MOVA ViAX 250/300
User Manual

The illustrations in this manual are for reference only.
Please refer to the actual product for accuracy.

EN .....P04~P39
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FR .....P76~P111
IT .....P112~P147
ES .....P148~P183
NL .....P184~P219

Original Instructions

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1 Safety Instructions

1.1 General Safety Instructions

• Carefully read and understand the user manual before using the product.
• Only use the equipment recommended by MOVA with the product. Any other usage is incorrect.
• Do not allow children to be in the vicinity or play with the machine when it is operating.
• Do not use the product in areas where people are unaware of its presence.
• When manually operating the product with the MOVAhome app, do not run. Always walk, watch your steps on slopes, and maintain balance at all times.
• Avoid using the product when there are people, especially children or animals, in the work area.
• If operating the product in public areas, place warning signs around the work area with the following text: "Warning! Automatic lawn mower! Keep away from the machine! Supervise children!"
• Wear sturdy footwear and long trousers when operating the product.
• To prevent damage to the product and accidents involving vehicles and individuals, do not set work areas or transport paths across public pathways.
• Do not touch moving hazardous parts, such as the blade disc, before it has come to a complete stop.
• Seek medical aid in case of injury or accidents.
• Set the product to **OFF** before clearing blockages, performing maintenance, or examining the product. If the product vibrates abnormally, inspect it for damage before restarting. Do not use the product if any parts are defective.
• Do not install the main cable in areas where the product will cut. Follow the instructions provided for cable installation.
• Only use the charging station included in the package to charge the product. Incorrect use may result in electric shock, overheating, or corrosive liquid leakage from the battery. In case of electrolyte leakage, flush with water/neutralizing agent and seek medical aid if the corrosive liquid comes into contact with your eyes.
• When connecting the main cable to the power outlet, use a residual-current device (RCD) with a maximum tripping current of 30 mA.
• Only use original batteries recommended by MOVA. The safety of the product cannot be guaranteed with non-original batteries. Do not use non-rechargeable batteries.
• Keep extension cords away from moving hazardous parts to avoid damage to the cords which can lead to contact with live parts.
• The illustrations used in this document are for reference only. Please refer to the actual products.
• Never allow children, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge or people unfamiliar with these instructions to use the machine, local regulations may restrict the age of the operator.
• Do not connect or touch a damaged cable until it is disconnected from the power outlet. If the cable becomes damaged during operation, disconnect the plug from the power outlet. A worn or damaged cable increases the risk of electrical shock and should be replaced by service personnel.
• Do not push the product forcefully or quickly, as this may damage the product.
• To maintain compliance with the RF exposure requirement, a separation distance of 35 cm between the device and the human should be maintained.
• For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.

1.2 Safety Instructions for Installation

• Avoid installing the charging station in areas where people may trip over it.
• Do not install the charging station in areas where there is a risk of standing water.
• Do not install the charging station, including any accessories, within 60 cm of any combustible material. Malfunctioning or overheating of the charging station and power supply can pose a fire hazard.

1.3 Safety Instructions for Operation

• Keep your hands and feet away from the rotating blades. Do not place your hands or feet near or below the product when it is turned on.
• Do not lift or move the product when it is turned on.
• Use the park mode or set the product to **OFF** when there are people, especially children or animals, in the work area.
• Ensure that there are no objects such as stones, branches, tools, or toys on the lawn. Otherwise, the blades may be damaged when they come into contact with an object.
• Do not put objects on top of the product or charging station.
• Do not use the product if the **STOP** button is not functioning.
• Avoid collisions between the product and people or animals. If a person or animal comes in the path of the product, stop it immediately.
• Always set the product to **OFF** when it is not in operation.
• Do not use the product simultaneously with a pop-up sprinkler. Utilize the Schedule function to ensure that the product and pop-up sprinkler do not operate at the same time.
• Avoid placing a connection channel where pop-up sprinklers are installed.
• Do not operate the product in the presence of standing water in the work area, such as during heavy rain or water pooling.

1.4 Safety Instructions for Maintenance

• Set the product to **OFF** when performing maintenance.
• After washing, ensure that the product is placed on the ground in its normal orientation, not upside down.
• Do not reverse the product to clean the chassis. If you do reverse it for cleaning purposes, make sure to restore it to its proper orientation afterward. This precaution is necessary to prevent water from entering the motor and potentially affecting normal operation.
• Disconnect the plug from the charging station or remove the disabling device before cleaning or performing maintenance on the charging station.
• Do not use a high-pressure washer or solvents to clean the product.

1.5 Battery Safety

Lithium-ion batteries can explode or cause a fire if disassembled, short-circuited, exposed to water, fire, or high temperatures. Handle them with care, do not dismantle or open the battery, and avoid any form of electrical/mechanical abuse. Store them away from direct sunlight.
1. Only use the battery charger and power supply provided by the Manufacturer. The use of an inappropriate charger and power supply can cause electric shocks and / or overheating.
2. DO NOT ATTEMPT TO REPAIR OR MODIFY BATTERIES! Repair attempts may result in severe personal injury, due to explosion or electrical shock. If a leak develops, released electrolytes are corrosive and toxic.
3. This appliance contains batteries that are only replaceable by skilled persons.

1.6 Residual Risks

To avoid injuries, wear protective gloves when replacing the blades.

1.7 Symbols and Decals

	**WARNING –** Read user instructions before operating the machine.
	**WARNING –** Keep a safe distance from the machine when operating.
	**WARNING -** **Remove the disabling device before working on or lifting the machine.**
	**WARNING –** Do not ride on the machine.
	**WARNING –** It is not permitted to dispose of this product as normal household waste. Ensure that the product is recycled in accordance with local legal requirements.

CE	This product conforms to the applicable EC Directives.
	Class III equipment
	Read operator's manual
⎓	Direct current
	Class II equipment

INTENDED USE

The garden product is intended for domestic lawn mowing. It is designed to mow often, maintaining a healthier and better looking lawn than ever before. Depending on the size of your lawn, your mower may be programmed to operate at any time or frequency. It is impossible for digging, sweeping or snow cleaning.

CE

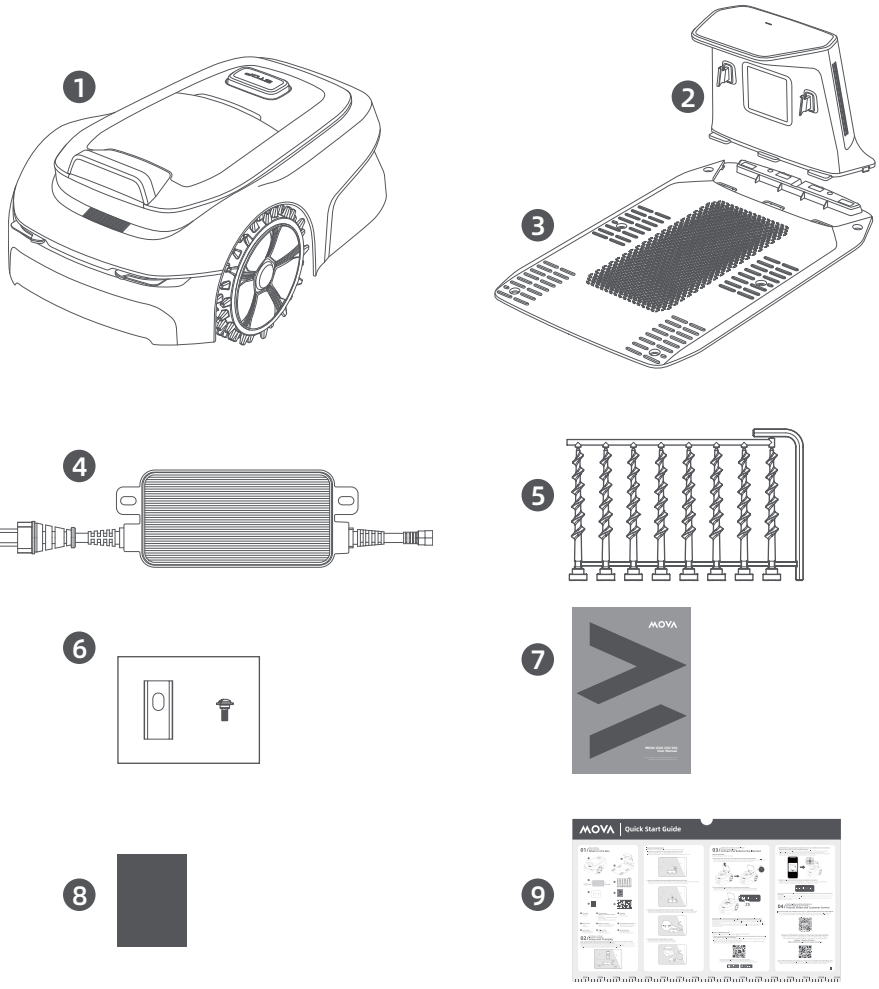
Hereby, Kutting Technology (Suzhou) Co., Ltd. declares that the radio equipment models MOVA MVVV1100/MVVV1200 are in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: https://www.mova.tech/pages/declaration-of-conformity.

The product is in compliance with UK PSTI regulations, the full text of declaration of conformity is available at the following internet address: https://www.mova.tech/pages/statement-of-compliance-for-uk-psti.

For detailed e-manual, please go to https://www.mova.tech/pages/user-manuals-and-faqs.

