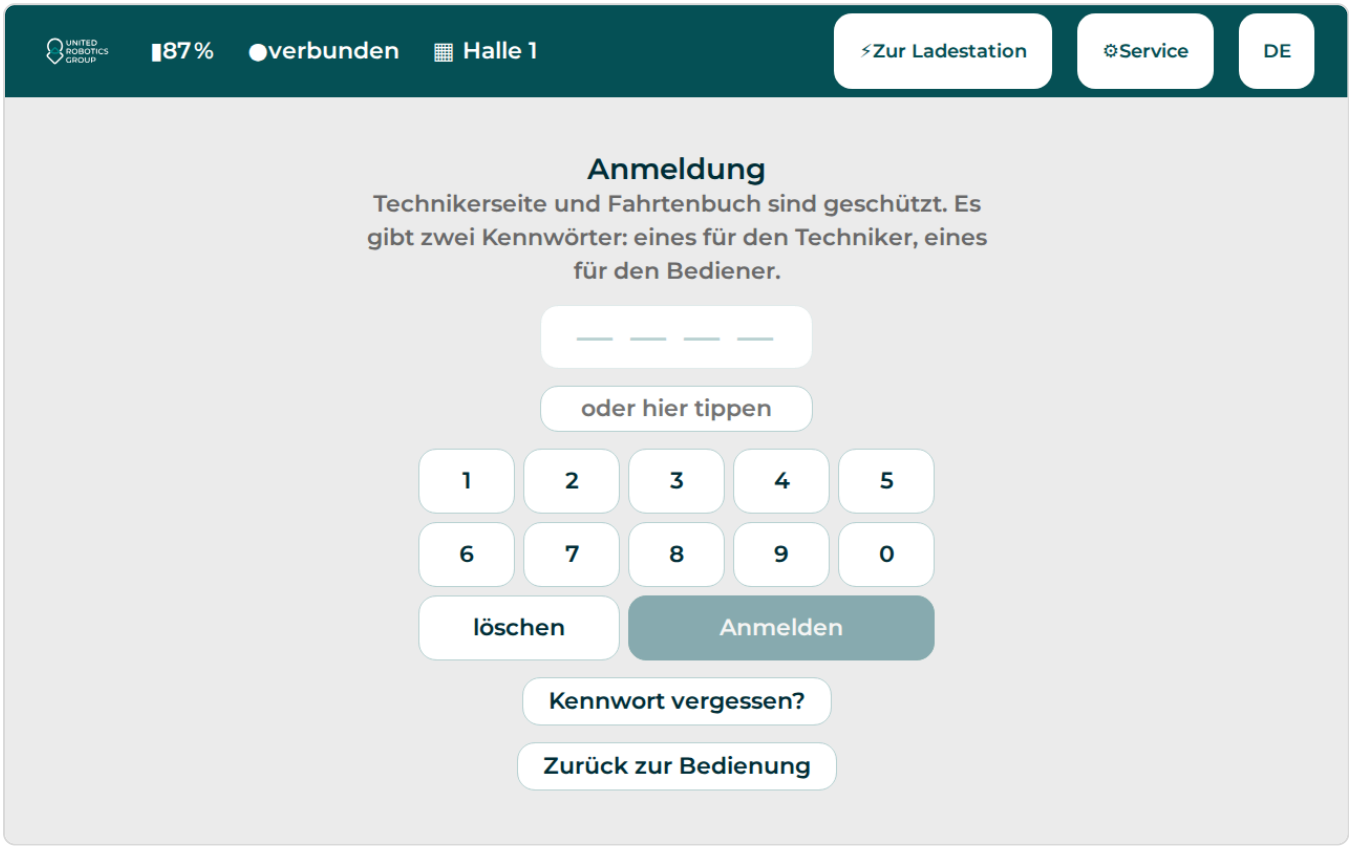


Image 12 — The technician page requires the service password.

There are **two passwords**: one for the technician (maps, points, pose, mapping run, building, services) and one for the operator (journey log and displays only). After signing in, the operator lands on the journey log, the technician on the technician page. A machine working through a service key counts as an operator: driving yes, configuring no.

The tab bar of the technician page

Since state 1.0.8 the technician page is divided into tabs. The working steps in this booklet are unchanged; only the route there has become shorter.

Map and zones	Maps, map archive, recordings, set pose, points of the map, zones – sections 4 to 10
Building	u-IoT modules, calls and call buttons, doors and lift – section 13
Device	State, device identifier, clock, driving, passwords, service keys, service access, services – section 13
Display and media	Rest image, second display, files on the robot – section 13
Installation	Lift and people, maintenance window – section 13
Administration	Logs, enrolment with the site – section 13

Tours and rules have pages of their own; the buttons **„Tours“** and **„Rules“** are at the top of the technician page (sections 11 and 12).

CAUTION — SESSION AND PROTECTION

The sign-in ends **after ten minutes without access** – or immediately with „Sign out“ at the top right. Reason: a robot stands in a corridor; a technician page left open then belongs to anybody who walks past. If the session expires, changes are rejected and the interface says so in plain language. Reading remains possible.

A session survives a restart of the uGo server; a change of the technician password ends all other sessions. After five failed sign-ins from the same place the server waits 60 seconds, then twice as long each time.

If **no service password is set** on the server, „Sign-in: off“ is shown at the top and the technician page is unprotected. Fine for the test set-up – not at the customer. **Assign the service password before the robot goes onto the customer network.**

NOTE — AT THE DEVICE AND FROM THE NETWORK

At the device itself – on the tablet in the Kiosk shell – operation remains possible without signing in, and the stop button never needs a password. **From the building network every page needs a sign-in**, including the start page and the map view. An operator who calls up the technician page lands in the journey log.

4 Recording a map

Tab **Map and zones**, section „Record map“. A mapping run takes as long as it takes to walk every corridor once – reckon with half an hour.

1. Place the robot at the **starting point**, preferably where it is to return to at the end.
2. Press **„Start mapping run“** and confirm the query.
   > **Successful when:** the message „Mapping run *number* is running“ appears and above it the box „Mapping run no. … is running“.
3. **Push or guide the robot slowly by hand through the whole area**: every corridor, every corner, back to the starting point at the end.
   > **Successful when:** you have been everywhere the robot is later to drive. Whatever is not covered now will not exist on the map later.
4. Press **„End mapping run“**. The device then computes the grid and the image for a few more seconds; the interface waits 2.5 seconds and fetches the result.
   > **Successful when:** the message „Mapping run … finished. Now assign a name and save.“ appears and below it a box with origin and resolution together with the field „Name of the map“ opens.
5. **Enter a name and press „Save as map“**, confirm the query. At most 64 characters.
   > **Successful when:** the message names the new map number and the sizes of the map data, and the map is in the list under „Maps“ above.

CAUTION — TWO STUMBLING BLOCKS

First: only **one** mapping run can be running at a time. If one is already running – even one from yesterday, even one started by somebody else – the device rejects every further one with an internal error. The way out is **„Look for a running mapping run“**: the interface adopts the running number, and „End mapping run“ is available again. This happens automatically when the technician page is opened.

Second: the freshly saved map is **not yet active**, and it has no stations yet. Both follow in sections 5 to 7.

Making a map out of an old recording afterwards

Every mapping run stays on the chassis as a recording, even if a map was never made from it. Section „Recordings on the device“:

1. Press **„Load recordings“**.

   > **Successful when:** the message says how many recordings there are, how many of them are finished, and the table shows number, state, start, duration and resolution.

2. For a row with state `finished`, enter a **map name** and press „save“.

   > **Successful when:** the message names the new map number. Rows that are not finished carry the note „not finished“ instead of the fields.

The times in this table come from the clock of the chassis, and that can differ from the clock of the tablet (see section 13). For recognising a run it is still enough, because the order is right.

Activating the map

1. Place the robot **physically on the charging station**, provided the new map already has one. A completely fresh map has none yet – then continue with section 5.

2. Section „Maps“, press **„activate“** on the desired map. The query says expressly: the robot must be standing on the charging station for this, it loses its pose when switching, and the pose is therefore set to the charging station of the new map immediately.

   > **Successful when:** the message reads „Map ‚…‘ is active, and the pose was set to the charging station at the same time“ – and in section „State“ *localisation* shows `positioning`.

3. If the new map has **no charging station**, the interface says so expressly and does not set the pose. Section 5 is then mandatory before the robot drives.

Further actions in section „Maps“: **rename** (change the name in the field, then „rename“ – the operator meets this name on the screen later) and **delete**. The active map cannot be deleted; the query names the map, because a map is half an hour of pushing through the building.

5 Locating — the step that is forgotten most often

> **CAUTION — WITHOUT LOCATING, NOTHING DRIVES**
>
> **Locating means: telling the robot where it is standing.** It is a step of its own, not an accessory. It is due **after every change of map**, **after every restart**, **after every reload of the map** and whenever the robot has been moved by hand.
>
> **What happens without locating:** all stations that are set land on the same spot, and every journey fails with `starting_point_out_of_map`. The robot accepts jobs, shows „on the way to …“ and does not move. From the outside this looks like a defect and is none.

5.1 How to tell that locating is missing

- At the very top of the technician page there is the box „The robot does not know where it is.“ with the raw message of the chassis.
- In section „State“, *localisation* shows something other than `positioning`.
- On the operating screen the fault page may report „The robot no longer knows where it is“ (number 503).

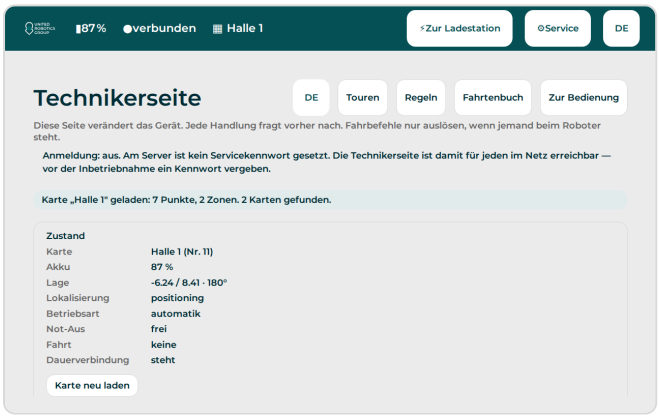


Image 13 — State: map, pose, locating, operating mode.

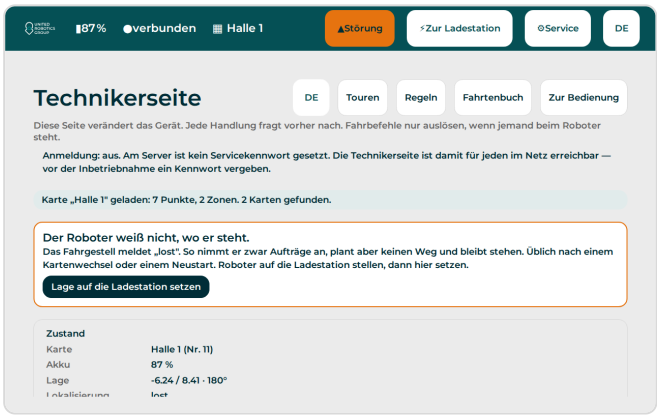


Image 16 — The robot is not sure where it is.

5.2 The quick way: set the pose to the charging station

1. Place the robot **physically in the charging station**. Not beside it, not roughly.
2. In the warning box at the top press **„Set pose to the charging station“** and answer the query „Is the robot really standing on the charging station now?“ with yes.

   > **Successful when:** the message „Pose set to … / …, …°“ appears and in section „State“ *localisation* shows `positioning`. The warning box disappears.

The button is blocked and carries the label „No charging station on this map“ as long as the active map contains no charging station. Then 5.3 applies.

5.3 The precise way: „set the pose pin“

Section **„Set the pose pin (set pose)“**. It tells the robot point by point where it is standing.

