



FJD FR4000 Robotic Lawn Mower Quick Start Guide

Date: 2024/11/26

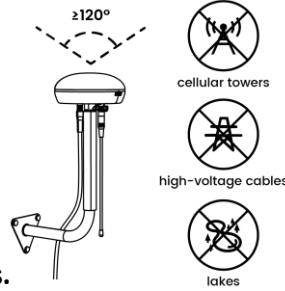


Preparations & Some Must-Knows

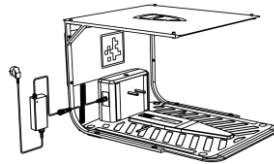
- ① Ensure stable Wi-Fi/mobile hotspot & Bluetooth connectivity for working environment.



- ② RTK base station installation requirements:
- a. Should be installed in open areas;
 - b. Needs to be installed as high as possible;
 - c. As unobstructed as possible from the mower;
 - d. The location will not change after installation;
 - e. Easy access to wired power supply;
 - f. At least 500 meters away from base stations, high-voltage cables, and bodies of water like lakes.



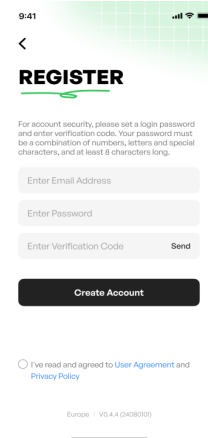
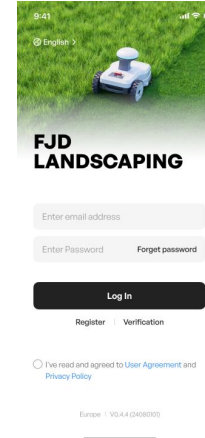
- ③ Charging station installation requirements:
- a. Should be placed on a level surface;
 - b. At least 2m of unobstructed space in front of the charging station and 1.5m on either side;
 - c. Grass underneath must be no more than 5 cm (about 2 inches) long
 - d. Not too close to the wall;
 - e. Easy access to wired power supply.



- ④ Download the **FJD Landscaping APP** on APP Store/Google Play



- ⑤ Register an account with your email address and log in.
Then you can refer to the **Section 4 - Section 6**, and then create your mowing task!