2 Product Introduction

2.1 What's in the Box



1 The robot

2 Charging tower
(with a 10 m extension cable)

3 Baseplate

4 Power supply

5 Stakes × 8, Hex key

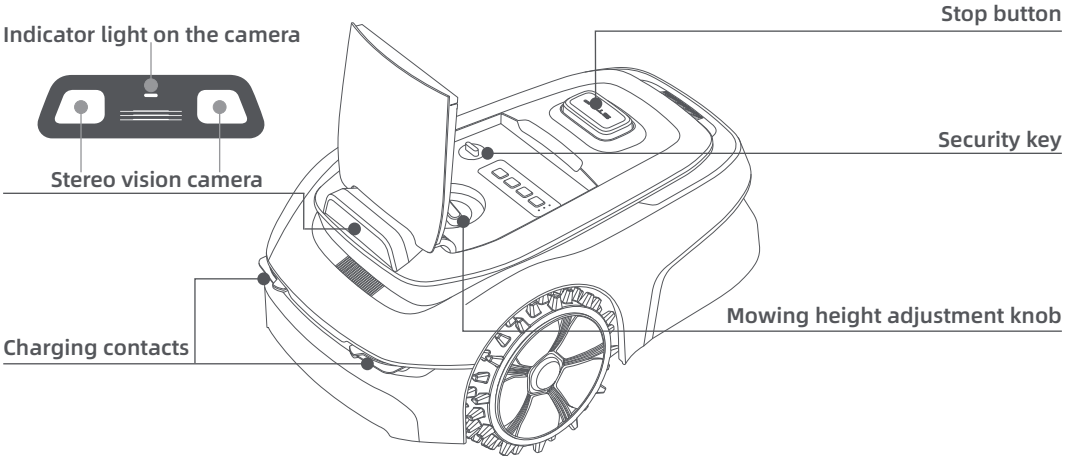
6 Spare blades and screws × 9

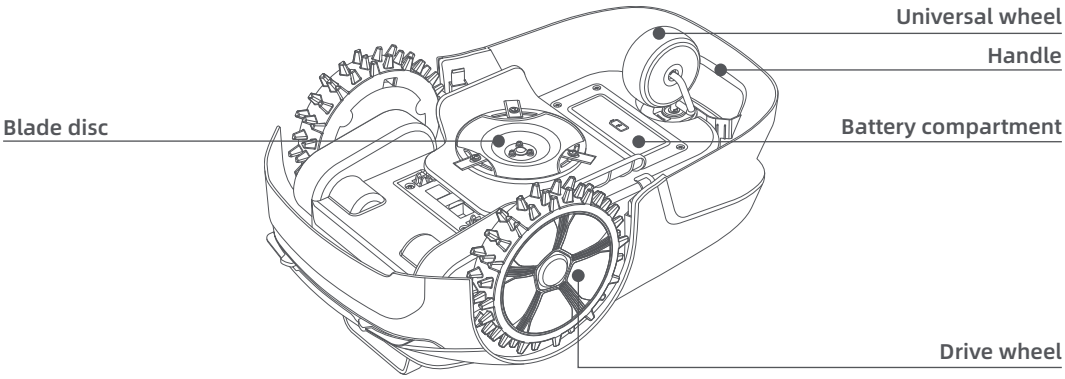
7 User manual

8 Lint-free cloth

9 Quick start guide

2.2 Product Overview

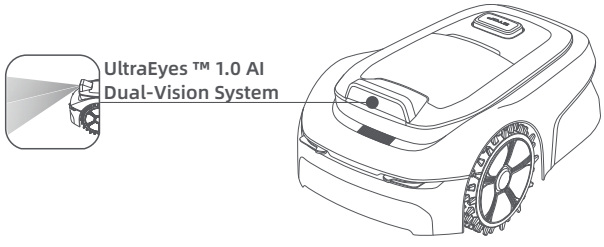




2.3 UltraEyes ™ 1.0 AI Dual-Vision System

UltraEyes ™ 1.0 is the core of the ViAX Series—a pioneering innovation that redefines smart lawn care with an AI-powered dual-vision system. This cutting-edge technology empowers the ViAX Series to navigate your landscape with unmatched clarity and precision.

Equipped with dual Ultra-HDR AI cameras and AI algorithms, it accurately differentiates between grass and non-grass areas while identifying various objects in the yard. Through advanced visual processing and intelligent decision-making, it ensures millimetre-level perception and positioning, truly understanding your yard in all directions.



2.4 Sensor

Name	Description
Stereo Vision Camera	Provides positioning and detects obstacles, lawn boundaries, and human presence. Angle of view: 110° (horizontal), 75° (vertical), 120° (diagonal) Resolution: 2 MP

3 Installation

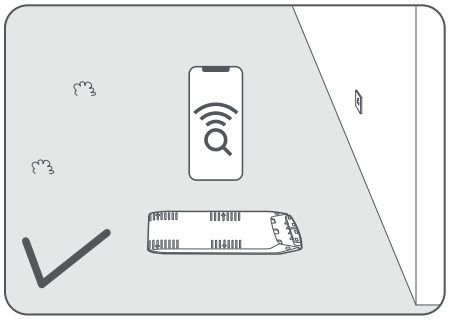
3.1 Select a Suitable Location

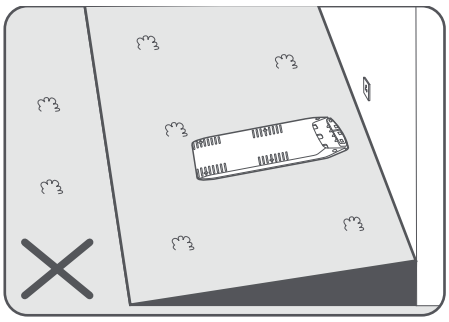
• Place the charging station on a level surface near the edge of the lawn and a power outlet. Place it in an area with a strong Wi-Fi signal.

Note: Use your mobile device to help check the Wi-Fi signal strength of the location. A strong Wi-Fi signal ensures a stable connection between the robot and the app.

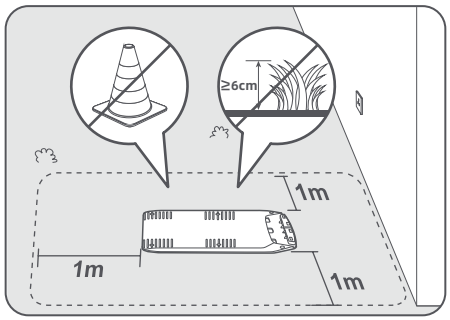
Important

- Make sure the ground is soft enough to allow stake installation.
- Place the charging station on level terrain. Any slope may cause the robot to roll backward and lose contact.



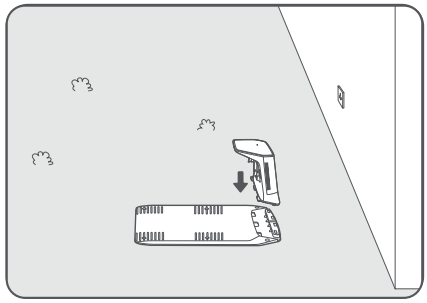


• Keep at least **1 m** of free space with no obstacles to the left, right and in front of the charging station. Make sure that the grass around the location is shorter than **6 cm**. If the grass is taller, please mow it with a push mower first. Tall grass may make it difficult for the robot to return to the charging station.

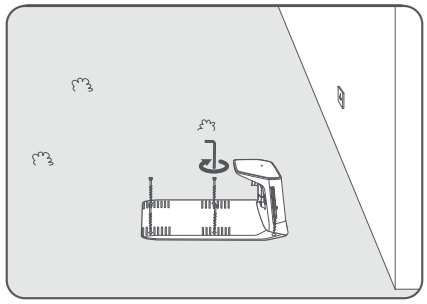


3.2 Install the Charging Station

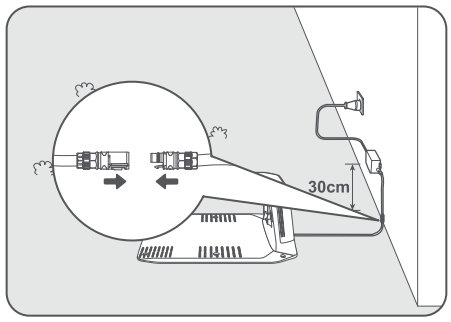
❶ Insert the charging tower into the baseplate until you hear a click.



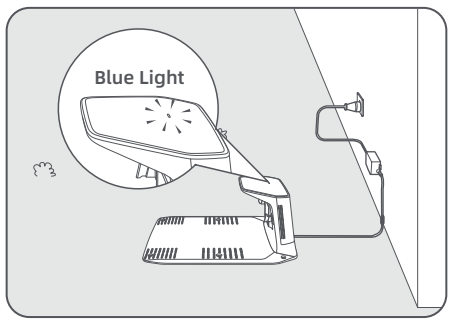
❷ Secure the baseplate to the ground with the supplied stakes and hex key.



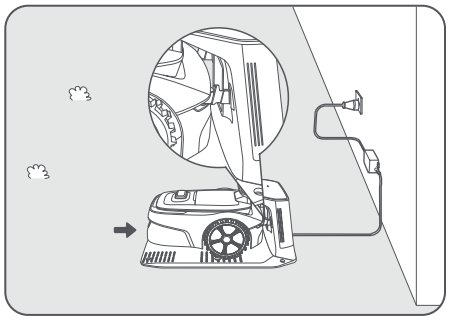
❸ Connect the power supply to the extension cable and then connect to a power outlet. Please keep the power supply at least **30 cm** above the ground.



Note: The LED indicator on the charging station will be **constant blue** when there is power.

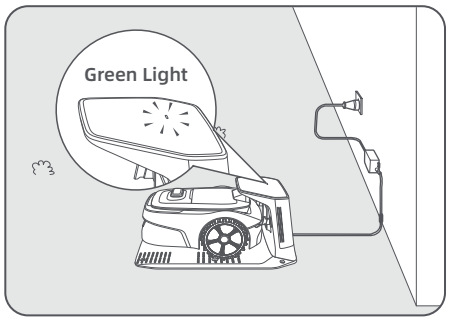


❹ Put the robot in the charging station to charge. Make sure the charging contacts on the robot and the charging station are connected correctly.



Notes

• The indicator light on the charging station will **blink green** when the robot is charging successfully in the charging station.



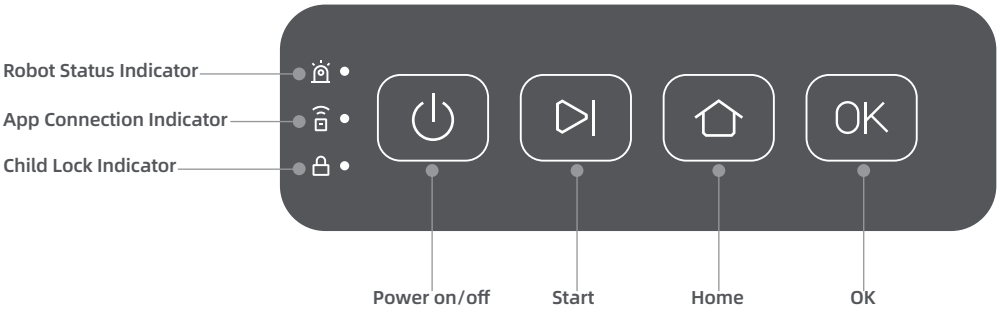
• If you're looking to add a garage for extra protection, please use the matching MOVA Garage available at local retailers or through online stores. Using a non-MOVA garage may cause issues during recharging.

