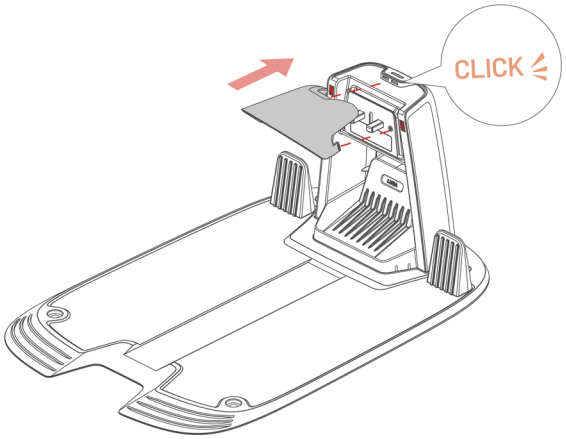
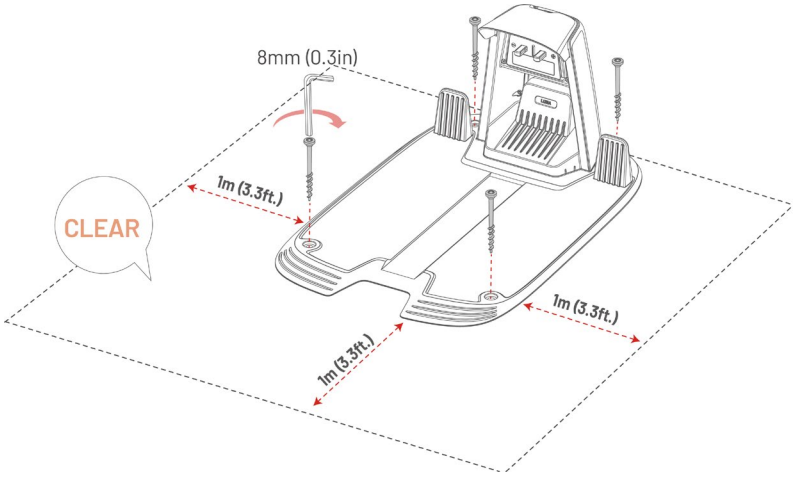
3.4.2 Install the Charging Station

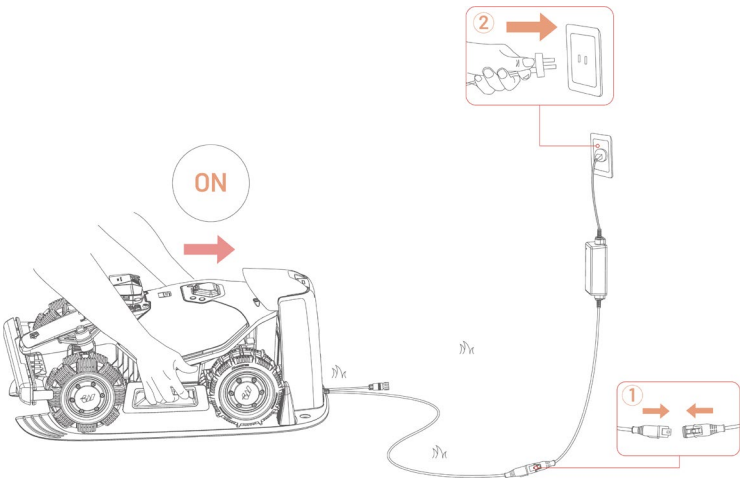
1. Assemble the charging station.



2. Select an open spot to install the charging station, ensuring its front area is clear of obstacles.
3. Secure the charging station in place using the 4 stakes and the 8 mm (0.3 in) Allen key.



4. Connect the charging station cable (the longer one) with the charging station power adapter.
5. Plug the charging station power adapter into the wall socket.
6. Place the robot on the charging station to begin charging.



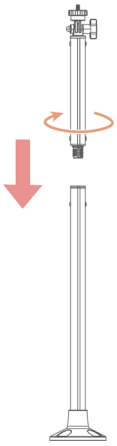
NOTE
Charge the robot for initial use to activate it.

3.4.3 Install the RTK Reference Station

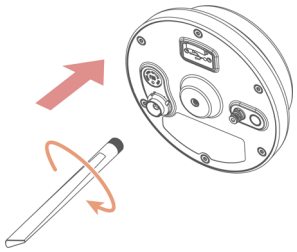
The RTK reference station can be installed either on the lawn or mounted on a wall. Select the optimal installation method based on the layout of your lawn.

Floor Mount

1. Assemble the two mounting poles.

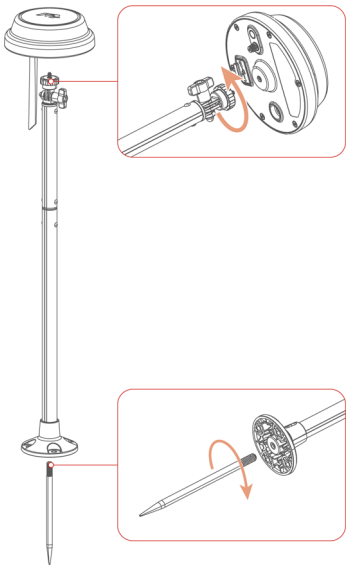


2. Fix the radio antenna to the RTK reference station.



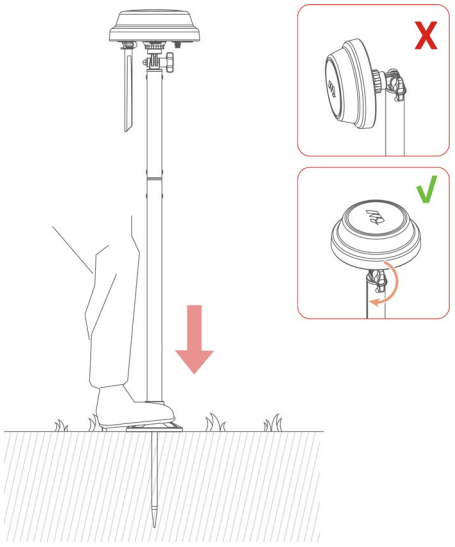
3. Mount the RTK reference station on the mounting pole.

4. Attach the ground stake to the mounting base.



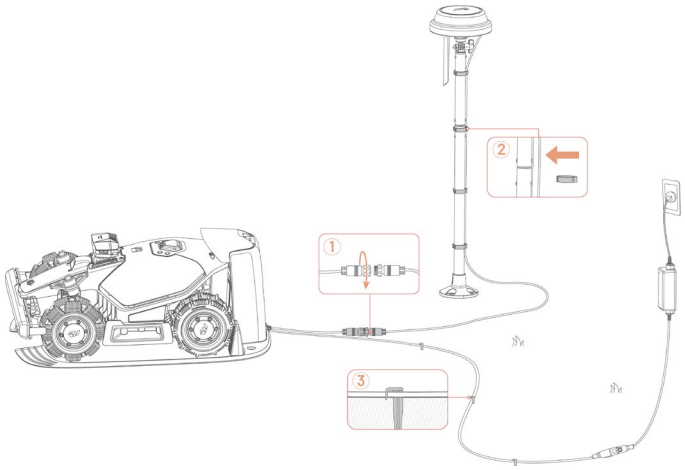
5. Thrust the mounting pole firmly into the lawn near the charging station.

6. Adjust the knob to ensure the RTK reference station is positioned upright and stable.



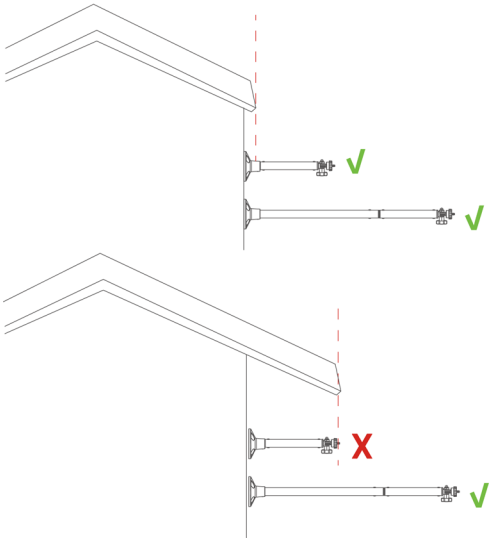
7. Connect the RTK reference station cable with the charging station cable (the shorter one).

8. Use the cord tie and cable peg to neatly secure the cables.

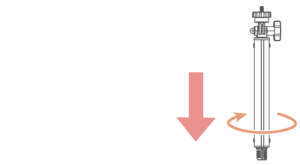


Wall Mount

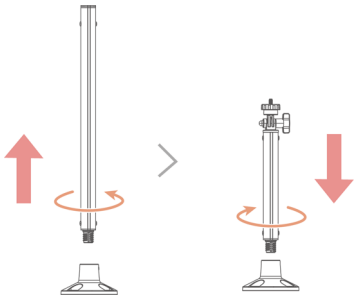
1. According to the width of your eaves, choose either the longer or shorter poles.



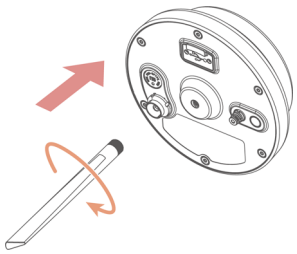
a1. Assemble the two mounting poles if you have wide eaves.



a2. Detach the mounting pole base and long pole first, then assemble the short pole with the base.



2. Fix the radio antenna to the RTK reference station.



3. Attach the RTK reference station to the mounting pole.

4. Adjust the knob to ensure the RTK reference station is positioned upright and stable.

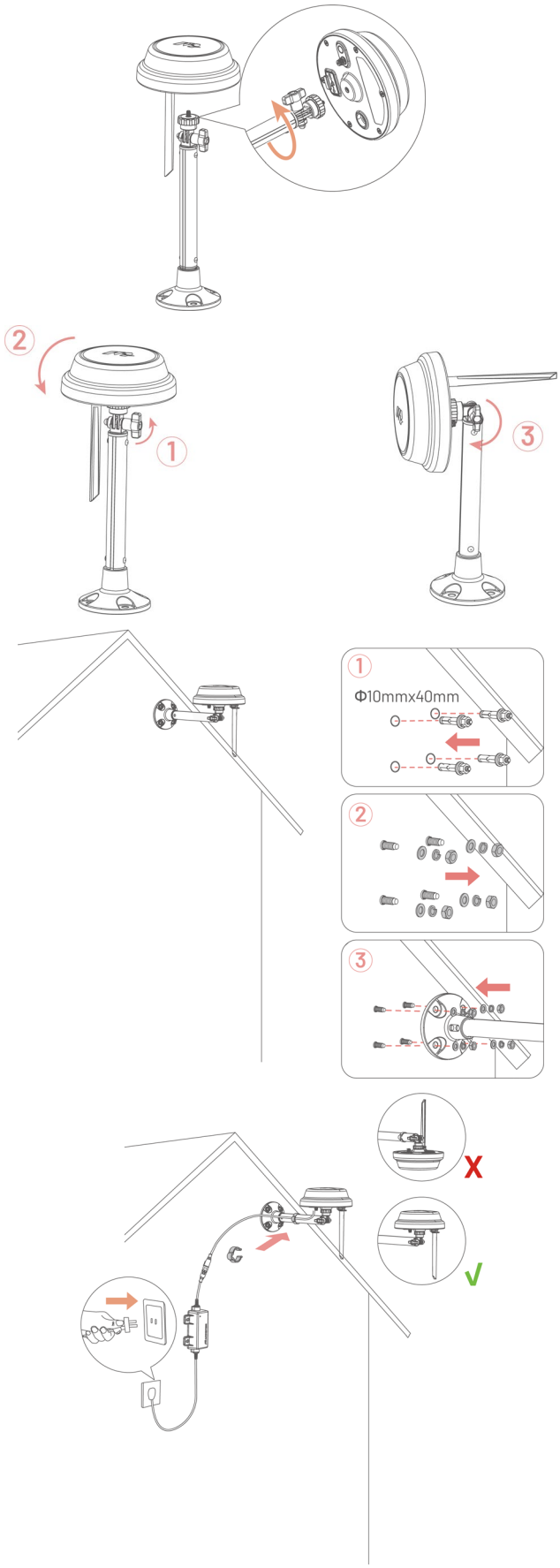
5. Drill four holes (10 x 40mm/0.4 x 1.6 in) at the appropriate position and install the expansion bolts into the holes.

6. Attach the RTK reference station on the wall using the four bolts (M8 x 50) and secure the bolts firmly.

7. Connect the RTK reference station extension cable (5m) to the RTK cable and the power adapter.

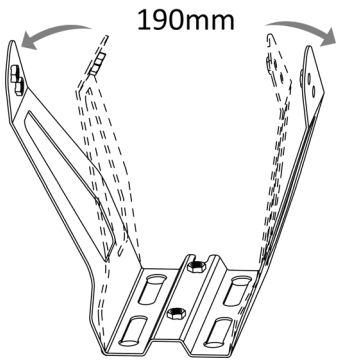
8. Plug the power adapter into a wall socket.

9. Use the core tie to fix the cable on the pole.



3.4.4 Install the RTK Solar Panel Kit (Optional)

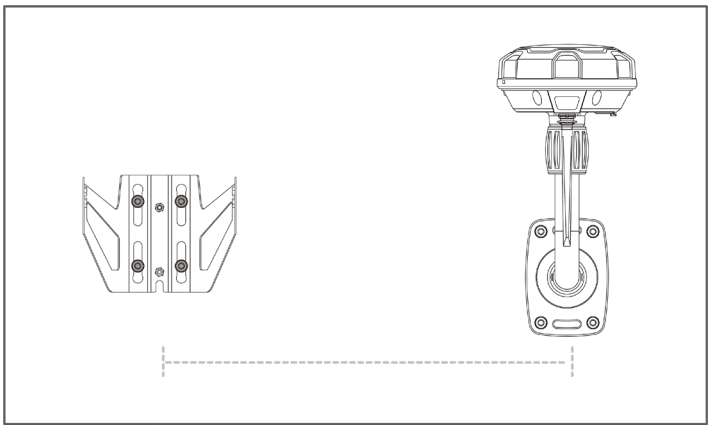
NOTE
There are three options to install the RTK solar panel kit. Please decide the optimal one to continue.



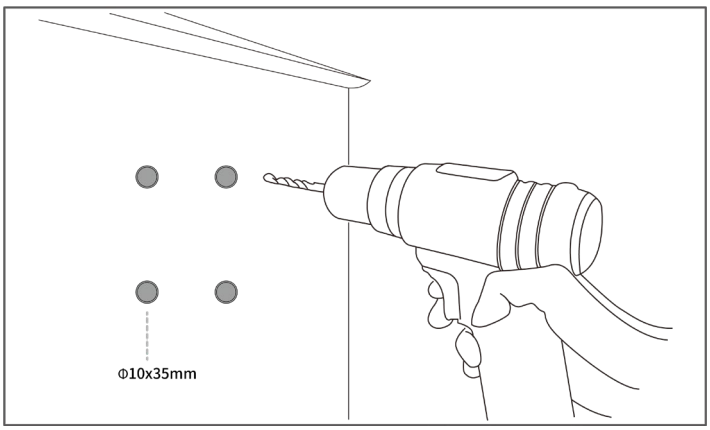
Before installing, expand the bracket outward to properly accommodate the solar panel.