Catalogue

Section 1 - Product Structure Design

Section 2 - Control Panel & Garage

Section 3 - FR4000 Packing List

Section 4 - Installation of RTK Base Station & Charging Station

Section 5 - Deployment

Section 6 - Map Your Yard

Section 7 - Functions

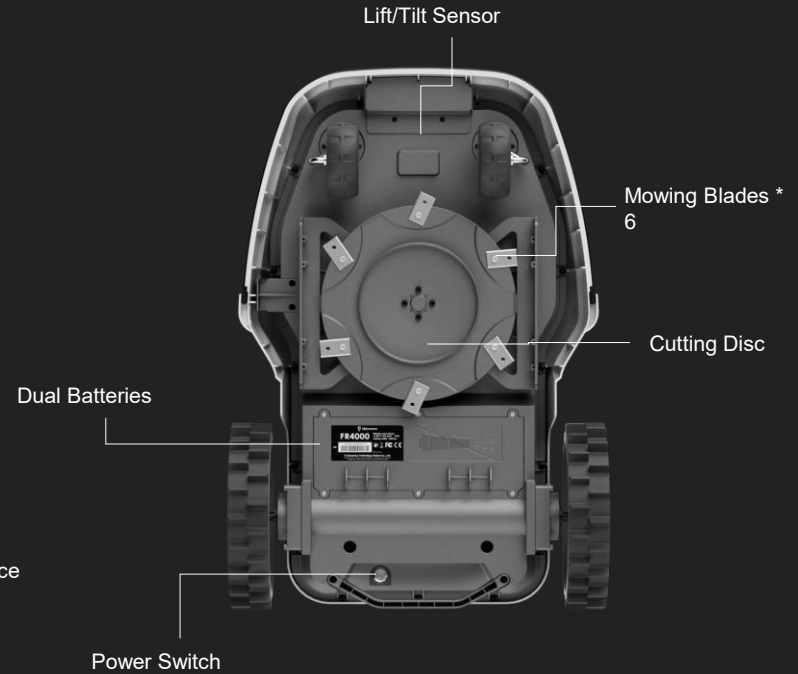
7.1 - Mowing Configuration Settings

7.2 - Mowing Schedule Settings

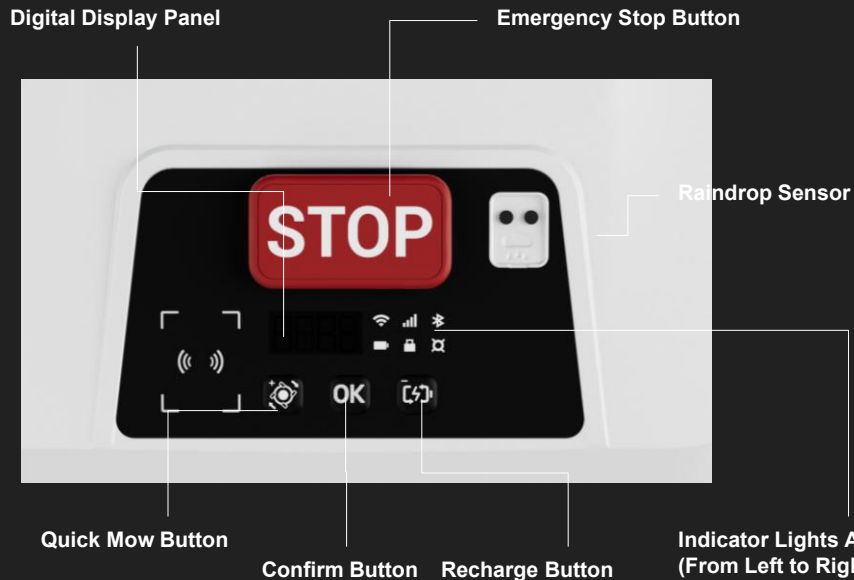
7.3 - Manual Mode



Section 1 -- Product Structure Design



Section 2 -- Control Panel & Garage



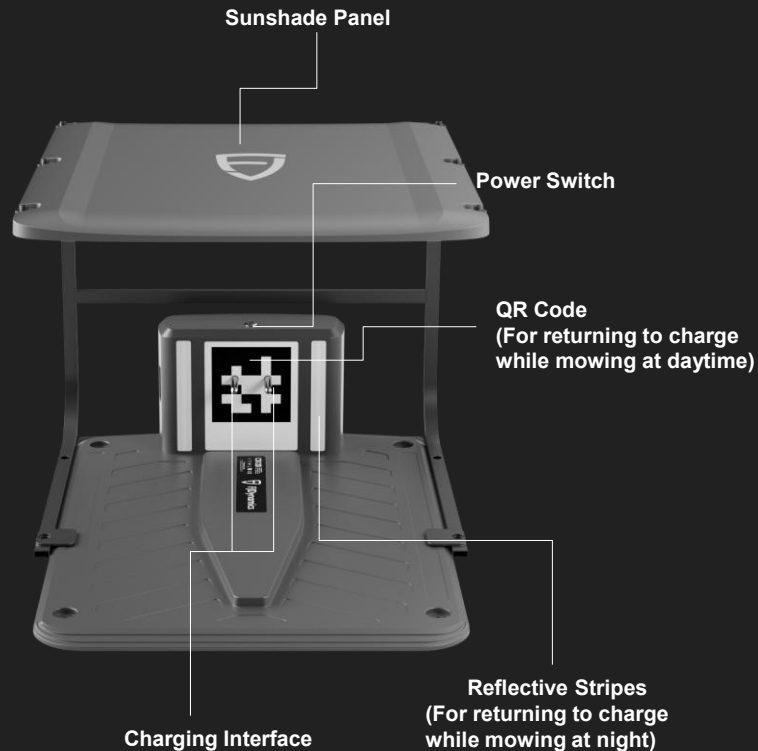
Indicator Lights Area
(From Left to Right)

Line1

1. Wi-Fi Indicator Light
2. RTK Signal Indicator Light
3. Bluetooth Indicator Light

Line2

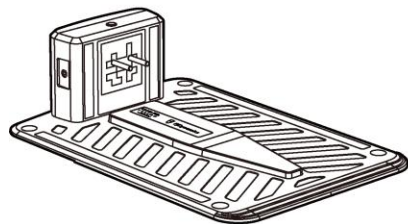
1. Power Indicator Light
2. Lock Indicator Light
3. Mower Blade Indicator Light



Section 3 -- FR4000 Packing List



Garage



Charging Station

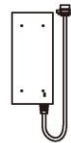
Charging Station Kit



Power Supply Cable



Extension Cable



Power Adapter

Universal Tool Kit



Hex Wrench (Large)



Hex Wrench (Small)



M8 Wrench



Screwdriver



M8 Expansion Screw*3



Spare Blade*6



M3 Screw*6

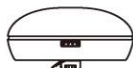


M6 Screw*3



Plastic Screw*8

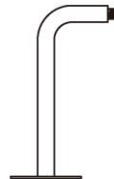
RTK Base Station Accessory Kit



Rtk Reference Station



Straight Mounting Pole



Bent Mounting Pole



Radio Antenna



Power Supply Cable (5m)



DC to USB-C Cable

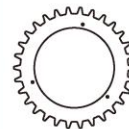


Power Adapter



Plug Adapter (Europe/UK/US)

Mower Accessory Kit



Ground Gripper*2



M4 Screw*6

Section 4 -- Installation of RTK Base Station & Charging Station



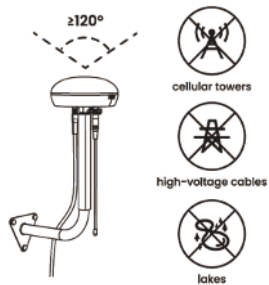
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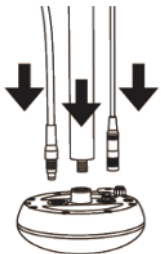
*** Suggested installation order:**

Install the RTK base station >> Install the charging station

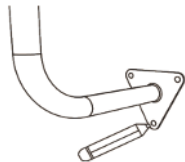
Section 4.1 -- Installation of RTK Base Station



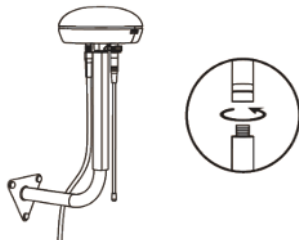
- Install the RTK reference station on a roof in open area.
- Ensure the RTK reference station is pointing upwards and there are no obstructions in the 120° section of the sky.



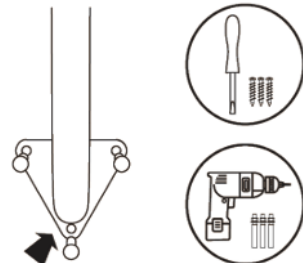
- Install the straight mounting pole, radio antenna, and power supply cable (5cm) on the RTK base station.



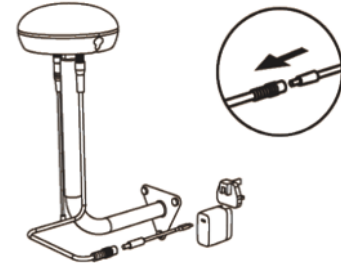
- Mark the installation position of the bent mounting pole on the wall.
- The mounting pole must be vertically upward.



- Tighten the two mounting poles.



- Select the right screws based on your wall material and drill holes on the marked position.
- Wood: M6 screws and a screwdriver.
- Concrete: M8 expansion screws and a power tool.