LED Indicator on the Charging Station

LED Indicator Light Colour	Meaning
Blinking/solid red	1. There is an issue with the charging station (such as a problem with the charging current or voltage). 2. The robot docks in the charging station but the charging is abnormal (for example charging contacts have a short circuit).
Solid blue	The charging station has power. The robot is not in the charging station.
Blinking green	The robot is charging in the charging station.
Solid green	The robot is docked at the charging station and is either: 1. Fully charged, or 2. Not charging because the current time is outside the designated charging period.

4 Preparation for First Use

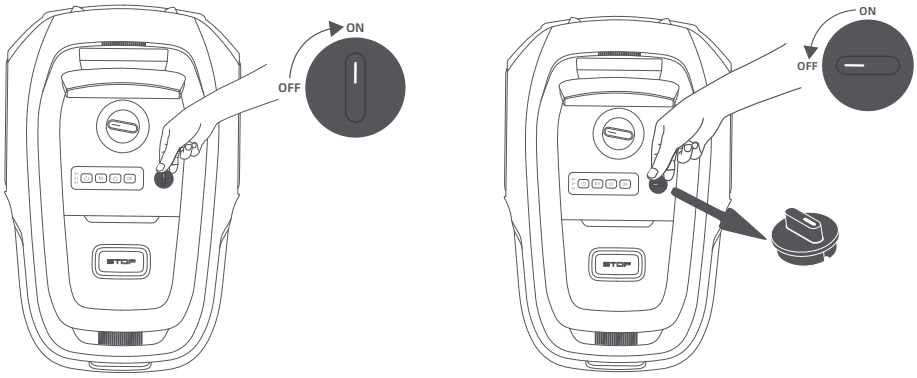
4.1 Get Familiar with the Control Panel



Controls

Button	Function
Power ⏻	To turn the robot on, install the security key and turn it to the **ON** position. Press and hold the ⏻ button for 2 seconds to turn the robot on.
	To turn off the robot, ensure the robot is outside the charging station, press and hold the ⏻ button for 2 seconds, and rotate the security key to the **OFF** position.
Start ⏯	To start all-area mowing or resume paused tasks, press the ⏯ button, then press the **OK** button in 5 seconds.
Home ⌂	To send the robot back to the charging station to charge, press the ⌂ button, then press the **OK** button in 5 seconds.
OK	To deactivate the safety lock and enable app control, press the **OK** button twice.
	To enable Bluetooth pairing mode, press and hold the **OK** button for 3 seconds.
Start + OK	To factory reset the robot, press and hold ⏯ and the **OK** button together for 3 seconds.
Stop	Press the **Stop** button to stop the robot and activate the safety lock. App control will be disabled. Press the **OK** button twice to deactivate the safety lock.
Start + Home	To turn off Child Lock, press both the ⏯ and ⌂ buttons at the same time. The robot will announce: "Child Lock is turned off".

Security Key



- Rotate the security key to the **ON** position before turning on the robot.
- Rotate the security key to the **OFF** position; the robot will shut down automatically.
- You can take out the security key when it's in the **OFF** position. The robot cannot be turned on without the key.

Note: If you lose the security key, please reach out to the after-sales team for a replacement.

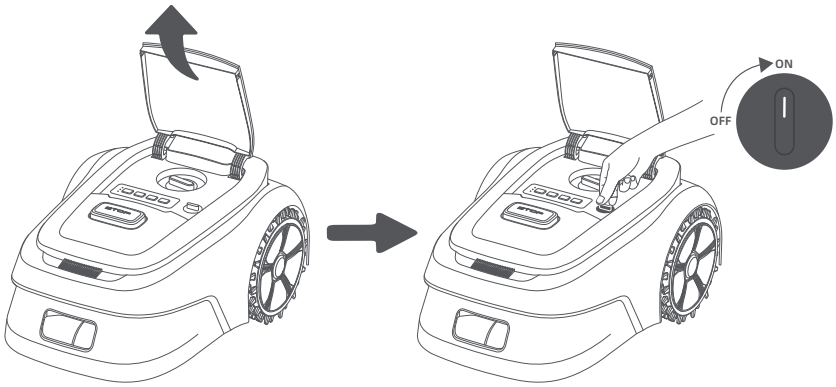
Indicator Lights on the Control Panel

Indicator	Colour	Meaning
Robot Status	Blinking green	The robot is charging in the charging station.
	Solid green	The battery is fully charged.
	Solid red	1. An error has occurred. 2. The emergency stop button is pressed.
	Blinking blue	1. The robot is performing a task or is paused. 2. The robot is initialising after power-on.
	Solid blue	The robot is on standby.
App Connection	Solid blue	The robot is connected to the app.
	Blinking blue	The robot is connecting to the app.
Child Lock	Solid blue	The control panel is locked via the app. (You can enable the "Child Lock" function in the app.)

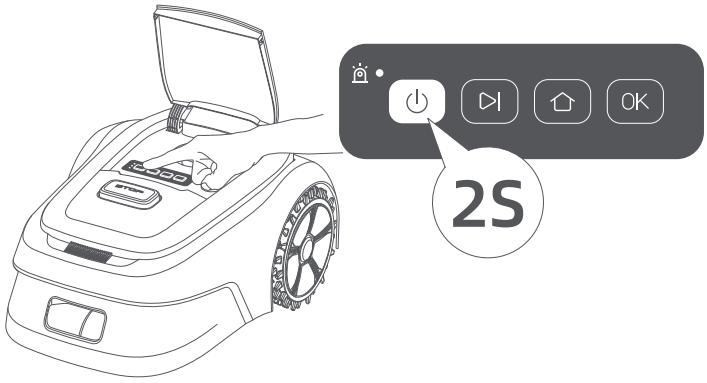
4.2 Initial Settings

Before turning the robot on for the first time, there are some basic settings to do before the robot is ready to start working.

❶ Open the top cover, then rotate the security key to the **ON** position.



❷ Press and hold ⏻ on the control panel for 2 seconds to turn on the robot.



Notes

• After power-on, the robot will begin initialisation, indicated by a **blinking blue** status light • on the control panel. When the startup sound plays and the status light • turns **solid blue**, the initialisation process is complete.

• The robot will automatically turn on when it docks in the charging station.

Important: To turn on the robot, ensure the security key is installed and set to the **ON** position. If not, the robot cannot be powered on.

❸ Connect the Robot to the Internet

Please scan the QR code to download the MOVAhome app on your mobile device. After the installation, please create an account and log in.

You can also download MOVAhome app from App Store or Google Play.

Download on the App Store

Get it on Google Play

Before network setup:

• Make sure that both the robot and your mobile device are within range of the same Wi-Fi network.

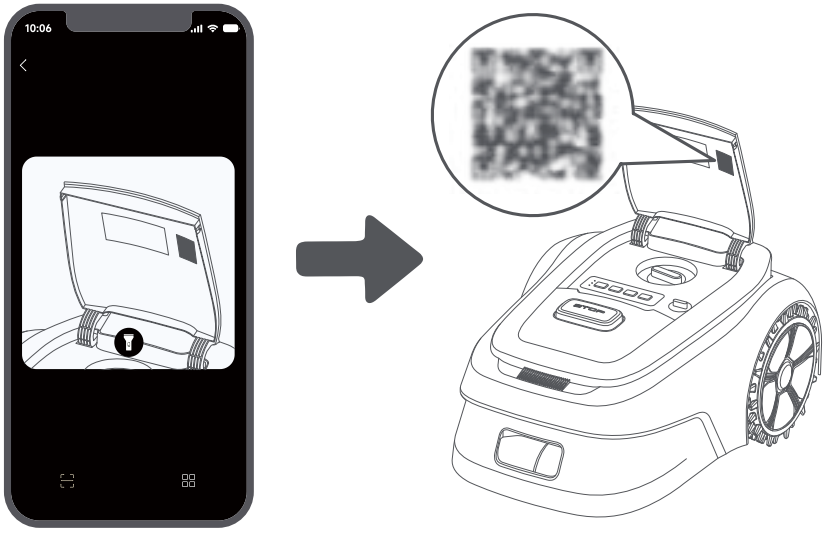
• Make sure that your mobile device is within **10 m** of the robot.

• Enable Bluetooth function on your mobile device.

1. Open the MOVAhome app.

2. You can connect via one of the following methods:

a. Scan the QR Code: Go to **Device** and tap **Scan QR code to connect**. Scan the QR code located inside the robot's top cover to connect.



b. Add Manually: Go to **Device** and tap **Add**. Then select your robot model to connect.

3. Please follow the in-app instructions to complete the Wi-Fi network connection.

Important

• Please use a single-band network of 2.4 GHz frequency or dual-band network of 2.4/5 GHz frequency.

• Make sure your Wi-Fi network doesn't have a firewall and isn't encrypted. Otherwise, the network setup may fail.

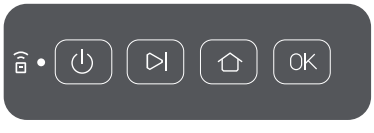
4. Press and hold the **OK** button on the control panel for 3 seconds. The robot will enter Bluetooth pairing mode.

Note: Ensure the robot has completed initialisation before pressing the **OK** button. Initialisation is complete when the startup sound plays and the status light • turns **solid blue**. Pairing cannot proceed until initialisation is complete.

5. Please follow the in-app instructions to complete the pairing.

Notes

• The App Connection indicator • on the control panel will show a **solid blue** light when the robot is successfully connected to the app.



• You can also purchase the Link Module to remotely control the robot without Wi-Fi connection.

How to unbind the robot?

The robot is automatically bound to the MOVAhome account once pairing is successful. Each device can only be bound to one account. It cannot be bound to another account at the same time.
To pair the robot with a new account, you need to unbind it first. To unbind it:
1. Open the MOVAhome app. Go to **Device**.
2. Locate your robot's name. If you have multiple robots bound to your MOVAhome account, swipe left or right to access the page of the robot you want to edit.
3. Tap next to the robot's name.
4. Select **Delete**.
Important: Once the robot is unbound, all user data from the robot will be permanently erased from the server.

How to share your robot?

1. Tap next to the robot's name.
2. Select **Device Sharing**.
Note: You can manage user access for specific functions in **Settings** > **Device Sharing**.

How to log out of your MOVAhome account or delete it?

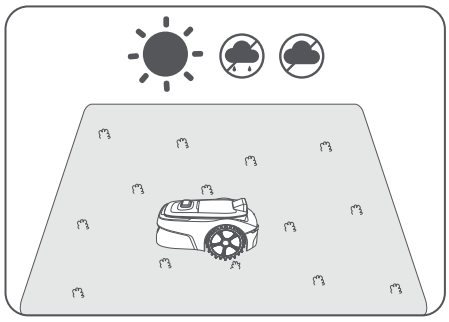
1. Go to **Me** > **Account**.
2. Select **Log Out** or **Delete Account**.