Option 1: Install the RTK solar panel kit on a wall

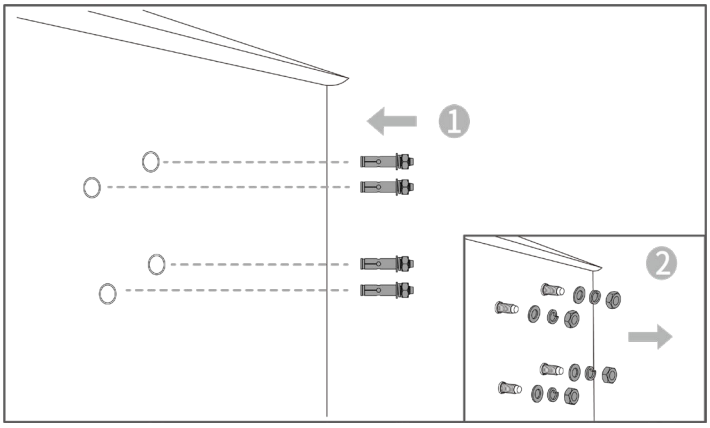
1. Place the mounting bracket on the wall and mark four holes with a pencil, ensuring the distance is within the cable's reach.



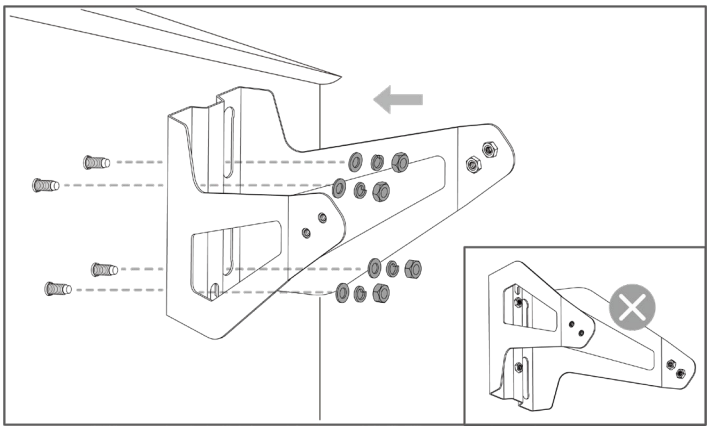
2. Drill 10mm (0.4 in.) diameter, 35mm (1.4 in.) depth holes.



3. Tap the expansion bolts into the holes and remove the nuts, spring and flat washers when the expansion bolts are stuck.

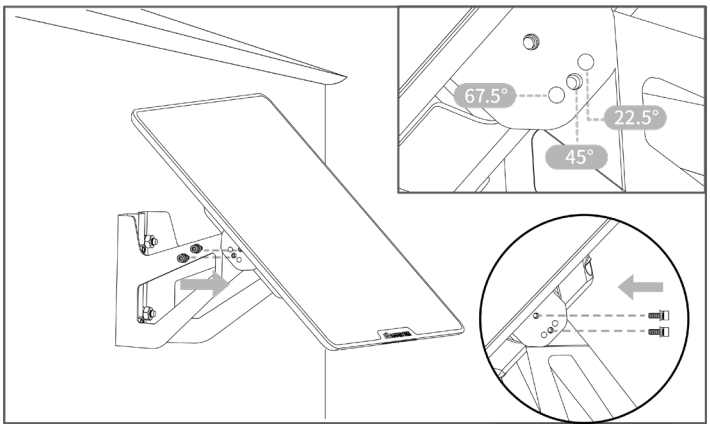


4. Attach the bracket to the wall without reversing it. Reinsert washers, spring washers, nuts, and tighten with a 13mm (0.5 in.) socket wrench.

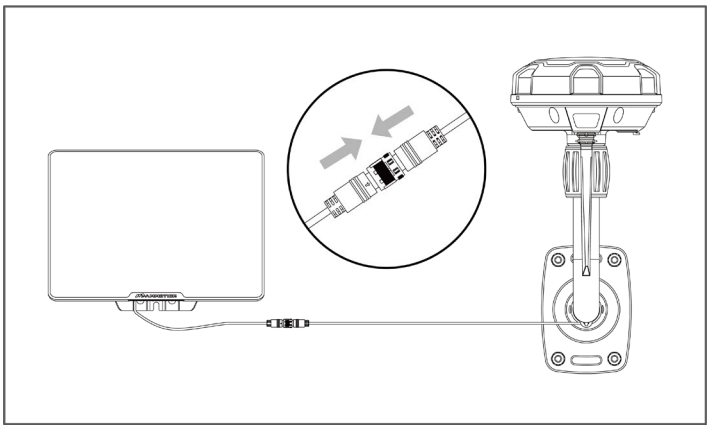


5. Secure the solar panel to the bracket with four screws and tighten using a 4mm (1.5 in.) Allen key.

6. Adjust the angle by shifting the screw to another hole if needed.

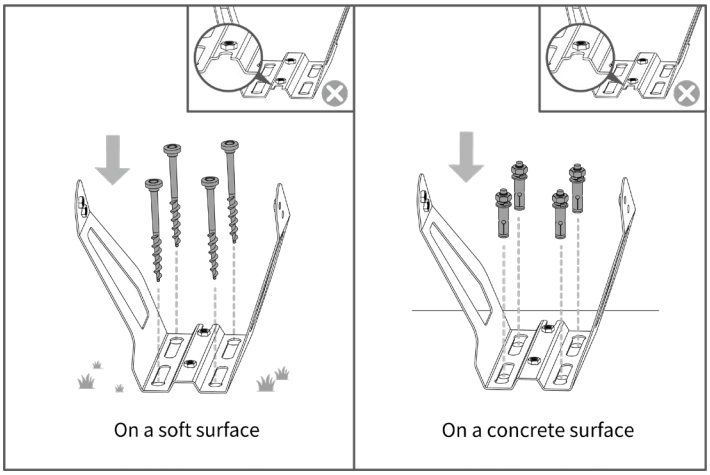


7. Connect the solar panel cable to the RTK reference station cable.



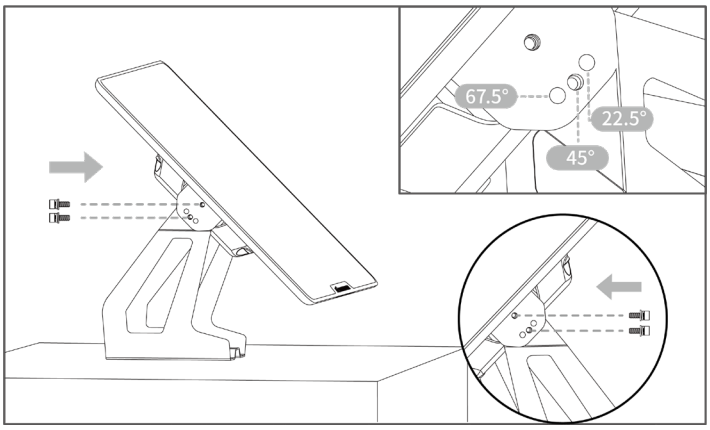
Option 2: Install the RTK solar panel kit on a flat ground/roof

1. Reverse and place the mounting bracket on the surface, secure with stakes or expansion bolts, ensuring the distance is within the cable's reach.

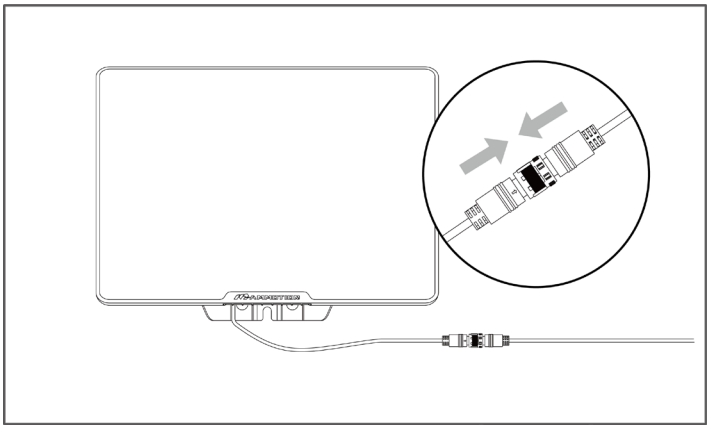


2. Secure the solar panel to the bracket with four screws and tighten using a 4mm (1.5 in.) Allen key.

3. Adjust the angle by shifting the screw to another hole if needed.

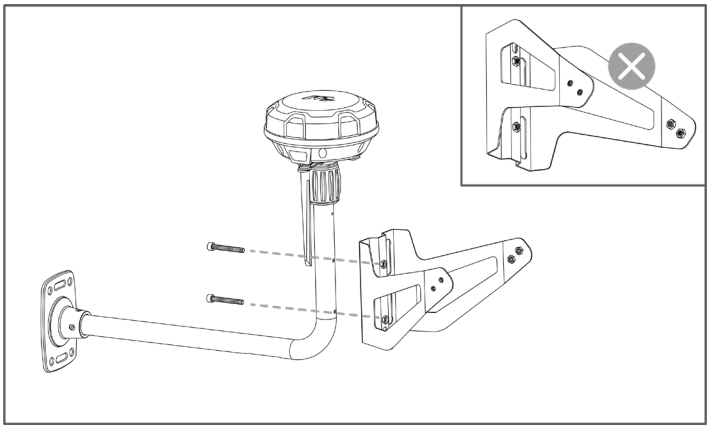


4. Connect the solar panel cable to the RTK reference station cable.



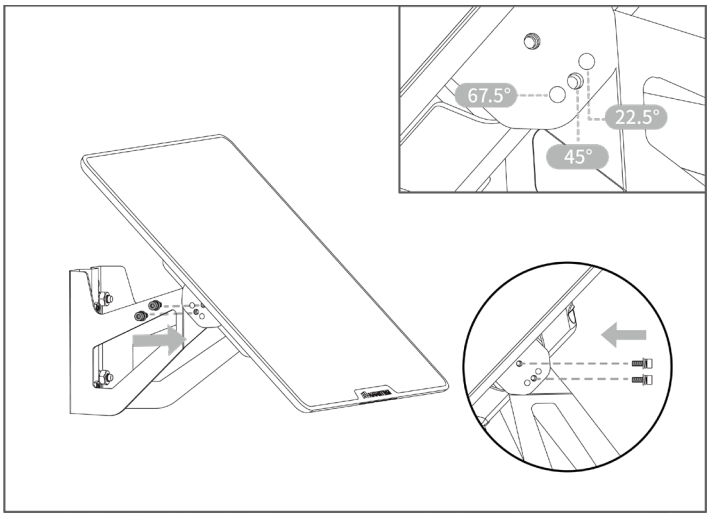
Option 3: Install the RTK solar panel kit on an RTK wall mount (sold separately)

1. Mount the bracket onto the RTK wall mount with two screws (M5x40). Tighten the screws using a 4mm (1.5 in.) Allen key. Avoid reversing the mounting bracket during installation.

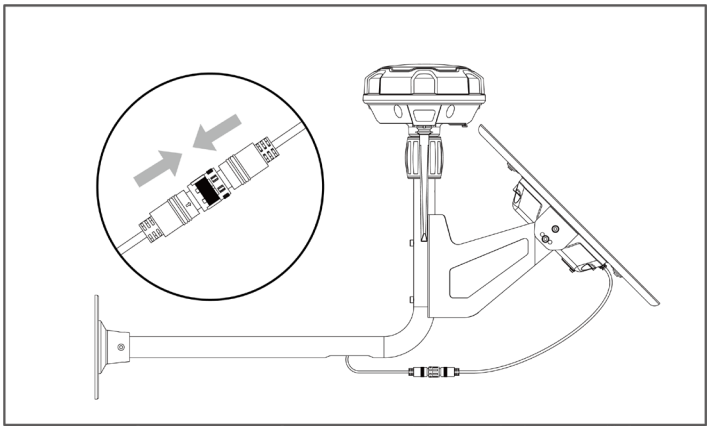


2. Secure the solar panel to the bracket with four screws and tighten using a 4mm (1.5 in.) Allen key.

3. Adjust the angle by shifting the screw to another hole if needed.



4. Connect the solar panel cable to the RTK reference station cable.



4 Operation

NOTE
The screens are for reference only. Please refer to actual user interfaces.

4.1 Preparation

- Read and understand safety instructions before operation.
- The charging station and RTK reference station have been properly installed.
- Ensure the robot has already docked on the charging station.
- Ensure there is a stable network and keep your phone Bluetooth on.

4.2 Download Mammotion App

The robot is designed to work with the Mammotion app, please download the free Mammotion app first. You can scan the QR code below to get it from the Android or Apple app stores, or search for Mammotion in these stores.

After installing the app, please sign up and log in. During use, the app may ask you for Bluetooth, Location, and local network access when necessary. For optimal use, it is recommended to allow the above access. For more information, please refer to our Privacy Agreement. Go to Mammotion app > **Me** > **About Mammotion** > **Privacy Agreement**.

If you want to log in with a third-party account, tap or on the login page to continue. Mammotion app now supports logging in with Google and Apple accounts.

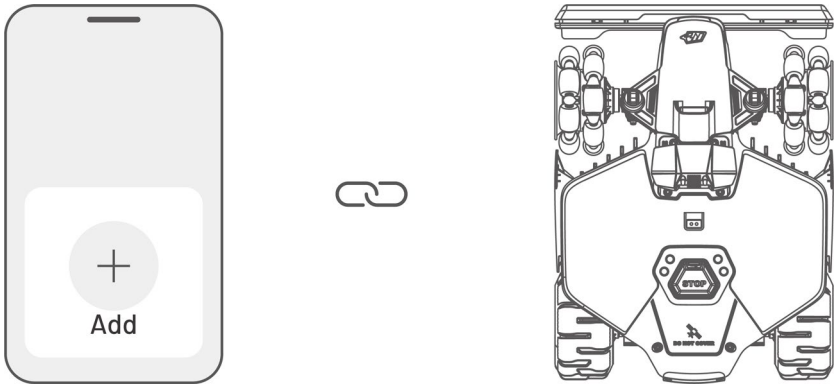
4.3 Add Your Product

NOTE

- Make sure the distance between your phone and the robot is less than 3 m (10 ft.).
- You can skip the Wi-Fi setup if you are using 4G cellular data. It is advisable to also establish a connection to a Wi-Fi network for optimal performance.

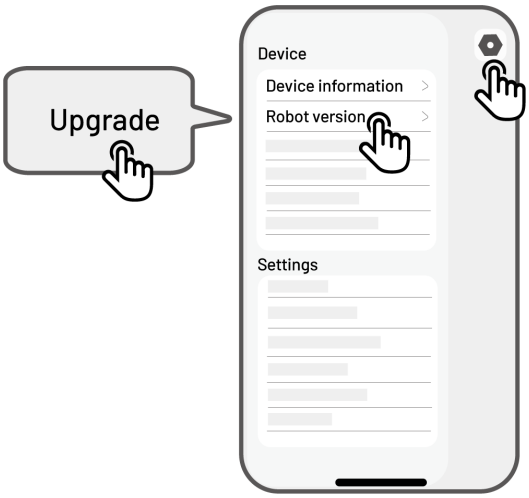
4.3.1 Add Devices

1. Tap **+** to add your robot or RTK reference station.
2. Select **Add**.
3. Follow the onscreen guidelines to set up the device.
4. Follow the onscreen instructions to connect the device and set network successfully.



4.4 Update Firmware

For optimal experience, ensure your robot and RTK reference station are updated to the latest firmware version.



➢ **To update the firmware**

1. Go to **Settings** > **Device information** > **Robot version** or **Settings** > **Robot version** to update the firmware.
2. Ensure the robot is connected to a stable network.

During the update, please avoid exiting the app, performing other operations, or turning off the robot.