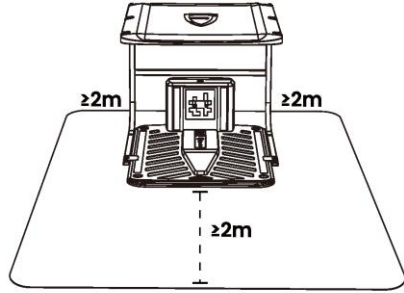


- Connect the DC to USB-C cable, adapter, and power supply cable, and plug into a power outlet.

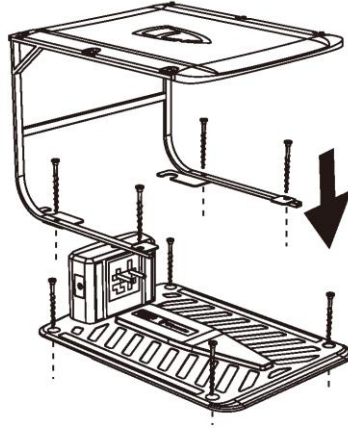
Section 4.2 -- Installation of The Charging Station

1. Choose a flat, level area to place the charging station.

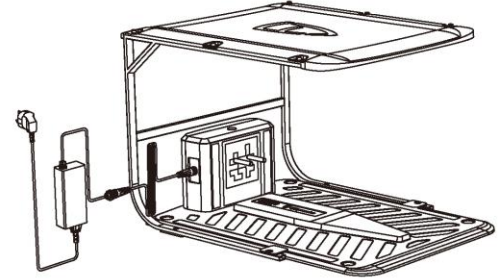
- Leave a free level area with a radius of at least 2m in front of the charging station free of hills, inclines, depressions, holes or obstacles.
- Make sure the grass under the charging station plate is not taller than 5cm (about 2 inches).



2. Fix the charging station and garage to the ground with screws.



3. Connect the power adapter, 10m extension cable, and power supply cable, and plug into a power outlet.

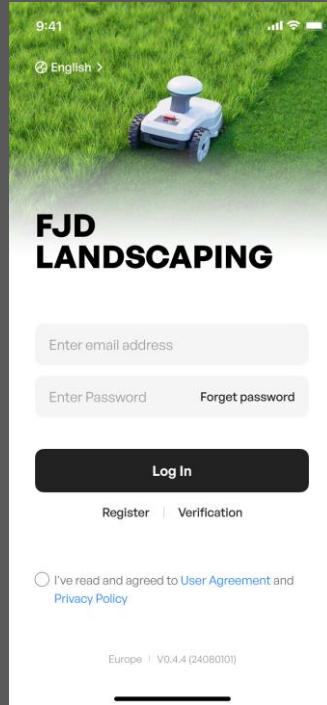


Section 5.1 -- Deployment: Install the **FJD Landscaping APP**

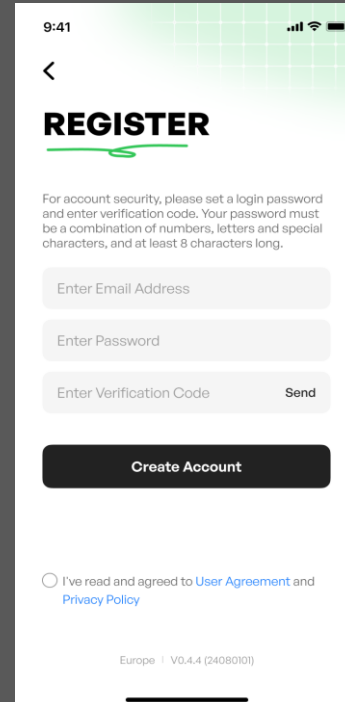
① Search **FJD Landscaping** on APP Store/Google Play. You can also download the APP by scanning the QR code on our Quick Start Board/Package.



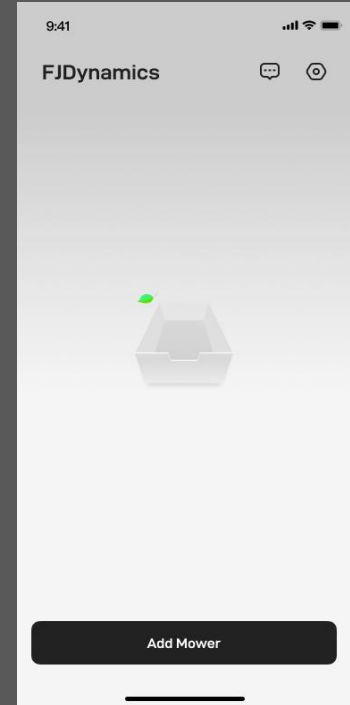
② Finish downloading and enter.



③ Register an account with your email address and log in.

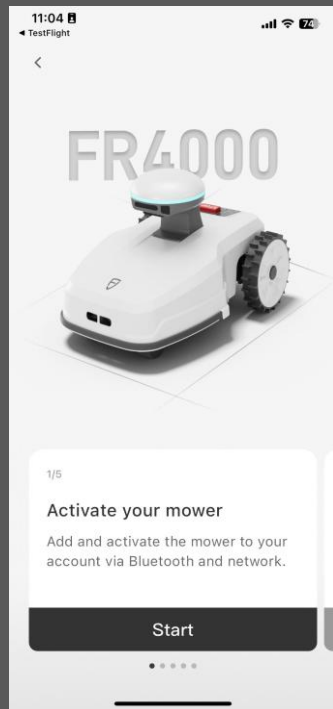


④ After logging in, you can add the mower to your device list. Select FR4000 and then you can start connecting the nearby FR4000.