1. Place the robot at a spot **whose coordinates are known** – as a rule on a point of the map that has already been set.
2. **Enter the numbers.** Three fields: *x* (m), *y* (m), *angle* (°). The orientation is entered in degrees; the interface converts to radians.
3. **Shortcuts:** „Adopt reported pose“ enters what the chassis is reporting at that moment. In the point table further down, the button **„to pin“** enters the coordinates of that point – that is the usual case when setting up.

   > **Successful when:** the three fields contain the expected numbers.
4. Press **„Set pose pin“** and confirm the query with the three values.

   > **Successful when:** the message „Pose set to …“ appears and *localisation* shows `positioning`. The line *pose* then shows values close to the ones set.
5. **Cross-check:** open the map view and check whether the robot arrow is where the robot really is.

   > **Successful when:** arrow and reality agree – in direction too.



Image 17 — After locating, the arrow is in the right place.

> **NOTE — REMEMBER THE ORDER**
>
> First locate, then set stations. Whoever sets points while the robot is not located sets them all at the same wrong place.

6 Setting stations — the two ways

Section **„Points of the map“**. There are two ways to create a point; both end with the same button. Three types can be created: **delivery point (station)** – the ordinary station –, **charging station** (see section 7) and **door/barrier**. The docking point is deliberately missing from this list: the device creates it itself.

6.1 Way A — drive there (the more precise one)

The pose comes from the same source from which the device sees itself. The angle is the one in which the robot is currently standing.

1. **Bring the robot to the place** where the station is to be, and align it as it is to stand there later. The angle says which way round it stands at the destination – at a handover point, therefore, where the flap points.

   > **Successful when:** the line „Robot is at: …“ next to the input fields shows plausible values.

2. Make sure that **„Set on the map“ is switched off**. A tapped location takes priority over the robot pose. If a location is still set, delete it with „Discard location“.

   > **Successful when:** the button at the bottom is called „Create point here“ and not „Create point at the set location“.

3. **Enter a name** (e.g. „Sample reception“) and choose the **type**.

   > **Successful when:** the button „Create point here“ is enabled.

4. Press **„Create point here“**.

   > **Successful when:** the message reads: „Point ‚…‘ created at *x* / *y* · *angle*° (from the robot pose). The points are stored on the device and also appear on the operating screen.“ – and the point appears in the table below.

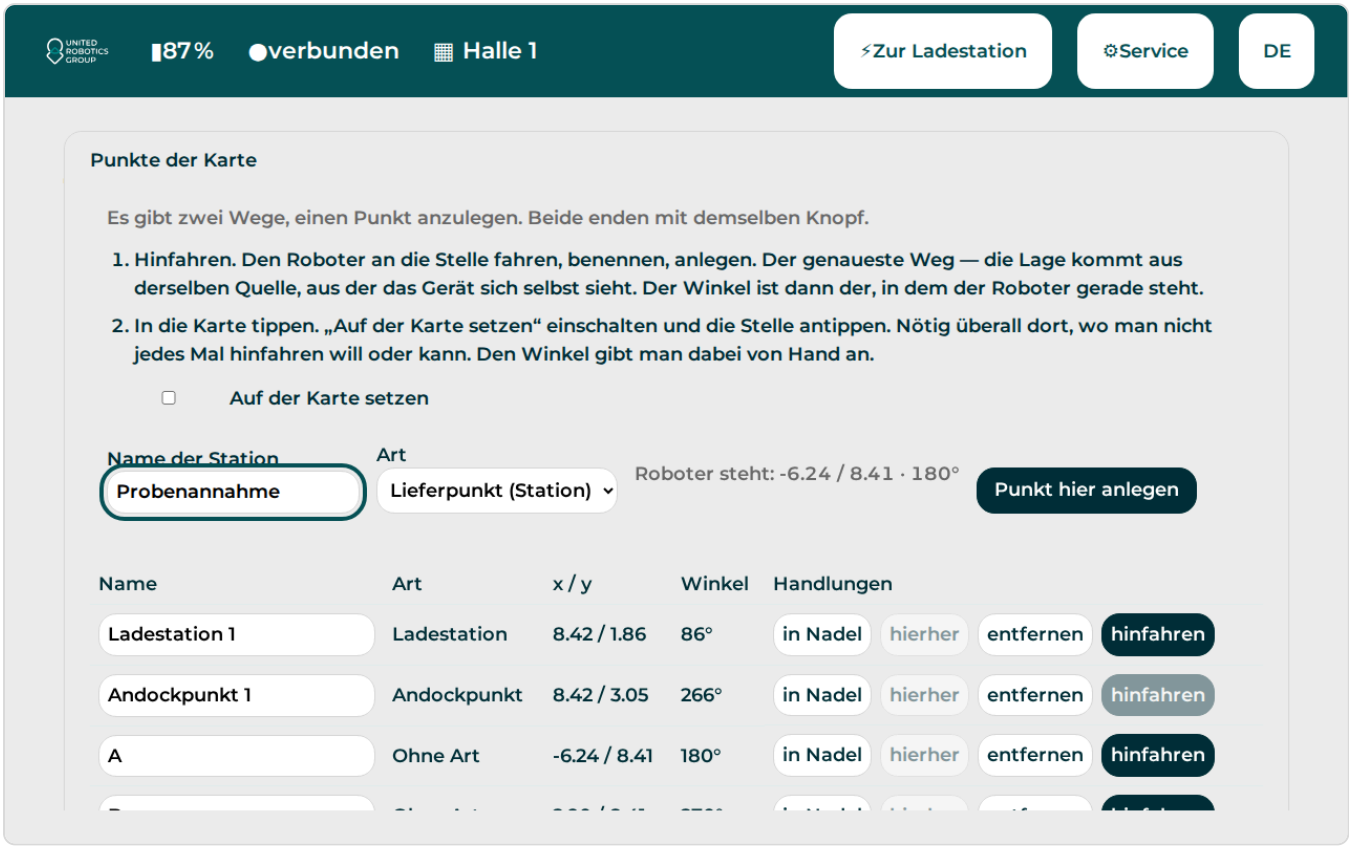


Image 18 — Drive there, name it, create it.

6.2 Way B — tap on the map

Needed everywhere you do not want to or cannot drive each time: in front of a closed door, behind a barrier, in an area the robot must not enter. The angle is given by hand in this case.

1. Switch on the **„Set on the map"** switch. Drawing zones and setting points exclude one another; switching one on switches the other off.
   > **Successful when:** the map appears and next to it it says „set: nothing yet – please tap on the map".
2. If necessary press **„Large map"**. The map then takes the whole screen. You cannot hit ten centimetres accurately in the small view.
   > **Successful when:** the map fills the screen.
3. **Tap the spot.** Dragging moves the map, the buttons at the bottom right zoom and fit.
   > **Successful when:** a cross is on the map and next to the switch the coordinates „set: *x* / *y*" are shown.
4. **Nudge it precisely.** The four arrow buttons under „Fine (5 cm)" move the location in five-centimetre steps; the two rotation buttons beside them turn the angle in fifteen-degree steps. On the tablet a finger does not hit ten centimetres.
   > **Successful when:** the displayed coordinates change by 0.05 each time.
5. **Enter the angle.** Field „Angle (degrees)". 0° points in the direction of the x axis of the map.
   > **Successful when:** the marker on the map points in the desired direction.
6. **Enter name and type**, then press „Create point at the set location".
   > **Successful when:** the message ends with the addition „(set on the map)" and the point is in the table.

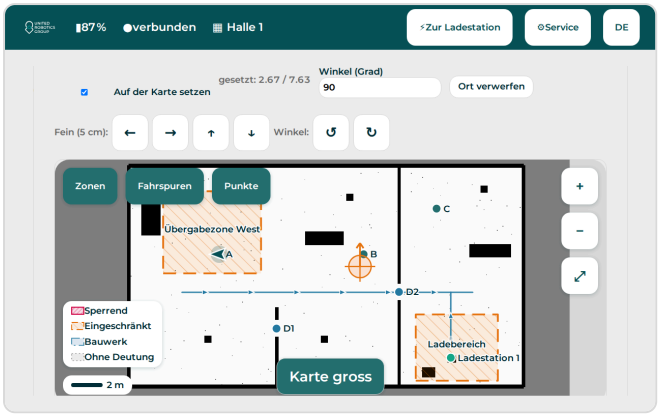


Image 19 — Tap on the map and give the angle.

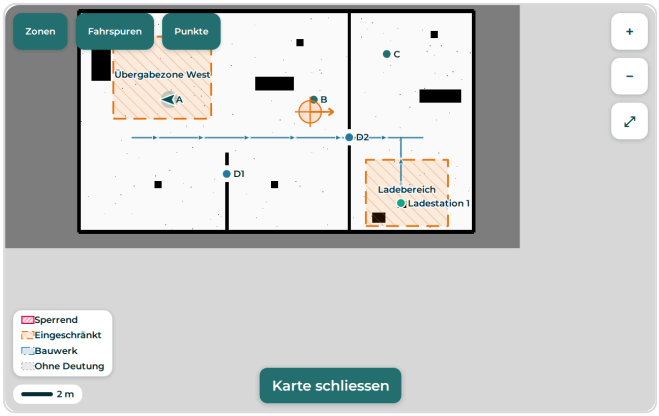


Image 28 — Use the whole area for setting up.

6.3 Changing, moving and removing points

In the table below the form every point is listed with name, type, coordinates and angle. Types that the interface only assumes carry the addition *(assumed)*.

Button	What it does	Successful when
Change the name in the field	Changes the name in the map. Only „Write points to the device“ makes it permanent.	The message „The points are stored on the device …“ appears.
to pin	Enters the coordinates of this point into the three pin fields.	The fields in „Set the pose pin“ carry the values of the point.
to here	Moves the point to the location previously set on the map, with the entered angle. The identifier of the point is kept – tours and rules hang on it.	The message names the new coordinates. Blocked as long as no location is set.
remove	Takes the point out of the map. Query with the name.	Message „Point ‚…‘ removed.“, the row disappears.
drive there	Sends the robot to this point now. Blocked for derived points.	Message „Job *number* is running: ‚…‘.“

WARNING — DRIVING COMMANDS ONLY UNDER SUPERVISION

Only trigger driving commands when somebody is standing by the robot. The button „drive there“ asks exactly that: „The robot is DRIVING to ‚…‘ now. Is somebody standing by the robot?“ The same applies to „To the charging station“ in section „Driving“ and to „Drive this tour now“. The emergency stop must be within reach.

7 Setting up the charging station

> **CAUTION — THE ROBOT MUST BE STANDING IN THE STATION**
>
> The robot must be **physically standing in the charging station** when it is created. The station is created at the place where the robot is standing (way A) – if it is standing somewhere else, the charging station is somewhere else and docking fails.

On the chassis a charging station is **not a single point but a pair**: the station itself and the **docking point** in front of it, connected by a mutual link. If the partner is missing, on a charging command the chassis looks for a charger at this place and does not find one – the message then reads, in essence, `failed to find charger`.

The interface creates the docking point **automatically as well**, about 0.9 m in front of the station, in the direction of the station angle, with the opposite angle (station angle + 180°). The docking point deliberately gets no name: it is an accessory, not a destination of its own, and it therefore appears neither in the destination selection nor as a tappable point on the map.

1. Drive or push the robot **into the charging station** until it is standing correctly.
   > **Successful when:** it is standing as it is later to stand for charging.
2. Section „Points of the map“: **switch „Set on the map“ off** so that the robot pose applies.
   > **Successful when:** the button is called „Create point here“.
3. **Enter a name** and choose **„Charging station“** as the type.
4. Press **„Create point here“**.
   > **Successful when:** the message contains the addition: „The docking point was created 0.90 m in front of it – please check on the map whether there really is room there.“ – and two new rows are in the point table: the charging station and an unnamed docking point.
5. **Check on the map** whether there really is room in front of the station: open the map view, zoom in on the station and check whether the docking point lies clear and not in a wall, a piece of furniture or a door leaf.
   > **Successful when:** the docking point lies in a clear area from which the robot can drive straight into the station.
6. **Test:** let the robot drive away a little and then press „To the charging station“ in section „Driving“ – with somebody by the robot.
   > **Successful when:** the message „Charging journey *number* is running“ appears, the robot drives into the station and the flash symbol appears next to the state of charge in the status bar.