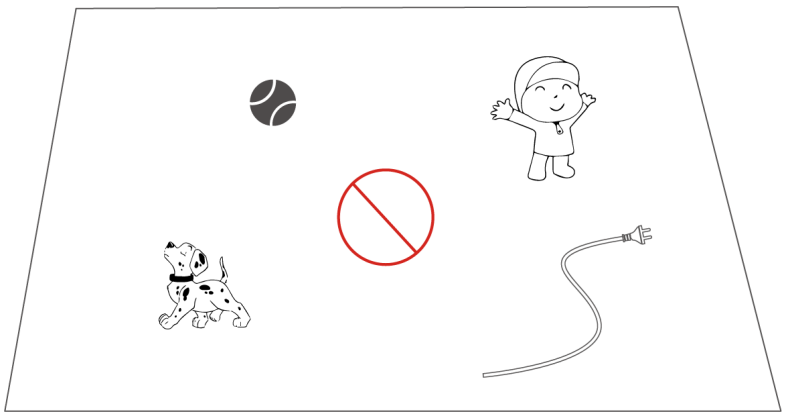
4.5 Create a Map

4.5.1 Map out the Task Area

Before mapping

Before mapping, it is important to be aware of key considerations.

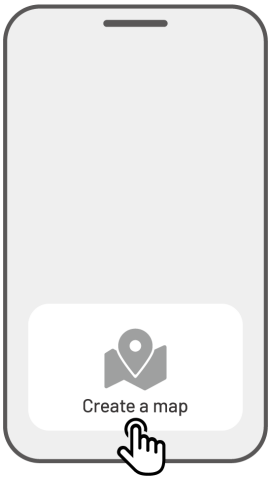
- Remove debris, piles of leaves, toys, wires, stones, and other obstacles from the lawn. Make sure no children or animals are on the lawn.



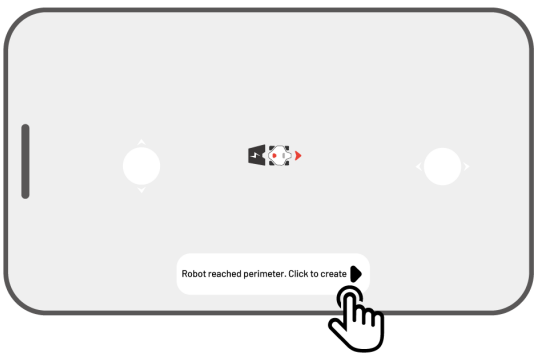
To map your lawn

1. Make sure the robot is powered on and your phone Bluetooth is on. Your phone will connect to the robot automatically with a Bluetooth connection.

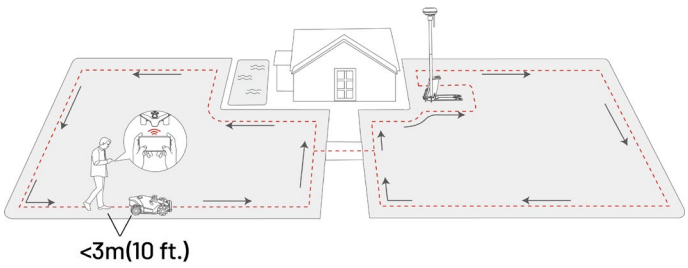
2. Tap **Create a Map** to start.



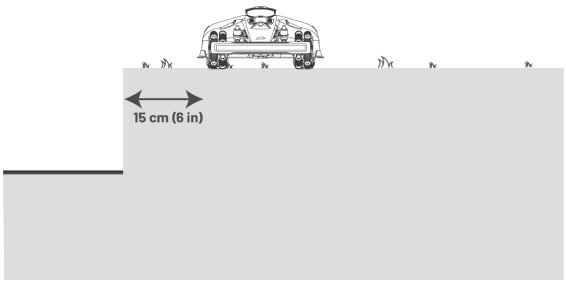
3. Control the robot to a proper starting point of the perimeter and tap ▶ to start mapping.



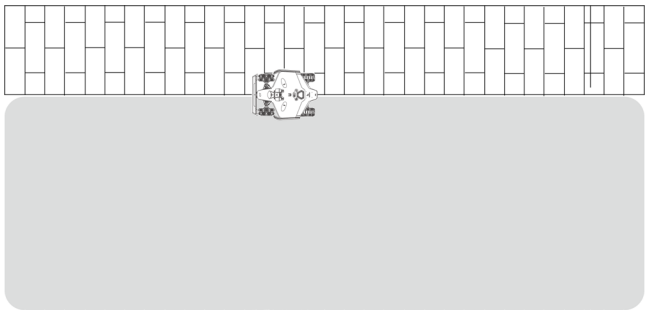
4. Guide the robot along the perimeter. Keep the controller within 3 meters (10 feet) of the robot to maintain a stable Bluetooth connection.



a) If the perimeter meets an obstacle such as a wall, fence, ditch, or uneven pathway, maintain a distance of at least 15 cm (6 inches) from the perimeter while guiding the robot.

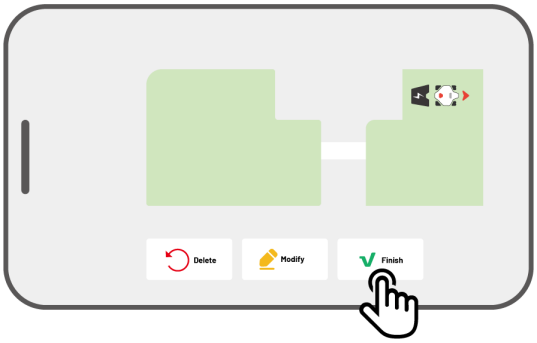


b) If the perimeter meets a level, even pathway, it is recommended to guide the robot on the pathway for more efficient cutting.



5. Control the robot back to the starting point and tap **Finish** to finish mapping.

- To modify the set perimeter, tap Modify and guide the robot back along the path to the intended location.
- Tap Delete to delete all existing perimeters and remap if necessary.



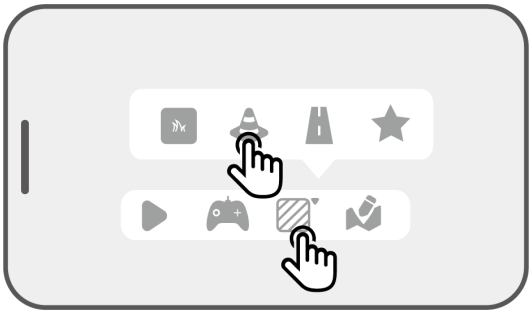
NOTE

- When mapping, the system will estimate the area. Please ensure that the area is not more than the upper limit (See ***Technical Specifications*** for more information), or the task area mapping will fail.
- Drive the robot out of the task area or no-go zone first if a new area is created.

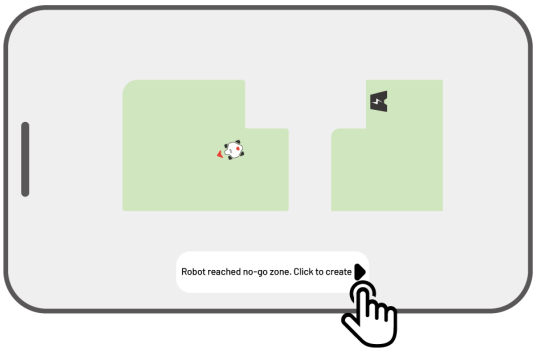
4.5.2 Map out a No-go Zone

No-go zones are created for pools, flowerbeds, trees, roots, ditches, and any other obstructions present in the lawn. The robot will avoid mowing inside these designated areas.

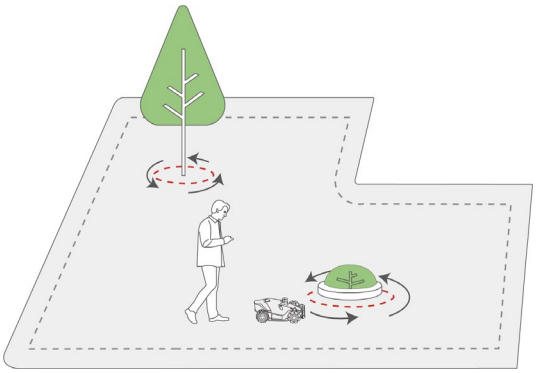
1. Tap **Create** > **No-go zone** on the Map page.



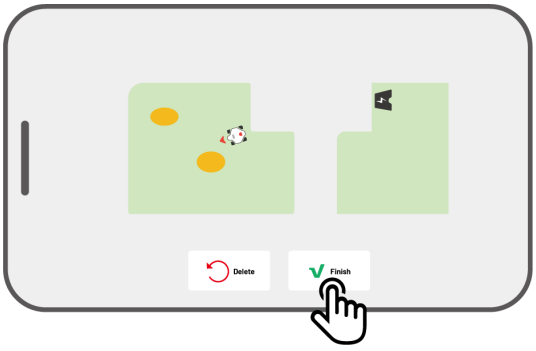
2. Guide the robot around the perimeter of a no-go zone, then tap ▶ to start mapping.



3. Control the robot along the perimeter of the no-go zone and back to the start point to complete mapping the no-go zone.



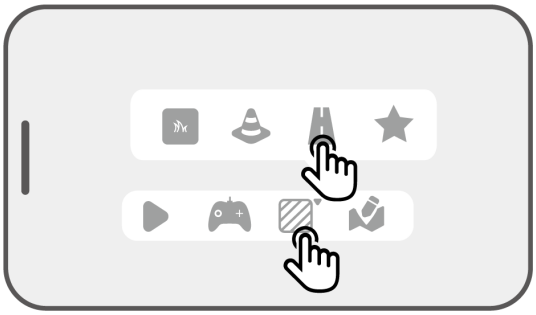
4. Tap **Finish** to save the setting.



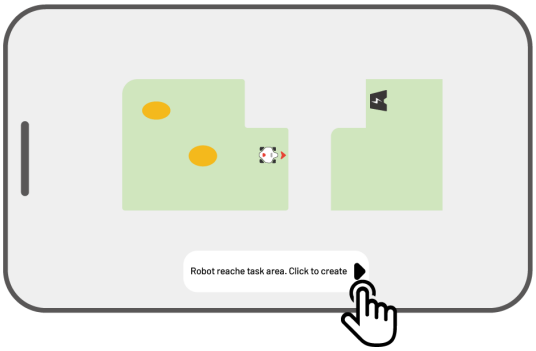
4.5.3 Map out a Channel

The channel is intended to connect various task areas or link the task area with the charging station.

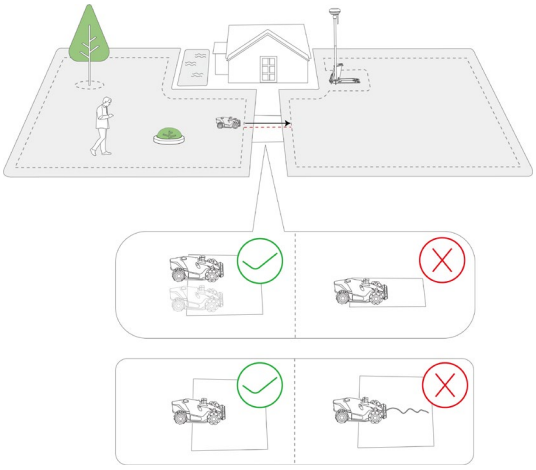
1. Tap **Create** > **Channel** on the Map page.



2. Control the robot into a task area. Tap ▶ to start mapping.



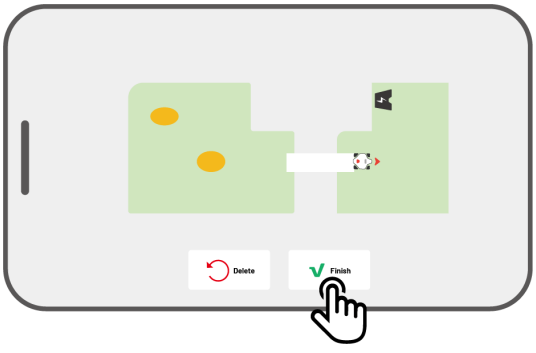
3. Manually control the robot from a task area to another task area or to the charging station.



NOTE

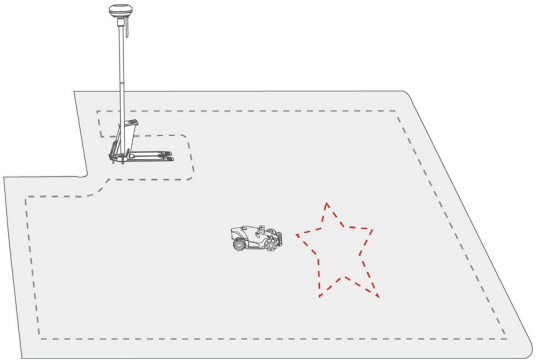
- The channel should be wide enough to accommodate two robots side by side.
- The channel should be free from significant bumps.

4. Tap **Finish** to save the setting.

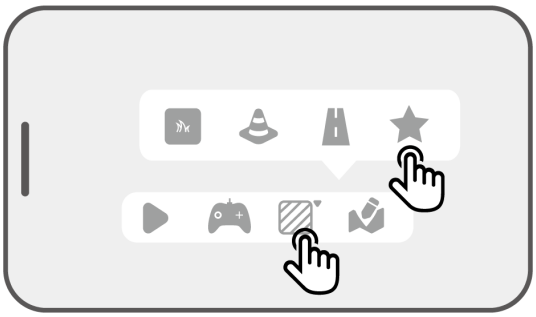


4.5.4 Create a Pattern

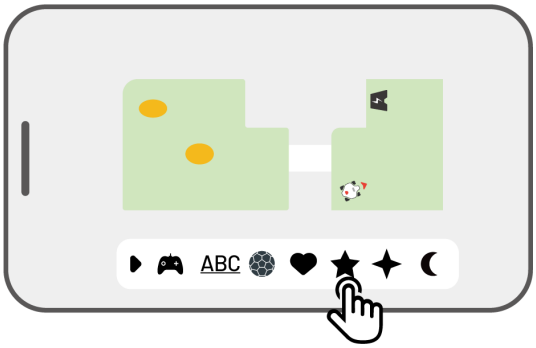
The pattern is designed to personalize your lawn-cutting experience, and after it's added, the grass on the patterned area will be preserved while cutting to maintain its design. See the available patterns in the app.



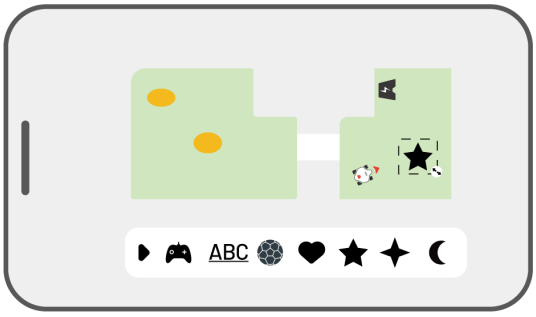
1. Tap **Create** > **Pattern** on the Map page.



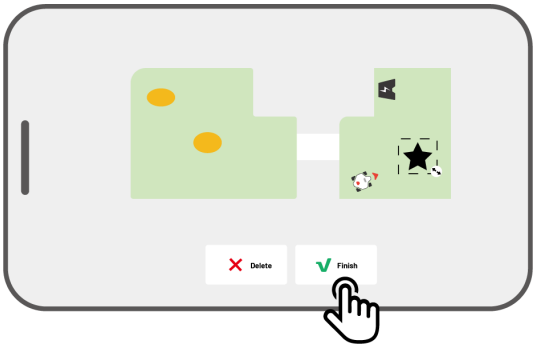
2. Choose the pattern that you want to create.