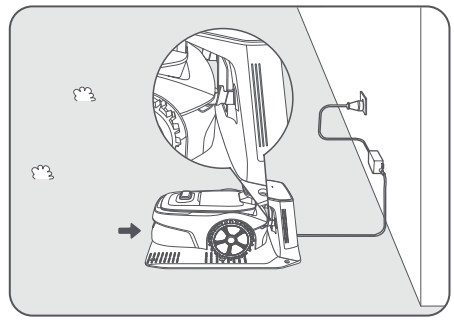
How to reset your robot?

Press and hold and **OK** simultaneously for 3 seconds to factory reset the robot.
Important: All stored data on the robot will be permanently erased.

5 Map Your Garden

Before mapping, please ensure the following:
• The battery level of the robot is more than 50%.
• The weather is clear and dry, with sufficient light.
• The robot's front camera is clean and unobstructed.
• The robot correctly docks in the charging station.



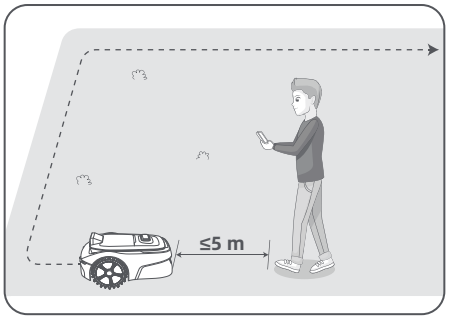


Important

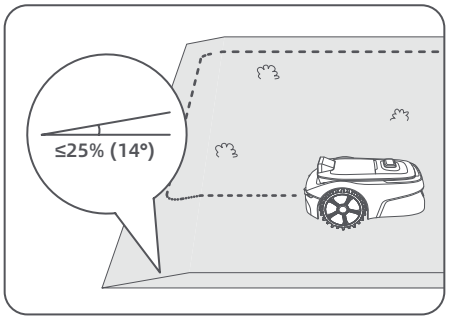
- Do not manually move the robot when creating the boundary, as this may cause the mapping to fail.

- When the mapping begins, do not remotely dock the robot in the charging station until the mapping process is complete. Otherwise, the front camera may be blocked, which can cause the mapping to fail.

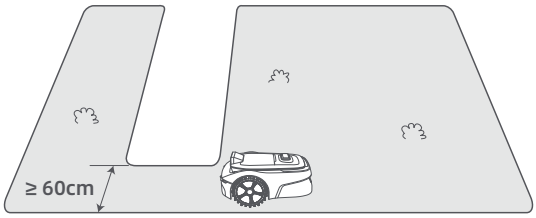
• Walk within **5 m** behind the robot during the mapping process.



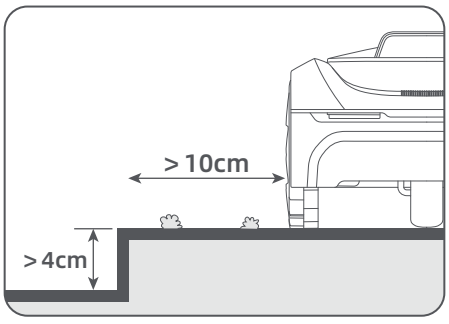
• The robot can navigate slopes with an incline up to **40% (22°)**. However, for better mowing results, it is recommended to keep the slopes of work areas below **25% (14°)**.



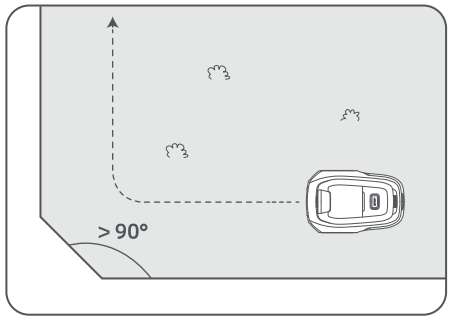
• For areas narrower than **60 cm**, please set them as paths to allow the robot to pass through (see section 5.4: ***Set Path***).



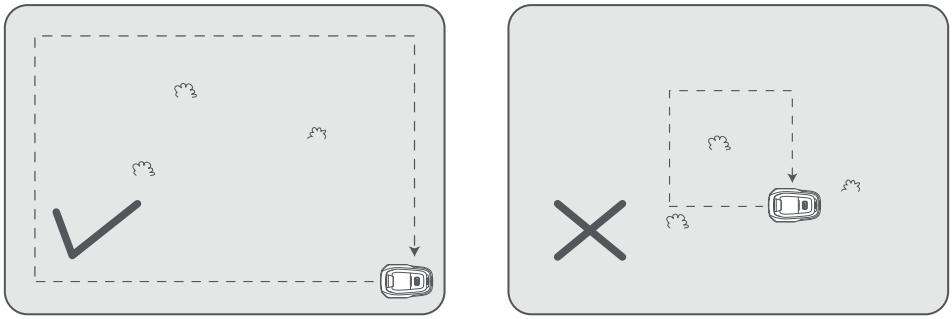
• If the lawn's perimeter is more than **4 cm** higher than the surrounding ground or has a steep slope, keep the robot at least **10 cm** away from the edge during mapping. If the perimeter is level with the surrounding ground, the robot can cross it for optimal edge mowing.



• Make sure the turning angles are greater than **90°** . Angles smaller than 90° can make it difficult for the robot to achieve a clean cut.

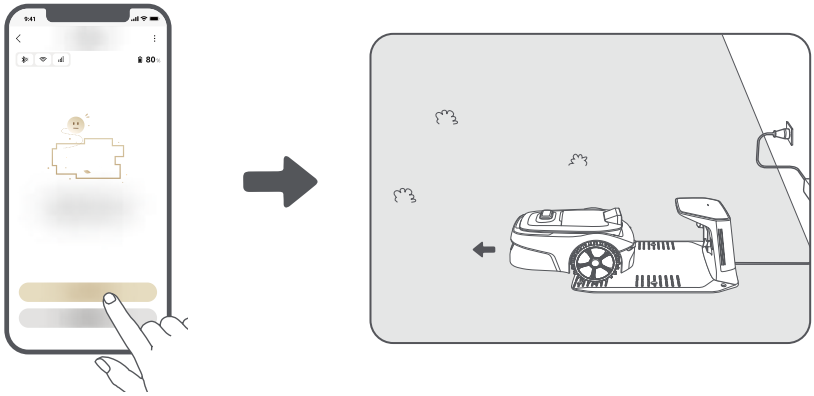


• To map the lawn boundaries correctly, always have the robot follow the outer edge of the lawn. Do not create zones in the middle of an open lawn area, as this can lead to positioning errors.

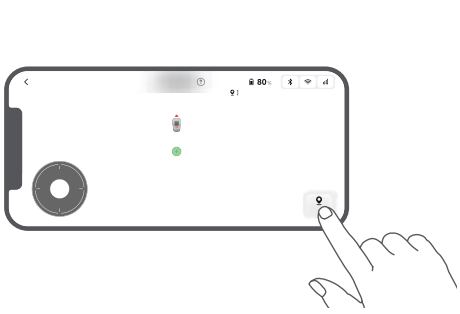


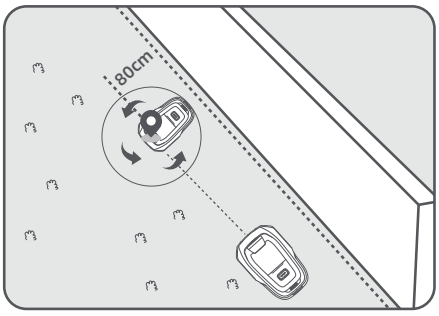
5.1 Create the Virtual Boundary

❶ Tap **Start Mapping** via the app, and the robot will check its status and calibrate. It will automatically leave the charging station to do the calibration. Please be careful.



❷ Guide the robot to the perimeter of your lawn using remote control. If the perimeter is elevated or has a steep slope, make sure to leave **80 cm** of clearance to allow space for calibration rotation. Then tap **Set Starting** Point to establish the starting point for the boundary. The robot will rotate in place to calibrate its position.





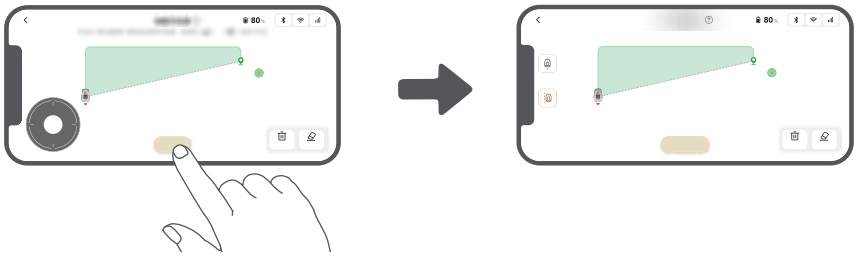
❸ Guide the robot remotely to move along the perimeter of your lawn to map out the work area.

Auto Boundary Detection

Powered by an advanced AI algorithm, the robot uses its front camera to distinguish grass from non-grass areas under proper conditions, automatically mapping the lawn perimeter without manual guidance.

After guiding the robot remotely to the lawn edge and setting the starting point, you can use **Auto Boundary Detection** mode. You can choose whether the robot should cross the perimeter for cleaner edge cutting results or stay close to it to avoid getting stuck.

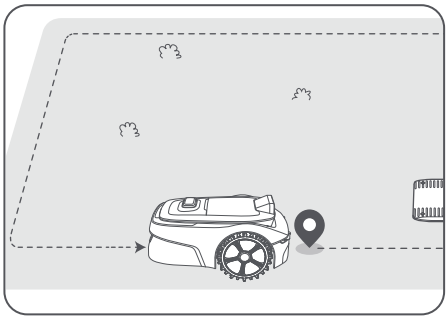
We recommend following the robot during this process. If the robot fails to accurately detect the boundaries, you can exit Auto Boundary Detection mode and switch to remote control at any time.

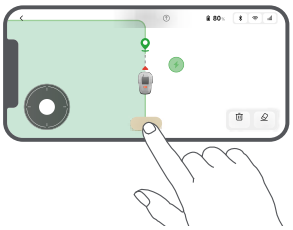


Important: Auto Boundary Detection works best on clearly defined lawn edges. Unclear boundaries may not be recognised successfully.