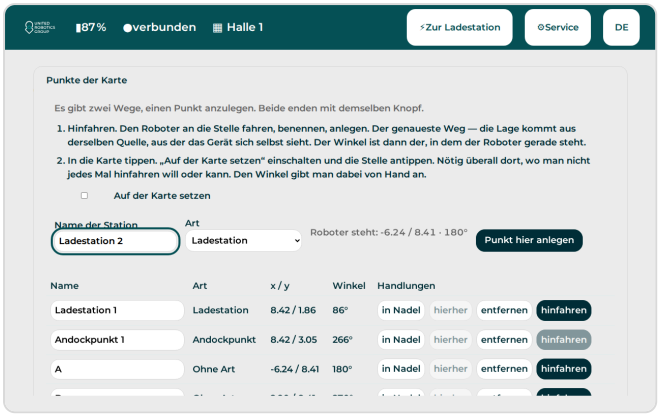


Image 20 — Choose the type „Charging station".

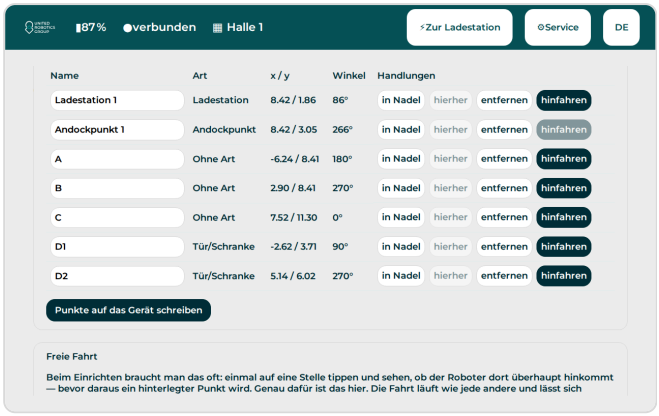


Image 21 — The pair: station and docking point 0.9 m in front.

CAUTION — IT DOES NOT WORK WITHOUT THE DEVICE IDENTIFIER

The charging station carries a field containing the identifier of the robot – it says which robots may charge here. If the interface does not know this identifier, it rejects the creation with a sentence of its own and asks you to check the connection to the device. Then look at the **Device** tab first: an identifier must be shown there.

8 Zones — drawing a slow-speed zone

Section **„Zones"**. Exactly one zone type is released: the **slow-speed zone**. Within such a zone the robot drives at about 0.26 metres per second instead of the usual 0.55 – as it also says on the screen. Purpose: to slow down at junctions, in front of doors and in narrow corridors.

1. Switch on the **„Draw zone"** switch. It switches „Set on the map" off automatically.

   > **Successful when:** the map appears and next to it it says „no corner yet – please tap on the map one after another".

2. Press **„Large map"** if the area is to lie exactly.

3. **Tap the corners of the area in order along its edge.** Every tap sets another corner; the cross is always on the last one set. **At least three corners** – with two you would get a line, not an area. The first corner does not have to be tapped again, the area is closed on creation.

   > **Successful when:** next to it „*n* corners set" is shown and below it the list „Corner 1: …" with the coordinates appears.

4. **Correcting:** delete individual corners from the list with „undo", all of them with „Discard all corners".

   > **Successful when:** the number of corners set changes accordingly.

5. **Enter the name of the zone** and press „Create zone"; confirm the query.

   > **Successful when:** the message reads „Slow-speed zone ‚…' created with *n* corners" and the version number of the overlays has advanced.

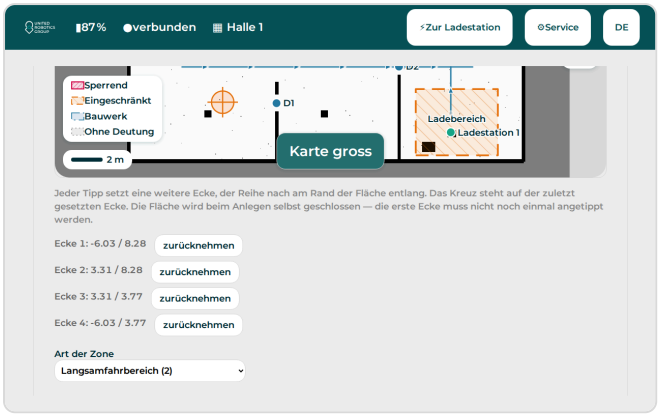


Image 22 — Setting a zone corner by corner.



Image 23 — The zones of the map with their type.

If instead it says „The version number of the overlays is unchanged at …, although the content is right. Please check at the device.“, the device may not have adopted the change. Then check at the device rather than noticing it at the next restart.

Removing a zone: press „remove“ in the table below. The query says: the robot will then drive there at normal speed again.

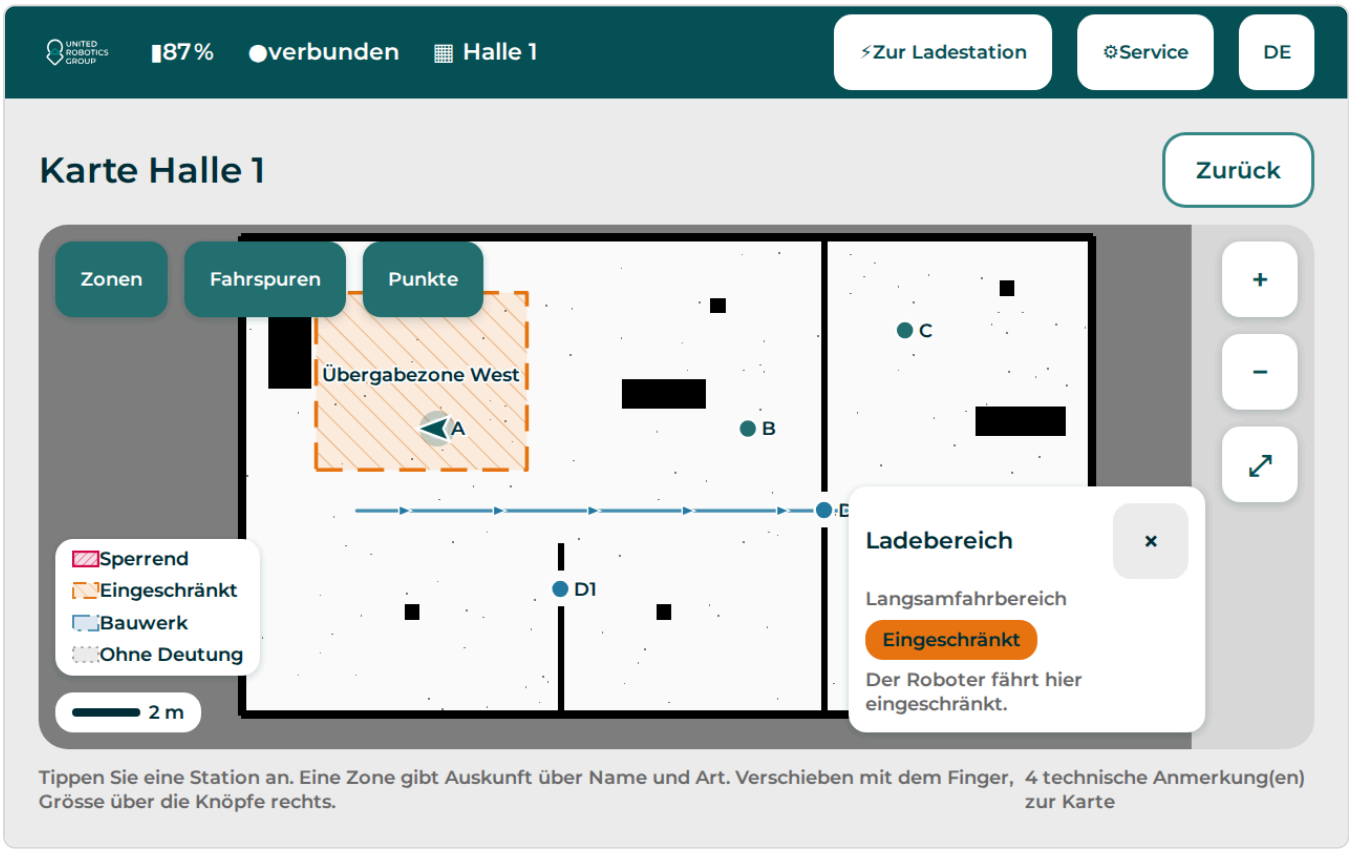


Image 10 — Zones on the map, with their meaning.

> **NOTE — THE SPEED IS NOT IN THE ZONE**
>
> You choose the **type**, not the speed. On the chassis the zone only carries a code; which speed follows from it is decided by the chassis. There is therefore no field for „m/s“ in the interface.

WARNING — NO KEEP-OUT ZONE AS A SAFEGUARD

On this page **only the slow-speed zone** is created. Other zone types are not released; wherever the interface offers such a type at all, it carries the warning that it is not assured how the chassis reacts to it. A keep-out zone that looks right on the screen but is not understood as a barrier by the chassis lets the robot drive through it anyway. A wrongly drawn slow-speed zone, by contrast, costs at most speed.

Therefore: **no area is safeguarded by a zone.** Drop edges, stairs and ramps are to be safeguarded structurally or organisationally. Keep-out zones belong in the configuration of the chassis and in the hands of the technical service.

The section „Map overlays (raw data)“ on the same page lists every overlay with its identifier – so that existing zones can be checked.

9 After every change: reload the map and re-locate

CAUTION — OTHERWISE THE CHASSIS DOES NOT KNOW THE CHANGE

A new point and a new zone only exist once the **map has been reloaded**. Without that the chassis does not know the change: the point is in the list, the journey there fails. And because reloading discards the pose, **locating** from section 5 is mandatory afterwards.

1. **Finish the changes.** Points: „Write points to the device“. Zones: creating already writes.
   > **Successful when:** the message „The points are stored on the device …“ or the zone message with the advanced version number appears.
2. Section „State“: press **„Reload map“**.
   > **Successful when:** the message „Map ‚…‘ loaded: *n* points, *n* zones.“ appears and the figures contain the change.
3. **Re-locate.** Place the robot in the charging station, then „Set pose to the charging station“ – or „Set the pose pin“ according to section 5.3.
   > **Successful when:** *localisation* shows `positioning` again.
4. **Cross-check on the operating screen.** Press „To operation“, then „What is to be done?“ → task → „Where to?“.
   > **Successful when:** the new station is in the tile list. The operator interface fetches the map every 15 seconds anyway; after saving points and zones the technician page additionally updates the operating state immediately.
5. **First journey to the new station** – with somebody by the robot, emergency stop within reach.
   > **Successful when:** the robot sets off and arrives instead of showing „on the way“ and standing still.

NOTE — SAID OPENLY AND HONESTLY

The button „Reload map“ demonstrably does what step 2 says – it fetches the active map together with points and zones fresh from the chassis. Whether and how the chassis reads in its own internal copy again cannot be read from the interface. In practice the order above has proved itself; if it does not lead to the goal, switching the map („activate“, section 4) helps, which sets the pose at the same time.

10 Map archive — backing up and restoring

CAUTION — UNSAVED MAPS ARE LOST

Why this is not a side issue: when its map service restarts, the chassis keeps only the maps that come from the manufacturer synchronisation. **Everything that was recorded on site is discarded.** That is how two recorded maps are lost in one morning. Nobody has to spend half an hour pushing through the building twice.

Section **„Map archive“**. What is backed up are the map data, occupancy grid, origin, resolution and the overlays with points and zones – the storage is on our own server, not on the chassis.