3. Drag and zoom in/out the pattern to adjust its location and size.



4. Tap **Finish** to finish the setup.



After creating a pattern, you can choose to enable or disable it at any time. When enabled, the grass in the patterned area will be preserved during mowing to maintain its design, or mowed when disabled. Tap **Edit** > ●●● to open the pop-up.

NOTE

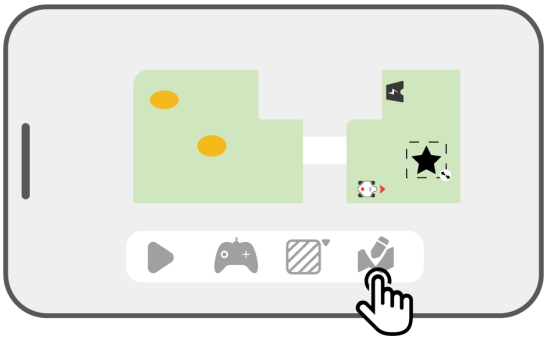
- Each task area can have a maximum of 10 patterns, with a total limit of 50 patterns overall.
- The pattern should not be placed too close to the task area perimeter, no-go zone, or charging station. Maintain a minimum distance equal to the width of the robot.

4.5.5 Edit Your Map

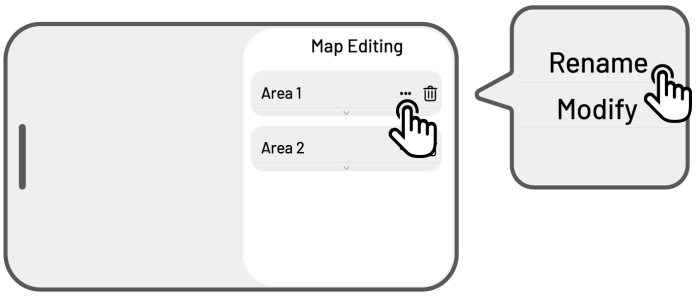
Rename the area

Mammotion allows you to create multiple areas. For easy management, you can rename the area.

1. Tap **Edit** > ••• to open the popup.



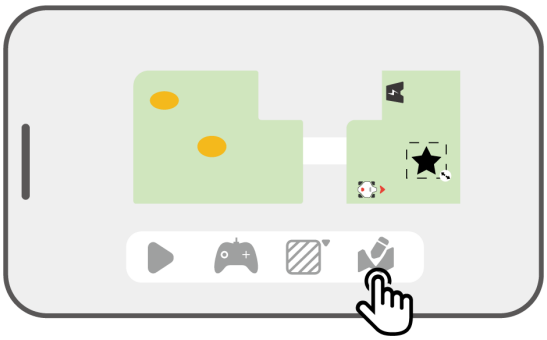
2. Tap **Rename** to set a name for the area.



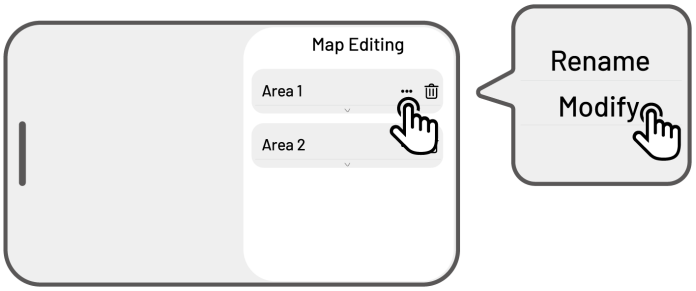
Modify the area

If changes occur in your lawn after mapping, such as planting a tree near the perimeter, the appearance of a hole, or weak positioning signals, you can adjust the mapped area without needing to delete it entirely.

1. Tap **Edit** > ••• to open the popup.

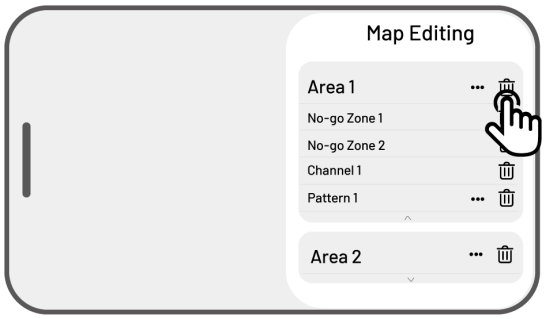


2. Tap **Modify** to re-draw the perimeter.



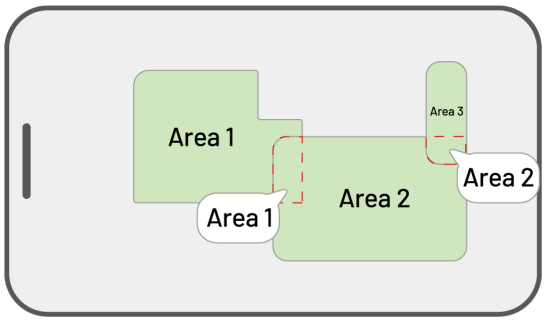
Delete the area/no-go zone/channel/pattern

To delete an area, no-go zone, channel, dumping spot, or pattern, tap **Edit** > 🗑. Deleting an area will also remove all items within it.



Multiple task areas with overlapping

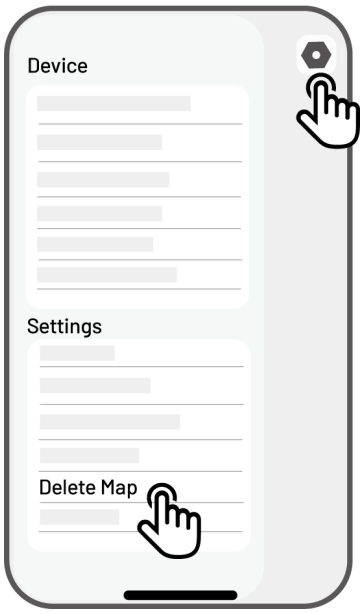
If you have several lawns that overlap, the shared section will be assigned to the task area that was created first. No channel is necessary for two task areas with overlapping sections.



RTK reference station cannot be moved once your lawn mapping is finished

Do not move the RTK reference station after the map is created or the resulting working area will diverge from the designated task area.

In the event of an RTK reference station relocation, reinstall it in its original position, or go to **Settings** > **Robot settings** > **Delete map** to delete the current map and remap the area.



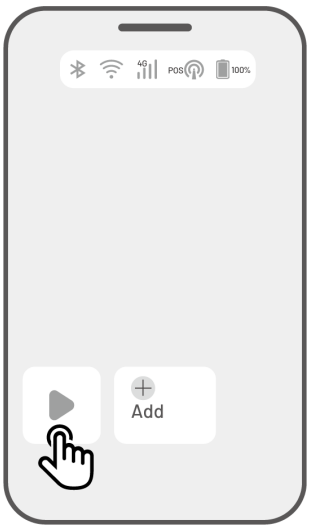
4.5.6 Mow

Preparation

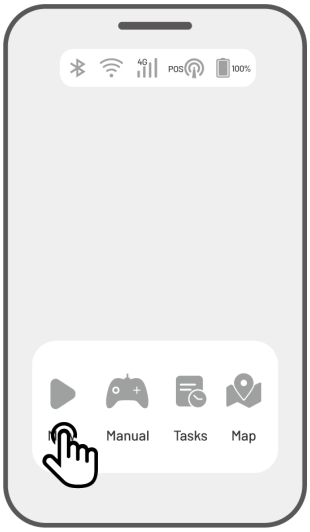
- Ensure the robot is in the task area before mowing.
- If any unexpected problems arise, please press the **STOP** button and secure the robot. The STOP button holds top priority among all commands.
- If the lift sensor is activated, the robot will come to a halt. Please press the **Grass** button followed by the **START** button to unlock it.
- Please mow the task area no more than once a day as doing so may be harmful to your lawn.
- If the grass height exceeds 60 mm/2 in, it is advisable to raise the cutting height to at least 40 mm/1.6 in. When mowing, it is important to only trim a third of the grass height each time. For example, if the initial grass height is 60 mm/2 in, the cutting height of the robot should be set to 40 or 45 mm/1.6 or 1.8 in. Similarly, if the grass is between 90-100 mm/3.5-4 in, the cutting height of the robot should be set to 60 mm/2 in.

Start mowing

If you prefer not to set parameters, simply tap ▶ on the Home page to quickly start mowing.



If you prefer to customize settings before mowing, tap the robot image to enter the Map page. Then tap **Mow** to access the task assignment page.

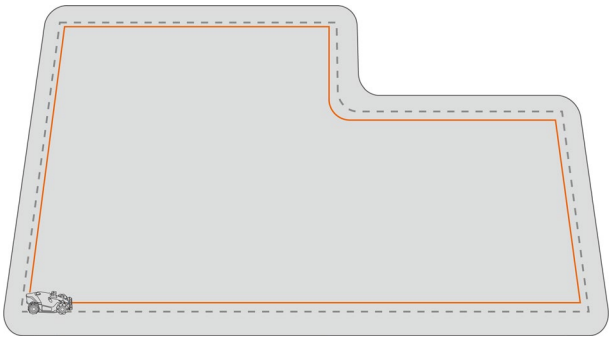


Mowing parameters

Cutting path mode

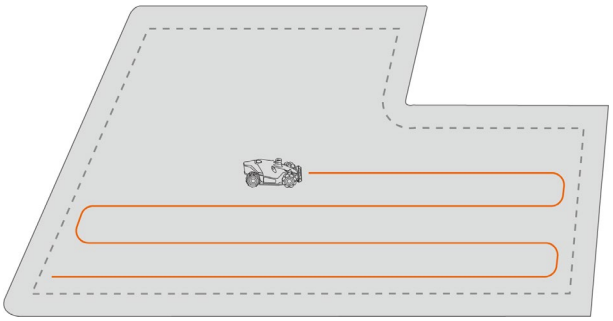
1. **Perimeter laps only**

   The robot will mow the grass at the perimeter only.



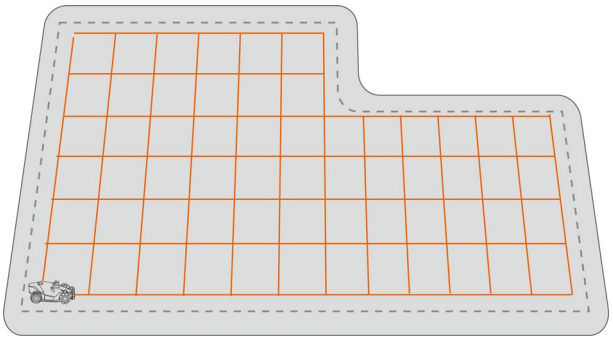
2. **Zigzag path**

   The robot will mow in straight and single rows.



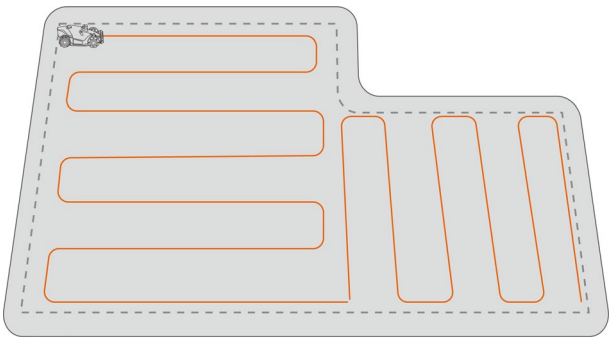
3. **Chess board path**

   The robot will work in straight rows both horizontally and vertically.



4. **Adaptive zigzag path**

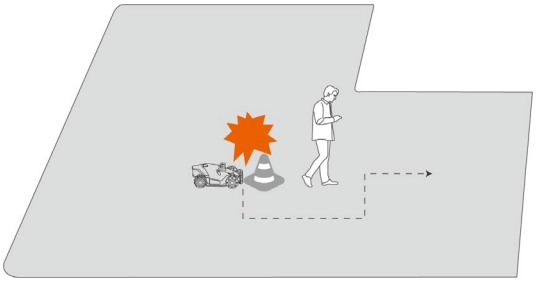
   The task area will be divided into segments for efficient working.



Obstacle detecting mode

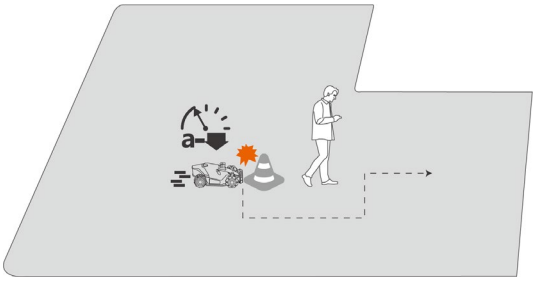
1. **Direct touch**

   Bypass the obstacles after a front bumper collision.



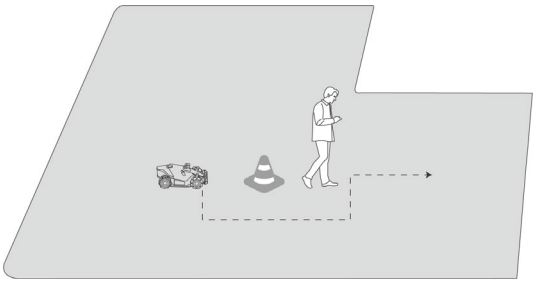
2. **Slow touch**

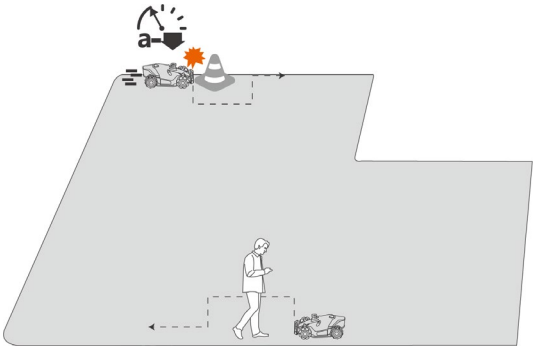
   The robot will slow down after detecting the obstacles and bypass them after a front bumper collision.



3. **Less touch**

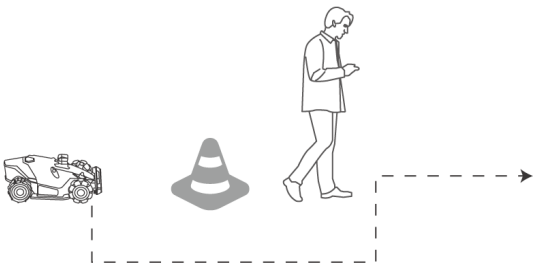
   The robot will bypass all obstacles upon detection when working within the task area, excluding the perimeters. While on the perimeters, channels, and recharge paths, the robot will bypass people and vehicles upon detection; For other obstacles, it will use the Slow Touch Mode.





4. **No touch**

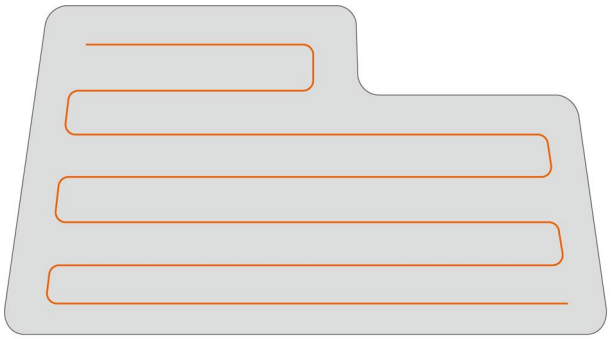
   The robot will bypass the obstacles upon detection.