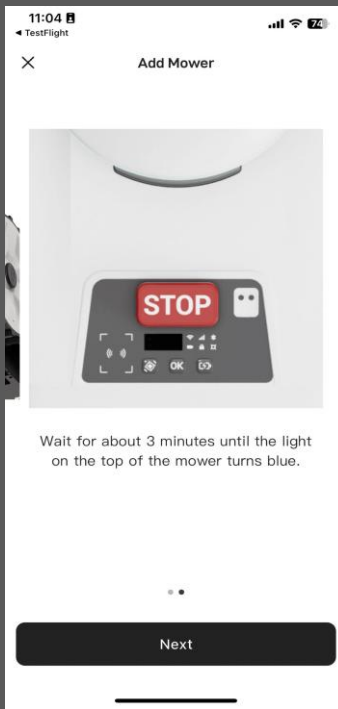


Section 5.2 -- Deployment: Connect the mower with Bluetooth

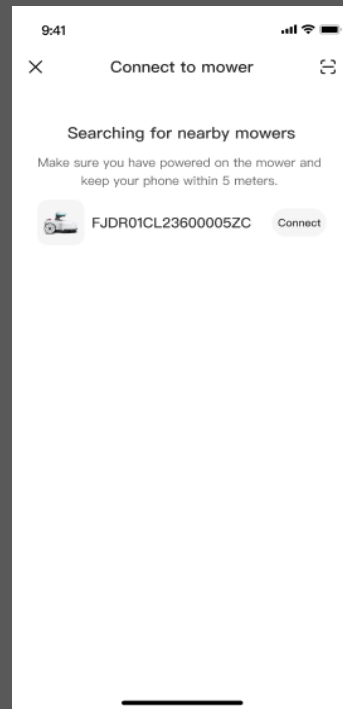
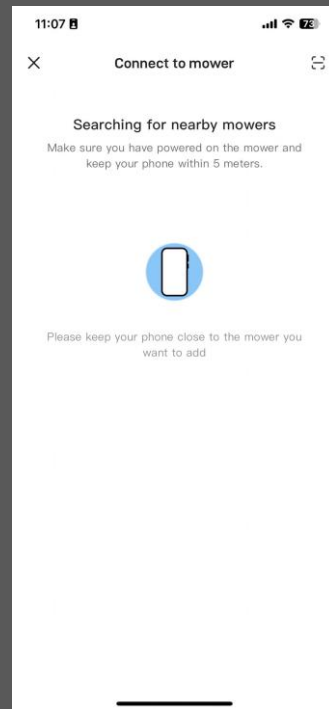
① Press [Start].



② Power on the mower by pressing the button underneath. Wait for the digital display to start blinking, and click "Next" after hearing the beep again.



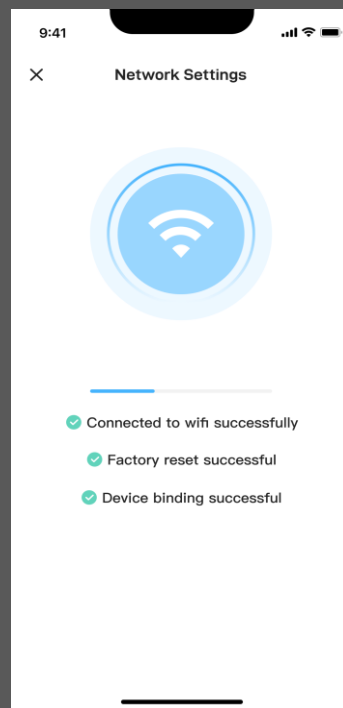
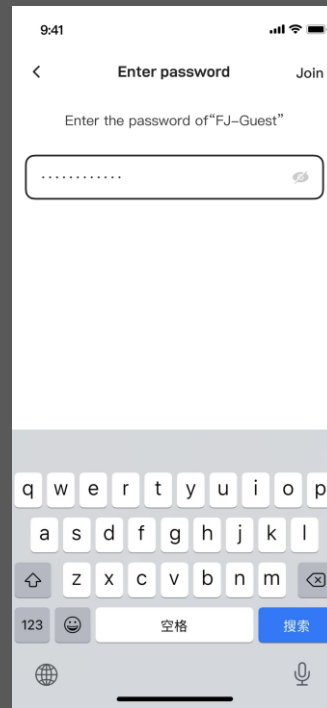
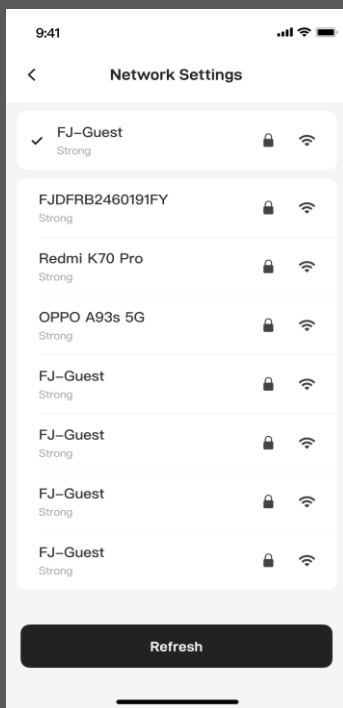
③ Search the nearby mower and connect it via Bluetooth.



Section 5.3 -- Deployment: Connect The Mower with Wi-Fi Network

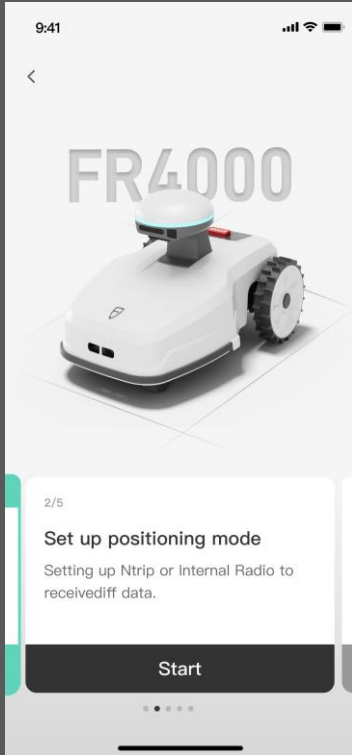
① Select the Wi-Fi network you want to access.