1. Press **„Compare archive and device“**.
   > **Successful when:** the message counts: how many maps are in the archive, how many of them are missing on the device and how many maps of the device are not yet backed up.
2. **Immediately after every new map:** press „Back up all maps of the device“.
   > **Successful when:** the message reads „*n* maps taken into the archive.“ – or „There was nothing to back up“. Every row in the archive names the time, the size and, if present, the addition „with points and zones“.
3. **Watch the warning line:** if it says „*n* map(s) on the device are not yet backed up … At the next restart of the map service they would be gone.“, step 2 is due.
4. **Restoring:** press „restore to the device“ on the desired row. If the name is already taken on the device, the interface asks once for a different name.
   > **Successful when:** the message reads „Map ‚…‘ is back on the device, now as no. *n*. It is NOT yet active“.
5. Then **activate** the map (section 4) and **locate** (section 5).



Image 24 — Backing up and restoring.

> **NOTE — MAPS FROM THE CLOUD**
>
> Maps that come from the synchronisation with the uSuite survive a restart of the map service. In the uSuite the map backups can be viewed and compared; **a map is activated exclusively here at the device**. There is no mapping run from the cloud.

11 Tours

Page **„Tours and routines“** (button „Tours“ at the top of the technician page). A **tour** is a sequence of **stops**: drive to A, wait there, drive to B, wait, and so on. The technician creates tours; the operator starts them on the start screen.

A stop carries the **identifier** of the map point **and** its **coordinates**: the identifier so that it becomes visible when a point disappears from the map; the coordinates so that the tour still drives after a rename.

Creating a tour

1. Press **„New tour“**.
   > **Successful when:** a box „Tour *n*“ appears with the note „New – save first, then it can be driven.“
2. **Enter a name.**
3. **Add stops:** at the bottom under „Add stop“ choose a point of the active map from the list. Every choice appends a stop at the end.
   > **Successful when:** the stop is in the numbered list, with name and coordinates.

4 **Set per stop:** *wait (s)* – default 5 – and optionally *„on confirmation“*. With this tick, the robot waits there until somebody confirms on the screen.

5 **Change the order** with ▲ and ▼. The order is the tour. **Remove** takes a stop out.

6 **Set for the whole tour:** *continuous loop* (with „Pause between rounds (s)“) and *„To the charging station at the end“*.

7 Press **„Save all tours“**.

> **Successful when:** the message „The tours are saved.“ appears and the note „New – save first“ disappears.

If a point is missing on the active map, the stop is marked: „— this point is no longer on the active map“. That is the usual finding after a change of map.

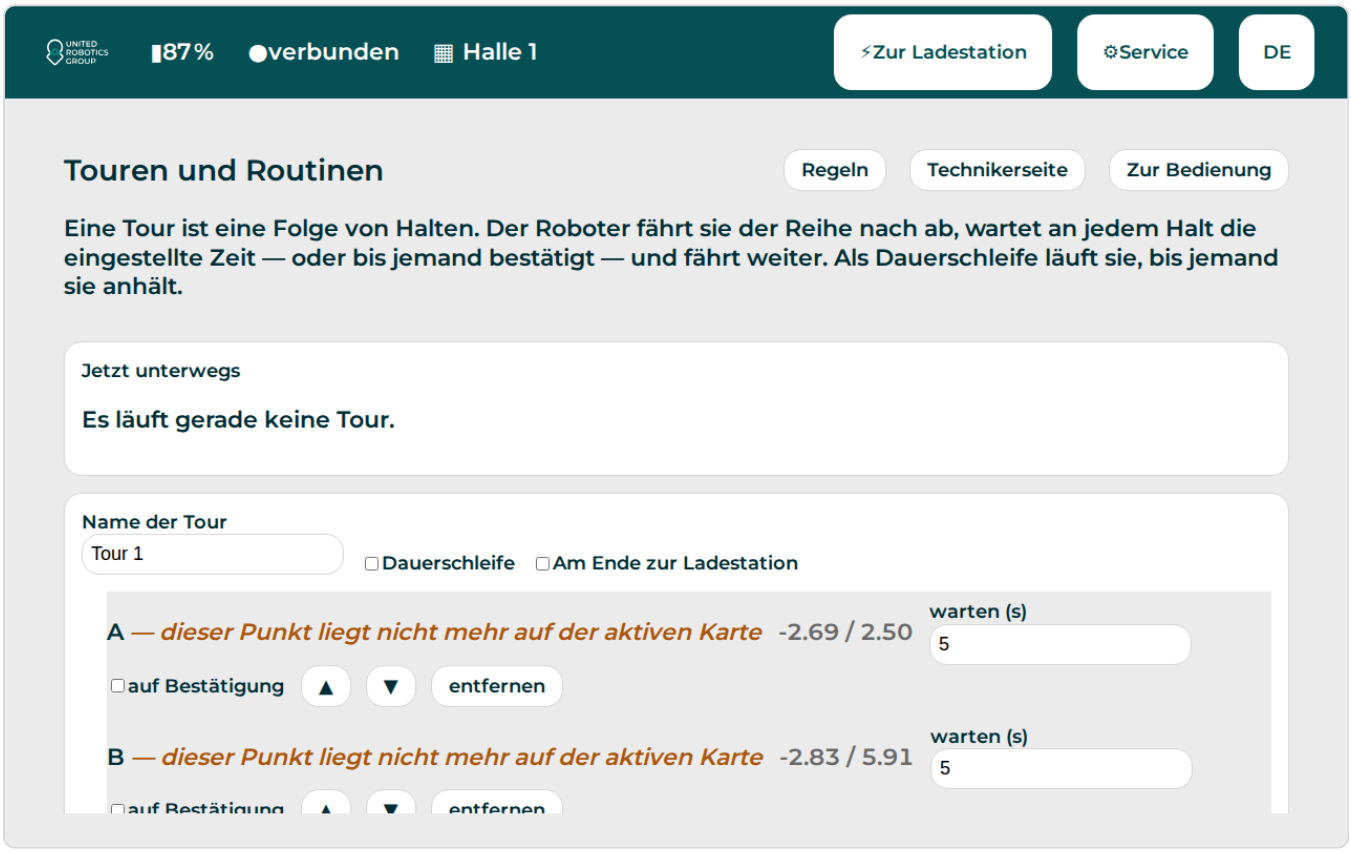


Image 25 — Composing a tour from stations.

Driving and controlling a tour

The box **„On the way now“** at the very top shows the tour, stop *x* of *y*, stop name and round as well as the state: *The robot is driving* · *Waiting another n seconds* · *Waiting for confirmation at the stop* · *Pause between two rounds* · *Paused*.

Drive this tour now	Starts the tour. Blocked while a tour is running, the tour has no stops or it has not yet been saved.
Pause	Stops the robot where it is – the running driving command is cancelled at the device so that it does not roll on to the destination – and remembers the stop. The waiting time does not continue to run.
Continue	Drives to exactly this stop again.
Stop tour	Ends the tour completely. The next start begins at stop 1 again.
Stop confirmed, continue	Appears only when the robot is waiting for confirmation.

12 Rules and the queue

Page **„Rules and tours“** (button „Rules“). The guiding sentence of the page: **the tour says where to, the rule says when.** If more than one rule comes at the same time, the priority decides: 1 before 3, and with equal priority, whoever pressed first.

The queue is at the very top

Anybody who opens this page during operation usually has exactly one question: why is it driving there – or why is it not driving? The answer is in the queue.

- **On the way: …** – the running tour with priority and source.
- The row of **waiting jobs**, each with priority, tour name, source, time of arrival and, where applicable, „will be continued from stop *n*“. Button „Cancel“ per job.
- **Stop everything** – the scheduler no longer starts anything by itself; „Release again“ lifts this.
- **Trigger alarm (test)** and **withdraw alarm**. On an alarm the robot aborts and drives to its stand-clear point.
- A queued job **may take over** – either after the current stop or only after the whole tour.

Take-over only happens from a job with a **higher** priority. A night round with priority 5 does not interrupt a delivery with priority 1, not even on „queue“. The queue itself is only in working memory: after a restart of the server it is empty, but the rules are not.

Creating a rule

1. Press **„+ Create rule“**.

   > **Successful when:** the message „New rule created – it is set to ‚off‘ until you switch it on.“ appears. That is intentional: whoever has not thought a rule through to the end should not send the robot off with it.

2. On the right choose **name**, **trigger** and **tour**. Five triggers: *time of day*, *call button*, *continuous loop*, *alarm*, *by hand only*.

   > **Successful when:** the sentence below the heading renders the rule in one sentence, for example „On Mon, Tue, Wed at 08:00 the robot drives the tour ‚…‘.“

3. **Add depending on the trigger:** *time of day* – time and weekdays; it is triggered in exactly that minute. *Continuous loop* – from / to / pause between the rounds in minutes, plus weekdays (empty = all); the window may run past midnight. *Call button* – identifier of the button as free text, plus the button „Simulate button press“. *Alarm* – gets priority 0 and always interrupts; its tour should have exactly one stop: the stand-clear point.

4 Set **priority** (1 to 5), behaviour **„If it is currently driving“** (queue, jump ahead, discard) and optionally a **battery threshold** (20/30/50 %).

5 **Switch the rule on** – the tick „on“ in the list on the left.

6 Press **„Save rules“**.

> **Successful when:** the message „The rules are saved and apply from now on.“ appears and the note „There are unsaved changes.“ disappears.

„Trigger now“ queues a rule by hand – only possible after saving, before that the server does not know it.

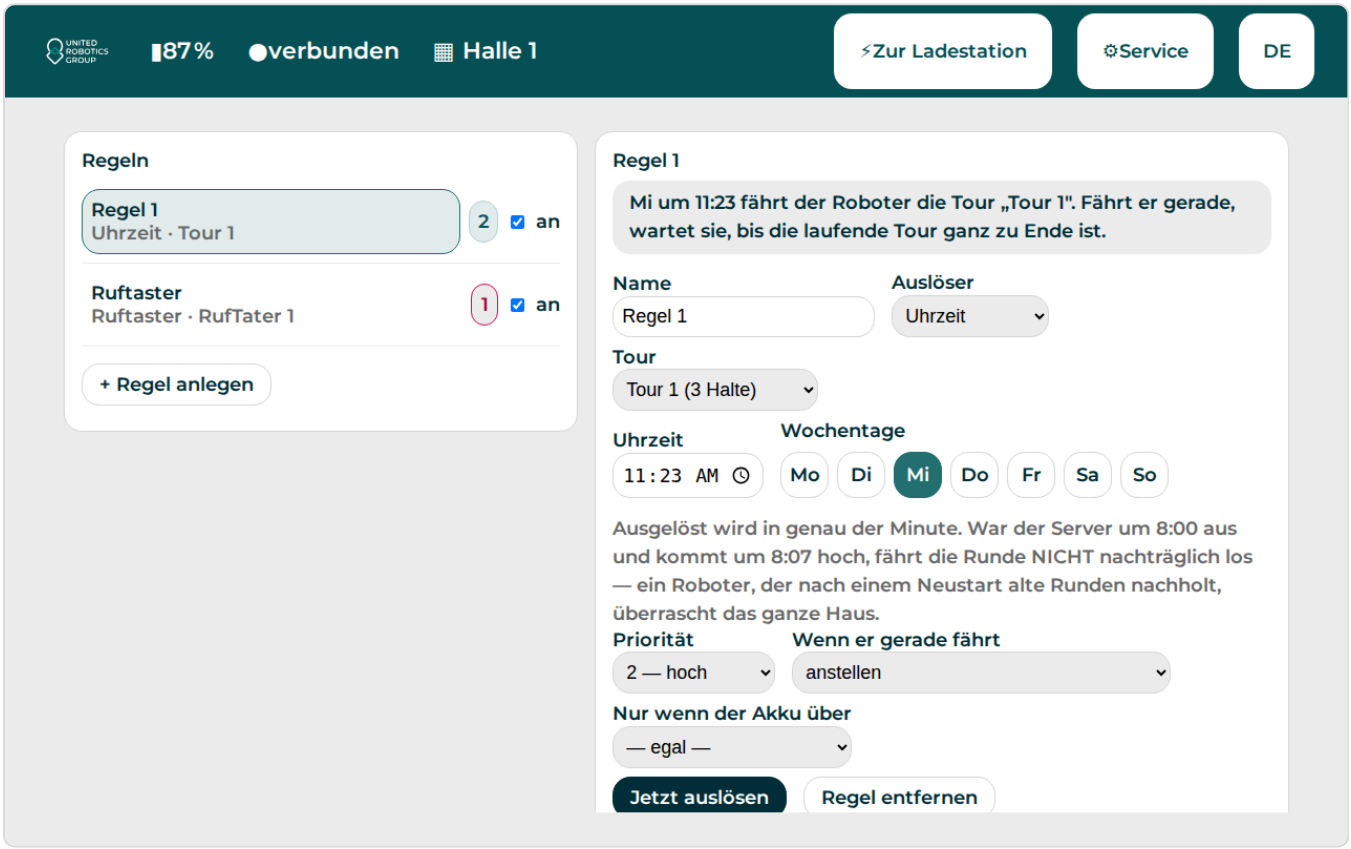


Image 26 — When a tour starts by itself.