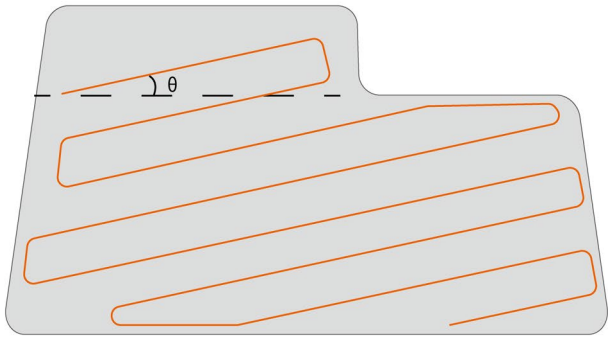
Cutting path angle (°)

- Relative angle

  Take the most efficient path recommended by the algorithm as the 0-degree direction.

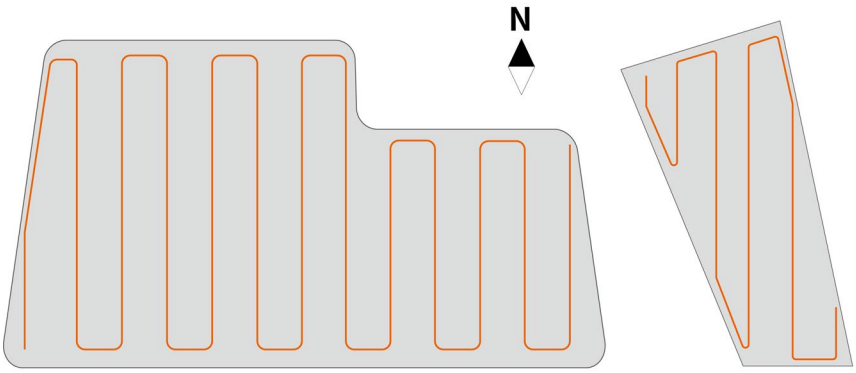


Before setting relative angle

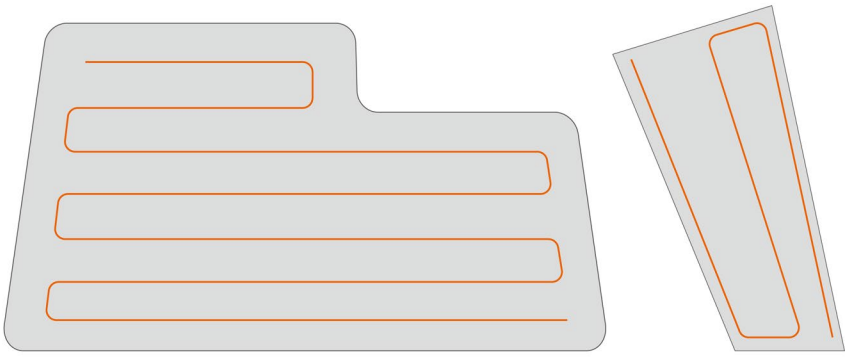


After setting relative angle

- Absolute angle
  - ✧ Take the due north as the 0-degree direction.
  - ✧ The cutting path directions in most areas remain consistent.



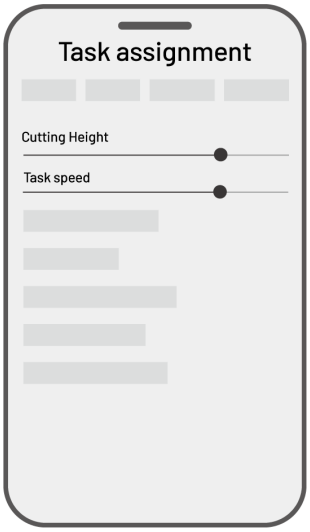
After setting absolute angle (0°)



Before setting absolute angle

Cutting height

You can adjust the cutting height on the task assignment page.



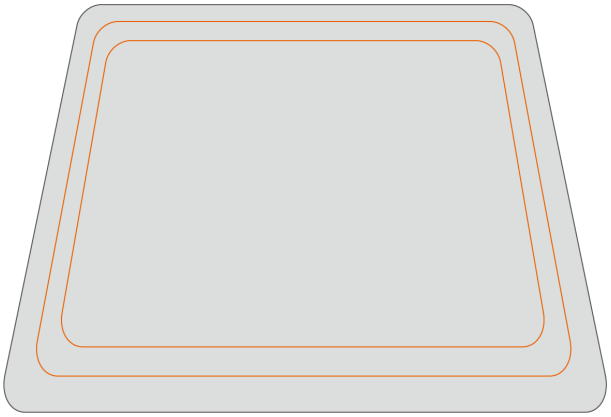
Task speed

You can adjust the mowing speed of the robot on the assignment page.

Perimeter mowing laps

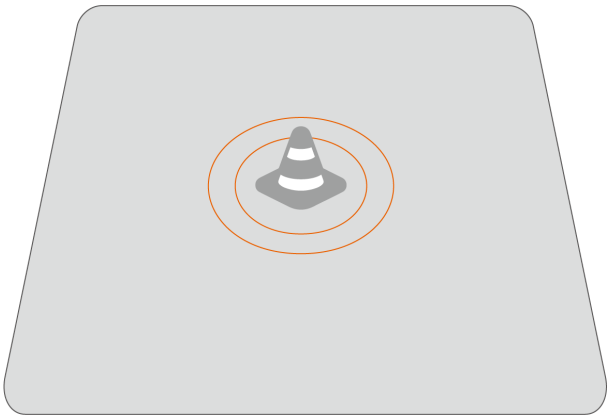
The mowing circles at the perimeter.

*In the Perimeter laps only mode, the perimeter mowing laps cannot be set 0.



No-go zone mowing laps

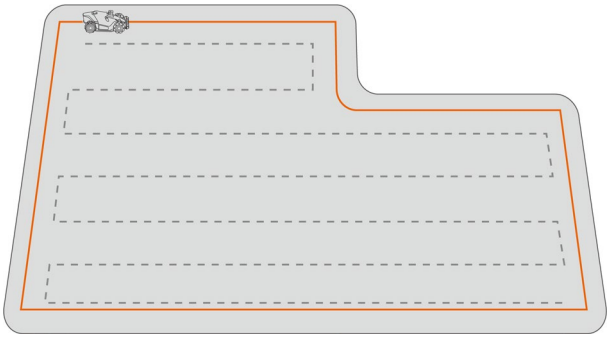
The grass-mowing circles surrounding the perimeter of the restricted area.



Perimeter first

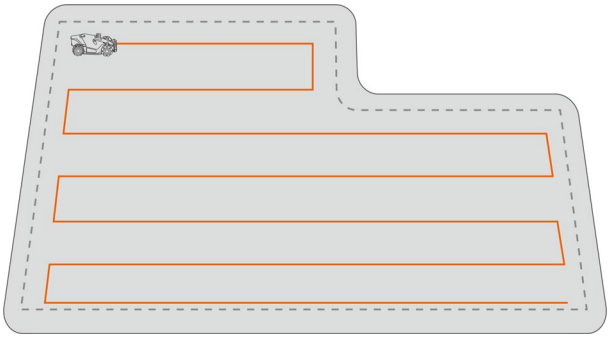
The robot will start mowing from the perimeter.

*Not available for the Perimeter laps only mode.



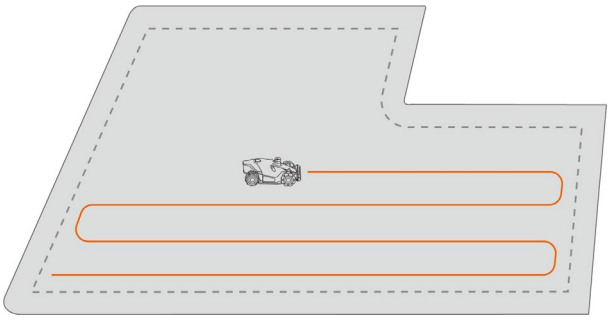
Zigzag first

The robot will start mowing from the zigzag path.



Start progress

The robot will start mowing from the set percentage.



When the robot enters an area where RTK signals are weak while mowing

If the robot enters an area where RTK signals are weak while mowing, the multi-sensor fusion positioning system will assist it in continuing to operate through the vision module. The vision navigation can last for 50 meters/164 feet. The robot should return to an area covered by RTK signals before the vision navigation reaches its limit, otherwise, it will come to a stop.

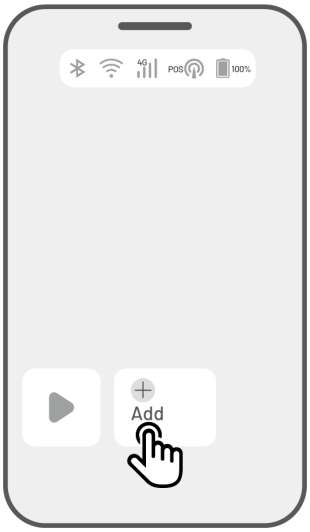
4.5.7 Task Schedule

With the Schedule function, you can set a regular task and the robot will automatically do its work according to your setting.

- **Once only** — The robot will commence work promptly upon configuration.
- **Weekly** — The robot will repeat the task every week based on your preferences.
- **Specified date** — The robot is scheduled to commence work on the specified date.
- **Fixed interval** — specify non-working days. For example, if you input 3 days, the robot will operate once every 4 days as per your settings.

Set a schedule

1. Tap **Add** on the Home page to enter the task assignment page.
2. Select a day to set a schedule.
3. Configure the mowing parameters.
4. Select an area to apply the schedule.
5. Tap **Save** to confirm the settings.

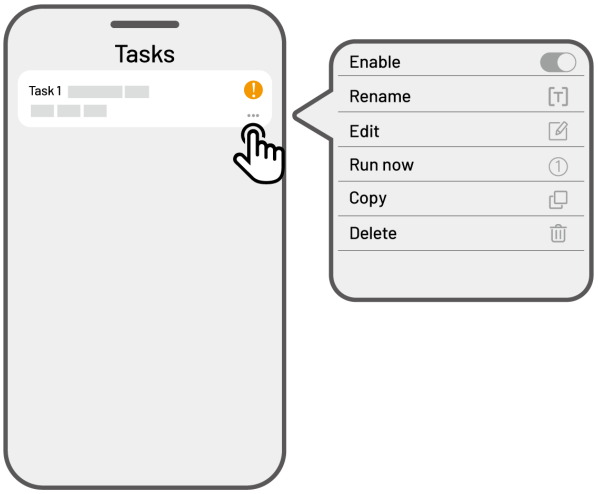


Edit a schedule

Tap Tasks on the Map page to access the schedule list. Tap ••• on the schedule you set to open the drop-down menu.

- **Enable** – toggle the button to off to inactivate the schedule if needed.
- **Rename** – tap to change the name of the schedule.
- **Edit** – tap to change the schedule.
- **Run now** – tap to run this schedule immediately.
- **Copy** – tap to create a new schedule with the same settings while keeping the original schedule, then choose one to edit.
- **Delete** – tap to delete the schedule.

If the exclamation mark appears, it indicates that the task schedule cannot be performed due to errors. Tap the exclamation mark for more details.



4.5.8 Manual Mowing

If you prefer to mow your lawn manually, the Manual Mowing feature is available for your use.

To ensure your safety, please use the **Manual Mowing** function with care and observe the following:

- Minors are not permitted to use this function;
- Please always supervise your children, pets, and important belongings to prevent accidents;
- Take extra care when using the manual lawn mower function to avoid injury.

Activate manual mowing

1. Tap the robot image to enter the Map page.
2. On the Map page, select **Manual**.
3. Tap **Manual mowing**, then drag the button to the right to start the cutting disc.
4. Maneuver forwards/backward or turn left/right to start working.

NOTE

- The cutting disc will automatically stop after 5 seconds of inactivity.
- Drag to the right as prompted by the app to start the cutting disc after each stop.

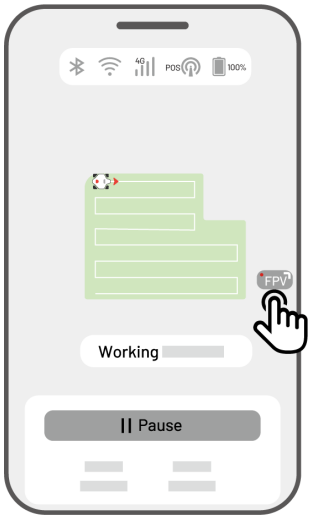
4.5.9 Activate FPV Mode

FPV Mode (First-Person View Mode) provides an immersive way to control and monitor your robot. By activating this mode, the robot's onboard camera streams live video, allowing you to see directly from the robot's perspective for enhanced control and navigation.

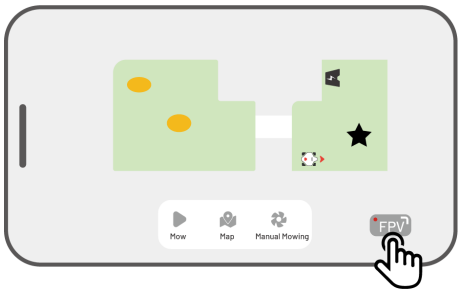
Additionally, FPV mode can turn your robot into a mobile security camera, providing real-time video surveillance and enabling you to monitor various locations remotely from the robot's viewpoint.

➢ **To activate FPV mode**

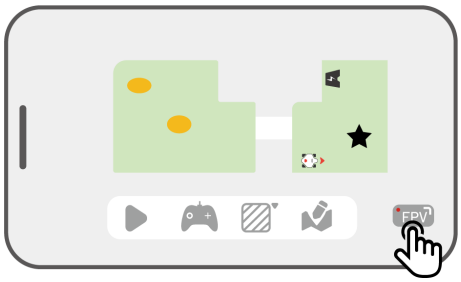
- When the robot is working, tap the **FPV icon** on the working page.



- On the Manual Mowing page, tap the **FPV icon**.

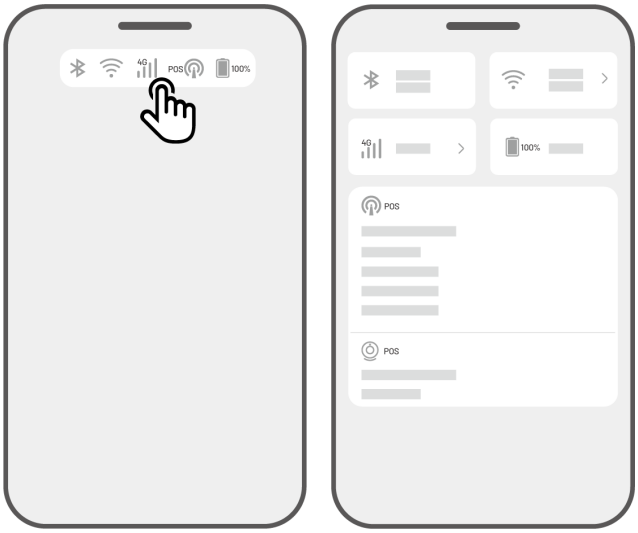


- On the Landscape Map page, tap the **FPV icon**.



4.5.10 View Status

Tap the **Status Bar** to view the device status.



Icon	Name	Description
	Bluetooth	Indicates the Bluetooth signal.
	Wi-Fi Connectivity	Indicates the connected Wi-Fi signal strength.
4G	4G Connectivity	Indicates the cellular signal strength.
100%	Battery Level	Indicates the remaining battery level.
POS	RTK Positioning	Indicates the RTK positioning status.
	Vision Module Status	Indicates the vision module status.

- **Positioning status** — shows the strength of satellite positioning.
  - ✧ **Fix** — fine positioning status with an accuracy of less than 10 cm/4 in, up to 2 cm/1 in with a good open-sky area.
  - ✧ **Float** — poor positioning status with an accuracy of about 50-200 cm/20-79 in.
  - ✧ **Single** — bad positioning status with a meter-level accuracy.
  - ✧ **None** — no positioning status.