② Input Wi-Fi password. Then click [Join] to complete binding between network and the device.

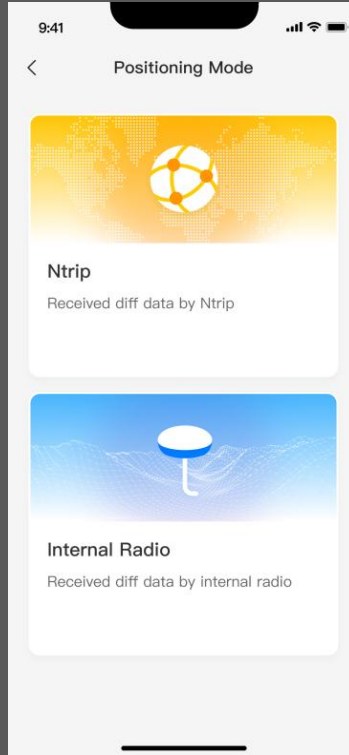


Section 5.4 -- Deployment: Ntrip Positioning Mode

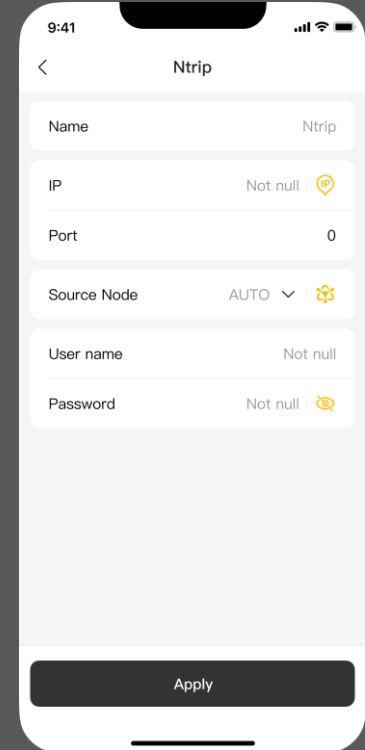
① Press [Start].



② Choose [Ntrip] mode.

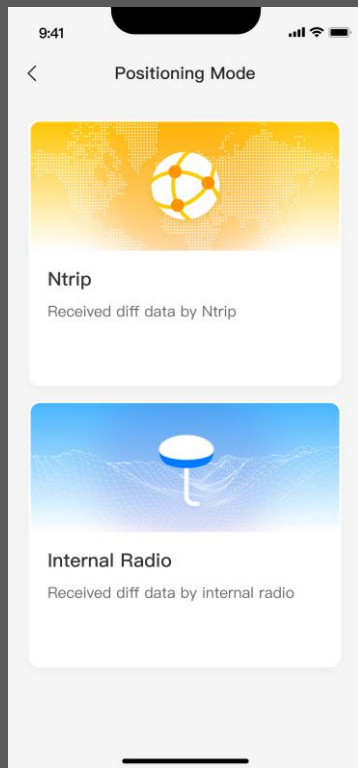


③ Follow the instructions, Enter the required Ntrip network RTK configuration. Wait for the reference station functionality to be deployed.

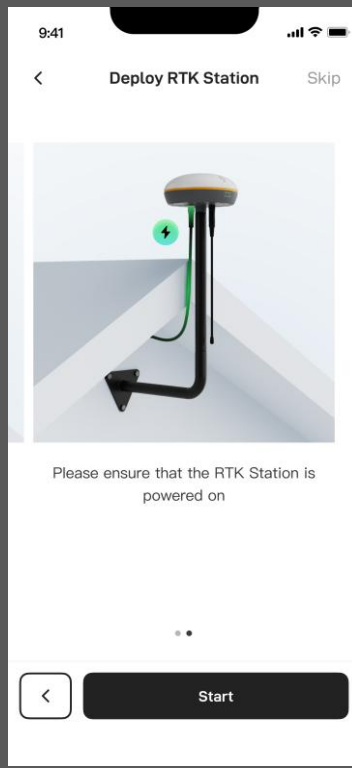
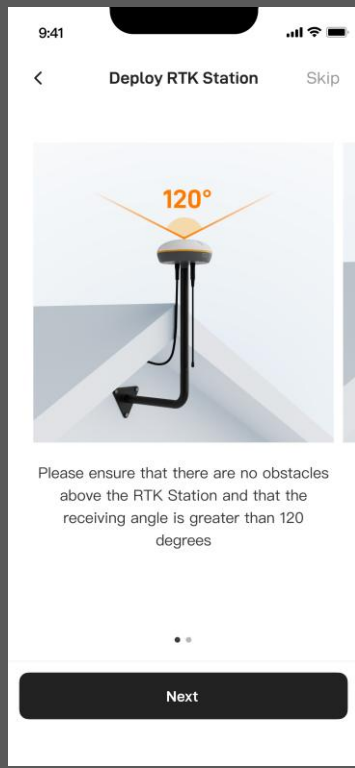