13 Further settings of the technician page

State — the header of every fault search

Map (with number) · battery · pose · localisation · operating mode · emergency stop (PRESSED or free) · journey (job number and remaining distance) · permanent connection (up or gone). Plus the button „Reload map“. What the box looks like is shown by image 13 in section 5.1.

Device

Device identifier, model, designation, software and hardware state. The identifier is that of the **robot**, not that of the tablet – that is the detail the technical service asks for.

Passwords and service key

In the **Device** tab there are the tile **Passwords** (technician password, operator password) and the tile **Service key**. There is exactly one service key per robot. It is shown **once** when it is generated; after that no route leads to it. „Renew“ makes the previous key invalid immediately, „Withdraw“ locks out every machine. A service key may drive and read, but not configure, and it opens no remote access.

Service access

Tile **Service access** in the **Device** tab. It talks to the Netzschranke (network guard) on the tablet and shows its operating mode as well as, per access – **maintenance interface** and **remote support tool** – the state: „open, … min left“, „closed“ or „no information“.

Choose a duration and open	**15, 60 or 240 minutes.** Then: „… opened for … minutes.“ The state shows the remaining minutes. When the time expires the Netzschranke closes by itself.
Close	„Service access closed.“ Both accesses shut.
The guard does not answer	„The Netzschranke is not answering. The access stays as it is.“ – do not press again, have the Netzschranke checked first.
Who may do it	Only the technician. Operators and service keys are rejected. The tile cannot be operated through the maintenance tunnel.

> **NOTE — NO ACCESS IS PERMANENTLY OPEN**
>
> The Netzschranke (network guard) keeps the maintenance interface and the remote support tool closed until the technician opens a time window. At the same time it governs what tablet and chassis may do towards the outside: outwards only permitted destinations, from the chassis no new connection to the outside, to the chassis only from the registered Standortrechner (site computer). Everything rejected is logged.

Clock

Two clocks that know nothing of one another: that of the chassis and that of the tablet. The page shows both and the deviation in plain language („is 8 h ahead“). If they drift apart, a warning box appears.

> **NOTE — TIME ZONE OR CLOCK?**
>
> A distance of **full hours** is a time zone, not a deviation of the clock. The chassis is delivered from the factory in the time zone of its country of origin. A real deviation of the clock does not lie on round quarter hours and grows with running time. If a round zone offset is shown at the top, the zone is to be set during commissioning – the clock is not to be adjusted.
>
> **Open:** there is no button „Set clock“. The button „Search time interfaces (read only)“ queries likely paths and shows which ones answer. As long as the clocks drift apart, every time stamp of the robot is wrong.

Driving

Two buttons: **„To the charging station“** (with the query „Is somebody standing by the robot?“) and **„Cancel running journey“**. The latter reports „The device is currently reporting no running journey.“ if nothing is running.

Rest image (face)

1 **Enter seconds** and press „Apply“. **0** switches the rest image off. The setting applies to the robot, not to a single tablet.

> **Successful when:** the message „The face appears after *n* seconds without a touch. Takes effect at the next loading of the operator interface.“ appears.

2 **„Show now“** skips the waiting time. If the face comes with it but not on its own, it is the time measurement; if it does not come that way either, it is the image files.

Second display (uServe)

Four operating modes: *off (black)* · *mark and time* · *media player* · *own page (with address)*. With „media player“ a playlist, a sound switch and volume are added. Files are uploaded under „Files on the robot“: PNG, JPG, WEBP, GIF as well as MP4 and WEBM, up to 200 MB per file. Images are shown for their set display time, videos run to the end. After „Apply“ the second display switches over within ten seconds; it checks by itself because it has no operating controls.

Lift and people

Three settings: *never with people* – waits for the next ride · *only with consent* – asks on the screen · *always when it fits*. Independently of this it always applies that: people get in first, the robot last, it never blocks the door, and if the cabin becomes full it aborts and waits. After three fruitless rounds it reports „lift permanently occupied“.

Building tab — modules, calls, doors and lift

The building equipment of a site is set up in one place: in the **Building** tab. It consists of three cards.

Modules	Search for u-IoT modules, module list with freely assigned names, inputs and outputs live, switch an output, clock, own radio network, backup of the module settings, location of the module on the map
Calls	Coordinator of the calls, assignment of call button (Ruftaster) ↔ point on the map, list of open calls with accept and complete
Doors and lift	Doors per map (name, output, zone, opening and closing point), lifts with floors ↔ maps, waiting points, lift doors, drive profile per lift, point list of the level-change service, state of the level change

Three principles apply on all three cards.

- **The tablet never talks directly to a module or a service.** Every call goes through the uGo server on the Standortrechner (site computer). The tablet only sees what the server makes of it.
- **No network details and no serial number without the switch „Show technical“.** The switch is off every time the tab is opened and is not saved.
- **No driving command from the Building tab.** The tab assigns and displays. It does not drive – not even as a test drive. A call is carried as a job in the tour list, never as a direct driving command.

Prerequisites: the uGo server runs on the Standortrechner and reaches the network segment of the modules; the modules answer on their port; for the „Lift“ card the level-change service runs on the Standortrechner; the operator does not see the tab, not even for reading; a map is loaded.

Searching for and creating modules

1. **Check the search range.** Pre-set is the network of the Standortrechner. Permissible are a network, a range or a single address; at most 1024 addresses. Check the **port of the modules**.
2. Press **„Search modules“**.
   > **Successful when:** „… modules found, … addresses checked.“ A device only counts as a module if it answers **and** reports a serial number – a foreign web server does not appear.
3. Assign a **name** to each find and press **„Take into the list“**, then **save the module list**.
   > **Successful when:** „Module list saved: … modules.“ Rejected are a module without a name, a duplicate name and a module without a serial number.

The assignment name ↔ device runs through the serial number, not the address. If the address changes, the name stays; the next search offers to update the address.

Checking a module and switching an output

Open a module in the list: the connections *input 1, input 2* („actuated“ / „at rest“) and *output 1, output 2* („on“ / „off“) are read afresh every second. In addition: clock set, own radio network, the firmware build with build date and „last reached …“. If the module does not answer within three seconds, it says **„Not reachable. No old state is shown.“** – there is then no value, not even a frozen one.

A **label** and a **purpose** can be set per connection (door, light, sound, button, unassigned). Switching an output: *on*, *off* or *toggle*. If the purpose is „door“, the query „… switches a door. Really switch?“ comes first. The state shown comes from reading the module again, not from the command sent.

A **time source cannot be set from the tab**; it is set up when the module is commissioned. The tab only shows the state.

Assigning a call button to a map position

Exactly one module per site carries the calls and distributes them: the **coordinator**. A call button hangs on an **input** of a module and calls to a **point** of the active map.

1. Card **Calls**, area **Call buttons**: choose a module, choose an input, choose a point from the list of points of the active map. Under *On call* tick the action: drive to the point, sound, light.
2. Press **„Assign button“**.
   > **Successful when:** „The button now calls to the point „…‘.“ The server writes the assignment first into the module and only then into the storage. If the module rejects it, nothing is in the storage.
3. **Check:** the point name is shown in the list of call buttons. If the point is missing on the active map, it says **„Point missing on this map“** – that is to be fixed before anybody presses it.

> **NOTE — AT THIS STAGE**
>
> The action „On call“ (drive, sound, light) is **stored but not executed**. The call itself runs through the firmware of the modules and the robot registered there. „Remove assignment“ only removes the entry in the tab.
>
> In the list of **open calls**, „Accept“ and „Complete“ are possible. „Accept“ is a note on the Standortrechner; the firmware knows no accepting. „Complete“ after a journey has been dispatched is likewise only a note – the journey continues. Neither note survives a restart of the uGo server.

Creating a door per map

A door consists of five mandatory details: **module, output, zone on the map, opening point, closing point** – plus name and map. Without one of the five the door is created but **not armed**, and the row says what is missing.

1. Card **Doors and lift**, area **Doors**, **„Create door“** (only with a loaded map). Enter the name, choose module and output, choose opening and closing point from the points of the active map.
2. **„Draw zone“** switches to the „Map and zones“ tab and turns on the drawing of a zone. Draw the zone, go back to the Building tab, choose the zone in the door row. There is no second drawing tool.
3. **„Save doors“**.

   > **Successful when:** „Doors saved: …, of which … armed.“ Rejected is only what cannot coexist on one map: two doors with the same name or on the same output on the same map, a door without a name, a door without a map.

There is **no test run** of a door. A door output can be switched under „Modules“ with a query. The door list of the tab is stored locally; actuation during operation is done by the door service on the Standortrechner.

Lift: floors, waiting points, drive profile

Every floor of a lift is exactly one map, and every map exactly one floor. In front of the cabin there is a **waiting point** on each floor.

1. **„Create lift“**, enter the **designation of the installation** – the designation used at the site, no manufacturer name.
2. **„Add floor“**: floor number, choose the **map**, **name of the waiting point** (point in front of the cabin), **lift doors** (at most eight).
3. **„Save lift“**.

   > **Successful when:** „Lift saved: … floors.“ Rejected are the same map for two floors and a duplicate floor number. A floor without a waiting point is saved but marked as „blocked, no waiting point“.
4. **Drive profile per lift** in the area *Drive into the cabin*: approach speed into the cabin 0.20 to 0.50 m/s (default 0.35) and threshold behaviour. The interface shows the **upper limit**; a value above it is rejected, not trimmed. The upper limit is read fresh from the vehicle when saving.

> **CAUTION — WHAT THE TAB DOES NOT DO AT THIS STAGE**
>
> **Test drive blocked.** The button „Test drive floor …“ is in the interface for each floor and is blocked. In this version there is no way to trigger a lift ride from the Building tab. A test drive on site runs through the level-change service and the tour run.
>
> **Drive profile.** It is stored and checked in the tab. The level-change service currently drives its cabin rides with the profile from its own lift configuration. Anyone who wants to change an approach speed effectively also enters it in the level-change service.

Logs

„Load archive“ packs the server log, journey log, settings, tours, rules and a snapshot of the device state into a zip file. Passwords, session tokens and media files are deliberately **not** included – an archive gets

sent. „Show last lines“ shows the last 120 lines from the server’s working memory; after a restart this list is empty, but the file in the archive is not.

Services

Clear wheel errors	Resets reported wheel errors. The robot stays standing.
Reset wheels (soft)	Resets the wheel control. The robot must not drive while doing this.
Switch on lidar	Switches the laser scanner on if it is off.
Recalibrate pose sensor	The robot must be completely still for this.

Switching off, resetting the occupancy grid and the hard wheel reset are deliberately **not** on this page. They belong at the console, not on a screen that somebody taps in passing. There is no button „Restart device“ on the technician page in this version.

PART 2

Operating (operator side)

Sections 14 to 20. For everybody who uses the robot in everyday work. Nothing here needs a password. Anyone who only operates it reads section 0 and then this part.

14 The start screen

Heading: **„What is to be done?“** First the task, then the destination. Nothing of the device technology is to be seen here.



Image 01 — The start page. Battery, connection and map at the top.