  *Only Fix status enables automatic mowing.
- **Satellites** — refers to the total number of satellites received by the robot and RTK reference station.
  - ✧ **R** stands for the number of satellites received by the robot.

- ✧ **B** stands for the number of satellites received by RTK reference station.
- ✧ **C** stands for the number of co-viewing satellites received by both the robot and RTK reference station.
- ✧ **L1** and **L2** respectively indicate the satellites operating at L1 and L2 frequencies.

- **Signal quality**
  - ✧ **R** stands for satellite signal strength of the robot.
  - ✧ **B** stands for satellite signal strength of RTK reference station.

  *The accuracy of positioning is affected by the quality of the satellite signal and the number of Co-Viewing satellites. Objects such as trees, leaves, walls, and fences can weaken the signal and lead to positioning errors. Despite the detection of more than 20 satellites by both the robot and RTK reference station, the signal quality can still be deemed as Weak or Bad.
- **Positioning mode** – offers three positioning modes.
- **RTK connection** – indicates the connection status of RTK reference station.
- **Vision positioning status** – shows the strength of vision positioning.
  - ✧ **Fine** – vision positioning is optimal.
  - ✧ **Bad** – vision positioning is poor.
  - ✧ **Initialization** – vision module is initializing.
  - ✧ **None** – no vision positioning available.
- **Brightness** – shows the strength of ambient light.
  - ✧ **Fine** – ample brightness for vision positioning.
  - ✧ **Dark** – insufficient brightness; vision positioning cannot operate.

Switch RTK link mode

RTK link mode refers to the method of connection between an RTK reference station and a robot. There are two primary modes: **LoRa** and **Internet RTK**.

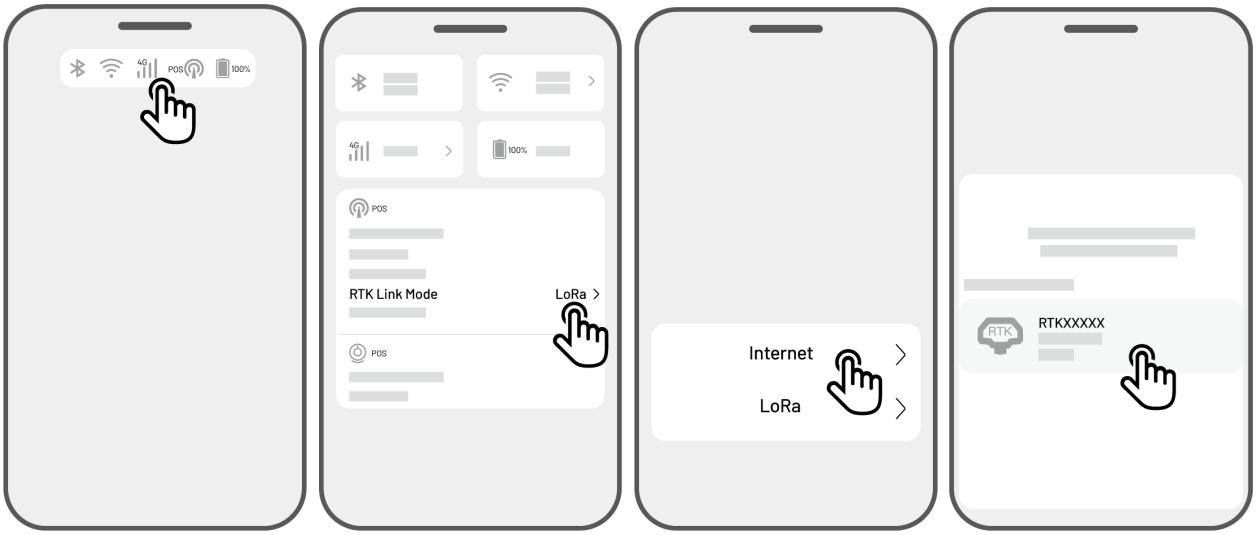
LoRa involves data communication between the RTK reference station and the robot using radio antennas. On the other hand, Internet RTK utilizes the internet for data communication between the RTK reference station and the robot. Internet RTK significantly expands the range of RTK applications, enabling operation over large geographical areas.

Switch LoRa to Internet RTK

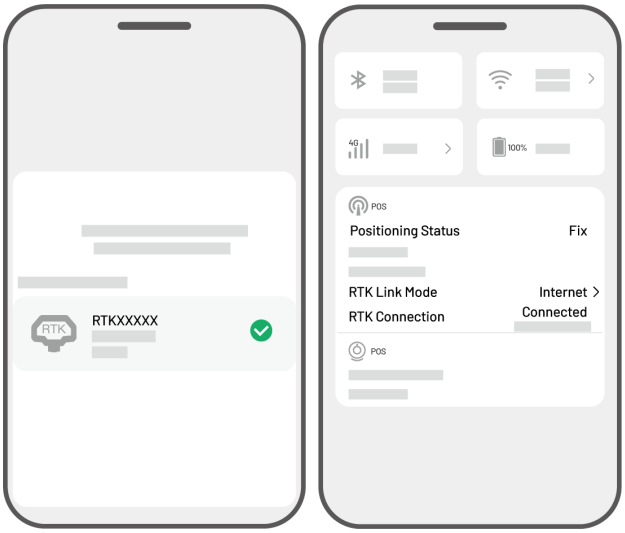
IMPORTANT

- Internet RTK relies on a stable 4G network. It is crucial to ensure that the robot maintains a reliable 4G connection.
- Please ensure that both the robot and RTK reference station are bound to the same account.
- For optimal operation, it is recommended to update both the robot and RTK reference station firmware to the latest versions.

1. Verify the 4G icon on the Status bar to illuminate, indicating successful activation of the SIM card. Tap the **Status Bar** to access the status information page.
2. The current RTK link mode is LoRa. Tap it to access the RTK link mode page. Select **Internet** and tap the RTK reference station to configure your network.



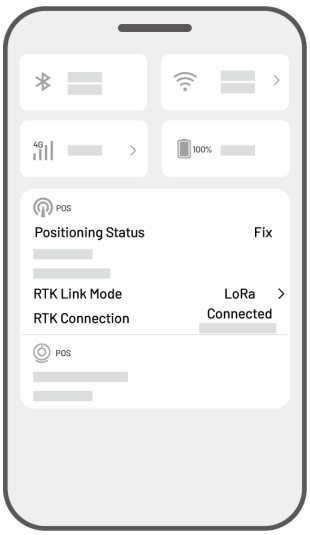
3. Wait for a green check mark to appear, then return to the status information page. Verify that the RTK positioning status displays '**Fix**' and the RTK connection shows '**Connected**'. Your setup is now complete.



Switch Internet RTK to LoRa

1. Tap the **Status Bar** to access the status information page.
2. The current RTK link mode is Internet. Tap it to access the RTK link mode page. Select **LoRa**, and ensure the displayed LoRa number matches the one on the RTK reference station's nameplate. If not, input the correct one. Tap **OK** to proceed.

3. Return to the status information page and verify that the RTK link mode displays '**LoRa**', the RTK positioning status shows '**Fix**', and the RTK connection status shows '**Connected**'. Your setup is now complete.



What to do when the robot's positioning is not Fix.

- Satellites (B): L1 < 20, L2 < 20
- Satellites (C): L1 < 20, L2 < 20
- Positioning status: Float

Measures:

Place the RTK reference station in an area with unobstructed views of the sky, without any physical obstructions within at least 5 m/16 ft. Alternatively, position the RTK reference station on a wall or roof.

- Signal quality (B): Bad or Weak
- Positioning status: Float

Measures:

Place the RTK reference station in an area with unobstructed views of the sky, without any physical obstructions within at least 5 m/16 ft. Alternatively, position the RTK reference station on a wall or roof.

- Satellite (B): L1:0, L2:0
- Satellite (C): L1:0, L2:0
- Positioning status: Single

Measures:

- ✓ Ensure the power supply to the RTK reference station is functioning normally.
- ✓ Verify that the indicator on the RTK reference station remains a constant green between the hours of 8:00-18:00 local time.
- ✓ Check for any defects within the RTK reference station, such as water leaks.
- ✓ Confirm that the radio antenna has been installed.
- ✓ Re-pair the RTK reference station and the robot to see if it can be fixed.
- ✓ If you replace the RTK reference station, pair the new station with the robot on the Mammotion app. For more details, visit https://mammotion3006.zendesk.com/hc/en-us/articles/16503733641367

- Satellites (R) < 25
- Satellites (C): L1 < 20, L2 < 20
- Positioning status: Float

Measures:

Check if the area where the The robot is situated, particularly when the The robot is being charged, has tall trees/walls/metal barriers, etc.

- Signal quality (R): Bad or Weak
- Positioning status: Float

Measures:

- ✓ Check if the robot's current location is fully or partially covered.
- ✓ If the robot is positioned on the charging station, relocate it to a less obstructed area.
- ✓ If the robot is located on the perimeter/corner of the task area, adjust the perimeter/corner to ensure it is not covered.
- ✓ If The robot is located within the task area and has lost its positioning due to obstacles such as trees, iron tables or chairs, mark those obstacles as no-go zones.

- Satellites (R): 0
- Satellites (C): L1:0, L2:0
- Positioning status: None

Measures:

Check whether the robot is inside or if its rear is covered with metal. If the robot is faulty, please contact our after-sales team at https://mammotion3006.zendesk.com/hc/en-us/requests/new?ticket_form_id=13773144519703

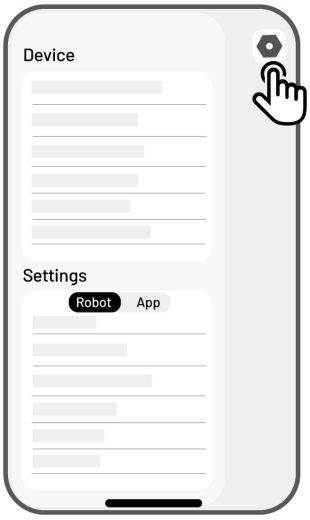
- Satellites (B): L1:0, L2:0
- Satellites (C): L1:0, L2:0
- Positioning status: Float
- Signal quality (B): None

Measures:

- ✓ Check if the RTK reference station has powered off.
- ✓ If the robot is too far from the RTK reference station, narrow the distance between the RTK reference station and The robot and retry.
- ✓ Verify if there are any malfunctions with the antenna, RTK reference station, or the robot receiver. If so, please contact our after-sales team at https://mammotion3006.zendesk.com/hc/en-us/requests/new?ticket_form_id=13773144519703

4.5.11 Settings

Tap ⬢ to enter the Settings page.



Device settings

- **Device Information**
  - ✧ **Device Name** — change the name of the robot.
  - ✧ **Sharing Management** — tap to view your sharing history and share your device with your family.
  - ✧ **Robot Version** — check the firmware version of the robot.
  - ✧ **Network Settings** — set the robot network.
  - ✧ **Upload Logs** — tap to send your issues and logs to Mammotion to target. You can attach a maximum of 5 images and 1 video.
  - ✧ **Factory Reset** — tap to perform factory reset. All the logs and Wi-Fi passwords will be clear.
  - ✧ **Maintenance** — shows the information on total mileage, mowing duration, battery cycle, and activation time.
  - ✧ **Unbind** — tap to unbind the current robot. A set of the robot can only be associated with one account and cannot be operated until it is bound. If you wish to transfer ownership of the robot, you must unbind it before proceeding.
- **Robot Version** — check the firmware version of the robot or upgrade it if any.
- **Network Settings** — set robot network.

- **Task Record** — shows the historical tasks which were completed and uncompleted.
- **Upload Logs** — tap to send your issues and logs to Mammotion to target. You can attach a maximum of 5 images and 1 video.

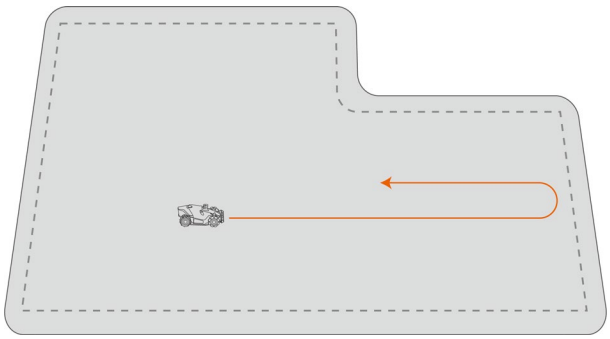
Robot settings

✧ **Manual Operation** — tap to enter manual mowing mode. See ***Manual Mowing*** for details.

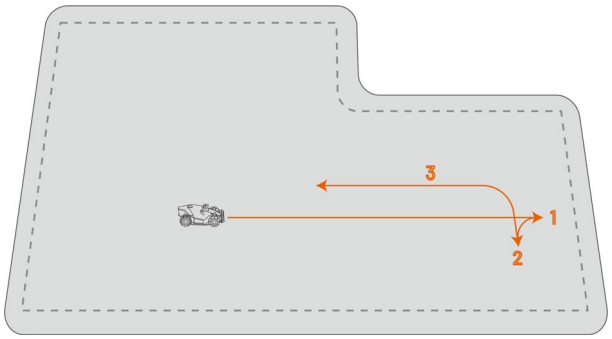
✧ **No mowing on rainy days** — when you enable this function, the robot will not mow if it rains.

✧ **Turnaround Mode —** Zero turn and Multi-point turn.

Zero turn



Multi-point turn

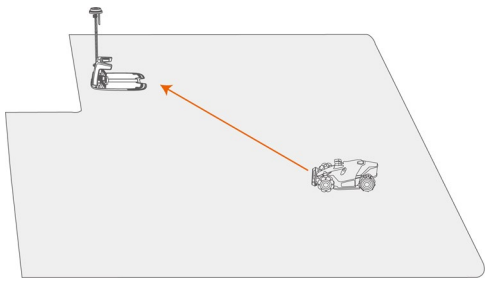


✧ **Side LED** — tap to turn on/off the side indicator of the robot.

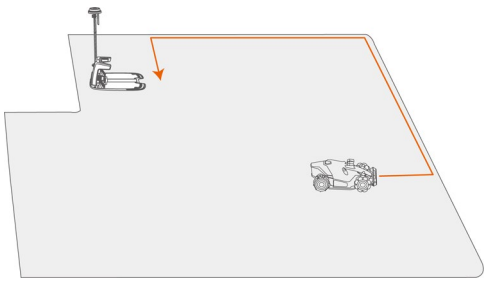
✧ **Delete Map** — tap to delete the task area you create.

✧ **Recharge Route** — provides two ways to recharge: **Direct** or **Follow the perimeter**; **Direct** means that the robot takes the shortest route to return to the charging station; **Follow the perimeter** means that the robot drives down the perimeter to the charging station without leaving any tracks within the lawn.

Direct



Follow the perimeter



✧ **Non-working Periods** — tap to set non-working period.

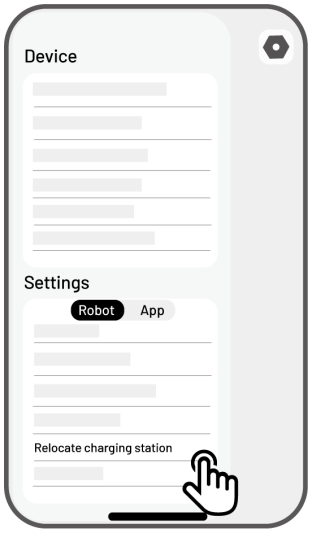
- ✧ **RTK Link Mode** — tap to switch RTK link mode or reset RTK paring code.
- ✧ **Relocate Charging Station** — tap to relocate the charging station. See ***Relocate the charging station*** for additional information.
- ✧ **Speaker** — tap to turn on/off voice prompts.