Section 5.5 -- Deployment: RTK Base Station

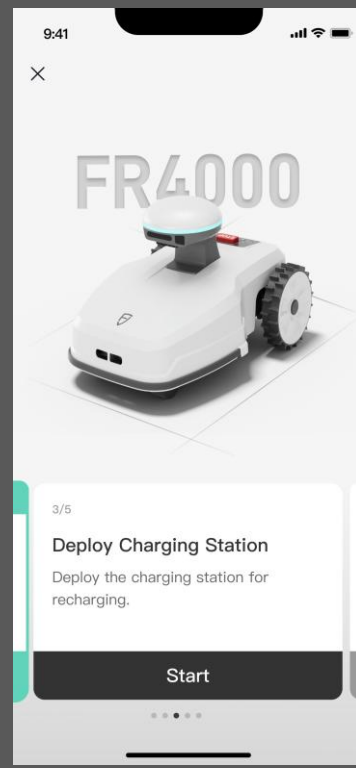
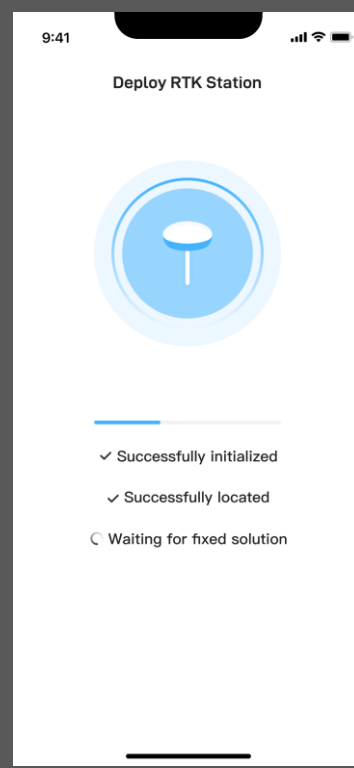
① Select the [Internal Radio] option.



② Follow the instructions, ensure that the RTK station installation is correct and powered on.

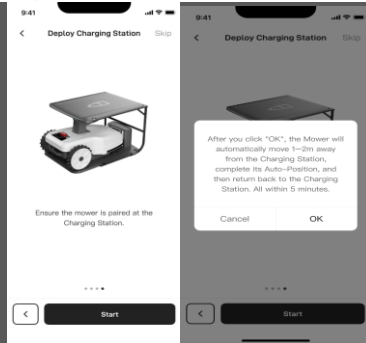
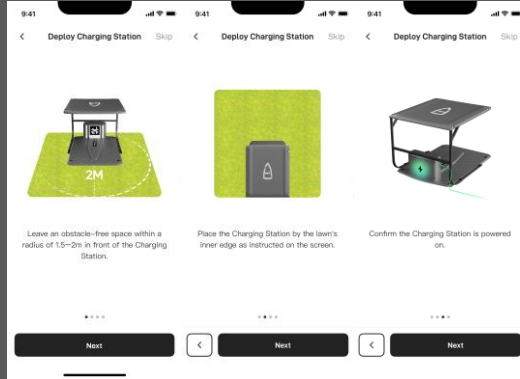


③ Waiting for the setting up. And then continue the next step to deploy the charging station.



Section 5.6 -- Deployment: Charging Station

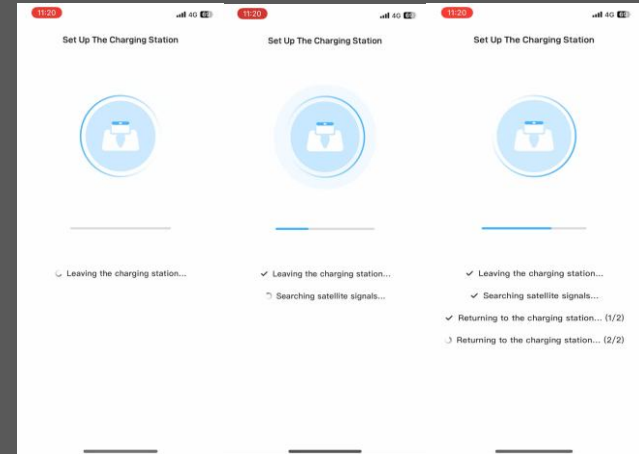
① Follow the instructions and don't forget to ensure the proper installation of the charging station.



② Wait for the charging station to finish the following three steps:

- Leaving the charging station
- Searching for satellites
- Returning to the charging station

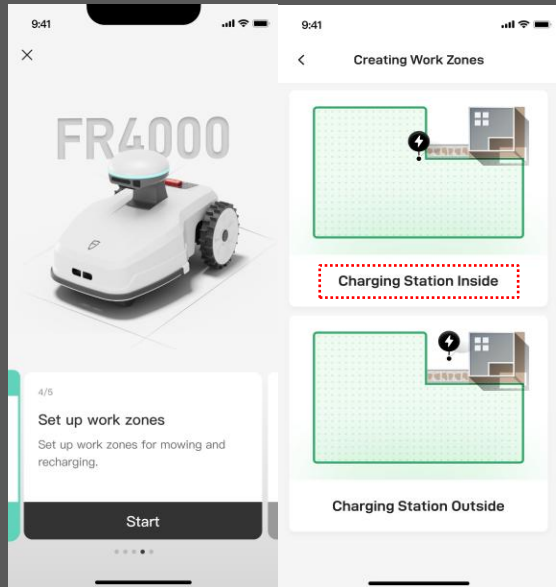
You can map your yard now after the deployment finished!



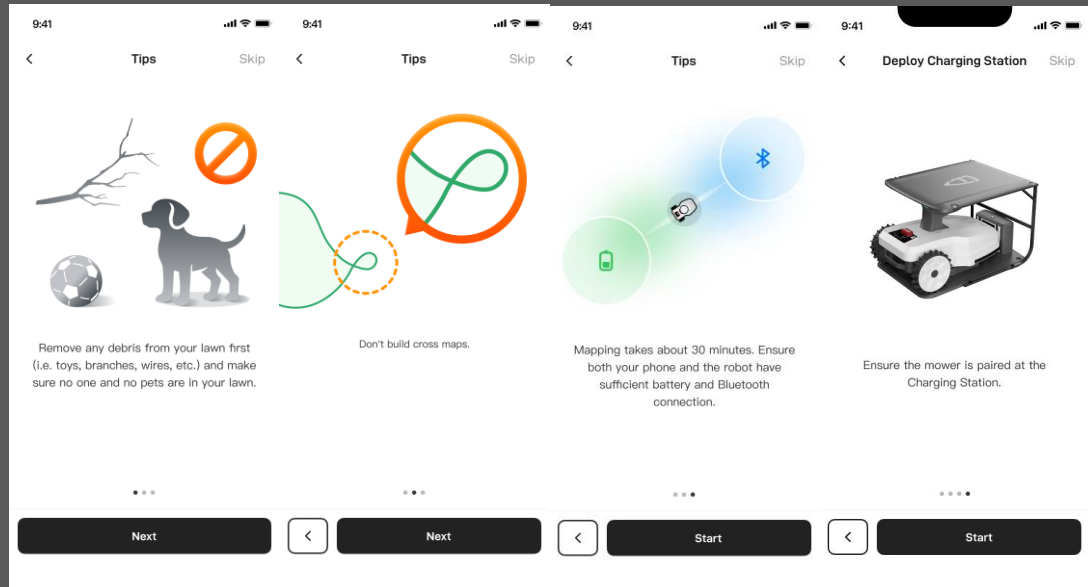
Section 6.1 -- Map Your Yard: Create Your Workzone(1)