Left: the tasks	As many tiles as the robot reports capabilities – e.g. „Bring something“, „Collect something“, „Fetch a shelf“, „Just drive there“, „To the charging station“.
Middle: routines	The finished tours to start and stop. See section 16.
Right: today	Distance driven, journeys, driving time, this week. Display only, triggers nothing.
Bottom	„View map“ and „Reset selection“.

Two banners appear above the tiles when needed: **red** „The robot cannot drive at the moment – tap here“ leads to the fault page; **light** „The robot is on the way to … – view journey“ leads back to the running

journey.

Viewing the map

The button **„View map“** at the bottom opens the map view. For the operator it is **read-only**: base map, points, zones, driving lanes and the pose of the robot. A tap selects a station – nothing more happens there.

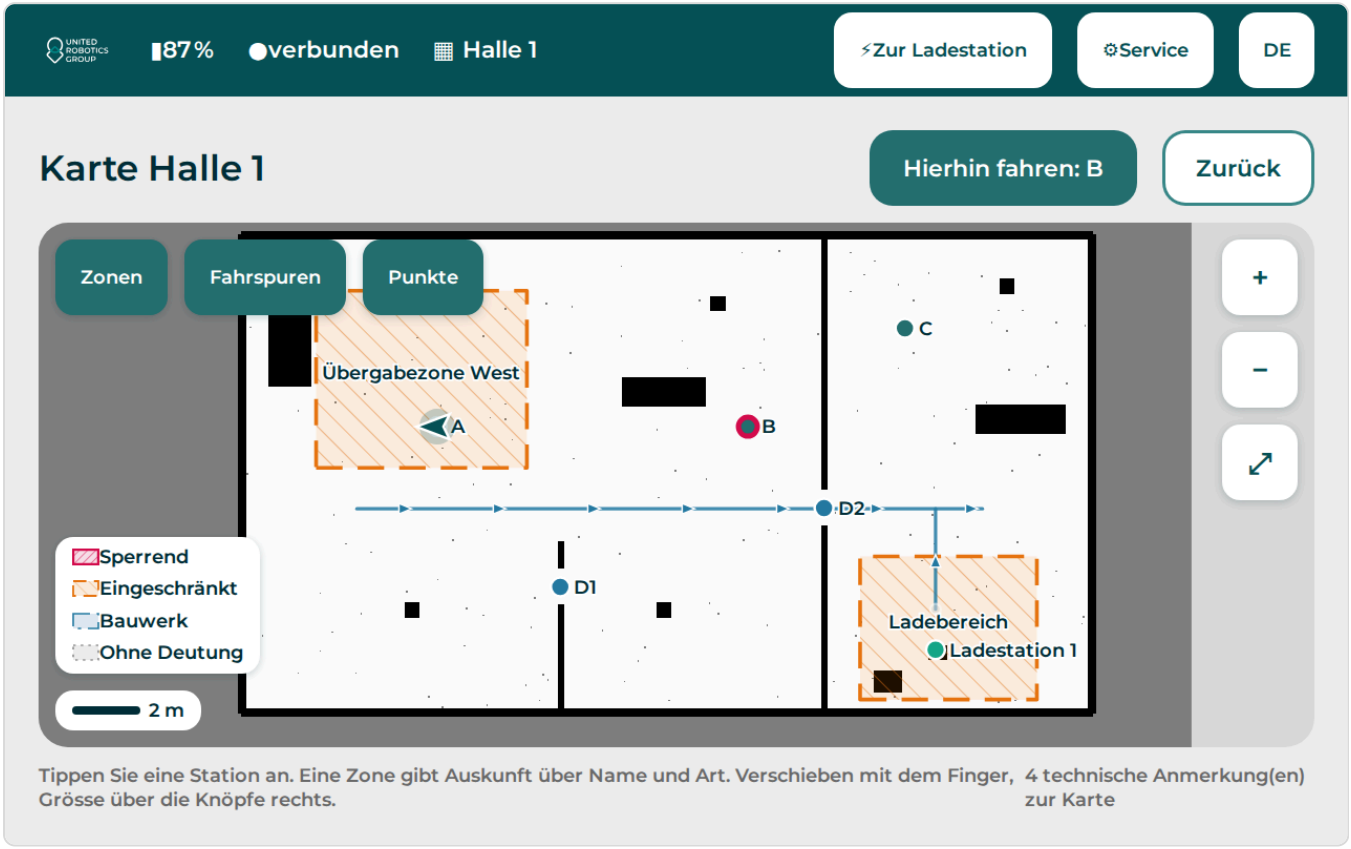


Image 03 — The map with its stations.

15 Choosing a destination and driving

WARNING — BEFORE EVERY DRIVING COMMAND

Somebody must be standing by the robot, and the emergency stop must be within reach. Tapping the destination tile sends the robot off **immediately** – there is no query at this point.

15.1 Sending it off

1. On the start screen **tap the task**.

   Successful when: the page „Where to?“ opens, with the chosen task above it.

2 **Tap the station.** Every tile carries a name and a type. Docking points of the charging stations deliberately do not appear – the robot should never be sent to a point that the device created for itself.

> **Successful when:** the journey page appears and „On the way to“ with the destination name is shown at the top.

3 **Alternative:** „Choose on the map“. Tap the station on the map; the button „Drive here: *destination*“ then appears above.

> **Successful when:** the journey page appears after pressing it.

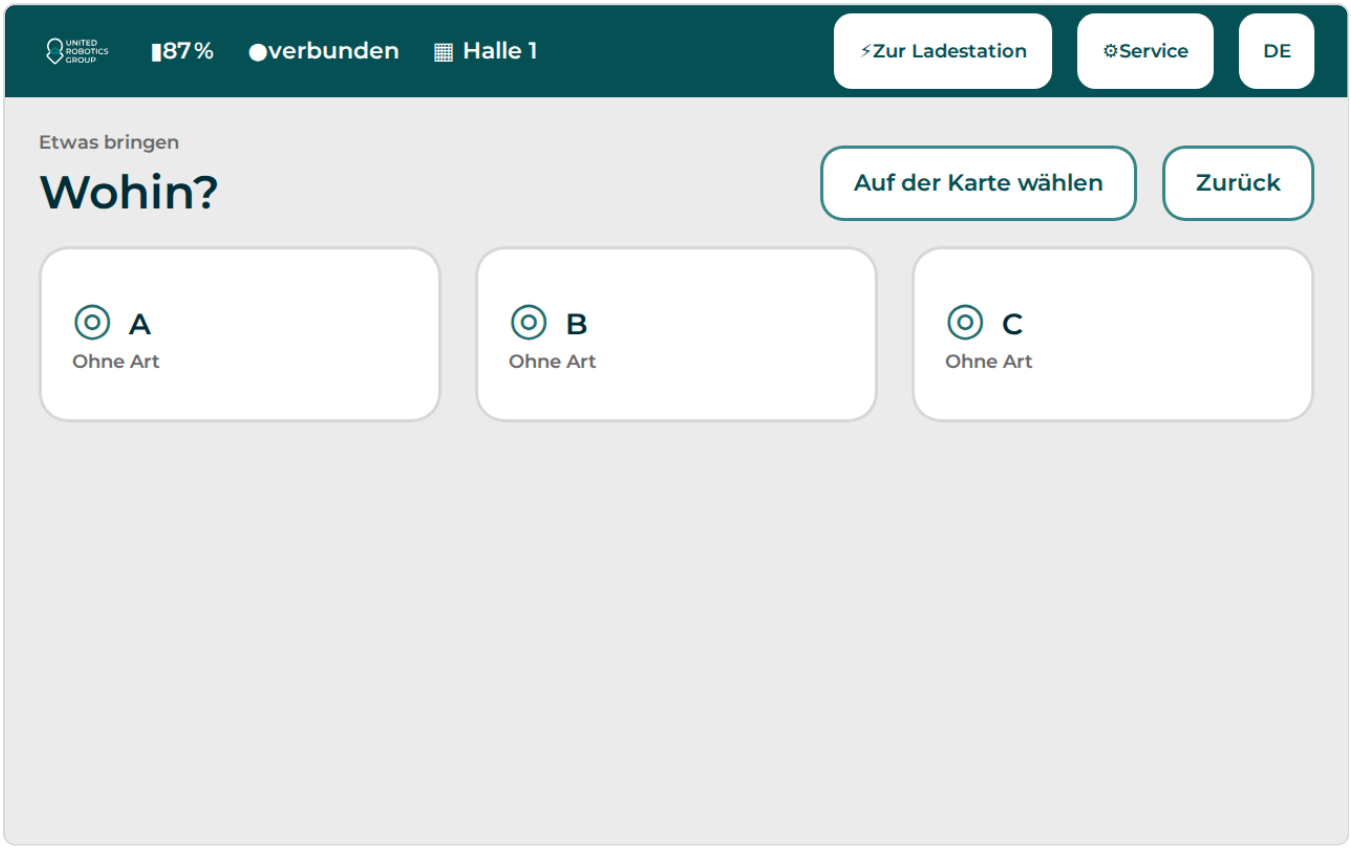


Image 02 — Selecting a destination.

If instead of the tiles it says „No station is entered on the map ‚…‘“, the robot has not been set up yet – call the technical service (Part 1, section 6).

15.2 What is shown on the journey page

The state at the top, below it the destination name in large type. Then a progress bar with a percentage and two values: **„Still to drive“** (remaining distance in metres, „almost there“, „being calculated“) and **„Still takes“** (about *n* minutes, „stopped“, „done“).

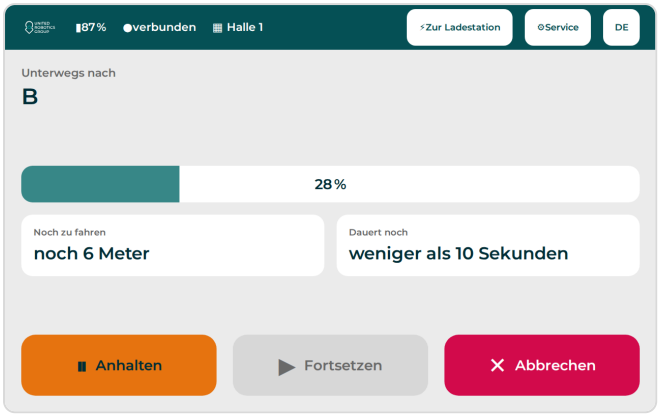


Image 04 — During the journey: progress, remaining distance, remaining time.



Image 05 — Stopped journey. Continue or cancel.

State	What is shown	Buttons
On the way	The bar grows, the remaining distance falls.	Stop · Continue (blocked) · Cancel
Stopped	„The robot is standing. With ‚Continue' it drives on to the same destination."	Stop (blocked) · Continue · Cancel
Journey interrupted	The journey is at a standstill without anybody having stopped it – usual after a loss of connection. The interface never sends the robot off again by itself.	Drive on · Discard job
Arrived	Green box „The robot has arrived at ...."	Done
Journey halted	Red box with the fault message and „— tap here" (leads to the fault page).	Try again · To the start

Stop does not ask – whoever wants to stop is in a hurry. **Cancel** asks („Really cancel the journey?"), because the job is gone afterwards.

If the robot has meanwhile received a job from elsewhere – from a second tablet or from a tour –, this is shown as a note on the journey page and the button „Drive on" is missing. Then do not touch it; the note is acknowledged with „Understood".

16 Starting and stopping routines

The tile **„Routines"** in the middle of the start screen. The technician creates tours, the operator starts them.

- **If nothing is running:** the list of tours with the number of stops and one „Start" button each. Tours without stops are blocked. If there are none, it says „No routines have been set up yet."
- **If a tour is running:** the list disappears. Instead it says „Tour running – stop *x* of *y*: *stop name*", below it *Pause* or *Continue* – and at the bottom, large and red, **„Stop"**.
- **If the robot is waiting for confirmation**, it says „Waiting for confirmation" and the button „Drive on" is shown.