Relocate the charging station

NOTE
Please relocate the charging station while the robot is charging.

Generally, the charging station should be relocated if

- The charging station is moved.
- The docking path has a significant incline.
- The recharge process consistently fails.



1. Install the charging station in a proper place.
2. Place the robot on the charging station and ensure the positioning status is fine.
3. Select **Settings** > **Relocate charging station**.

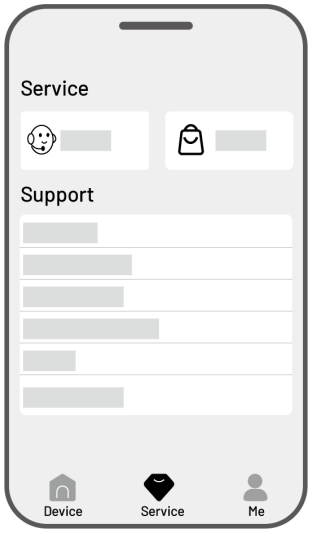
4.5.12 Recharge

NOTE
When performing the recharge function, the robot must be in the task area.

To perform recharge

- ➢ Tap on the map page in Mammotion app, or
- ➢ Press the button on the robot, then press START to guide the robot to the charging station.

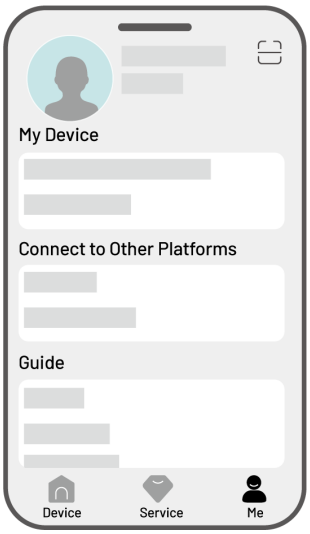
4.6 Service Page



- **Help** — tap to access our customer service.
- **Store** — tap to go to Mammotion mall.
- **Academy** —tap to access user instructions.
- **User Manual** — tap to access the user manual.
- **Winter Maintenance** — tap to access the winter maintenance details.
- **FAQ** — shows common questions and answers.
- **About Us** — tap to access more information about Mammotion.

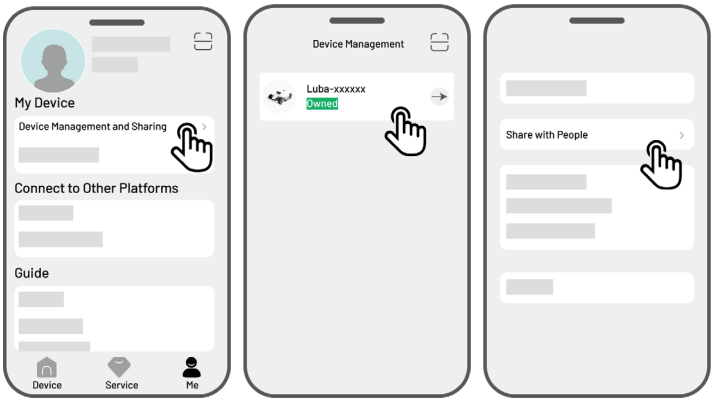
4.7 Me Page

- **Device Management and Sharing** — tap to share your devices.
- **Find My Device** — tap to track your device.
- **Alexa** — tap to link your Alexa account.
- **Google Home** — tap to link your Google Home account.
- **Guide** — toggle to on/off to show/hide guidelines.
- **Language** — switch language.
- **Upload Logs** — submit your issues and logs to Mammotion to target.
- **About Mammotion** — tap to view the app version, User Agreement, and Privacy Agreement.

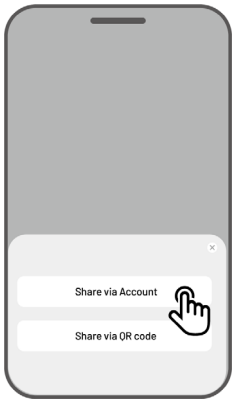


4.7.1 Share Your Device

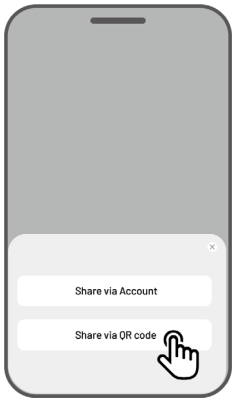
Sharing your device allows the recipient to control and access device information, but they cannot share it further or use its anti-theft feature.



1. Go to the Me page and tap **Device management and sharing**.
2. Select your own device to share.
3. Tap **Share with people** to go on.

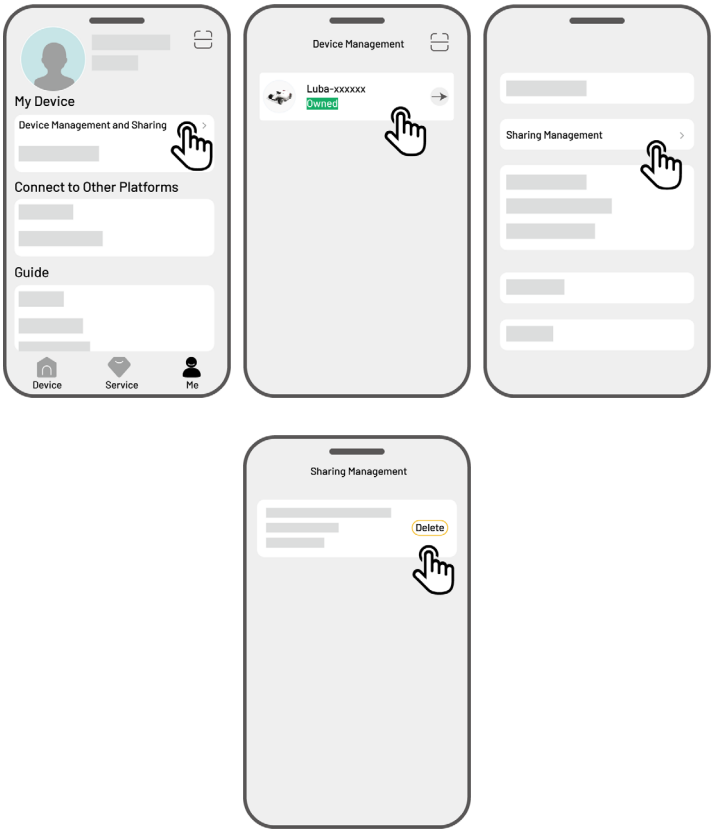


4. Select **Share via account** or **Share via QR code** to share your device.
   - **Share via account**
     a. Tap **Share via account**.
     b. Enter the account number that you want to share, then tap **Share**.
     c. In the recipient's Mammotion app, tap **Agree** in the popup.
   - **Share via QR code**
     a. Tap **Share via QR code** and a code will appear.
     b. Use the recipient's Mammotion app to scan the QR code and tap **Agree** in the popup.



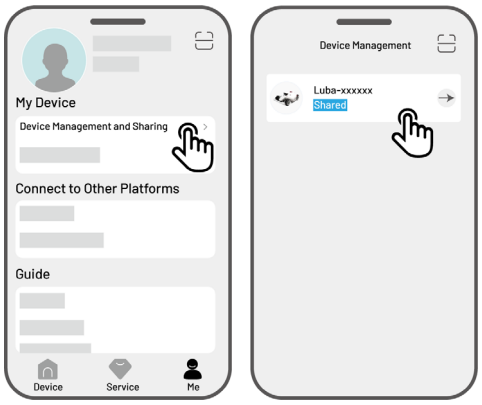
4.7.2 Stop Sharing Your Device

For owner



1. Go to the Me page and tap **Device management and sharing**.
2. Select the device that you have shared.
3. Tap **Sharing management** to continue.
4. Select the corresponding sharing history and tap **Delete**.
5. Tap **Confirm** to revoke the recipient's access to the device.

For recipient



1. Go to the Me page and tap **Device management and sharing**.
2. Select the device that has been shared with you.

3. Tap **Delete**.
4. Tap **Confirm** to stop using the device. This action will not affect the owner's data.

4.7.3 Find My Device

In the case that your robot or RTK reference station that has been bound with the Mammotion app is missing, go to **Me** > **Find my Device** page to track your device.

Tap the device to enter the next page where you can enable/disable **Location Notifications** and **Location Recorder**.

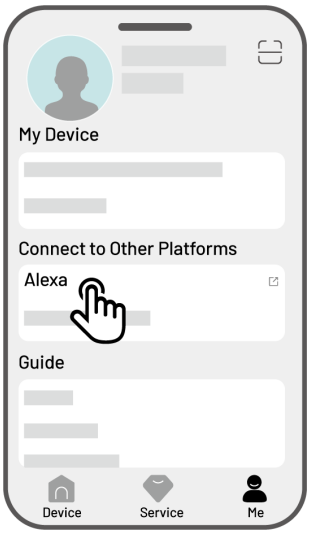
- **Location Notifications** — You will receive a push notification when the robot is more than 50 meters away from the working area after enabling it.
- **Location Recorder** — Record the location history of the robot after enabling it.

4.7.4 Link Your Alexa Account

NOTE

- Prior to starting a job using voice control, it is necessary to have created at least one task beforehand.
- In cases where more than 2 sets of robots are linked to the same Mammotion account, the voice command will be directed to the most recently bound robot by default.

1. Go to the **Me** page and tap on **Alexa**.
2. Select **Luba 2 (Mammotion Robot)** to proceed.
3. Tap **Link Alexa** to go to the authorization page.
4. Finally, tap **Link** to complete the operation.



Once the linking is successful, you can control the robot with voice commands. Here are some examples for starting, pausing, stopping, recharging, and checking the status:

Start working

-Alexa, ask Mammotion robot to start working

-Alexa, ask Mammotion robot to start task xx (xx means the name of the task you set)

Pause working

-Alexa, ask Mammotion robot to pause

-Alexa, ask Mammotion robot to hold on

Continue working

-Alexa, ask Mammotion robot to continue

Stop working

-Alexa, ask Mammotion robot to stop working

Return to the charging station

-Alexa, ask Mammotion robot to recharge

-Alexa, ask Mammotion robot go home

Check status

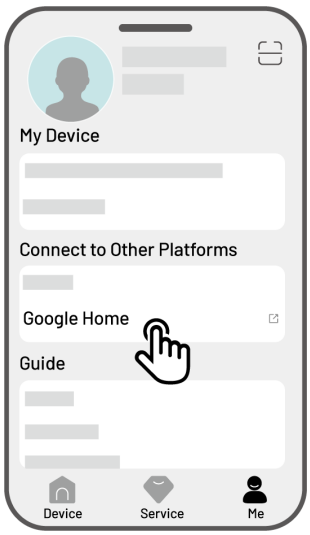
-Alexa, ask Mammotion robot status

4.7.5 Link Your Google Home Account

NOTE

Prior to starting a job using voice control, it is necessary to have created at least one task beforehand.

1. Go to the **Me** page and tap on **Google Home**.
2. Tap **Link Google Home** to go to the authorization page.
3. Follow the instructions to complete the setup.



After linking succeeds, you can control the robot using voice commands, try the following commands:

Start working

-Hey Google, start mowing

-Hey Google, start the Luba now

-Hey Google, let the Luba start running

-Hey Google, make the Luba start running

Pause working

-Hey Google, pause mowing

-Hey Google, pause the Luba now

-Hey Google, let the Luba pause

-Hey Google, make the Luba pause

Continue working

-Hey Google, continue mowing

-Hey Google, let the Luba continue

-Hey Google, make the Luba continue

Stop working

-Hey Google, stop mowing

-Hey Google, stop the Luba

-Hey Google, let the Luba stop

-Hey Google, make the Luba stop

Recharge Luba

-Hey Google, dock the Luba

-Hey Google, let the Luba go home

-Hey Google, make the Luba go home

Check status

-Hey Google, is the Luba running?

5 Maintenance

To maintain optimal mowing performance and extend the lifespan of your robot, Mammotion advises performing regular inspections and maintenance weekly. For safety and effectiveness, always wear protective clothing such as trousers and work shoes; avoid wearing open sandals or going barefoot during maintenance.

5.1 Cleaning

WARNING

- Ensure the robot is completely powered off before beginning any cleaning work.
- Always power off the robot before turning it upside down.
- When turning the robot upside down, handle it with care to avoid damaging the vision module.

5.1.1 Clean Robot

Housing

Use a soft brush or a damp cloth to clean the robot's housing. Avoid using alcohol, gasoline, acetone, or other corrosive or volatile solvents, as they may damage the robot's appearance and internal components.

Bottom

Wear protective gloves while cleaning the chassis and cutting discs. Use a brush to remove debris. Check for blade damage and ensure that the blades and cutting discs can rotate freely. DO NOT use sharp objects to clean the bottom.

Front wheels (Omni wheels)

Clean the front wheels using a brush or water hose. Remove the mud if any.

Rear wheels

Regularly clean the rear wheels with a brush or water hose if they become too dirty.

Vision camera

Wipe the vision camera lens with a cloth to remove any stains. A clean lens is crucial for the performance of the vision module.

Rear part

Regularly clean the rear charging pads and infrared receiver with a cloth to remove grass clippings and dirt. Keeping these parts clean ensures proper charging and prevents recharging failures.

5.1.2 To Clean Charging Station

Use a brush and cloth to clean the infrared transmitter and the charging pin.

5.1.3 To Clean RTK Reference Station

Wipe the top of the RTK reference station with a cloth to remove any accumulated dirt.

5.2 Maintenance for Cutting Blades and Motor

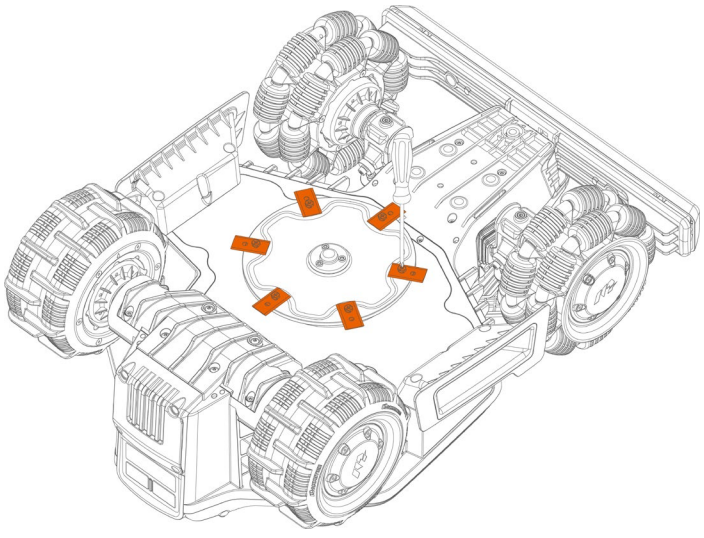
WARNING

- Always wear protective gloves when inspecting, cleaning, or replacing the cutting blade.
- DO NOT use an electrical screwdriver to tighten or loosen the cutting disc. Always use the correct screws and original blades approved by Mammotion.
- Replace all cutting blades and their screws simultaneously to ensure a safe and effective cutting system.
- DO NOT reuse the screws, which may cause serious injury.