*Charging station is near the lawn

① Press [Create a mowing zone]. Then you will find two selections here. Now assuming the charging station is near the lawn, so let's start with the [Charging Station Inside] first.



② Please read the instructions to ensure a good mowing environment before creating the workzone. Also don't forget to double-confirm that the mower is paired at the charging station properly.



Section 6.1 -- Map Your Yard: Create Your Workzone(1)

*Charging station is near the lawn

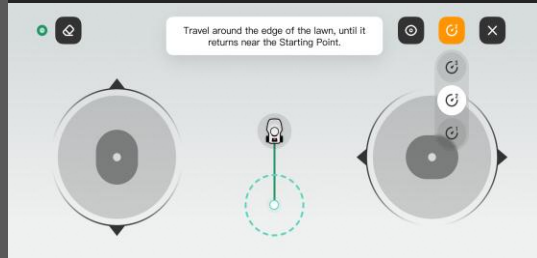
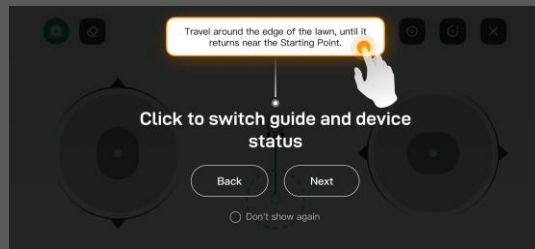
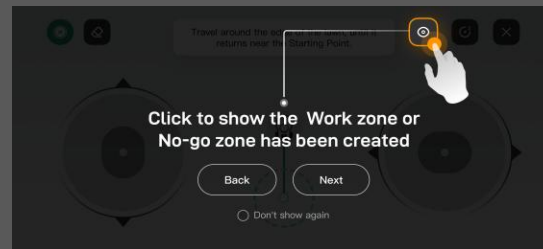
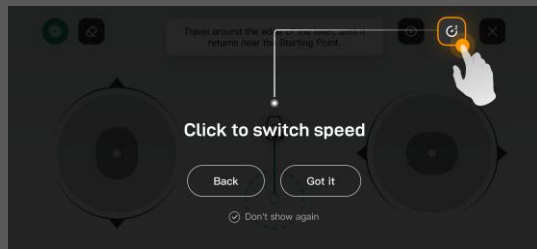
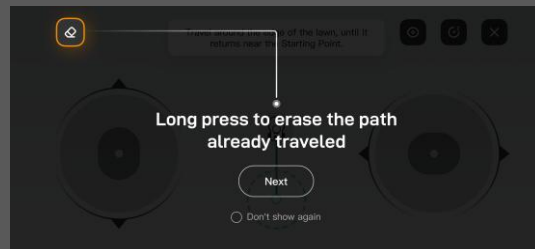
The mower will reverse from the charging station while the workzone creation process starts.



Build up the virtual boundary to create your workzone.



You can use the eraser to modify your workzone boundary by long press.



Tap to hide or view other zones created on the map. Also, you can adjust the driving speed from 3 different levels according to your needs.

Low: 0.3m/s
Medium: 0.4m/s
High: 0.5m/s

Tap to view the mower status, including:

- Battery status
- Wi-Fi or cellular network status
- Bluetooth connection status
- RTK base station connection status
- RTK positioning status
- Number of connected satellites

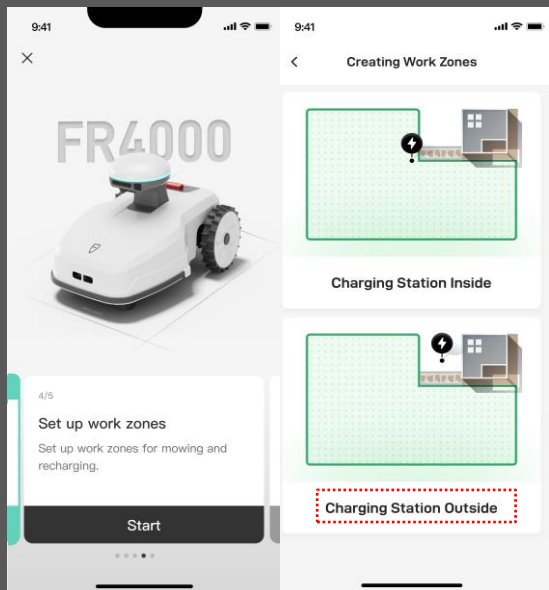
Section 6.2 -- Map Your Yard: Create Your Workzone(2)

*Charging station is far from the lawn

Now assuming the charging station is near the lawn, so let's start with the [Charging Station Outside] here. Then repeat the steps mentioned in last section, just follow the instructions and start creating the workzone.