❹ When the robot returns to within **1 m** of the starting point, you can tap **Close Boundary** and the boundary will automatically be completed. If the perimeter is elevated or has a steep slope, make sure to leave 80 cm of clearance to allow space for calibration rotation.

Note: If the boundary fails to close or you encounter an error, remotely guide the robot a short distance forward along the edge, then retry closing the boundary.

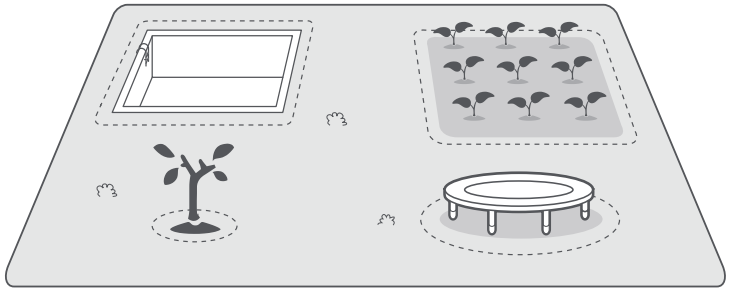




5.2 Set No-Go Zone

Though the robot can automatically avoid obstacles, it is still necessary to set areas with a risk of falling, such as swimming pools and sandpits, as no-go zones. For objects you want to protect (such as a flowerbed, a trampoline, a vegetable patch or an exposed tree root), please set them as no-go zones. You can tap **Set no-go zone** in the app to continue creating no-go zones. Alternatively, you can go to > **Map Editing** to create or delete the no-go zones after the map is finished.

Note: Areas frequently visited by animals can be designated as "Animal-Active Area" to prevent the robot from entering and ensure the safety of the animals.



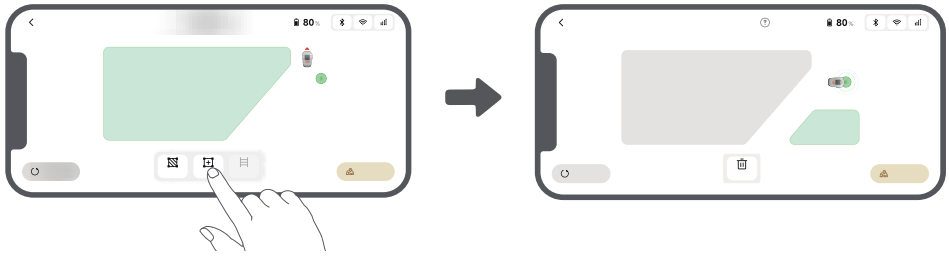
5.3 Create More Zones and Expand Existing Zones

• To Create More Zones

If your lawn is separated by roads or you have several isolated lawns, you can tap **Set zone** in the app to continue creating work areas. You can also add, delete or modify the zones in > **Map Editing** when the map is finished.

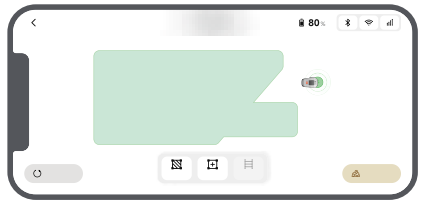
Note: If your garden has stone paths, designate them as separate zones. Then draw linking paths so the robot can navigate between zones.

Important: To map the lawn boundaries correctly, always have the robot follow the outer edge of the lawn. Do not create zones in the middle of an open lawn area, as this can lead to positioning errors.



• To Expand Existing Zones

To expand an existing zone, tap **Set zone** in the app to create the area you want to include. If the two areas overlap, they will be automatically merged. Alternatively, you can go to > **Map Editing** > **Set zone** after mapping is complete to expand an existing zone.

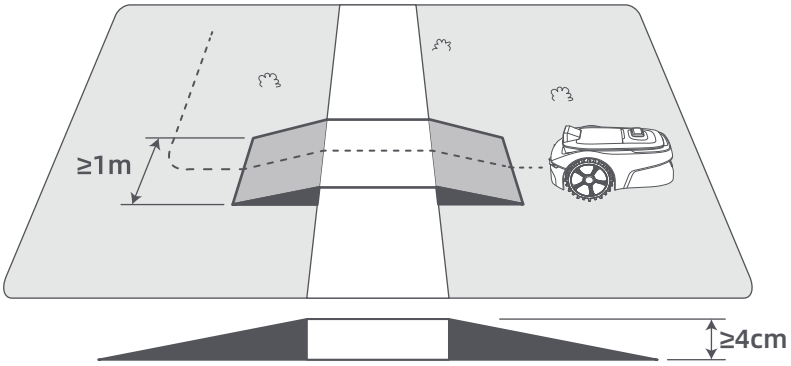


5.4 Set Path

For isolated zones, please create a path to connect them. Isolated zones without a path will be inaccessible to the robot.

Note: By default, the robot only moves along the path without mowing the grass.

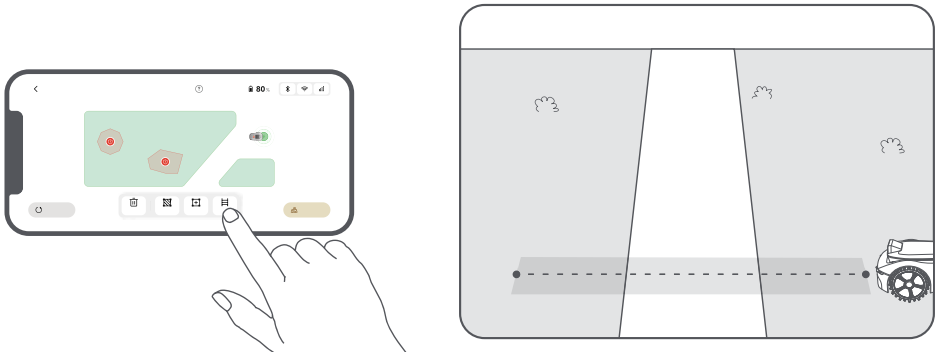
Important: If your lawn is divided by passages higher than **4 cm**, place an object with a slope equal in height to the passage (such as a ramp).



• To Connect Two Isolated Work Zones

For isolated areas, please create paths to connect them, otherwise they will be inaccessible to the robot. Tap **Set path** to create a path.

Important: Ensure the path starts and ends on grass-covered surfaces within the work area. Do not set either endpoint on non-grass surfaces.

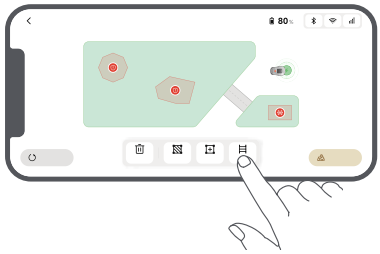


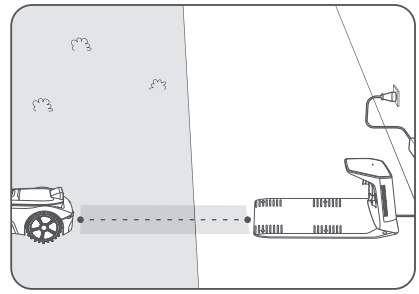
• To Connect the Work Area and the Charging Station

If your charging station is not in the work area, a path should be created to connect it to the work area. Tap **Set path** to create a path that allows the robot to return to the charging station.

Important

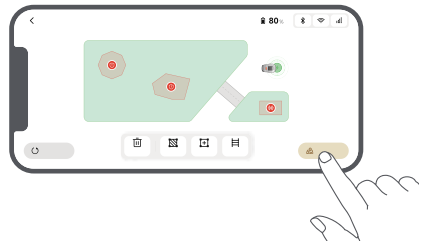
- Ensure one end of the path is on a grass-covered surface within the work area, and the other is directly in front of the charging station. It's advisable to align the path with the charging station.
- When creating paths to connect the work area and the charging station, do not remotely dock the robot in the charging station. Otherwise, the front camera may be blocked, which can cause the mapping to fail.





5.5 Finish Map

Tap **Finish Map** when work areas, paths and no-go zones are completed.



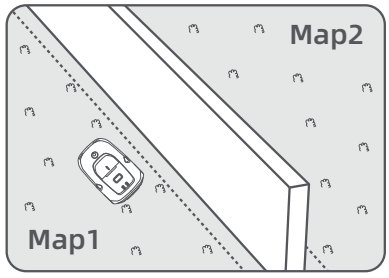
5.6 Add a Second Map

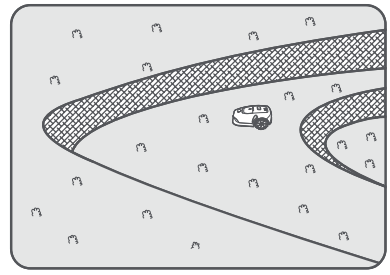
Dual Map Feature

The Dual Map feature is designed for situations where the robot cannot autonomously travel between separate lawns or when multiple maps are necessary.

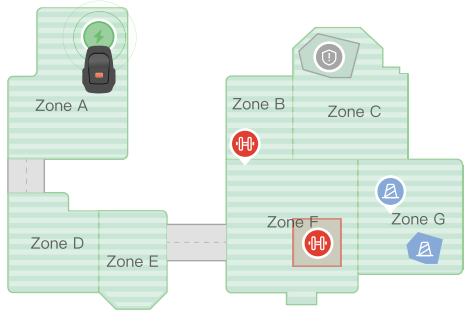
You may need to create a second map if:

- Your front and back lawns can't be connected.
- There's a significant elevation difference between lawn areas.
- You have multiple properties but only one robot.
- Your lawn area is too large for a single map.





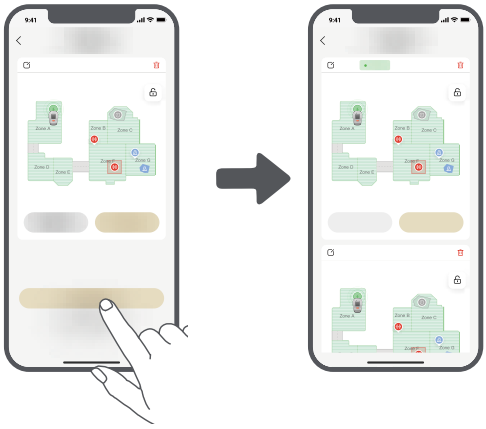
Note: If your lawns are connected and within the robot's capacity, use a Multi-Zone setup instead.



Before mapping the second lawn, please keep the following in mind:
• Always start mapping from the charging station for both maps.
• Second Charging Station (Optional):
– If you have purchased a second charging station, install it on the second lawn.
– If not, move the robot and its charging station manually to start mapping the second lawn.