The stop button is the most important part of this tile: whoever is standing next to a driving robot and wants to stop it should not have to go through a list first. For the same reason, stopping requires **no sign-**

in.

In addition the tile shows in every situation: the next waiting job („Next up: …“), an alarm („Alarm – the robot stays standing until the alarm is withdrawn.“) and the stopped scheduler („The robot no longer starts anything by itself. Please call the technician.“).

17 Back to the charging station

From every screen: **„To the charging station“** in the status bar.

1. Press the button.

   > **Successful when:** the page „To the charging station“ opens and shows the state of charge in large figures as a percentage.

2. **Read the sentence below it.** Three possibilities: „The robot is at the charging station. You can send it off again at any time.“ · „The robot drives independently to *station* and docks there.“ · „No charging station is entered on the map ‚…‘. Please call the technical service.“

3. Press **„Drive to the charging station now“** – with somebody by the robot.

   > **Successful when:** the journey page appears. The button is blocked while the robot is charging or no charging station is entered.

The device finds the station itself; the operator does not have to choose one.



Image 09 — The robot is charging and can be sent off.

18 Understanding faults

The fault page is reached through the red **Fault** button in the status bar, through the red banner on the start screen or through the red message on the journey page.

There is **never a bare number** on the screen. It says what is going on and what is to be done now. The number appears only in small type at the edge as evidence for the technical service on the telephone.

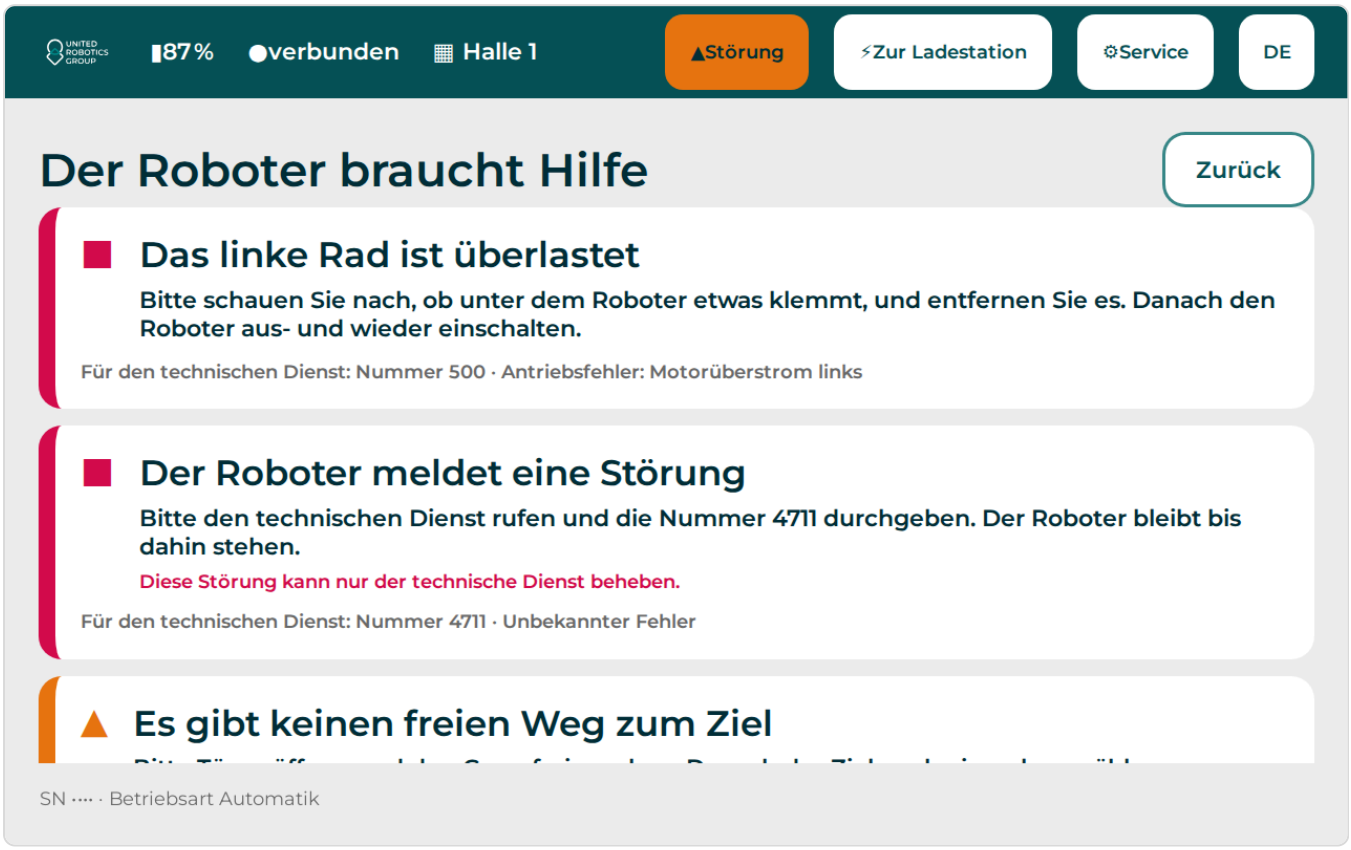


Image 06 — The robot reports a fault.

■ **Fault**	The robot is standing. It does not go on without intervention.
▲ **Warning**	The robot cannot get on, the operator can fix it themselves.
i Note	The robot keeps working; just so you know.
All in order	„There is no message. The robot is ready.“

At the very bottom there is the **device line**: device · identifier · operating mode (automatic, manual, remote control, unknown). These three details are what the technical service wants to hear first on the telephone. In the screenshot above, device and identifier have been replaced by a neutral entry.

What each message means and what is to be done is set out in full in appendix IV.

> **CAUTION — WORDINGS NOT YET AGREED**
>
> The **numbers** of the faults are evidenced, the **wordings** on the screen are not yet agreed with the customer and the technical service. In particular it is not yet released whether the operator may push the robot by hand on number 503. Unknown numbers are displayed and not swallowed.

19 No connection to the robot

If the connection breaks off, the page **„No connection to the robot“** takes the place of the screen. The operator never sees a browser error page and no numeric code. The status bar stays visible.

- „The robot is not answering at the moment. The application keeps trying – you do not have to do anything.“
- A counter „Attempt no. *n*“ and the line „No connection for *duration*. Last reachable: *time*“.
- **If a journey was running**, it says where the robot was on the way to, and the last known state with time, percentage and remaining distance – expressly as *last known state*. The display does not claim to know the current state.
- **If no journey was running**, three questions are shown: is the robot standing still and switched on? Is the emergency stop pressed – then release the red button. If neither helps, call the technical service.
- „Try again now“ – only for the impatient; the interface tries every two seconds anyway.



Image 08 — Without a connection to the chassis.

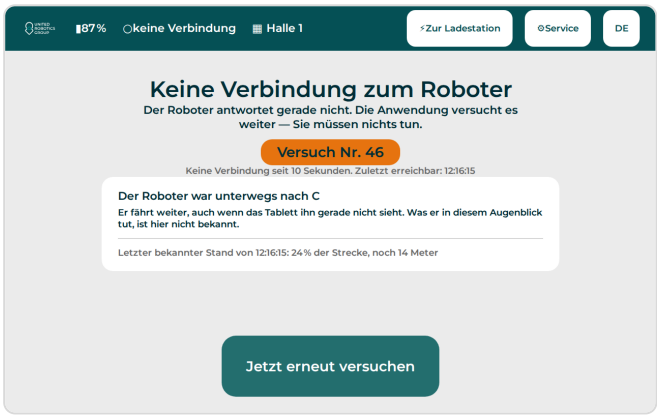


Image 11 — If the connection breaks, the robot stops.

20 Journey log

Reachable through the sign-in (operator role) or from the technician page. What is counted is the distance actually covered, from the pose report of the chassis.

- **Five tiles:** today · this week · this month · this year · since the beginning. Per tile: distance in large type, below it driving time and number of journeys. The week begins on Monday.
- **Own period:** from / to as date fields, plus the shortcuts „This week“, „This month“, „Everything“.
- **Last 30 days** as bars – including the days without a journey, otherwise the curve lies. Below it the highest day.
- **Individual days** as a table: date, distance, driving time, journeys, newest first. Plus the time of the last recording.
- **„Refresh“** fetches anew; this happens by itself every 20 seconds so that the figure grows during the journey.

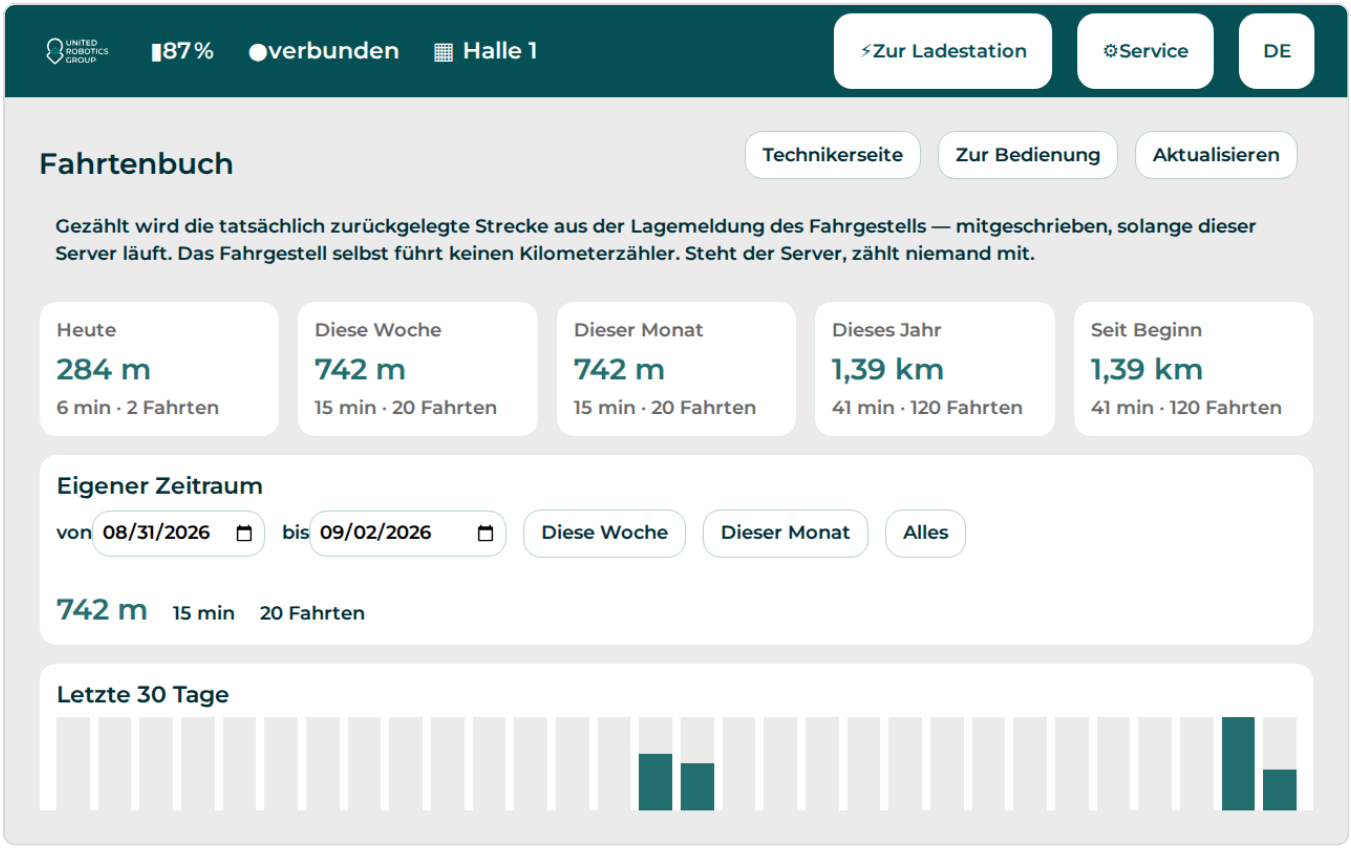


Image 27 — What the robot has driven.