- To ensure optimal performance during long-term storage, keep the hub motor shaft dry and clean. Regular maintenance of the motor shaft helps prevent dirt and moisture buildup, which can affect the motor's function. The motor has an expected lifespan of 150 hours of operation.
- Blades are considered wear parts and should be replaced if they become severely worn. It is recommended to replace the cutting blades every 3 months or after 150 hours of use. For thicker grass, more frequent blade replacement may be necessary.
- Wet grass is more likely to stick to the blades and bottom of the robot, which can impair performance and lead to the need for more frequent cleaning. For optimal performance and long-term lawn health, it is recommended to avoid mowing during heavy rain or when the grass is excessively wet.

How to replace a cutting blade

1. Turn off the robot.
2. Place the robot on a soft, clean surface, ensuring it is in an upside-down position.
3. Remove the old cutting blades with a Phillips screwdriver.
4. Install the new cutting blades using screws. Ensure that the blades can rotate freely and are securely installed.



5.3 Battery Maintenance

- Maintain the battery fully charged before long-term storage to prevent over-discharge.
- Charge fully every 90 days, even if it is not in use.
- Ensure the charging ports on the robot are clean and dry before storing or charging.

5.4 Winter Storage

To ensure your robot is in optimal condition for the next mowing season, store the robot, charging station, and RTK reference station properly. If the ambient temperature drops below -20°C (-4°F) during winter, keep the robot, RTK reference station, and charging station indoors.

5.4.1 Store Robot

- Control the robot off the charging station, ensuring the robot has been fully charged.
- Power off the robot.
- Clean The robot (the housing, wheels, chassis, vision module, etc.) with a damp cloth or soft brush. You can wash the robot if necessary. DO NOT turn the robot upside down to clean its chassis with water.
- Leave the robot to get dry. DO NOT turn it upside down during this process.
- Apply anti-corrosion lubricant to the charging pads. DO NOT apply the chemicals to any other parts of the robot, especially metal contact areas, except for the connectors.
- Remove the front bumper and clean the connection slot with a brush.
- Clean the front bumper with a brush.
- Remove the security key.
- Remove the SIM card if any. **(In the next mowing season, check the SIM card is available and reinstall it.)**
- Store the robot indoors.

In the next mowing season, reinstall the front bumper and security key.

5.4.2 Store Charging Station

- Disconnect the power supply.
- Remove the stakes.
- Use a brush and cloth to clean the charging station thoroughly.
- Remove the charging station and the power supply.

In the next mowing season, reinstall the charging station, then relocate it (See Relocate the charging station for more information) and remap a channel between the charging station and the task area using the Mammotion app.

5.4.3 Store RTK Reference Station

If the ambient temperature is above -20°C (-4°F) in winter:

- Unplug the RTK reference station.
- Twine the RTK reference station cable around the station and tighten the protective cap.
- Cover the RTK reference station with a plastic bag or cover.

If you follow these steps and do not move the RTK reference station, you will not need to delete the map and remap for the next mowing season.

If the ambient temperature is below -20°C (-4°F) in winter:

If the RTK reference station is installed on the ground, follow the steps below:

- Delete the map in the Mammotion app.
- Unplug the RTK reference station.
- Remove the RTK reference station from the mounting pole.
- Remove the antenna.
- Use a cloth to clean the RTK reference station.
- Remove the mounting pole.

In the next season, reinstall the RTK reference station and remap in the Mammotion app.

If the RTK reference station is installed on the wall/roof, follow the steps below:

- Unplug the RTK reference station.

- Remove the RTK reference station from the wall mounting pole.
- Remove the antenna.
- Use a cloth to clean the RTK reference station.

In the next mowing season, reinstall the RTK reference station in its original position. There is no need to delete the map and remap as the location of the RTK reference station remains unchanged.

5.4.4 Store Solar Panel Kit

If the ambient temperature is above -20°C (-4°F) in winter:

- Disconnect the solar panel and tighten the protective cap.
- Twine the solar panel cable around the mounting bracket.
- Maintain a battery charge of over 50% (indicated by a flashing green LED).
- Long press 2s to put the solar panel into standby mode.

If the ambient temperature is below -20°C (-4°F) in winter:

- Disconnect the solar panel and tighten the protective cap.
- Uninstall the solar panel.
- Maintain a battery charge of over 50% (indicated by a flashing green LED).
- Long press 2s to put the solar panel into standby mode.
- Wipe the solar panel with a cloth.

6 Product Specifications

6.1 Technical Specifications

Table 6-1 Standard Version Specifications

Standard Version (Cutting Height: 20-65 mm/0.8-2.6 inches)		
Specifications	**LUBA mini AWD**	
	1500	**800**
Max. Mowing Size	1,500 m^2/0.4 acres	800 m^2/0.2 acres
Max. multi-zone Management	15	10
Engine	All-wheel Drive (AWD)	
Max. Climbing Ability	80% (38°)	
Vertical Obstacle Passing Ability	50 mm/2 in.	
Cutting Width	200 mm/7.8 in.	
In-App Cutting Height Adjustment	25-65 mm/0.8-2.6 in.	
Charging Time	180 min	120 min
Mowing Time per Charge	150 min	100 min
Auto-recharge	YES	
GPS Theft Tracking	YES	
Geo-Alarm	YES	
Vision GeoFence	YES	
Lift Sensor	YES	
Tilt Sensor	YES	
RTK Signal Coverage	5 km/3.1 mi.	

Standard Version (Cutting Height: 20-65 mm/0.8-2.6 inches)	
Positioning & Navigation	3D Vision & RTK
Obstacle Avoidance	3D Vision & Physical Bumper
Voice Control	Alexa & Google Home
Vision Monitoring	YES
Connectivity	4G & Bluetooth & Wi-Fi
A weighted sound power	L_{WA}=64dB, K_{WA}=3dB
A weighted sound pressure	L_{PA}=56dB, K_{PA}=3dB
Waterproof	LUBA Machine: IPX6 Charging Station: IPX6 RTK Station: IPX7
Rain Detection	YES
Net Weight	15 kg/33 lbs.
Size (L x W x H)	584 x 430 x 282 mm/23 x 17 x 11 in.

Table 6-2 H Version Specifications

H Version (Cutting Height: 55-100 mm/2.2-4 inches)		
Specifications	**LUBA mini AWD**	
	1500H	**800H**
Max. Mowing Size	1,500 m^2/0.4 acres	800 m^2/0.2 acres
Max. multi-zone Management	15	10
Engine	All-wheel Drive (AWD)	
Max. Climbing Ability	80% (38.6°)	
Vertical Obstacle Passing Ability	80 mm/3.1 in.	
Cutting Width	200 mm/7.8 in.	
In-App Cutting Height Adjustment	55-100 mm/2.2-4 in.	
Charging Time	180 min	120 min
Mowing Time per Charge	150 min	100 min
Auto-recharge	YES	
GPS Theft Tracking	YES	

H Version (Cutting Height: 55-100 mm/2.2-4 inches)	
Geo-Alarm	YES
Vision GeoFence	YES
RTK Signal Coverage	5 km/3.1 mi.
Positioning & Navigation	3D Vision & RTK
Obstacle Avoidance	3D Vision & Physical Bumper
Voice Control	Alexa & Google Home
Vision Monitoring	YES
Connectivity	4G & Bluetooth & Wi-Fi
A weighted sound power	L_{WA}=66dB, K_{WA}=3dB
A weighted sound pressure	L_{PA}=58dB, K_{PA}=3dB
Waterproof	LUBA Machine: IPX6 Charging Station: IPX6 RTK Station: IPX7
Rain Detection	YES
Weight	15 kg/33 lbs.
Size (L x W x H)	584 x 430 x 282 mm/23 x 17 x 11 in.

Table 6-3 LUBA Mini Onboard Operating Bands Specifications (EU)

Operating Frequency		**Maximum Transmitter Power**
LORA	863.1.-869.85MHz	<13.98dBm
Bluetooth	2400-2483.5MHz	<20dBm
Wi-Fi	2400-2483.5MHz	<20dBm
	5500-5700MHz	<20dBm
	5745-5825MHz	<13.98dBm
GSM900	880-915MHz(Tx); 925-960MHz (Rx)	35dBm
GSM1800	1710-1785MHz(Tx); 1805-1880MHz	32dBm
WCDMA Band I	1920-1980MHz(Tx); 2110-2170MHz (Rx)	25dBm
WCDMA Band V	824-849MHz(Tx); 869-894MHz (Rx)	25dBm
WCDMA Band VIII	880-915MHz(Tx); 925-960MHz (Rx)	25dBm
LTE Band 1	1920-1980MHz(Tx); 2110-2170MHz (Rx)	25dBm

LTE Band 3	1710-1785MHz(Tx)； 1805-1880MHz (Rx)	25dBm
LTE Band 5	824-849MHz(Tx)； 869-894MHz (Rx)	25dBm
LTE Band 7	2500-2570MHz(Tx)； 2620-2690MHz (Rx)	25dBm
LTE Band 8	880-915MHz(Tx)； 925-960MHz (Rx)	25dBm
LTE Band 20	832-862MHz(Tx)； 791-821MHz (Rx)	25dBm
LTE Band 28	703-748MHz(Tx)； 758-803MHz (Rx)	25dBm
LTE Band 38	2570-2620MHz(Tx)； 2570-2620MHz (Rx)	25dBm
LTE Band 40	2300-2400MHz(Tx)； 2300-2400MHz (Rx)	25dBm
GNSS	1559-1610MHz	N/A

Table 6-4 RTK Reference Station Operating Bands Specifications (EU)

Operating Frequency		**Maximum Transmitter Power**
LORA	863.1.-869.85MHz	<13.98dBm
Bluetooth	2400-2483.5MHz	<20dBm
Wi-Fi	2400-2483.5MHz	<20dBm
GNSS	1559-1610MHz	N/A

Table 6-5 Battery Specifications

Parameters	**Specifications**			
	800	**800H**	**1500**	**1500H**
Battery charger	TS-A060-2802151 Input: 100-240V~, 50/60Hz, 2.5A Output: 28Vdc, 2.15A, 60W			
Battery pack	21.6Vdc, 4.5Ah		21.6Vdc, 6.1Ah	
The temperature range for charging is 4-45 °C / 39-113 °F.				
WARNING: For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.				

6.2 Fault Codes

The app notification displays common fault codes along with their causes and troubleshooting steps. Here lists the most common issues.

Fault Codes	Causes	Solutions
316	The left cutting disc motor is overheating.	The machine will return to normal once the motor has cooled down. This process may take several minutes.
318	The sensor for the left cutting disc motor has failed.	Restart the robot. If the issue persists after a few times of restart, contact the after-sale team.
323	The right cutting disc motor is overloaded.	Check if the cutting disc is jammed and clear it if necessary. Alternatively, raise the cutting height.
325	The right cutting disc motor fails to start.	Check whether the cutting disc is jammed. If not, restart the robot. If the issue persists after a few times of restart, contact the after-sale team.
326	The right cutting disc motor is overheating.	Restart the robot. If the issue persists after a few times of restart, contact the after-sale team.
328	The sensor for the right cutting disc motor has failed.	Restart the robot. If the issue persists after a few times of restart, contact the after-sale team.
1005	Low battery	The robot will continue working after the battery is charged to 80%.
1300	The positioning status is poor.	Await the robot's repositioning.

Fault Codes	Causes	Solutions
1301	The charging station has been moved.	Relocate the charging station.
1420	Timeout occurred while retrieving wheel speed data.	Restart the robot. If the issue persists, contact the after-sale team.
2713	Charging has been stopped due to low battery voltage.	Restart the robot. If the issue persists after a few times of restart, contact the after-sale team.
2726	The battery is overcharged.	Stop charging immediately. If overcharging occurs frequently, contact the after-sale team.
2727	The battery is over discharged.	Recharge the robot.

7 Warranty

Shenzhen Mammotion Innovation Co., Ltd warrants that this product will be free from material and workmanship defects under normal use in accordance with the product materials published by Mammotion during the warranty period. The published product materials include but not limited to user manual, quick start guide, maintenance, specifications, disclaimer, in-app notifications, etc. The warranty period varies among different products and parts. Check the table below:

Component	Warranty
Battery	2 Years
Front/Rear Axel	
Wheel Hub Motor	
GPS Kit	
Vision Module	
PCBA	
RTK Reference Station	
Charging Station	
Decoration Parts	Consumable Parts No warranty
Cutting Blade	
Tire	
Cutting Disc	

If the product does not function as warranted during the warranty period, please contact Mammotion customer service for instructions.

- For products purchased from a local dealer, kindly reach out to the dealer first.
- Users must present a valid proof of purchase, receipt, or order number (for Mammotion Direct Sales).

The Serial Number of the product is crucial for initiating warranty service.

- Mammotion will make every effort to address concerns through phone calls, email, or online chat.
- In some cases, Mammotion may advise you to download or install specific software updates.
- If issues persist, you may need to send the product to Mammotion for further assessment or to a local Mammotion-appointed service center.
- The warranty period for the product commences from the original date of purchase indicated on the sales receipt or invoice.
- For pre-ordered products, the warranty period begins from the shipping date from the local warehouse.
- Mammotion will need users to arrange the shipment by themselves if users would like to send the products to local service center or Mammotion factory for further diagnosis. Mammotion will repair or replace and send back to users at no cost if the problem falls under the warranty. If not, Mammotion or designated service center may charge a fee accordingly.

Here puts some examples of faults that warranty will not cover:

- Failure to follow the instructions outlined in the user manual.
- If the product arrives damaged during shipment and is not rejected upon delivery, or if no official documentation confirming the damages is provided by the shipping company. Inability to provide evidence of damage occurring during transit.
- Product malfunction due to accidents, misuse, abuse, natural disasters like floods, fires, earthquakes, exposure to food or liquid spills, incorrect electrical charging, or other external factors.
- Damage resulting from using the product in ways not permitted or intended as specified by Mammotion.
- Modification of the product or its components that significantly alters functionality or capabilities without obtaining written permission from Mammotion.
- Loss, damage, or unauthorized access to your data.
- Signs of tampering or alteration on product labels, serial numbers, etc.
- Failure to provide a valid proof of purchase from Mammotion, such as a receipt or invoice, or if there are suspicions of forgery or tampering with the documentation.

8 Compliance

FCC Compliance Statements

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Caution: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.

If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

ISED Compliance Statements

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

(1) This device may not cause interference.

(2) This device must accept any interference, including interference that may cause undesired operation of the device.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment.

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation,

Sciences et Développement économique Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

(1) L'appareil ne doit pas produire de brouillage;

(2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé.

RF Exposure Compliance

This equipment complies with FCC/IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with minimum distance 20 cm between the radiator and your body.

Cet équipement est conforme aux limites d'exposition aux radiations IC CNR-102 établies pour un environnement non contrôlé.

Cet émetteur ne doit pas être colocalisé ou fonctionner en conjonction avec une autre antenne ou un

autre émetteur. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

RTK Reference Station

This radio transmitter [IC: 32325-RTK310] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Cet émetteur de radio [IC: 32325-RTK310] a été approuvé par innovation, sciences et développement économique Canada pour l'utilisation des types d'antennes énumérés ci - dessous avec les gains maximaux admissibles indiqués. Les types d'antennes qui ne sont pas inclus dans cette liste et dont le gain est supérieur au gain maximal de l'un des types énumérés sont strictement interdits pour une utilisation avec cet appareil.

Dipole Antenna 3.26dBi, 50Ω

Simplified EU Declaration of Conformity

Hereby, Shenzhen Mammotion Innovation Co., Limited declares that the radio equipment type [Model:800/800H/1500/1500H] is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address: https://mammotion.com/pages/eu-declaration-of-conformity.

SHENZHEN MAMMOTION INNOVATION CO., LTD

www.mammotion.com