Map the Second Lawn

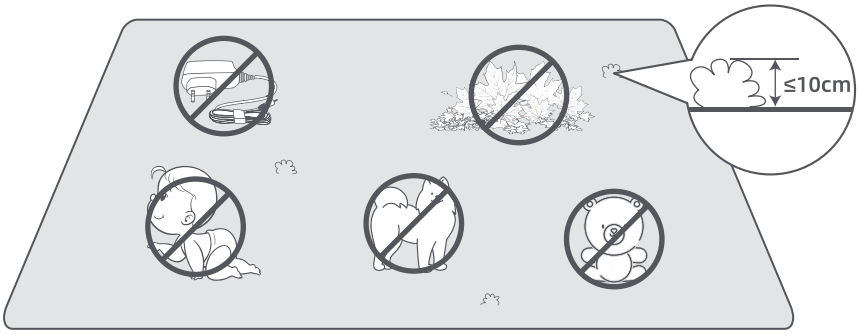
After completing the first map, tap **Add Map** to continue creating the second one. Alternatively, you can navigate to > **Map Editing** and tap **Add Map** after mapping is complete. Once you have finished the second map, you can switch between maps through > **Map Editing**.



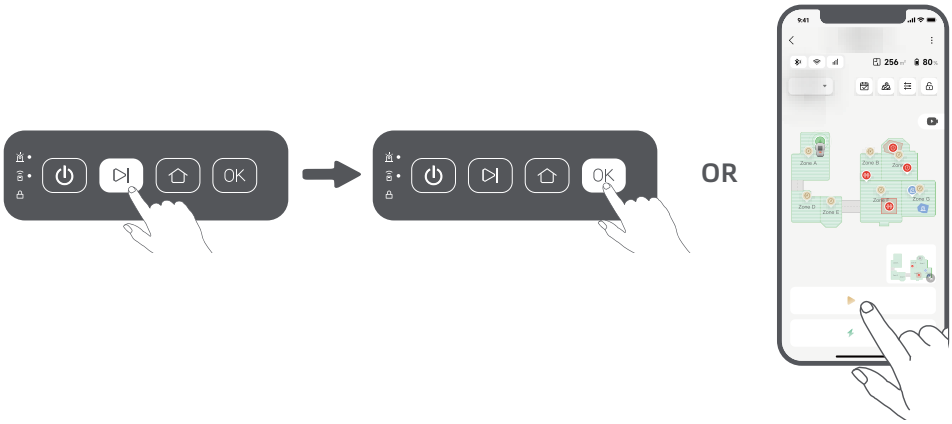
6 Operation

6.1 Start Mowing for the First Time

Tips before mowing:
• Use a push mower to mow the grass to a height of no more than **10 cm**.
• Clear the obstacles including debris, leaf piles, toys, wires and stones from the lawn. Make sure no children or pets are on the lawn when the robot is mowing.
• Level any depressions in the lawn.
• Set your mowing preferences in the app in advance (such as mowing efficiency).



1. Open the top cover to access the control panel.
2. Turn the knob on the robot to adjust the mowing height (20 mm-60 mm).
3. Press ⏯, then press the **OK** button in 5 seconds. The robot will leave the charging station and start all-area mowing. You can also tap **Start** in the app to start mowing.



4. Close the top cover.

Note: Before starting the mowing process, ensure that the weather is clear and dry, and that there is adequate lighting.

6.2 Mowing with Dual Maps

• With One Charging Station:

1. Always place the charging station exactly where it was during mapping. Manually move the robot to the map you want to mow.
2. Select the correct map in the app before beginning mowing tasks to ensure proper operation.

Note: After switching the map, the schedules and mowing settings of the current map will be applied.

How to Handle Low Battery or Charging Issues?

If you don't manually relocate the charging station along with the robot to the second map, the robot might deplete its battery and prompt a charging failure since it can't locate the charging station. To resolve this issue, please follow these steps:

1. Manually move the robot to the map with the charging station for recharging.
2. After charging, return the robot to the original map. It will resume mowing automatically.

Important: Do not change the map in the app during this. This ensures the robot remembers its last position and can continue where it left off.

3. Repeat these steps as needed until the entire lawn is mowed.

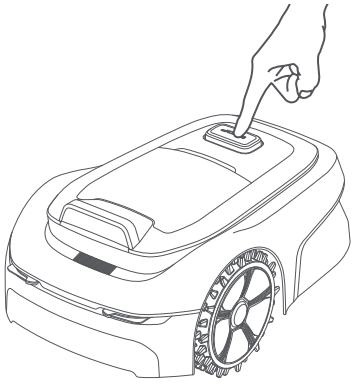
• With Two Charging Stations:

Relocation of the charging station is not necessary.

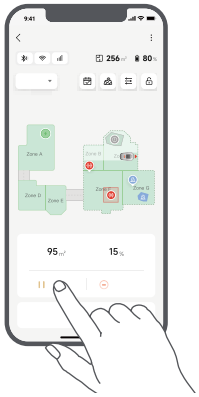
1. Manually move the robot to the map you want to mow.
2. Select the correct map in the app before beginning mowing tasks to ensure proper operation.

6.3 Pause

To pause the current mowing task, you can press the **Stop** button on the robot or tap **Pause** in the app.
Note: The robot cannot be started directly through the app after the **Stop** button is pressed. To resume app control, press the **OK** button twice on the control panel to deactivate the safety lock first.

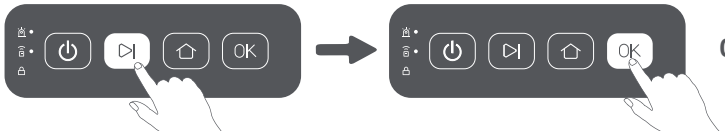


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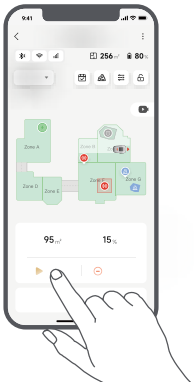


6.4 Resume

To resume a paused task, press ▷|, then press the **OK** button in 5 seconds. You can also tap **Continue** in the app to resume the mowing task.

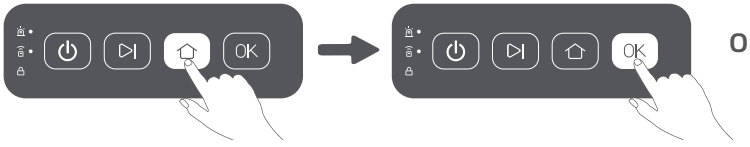


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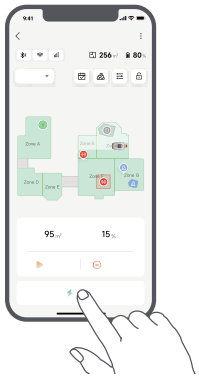


6.5 Return to the Charging Station

To stop the mowing task and send the robot back to the charging station, press the ⌂ button, then press the **OK** button in 5 seconds on the control panel. You can also tap Recharge in the app to send the robot back to the charging station.



OR



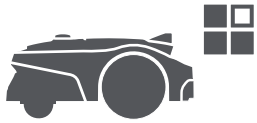
7 MOVAhome App

Where You Can Explore More

MOVAhome app is more than a remote control. There are many things you can do through the app: completing various settings remotely, experiencing different mowing modes, editing the map freely and adjusting mowing schedules.

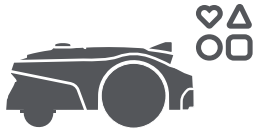
7.1 Mowing Modes

The robot offers various mowing modes. You can switch between modes through the app including All-Area Mowing, Zone Mowing, Edge Mowing, Spot Mowing and Manual Mode.



7.2 Mowing Shapes

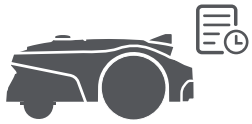
Customise your lawn by adding shapes through > **Map Editing** > **Shapes** in the app. Defined shapes will be excluded from mowing in all mowing modes. You can modify their position, size, or remove them in **Shapes**.



7.3 Schedule

After the first map is completed, the robot automatically creates two weekly mowing schedules, which are "**Spr/Sum Schedule**" and "**Aut/Win Schedule**". You can tap in the app to do detailed schedule settings. With the schedule function, you can completely leave the daily mowing work to the robot. You only need to maintain the robot regularly.

Note: If you worry that the robot may disturb you or your neighbours when it works autonomously during certain hours, you can go to **Settings** > **Do Not Disturb** and set **Do Not Disturb** time in the app.



Schedules with Dual Maps

Since each map has its own schedule, carefully plan and set up the scheduled tasks for each map to prevent overlaps or conflicts. This ensures that the robot operates efficiently and is available as needed for each map.

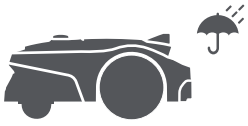
7.4 Child Lock

If you worry that children may operate the robot, navigate to **Settings** and enable the **Child Lock** function in the app. Alternatively, you can tap on the mowing page. With this function enabled, the control panel will be locked. To deactivate it, press and simultaneously on the control panel.



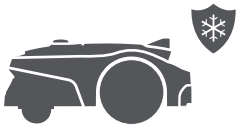
7.5 Rain Protection

If you worry that adverse weather conditions may affect the mowing work, you can enable **Rain Protection** function in **Settings** in the app. When this function is enabled, the robot automatically pauses mowing and returns to the charging station if rain is forecast. You can set the rain delay time in the app.
Note: Mowing wet grass can damage your lawn. We recommend setting a rain delay time to keep the robot in the charging station for a period after the rain stops, allowing the grass to dry completely before mowing again.



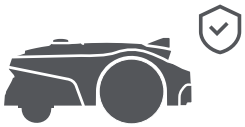
7.6 Frost Protection

If the temperature drops below **6° C**, mowing can permanently damage the lawn. The battery will not charge as a safety measure. To prevent this, you can enable the **Frost Protection** feature in the **Settings** through the app. This will automatically pause mowing and send the robot back to the charging station when the temperature falls below **6° C**. The robot will resume mowing once the temperature rises above **11° C**.



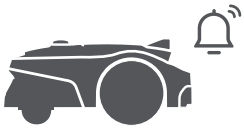
7.7 Security Features

The robot supports multiple anti-theft features to ensure secure operation and protect against unauthorized use. Additionally, the stereo vision camera can detect human presence, making the robot an effective garden guardian.



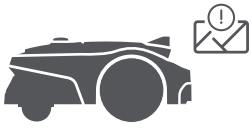
7.7.1 Lift Alarm

With this function enabled, an alarm will go off immediately when the robot is lifted, and the robot will be locked. To resume app control, press the **OK** button twice on the control panel to deactivate the safety lock first.