> **NOTE — IMPORTANT FOR THE EVALUATION**
>
> Recording only happens while this server is running. The chassis itself keeps no odometer. If the server is down, nobody is counting. If the journey log does not answer, that is shown as a line of its own on the page.

The second display (uServe only)

Below the operating screen the uServe has a second display that faces the guest. It has **no operating controls** – no state of charge, no emergency stop, no menu. Depending on the technician's setting it shows: nothing (black), the United Robotics Group mark with the time, a sequence of images and videos with the time, or a freely entered page. It is changed exclusively on the technician page; the display checks by itself every ten seconds.

APPENDIX

Reference

Fault list, terms, technical details, the overview of all screens and – honestly named – what is still open at the device and in this booklet.

IV What to do if — fault list

Per message: what the robot says, what it means, what the operator can do and when the technical service is called. The number is shown in small type at the edge of the screen.

What the operator can fix themselves

No.	What is shown on the screen	What it means / what to do
505	Something is in the way	An obstacle is blocking the way. — Clear the way. The robot drives on by itself.
504	There is no free route to the destination	The robot finds no drivable route. — Open doors, clear the corridor, select the destination again.
506	The place at the destination is occupied	Something is standing at the destination point. — Make room at the destination and send it off again.
9001	The emergency stop is pressed	The red mushroom head is latched; the robot does not drive. — Turn the red button until it springs out. Then check according to section 5 whether the robot still knows where it is.
9002	The journey was cancelled	Somebody cancelled, or a rule took over. — Give a new job at any time.
9016	The robot is not ready yet	The chassis is still starting up. — Wait a moment and send it off again.
500 / 501	The left or right wheel is overloaded	A wheel draws more current than permitted. — Check whether something is jammed under the robot, remove it, then switch off and on again.
502	A wheel is blocked	A wheel is not turning. — Clear the floor, look for trapped cables or castors, send it off again.
503	The robot no longer knows where it is	Locating has been lost (section 5). — Push it by hand to the nearest station and leave it standing there briefly. If that does not help, it is a case for the technician.

Messages that appear in plain language elsewhere

Message	Where it occurs	What it means / what to do
`starting_point_out_of_map`	Technician page, after a driving command	The robot is not located: for the chassis its starting point lies outside the map. It accepts jobs and does not drive. — Technician: locate according to section 5, then repeat the journey.
`failed to find charger`	After „To the charging station“	The docking point for the charging station is missing, or the station is not where the robot actually charges. — Technician: create the charging station again according to section 7 – the robot must be standing in the station while doing so. Then reload the map (section 9).
„Lift permanently occupied“	Operating screen	The robot has tried three times in vain to get into the cabin. — Make room in the cabin, give the job again.
„The robot no longer starts anything by itself.“	Routines tile	The scheduler is stopped. — Call the technician: „Release again“ on the rules page (section 12).
„This robot reports no tasks …“	Start screen	The device reports no capability that can be operated here. — Call the technical service.
„Not reachable. No old state is shown.“	Building tab, module opened	The module did not answer within three seconds. — Technician: check the power supply and network connection of the module, then repeat the search.

When the technical service is called

- When the sentence „Only the technical service can fix this fault.“ appears under an entry. Then do nothing further yourself.
- When the same message comes back after the described measure.
- When the start screen says: „This robot reports no tasks that can be operated here.“
- When no station or no charging station is entered.
- When the routines tile reports: „The robot no longer starts anything by itself.“
- When the connection is missing for a longer time and neither a standstill nor the emergency stop is the cause.

What to report: the number from the small line, the title of the message as well as device name, device identifier and operating mode from the footer of the fault page.

V Terms

These words always mean the same thing in this manual and on the screen. They are not varied – the reader looks for exactly this word on the screen.

uGo	The operator interface on the robot. Product name, not translated.
uSuite	The cloud of the United Robotics Group. Product name, not translated.
u-IoT	Module range for door, lift and call button. Spelt with a hyphen.
Chassis	The driving base unit below the interface. It holds map, points and zones and carries out the driving commands.
Standortrechner	The computer in the building on which the uGo server and the building services run (site computer).
Netzschranke	The application on the tablet that governs what may go out and what may come in (network guard).
Map	The recorded surroundings. Only one map is active at a time.
Mapping run	Driving or pushing around to record a map.
Locating	The answer to „where am I“. Without it the robot does not drive. Section 5.
Station	A named driving destination on the map.
Charging station	The physical station at which charging happens – a point of its own on the map.
Docking point	The point about 0.9 m in front of the charging station from which the robot reverses in. Created automatically with the charging station and not a destination of its own.
Slow-speed zone	Area in which the robot drives more slowly. The only released zone type.
Keep-out zone	Area that is not driven through. Cannot be created in uGo – see the warning in section 8.
Tour	A fixed sequence of stations with waiting times. Called „routine“ on the operator side.
Rule	Says when a tour starts. The tour says where to.
Technician page	The protected area of the interface (Technikerseite).
Operator side	What the everyday user sees.
Service key	The key with which a machine on the building network talks to the robot. Counts as an operator.
Call button	A button in the building that hangs on a u-IoT module and calls the robot to a point (Ruftaster).
Emergency stop	The red mushroom head on the robot.

VI Technical details

Screen resolution	1280 × 800 pixels (tablet at the robot). All images in this manual show this resolution.
Operation	Touch screen. No keyboard needed; the sign-in has a numeric keypad of its own.
Languages of the interface	Six languages, switchable in the status bar. The technician pages are always German.
Language versions of this manual	German, English, French, Spanish, Italian, Dutch. In all versions the screenshots show the German interface.
Polling rate to the chassis	State every second · pose and journey every 0.7 s · battery every 5 s · map every 15 s.
Retry without a connection	Every 2 seconds, automatically.
Technician page session	Ends after 10 minutes without access; the session cookie in the browser is valid for at most 8 hours.
Brake on failed sign-in	After five failed attempts from the same place 60 seconds, then twice as long each time.
Service access	Maintenance interface and remote support tool for 15, 60 or 240 minutes; after that the Netzschranke closes by itself.
Rest image	Default 60 seconds without a touch; 0 switches it off.
Map name	At most 64 characters.
Media files of the second display	PNG, JPG, WEBP, GIF, MP4, WEBM – up to 200 MB per file.
Approach speed into the cabin	0.20 to 0.50 m/s, default 0.35 m/s; the upper limit is read from the vehicle.
Software state described	uGo 1.0.8, Kiosk 1.0.3, Netzschranke 1.1.9 – frozen on 10.09.2026.
Version state	Manual version 1.0.1 of 12.09.2026.
Classification	Public.
Publisher	United Robotics Group GmbH, An der Riede 2, 28816 Stuhr, Germany.

VII All screens at a glance

Screen	For whom	What for / section
Start screen	Operator	„What is to be done?“ – tasks, routines, figures of the day. (14)
Destination selection	Operator	„Where to?“ – stations of the active map as tiles. (15)
Journey	Operator	Progress, remaining distance, remaining time; stop, continue, cancel. (15)
To the charging station	Operator	State of charge and return to the station. (17)
Fault	Operator	Plain language instead of a numeric code, device line for the service. (18, IV)
Map	Operator	Read-only: base map, points, zones, driving lanes, pose of the robot. (14)
Journey log	Operator (sign-in)	Distance, driving time, number of journeys per period. (20)
Sign-in	both	Numeric keypad, two passwords, two roles. (3)
Second display	Guest (uServe)	No operating controls: off, mark and clock, media or own page. (13, 20)
Technician page – Map and zones	Technician	Maps, archive, recordings, pose pin, points, zones. (4–10)
Technician page – Building	Technician	Modules, calls, doors and lift. (13)
Technician page – Device	Technician	State, identifier, clock, driving, passwords, service key, service access, services. (13)
Technician page – Display, Installation, Administration	Technician	Rest image, second display, lift, maintenance window, logs. (13)
Tours	Technician	Stops, waiting times, continuous loop, control of the running tour. (11)
Rules	Technician	Queue, triggers, priority, behaviour during a running journey. (12)

VIII What is still open at the device

This list describes the state of the **device**, not that of the manual. What is missing from the manual is in appendix IX.

Keep-out zone	**open.** On the technician page only the slow-speed zone is created. Other zone types are not released. Areas with a risk of falling are to be safeguarded by other means.
Distance charging station ↔ docking point	**partly evidenced.** The distance of about 0.9 m comes from a single working pair. Whether the value applies to the whole range is unresolved.
Setting the clock of the chassis	**open.** No button. The interface is not described; the search only reads. A round hourly offset is a time zone, not a deviation of the clock.
Test drive in the Building tab	**blocked.** No driving command comes from the Building tab, not even as a test drive. A test drive runs through the level-change service and the tour run.
Drive profile of the lift	**stored, not yet effective.** The tab stores and checks the profile; the level-change service currently drives with the profile from its own configuration.
Call actions	**stored, not executed.** Drive, sound and light are placed in the module; the call runs through the firmware of the modules.
Test run of a door	**open.** There is no test run. A door output can be switched under „Modules“ with a query.
Restarting the device	**open.** There is no button „Restart device“ on the technician page. A restart is done at the device or through the opened service access.
Wordings of the faults	**to be confirmed.** The numbers are evidenced, the sentences are to be reconciled with the customer and the technical service.
Point types	**to be checked.** Station, charging station and door/barrier can be created; the device creates the docking point. Unknown types are expressly listed on the map page rather than concealed.
Password protection of the technician page	**depends on the set-up.** Without a password set, the page is open at the device; from the network only the setting up of the service password is then reachable. Assign a password before handover.

IX What is still open in this booklet

Honestly and without embellishment. This version is released; the following points are nevertheless open and will be caught up with in the next version.

What is missing	Why it counts	Who
Image 14 and image 15 – the running mapping run and the saving of the recording. The remaining twenty-six prints are in place (state 02.09.2026, generated automatically, 1280 × 800).	They are precisely the two images for the most feared step. A re-enacted image would be worse than none.	Development
New prints of the technician page in the tab arrangement of state 1.0.8.	The existing prints show the earlier arrangement. Text and working steps are right, the image is older than the text.	Development / documentation
Image 12 carries the note „No service password is set on the server“. That is the state of the test environment, not that of a delivered robot.	In the manual it reads like a statement about the product. The print must be made again against an environment with a password set.	Development
Four screens are not translated – sign-in, tours, rules and journey log. In the five other language versions the corresponding prints come out in German.	Every reader notices it immediately and it is not a translation error but a gap in the interface.	Development
Confirmation that the pressed emergency stop releases the wheels and that the robot is then pushable.	It is in the booklet as a safety statement but cannot be read from the interface.	Mechanics / safety
Release of the fault wordings, especially the question whether the operator may push the robot by hand on number 503.	The instruction in appendix IV depends on it.	Technical service / customer
Checking of the driving values (about 0.26 as against about 0.55 metres per second), which are taken from the screen text.	Figures in a customer document must come from a released source.	Product management
The scope on the title page. It says „uLog and uServe“; which types exactly are covered is still to be named.	A user manual must say which device it applies to.	Product management
A section on cleaning, maintenance and disposal as well as details of ambient conditions.	It belongs in a complete user manual; in this version it is not present because the source does not contain it.	Product management
A test run with a person who does not know the robot.	The version only counts as proven when that person can use it to record a map, set a station and send the robot to the charging station – without asking. That takes twenty minutes.	Documentation

Contact

Matter	Telephone	E-mail
Sales and enquiries	+49 421 830253 100	health@unitedrobotics.group
Service and faults	toll-free service number per country	support@unitedrobotics.group

uGo – operator interface of the United Robotics Group. This manual describes the state of the software of 10.09.2026 (uGo 1.0.8, Kiosk 1.0.3, Netzschranke 1.1.9). What is not evidenced is marked as open.

United Robotics Group GmbH · An der Riede 2 · 28816 Stuhr · Germany · HRB 209124 Walsrode Local Court · Version 1.0.1 of 12.09.2026 · Classification: Public.