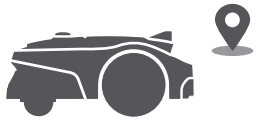
7.7.2 Off-Map Alarm

With this function enabled, the robot will be locked and an alarm will go off immediately if it is away from the map. **(This function requires installation of Link Module.)**



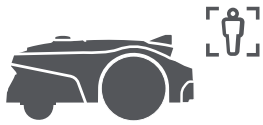
7.7.3 Real-Time Location

With Link Module, you can view the current location of the robot in Google Maps.



7.7.4 Human Presence Detection Alert

When enabled, the robot will notify you upon detecting human presence.



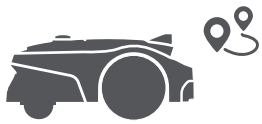
7.7.5 Garden Guardian

Tap to view a live video feed from the robot's front camera, allowing you to monitor your garden anytime, anywhere.



7.7.6 Patrol

While the robot is on standby, you can send it to patrol specific boundaries or spots in your garden via the app. To access this feature, go to > **Patrol**.

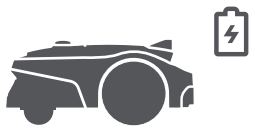


Indicator Light on the Front Camera

LED Indicator Light Colour	Meaning
Blinking green	1. Live video from the front camera is being streamed to the app. 2. The robot is in patrol mode.

7.8 Custom Charging Period

To customise the robot's charging period to specific hours, you can enable the **Custom Charging Period** function through **Settings** > **Charging** in the app. When enabled, the robot keeps a safe battery level when idle and fully charges only during the designated charging period.



Note: MOVA development team will continuously conduct **OTA (Over-the-Air)** updates and maintenance on the firmware and app. Please check for update notifications or enable the **Auto-update** function to keep the firmware and app up-to-date and enjoy more features.

8 Maintenance

For better performance and lifespan of the robot, please clean it regularly and replace worn parts according to the frequency below:

Part	Replacement Frequency
Blades	Every 6-8 weeks or sooner

Notes

• You can check the remaining time for blades by navigating to **Settings** > **Consumables & Maintenance** in the app. After replacing any consumables as prompted, go to the details page for the consumable and tap **I've Replaced It** to reset the timer.

• If you have designated areas in your garden for routine robot cleaning and servicing, you can set Maintenance Points on the map by navigating to **Settings** > **Head to Maintenance Point** > **Edit Point**. Once the maintenance points are set, you can simply tap **Go** and direct the robot to the designated locations for easy servicing.

8.1 Cleaning

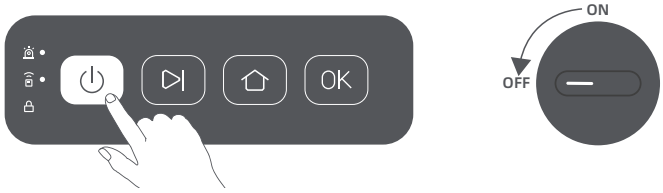
Regularly clean your robot to prevent grass clippings and dirt from accumulating and clogging the blade disc and drive wheels, which can affect its mowing, docking, and movement performance. We recommend using a cleaning kit, which can be purchased at local retailers or through online stores.

⚠ **Warning:** Before cleaning, please turn off the robot and rotate the security key to the **OFF** position. Unplug the charging station.

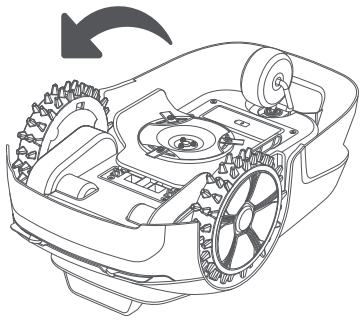
Caution: When turning the robot over, be careful not to scratch the camera lens.

• The Housing, Chassis and Blade Disc:

1. Turn the robot off and rotate the security key to the **OFF** position.

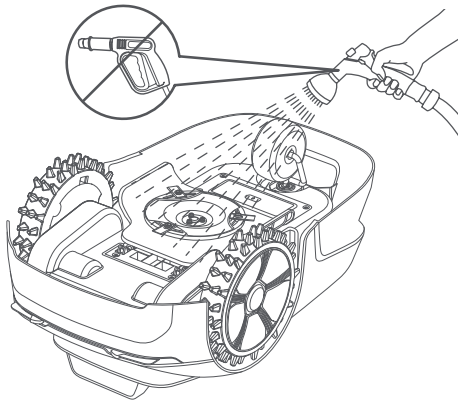


2. Put the robot on a soft surface and turn it upside down.

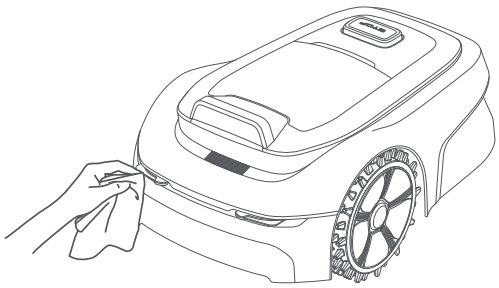


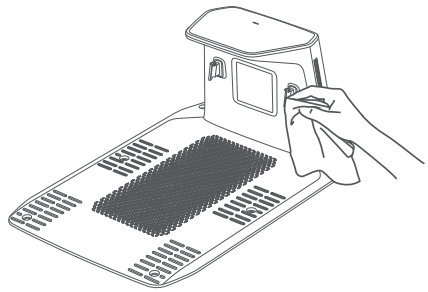
3. Clean the housing, blade disc and chassis with a hose.

⚠ **Warning:** Do not touch the blades when cleaning the chassis. Please wear protective gloves when cleaning.
Caution: Please do not use a high-pressure washer for cleaning. Do not use detergents for cleaning.

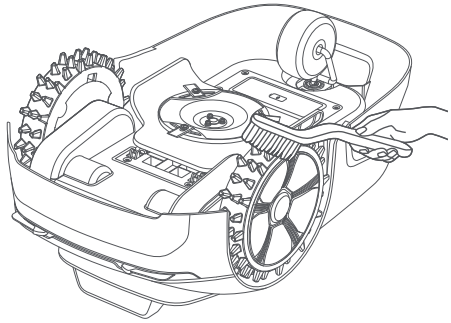


• Charging Contacts and Front Camera:
Use a clean cloth to wipe the charging contacts on the robot and charging station, and also clean the front camera. Keep the charging contacts and the front camera dry after cleaning.
Important: For optimal positioning and navigation, clean the front camera once every two weeks.





• Drive Wheels:
Use a brush to remove mud from the wheels to ensure good grip.



8.2 Replacing the Components

• Replacing the Blades

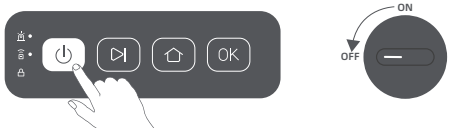
To keep the blades sharp, please replace the blades regularly. It is recommended to replace the blades every **6-8 weeks** or sooner. Please only use the MOVA genuine blades.

⚠ **Warning:** Please turn off the robot and rotate the security key to the **OFF** position. Wear protective gloves before replacing the blades.

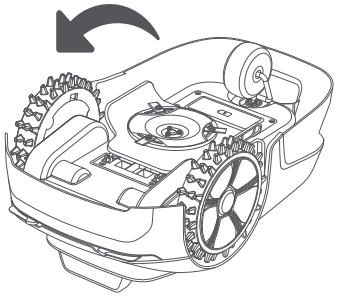
Note: Please replace all three blades at the same time to ensure a balanced cutting system.

Caution: When turning the robot over, be careful not to scratch the camera lens.

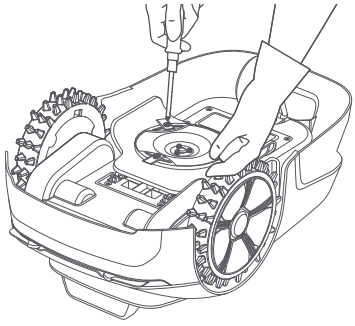
1. Turn off the robot and rotate the security key to the **OFF** position.



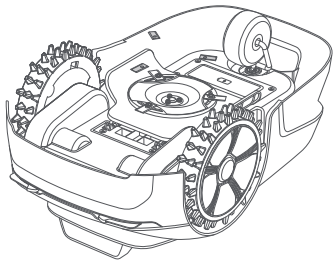
2. Put the robot on a soft surface and turn it upside down.



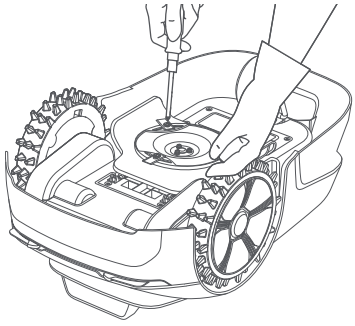
3. Loosen the screws using a Phillips screwdriver.



4. Remove the three blades and screws.



5. Align the new blades with the holes on the blade disc, then secure them with the screws.



6. Make sure the blades can rotate freely.

9 Battery

For long-term storage, charge the robot every 6 months to protect the battery. Battery damage caused by over-discharge is not covered by the limited warranty. Do not charge the battery at an ambient temperature **above 45° C** or **below 6° C**. The long-term storage temperature for the battery should be **between -10 and 35° C**. To minimise the damage, the recommended storage temperature for the battery is **between 0 and 25° C**.

Note: The lifespan of the robot's battery depends on frequency of usage and hours of operation. If the battery is damaged or cannot be charged, do not dispose of the obsolete or faulty battery arbitrarily. Please obey local recycling regulations.

Low-Power Charging Mode:

When the low-power charging mode is activated, functions unrelated to charging will be disabled (the network will be turned off).

• To enable low-power charging mode, press and hold the ▷| button and the ⌂ button simultaneously, and press the **OK** button 5 times quickly at the same time. You will hear a voice prompt: Low-power charging mode is on.

• To disable low-power charging mode, restart the robot.

10 Winter Storage

• The Robot

1. Charge the battery fully. Turn the robot off and rotate the security key to the **OFF** position.
2. Clean the robot thoroughly before putting it into storage in winter.
3. Store the robot inside in a dry place, at a temperature **above 0° C**.

• Charging Station

Unplug the charging station and store it in a dry and cool place, away from direct sunlight.

Note: After winter storage, please reinstall the charging station and place the robot in it to charge. If you reinstall the charging station in a different location, the robot will automatically update the station's location as soon as it charges and leaves the station. If you encounter positioning errors because of major changes in your garden, it's recommended to remap the area.

11 Transport

For long distance transport, ensure that the robot is turned off. It is recommended to use the original packaging.

⚠ **Warning**

• Please turn the robot off and rotate the security key to the **OFF** position before transporting it.

• Lift the robot by the rear handle, keeping the blade disc away from your body.

12 Troubleshooting

Issue	Cause	Solution
The robot is not connected to the app.	1. The robot is not within Wi-Fi signal coverage or Bluetooth range. 2. The robot is turned off or is restarting.	1. Check if the robot has completed the process of turning on. 2. Check if the router is working properly. 3. Move closer to the robot to establish a Bluetooth connection.
Robot lifted.	The wheel is not on the ground.	1. Put the robot back on flat ground. 2. Press the OK button twice to unlock the robot. 3. The robot can't cross objects higher than 4 cm. Please keep the ground even where it is working.
Robot tilted.	The robot tilts more than 37° .	1. Put the robot back on flat ground. 2. Press the OK button twice to unlock the robot. 3. The robot cannot climb slopes greater than 40% (22°).
Robot trapped.	The robot is trapped and fails to get out.	1. Remove the surrounding obstacles and then retry. 2. Manually move the robot to a flat and open place inside the map and try starting the task again. If you continue to encounter this problem, please retry after the robot is in the charging station. 3. Check if there are holes in the ground. Fill in the holes before mowing to prevent the robot from being trapped. 4. Check if the surrounding grass is taller than 10 cm. You can adjust the obstacle avoidance height or use a push mower to mow the lawn in advance to prevent the robot from being trapped. 5. If the robot is often trapped in this location, you can set it as a no-go zone.
Left/right drive wheel error.	The wheel cannot rotate or the wheel motor has a problem.	1. Clean the drive wheels and then retry. 2. If you continue to encounter this error, try restarting the robot. 3. If the problem persists, please contact the after-sales service.
Blade disc can't rotate.	The blade disc cannot rotate normally or the cutting motor has a problem.	1. Clean the blade disc and then retry. 2. Check if the surrounding grass is taller than 10 cm. You can use a push mower to mow the lawn in advance to prevent the blade disc from being blocked by tall grass. 3. Check if there is water under the blade disc. If there is any, move the robot to a dry place and then retry. 4. If you continue to encounter this error, try restarting the robot. 5. If the problem persists, please contact the after-sales service.
Charging error.	The robot docks in the charging station, but the charging current or voltage has a problem.	1. Check if the charging station is correctly connected to power. 2. Check if the charging contacts on the robot and charging station are clean. 3. After checking is finished, try docking the robot in the charging station again. 4. If the problem persists, please contact the after-sales service.

Issue	Cause	Solution
Battery temperature too high.	Battery temperature is ≥ 60℃ .	1. Use the robot where ambient temperature is below 40℃ . You can wait until the battery temperature decreases automatically. 2. You can turn off the robot and restart it after a while. 3. If the problem persists, please contact the after-sales service.
Battery temperature is high.	Battery temperature is ≥ 45℃ .	1. Charging may fail when battery temperature is above 45℃ . 2. Use the robot where ambient temperature is below 40℃ .
Battery temperature is low.	Battery temperature is ≤ 6℃ .	1. Charging may fail when battery temperature is below 6℃ . 2. Use the robot where ambient temperature is above 6℃ .
Robot is lost.	Positioning is lost.	1. Check if the front camera of the robot is dirty. Dirt will affect the positioning. 2. Manually move the robot to an open place inside the map and try starting the task again. 3. If the positioning is not recovered, remote control the robot back to the charging station via the app, and then start the mowing task.
Sensor error.	Sensor error.	1. Restart the robot and retry. 2. If the problem persists, please contact the after-sales service.
The robot is in the no-go zone.	The robot is in the no-go zone.	1. Manually move the robot out of the no-go zone and then retry. 2. Remotely control the robot through the app to move it out of the no-go zone, and then retry.
The robot is outside the map.	The robot is outside the map.	1. Manually move the robot inside the map, and then retry. 2. Remote control the robot back inside the map via the app, and then retry.
Emergency stop is activated.	The Stop button on the robot is pressed.	Press the OK button twice to unlock the robot.
Low battery. The robot will shut down soon.	Battery level is ≤ 10%.	Dock the robot in the charging station to charge.
The robot is away from the map. Risk of being stolen.	The robot is away from the map.	1. Manually move the robot back to the work area. 2. You can disable the Off-Map Alarm in Settings in the app.
Failed to return to the charging station.	The robot cannot find the charging station when returning to the charging station.	1. Check if there are obstacles blocking the robot. Remove the obstacles and retry. 2. Ensure there is adequate lighting and that the weather is clear (i.e., no rain or fog). Adverse weather may affect the robot's ability to return. 3. Confirm that the map currently in use in the app matches the robot's operating location. If it does not, switch to the appropriate map in the "Map Editing" section. 4. Ensure that a charging station is installed within the map currently in use. 5. Remote control the robot back to the charging station via the app.
Failed to dock in the charging station.	The robot finds the charging station but fails to dock.	1. Ensure there is adequate lighting and that the weather is clear (i.e., no rain or fog). Adverse weather may affect the robot's ability to dock. 2. Check if the reflective film on the charging station is dirty or blocked. 3. Check if there are obstacles in front of the charging station.

Issue	Cause	Solution
Failed to dock in the charging station.	The robot finds the charging station but fails to dock.	4. Check if the charging station is moved. 5. Check if the baseplate is covered with thick mud. 6. Check if the charging station is on a slope. 7. Check if the charging station has power. 8. Help the robot dock in the charging station using the remote control or manually.
Positioning failed.	Positioning fails when the robot tries to start a mowing task.	1. Ensure there is adequate lighting and that the weather is clear (i.e., no rain or fog). Adverse weather may affect the robot's positioning. 2. Manually move the robot to a flat and open place inside the map and try starting the task again. 3. If you continue to encounter this error, please retry after the robot is docked in the charging station. 4. If the positioning failure continues, move the charging station to an open location and perform a remapping.
Insufficient space for turning in front of the station.	Insufficient space for turning in front of the station.	1. If the station is placed at the edge of the map or within it, ensure there is at least 1 m of free space between the front area of the station's baseplate and the boundary of the map; otherwise, the robot may not be able to make turns. 2. Relocate the station, or change the map in Map Editing.
Path obstructed.	Path obstructed.	1. Check if a no-go zone is set in the path. 2. Check if there are obstacles blocking the robot. 3. If the robot still cannot pass, delete the path in Map Editing and set a new one.
There is an issue with the front camera.	There is an issue with the front camera.	1. Wipe the front camera with a clean cloth. 2. Try restarting the robot. 3. If the problem persists, please contact the after-sales service.
Front camera blocked.	Front camera blocked.	1. Ensure the front camera is unobstructed before retrying. 2. If the camera is dirty, clean it with a soft cloth before retrying.
Weak positioning signal.	Weak positioning signal.	1. Ensure that the weather is clear. Heavy rain or low light may interfere with the robot's positioning. The robot will resume operation once the positioning signal is restored. 2. If the issue persists, use remote control mode and guide the robot back to the charging station manually before starting tasks.
Boundary detection error occurs during Auto-Mapping.	Boundary detection error occurs during Auto-Mapping.	1. Ensure that the lighting conditions are suitable, neither too bright nor too dim. 2. Confirm that the weather is clear, avoiding fog or rain. 3. Ensure that the front camera is clean and unobstructed. 4. Ensure that the ground surface is even, as bumps may affect detection. 5. If boundary detection continues to fail, switch to remote control mode for mapping.

13 Specifications

Basic information	Product name	MOVA ViAX Series	
	SKU	ViAX 250	ViAX 300
	Model	MVVV1100	MVVV1200
	Dimensions	595 × 380 × 272 mm	
	Robot weight (battery included)	9.4 kg	
Mowing	Recommended working capacity	250 m²	300 m²
	Mowing efficiency [1]	Standard: 300 m²/day Efficient: 500 m²/day	
	Mowing height	20–60 mm	
	Mowing width	20 cm	
	Charging time [2]	45 min	
	Mowing time per charge [3]	50 min	
Noise emissions	Sound power level LWA	57 dB(A)	
	Sound power uncertainties KWA	3 dB(A)	
	Sound pressure level LpA	49 dB(A)	
	Sound pressure uncertainties KpA	3 dB(A)	
Working condition	Operating temperature	0–50° C Recommended: 10–35° C	
	Long-term storage temperature	-10–35° C Recommended: 0–25° C	
	IP-classification	Robot: IPX6 Charging station: IPX4 Power supply: IP67	
	Maximum slope for mowing area	40% (22°)	
Connectivity	Bluetooth frequency range	2400.0–2483.5 MHz	
	Max. RF Power	802.11b:16±2dBm(@11Mbps) 802.11g:14±2dBm(@54Mbps) 802.11n:13±2dBm(@HT20,HT40) Bluetooth: 7.49dBm	

Connectivity	Wi-Fi	Wi-Fi 2.4 GHz (2400–2483.5M)
	Link service (optional) [4]	LTE-FDD: B1/3/7/8/20/28A LTE-TDD: B38/40/41
	GNSS (optional) [5]	GPS/GLONASS/BDS/Galileo/QZSS
Cutting motor	Speed	2500/min
Battery (robot)	Battery model [6]	MBPM10
	Battery type	Lithium-ion battery
	Rated capacity	2.5 Ah
	Rated voltage	18 V DC
Power supply	Charger model	MPAM10/MPAM20/MPAM20(c)
	Input voltage	100~240 V AC
	Output voltage	20 V DC
	Output current	1.5 A/3 A
Charging station	Charging station model	MCV20
	Input voltage	20 V DC
	Output voltage	20 V DC
	Input current	1.5 A/3 A
	Output current	1.5 A/3 A
Accessories	Spare blades and screws	9
	Blade model	MBKM10 (MOVA)
Drive wheels	Wheel type	Off-road

1. Based on testing by MOVA Laboratory.
2. Charging time applies when the robot automatically returns to the charging station at low battery.
3. Based on testing by MOVA Laboratory.
4. Requires the installation of Link module.
5. Requires the installation of Link module.
6. The ViAX 250 and ViAX 300 are compatible with both the MBPM10 (2.5 Ah) and MBPM20 (5 Ah) batteries.

Note: The specifications are subject to change as we continually improve our product. For the latest information, please visit our website at https://www.mova.tech.