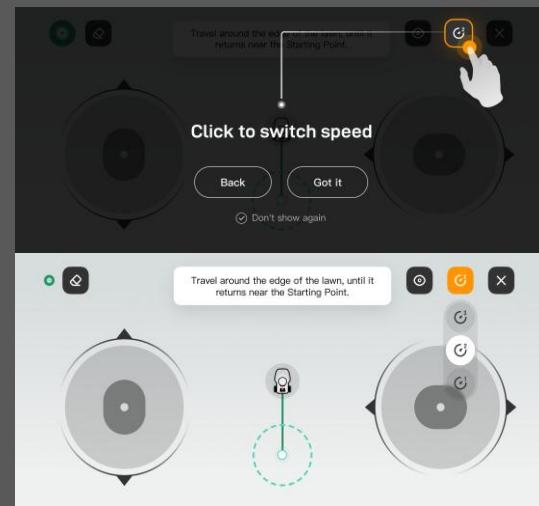
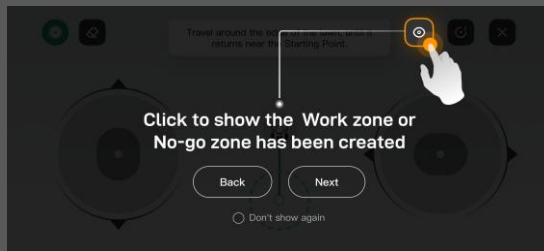
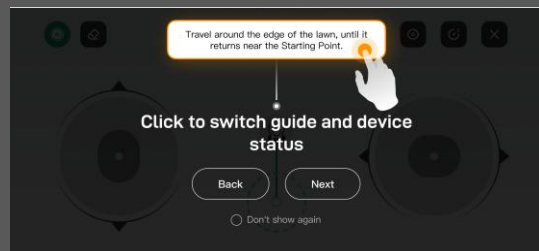
Draw a passage between the charging station and mowing zone first.

Same as process of creating the workzone, you can also erase the path by long-pressing the [eraser] icon above.



Section 6.2 -- Map Your Yard: Create Your Workzone(2)

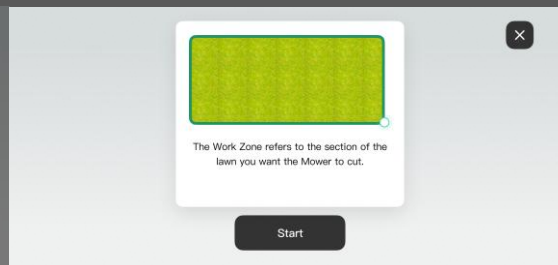
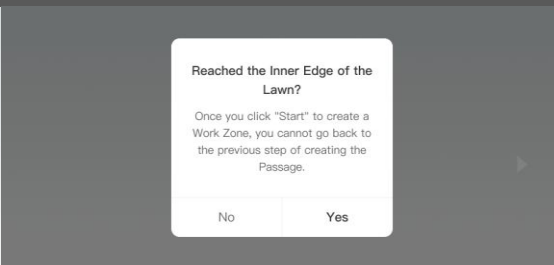
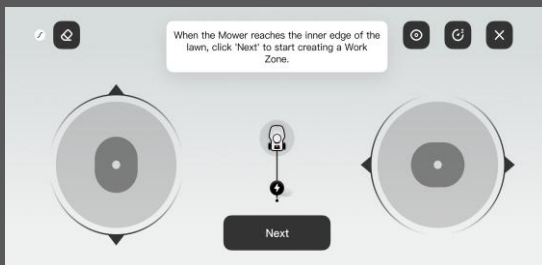
*Charging station is far from the lawn



(1) Same as process of creating the workzone under the option [Charging Station Inside], you can also do the same operations like checking the device status, work zone/no-go zone list, adjusting the driving speed.

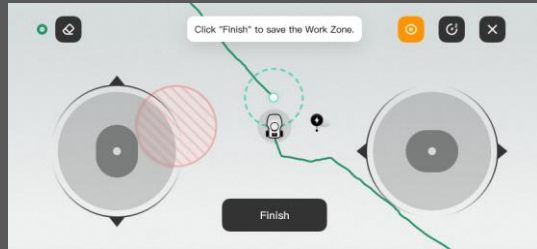
(2) Once the mower reaches the inner edge, click "Next" to confirm passage creation. Then click "Start" to draw the boundary of the mowing zone.

(3) The process of creating the work zone is the same as the condition [Charging Station Inside]. Just check the guidance in previous chapter and finish creating the workzone.

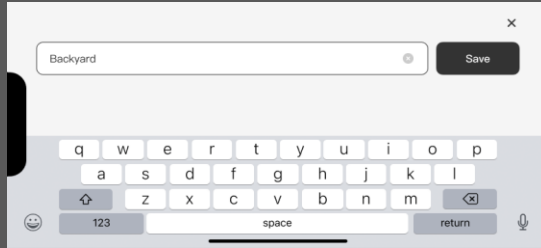


Section 6.3 -- Map Your Yard: Manage Your Maps

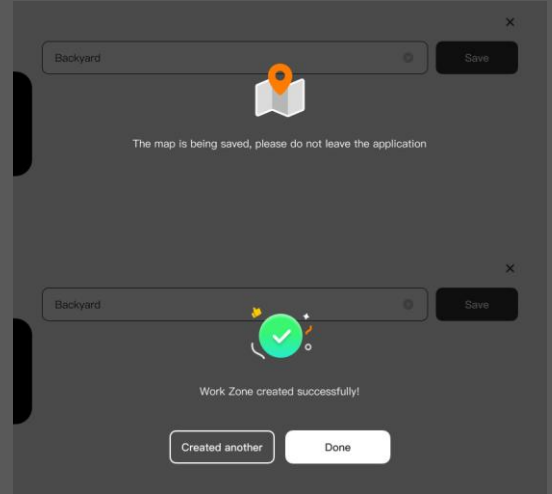
After finishing all the steps in Section 6.1 & 6.2, you can tap [Finish] to when the mower returns near the starting point. Workzone creation finished now.



Name you mowing zone and tap [Save].

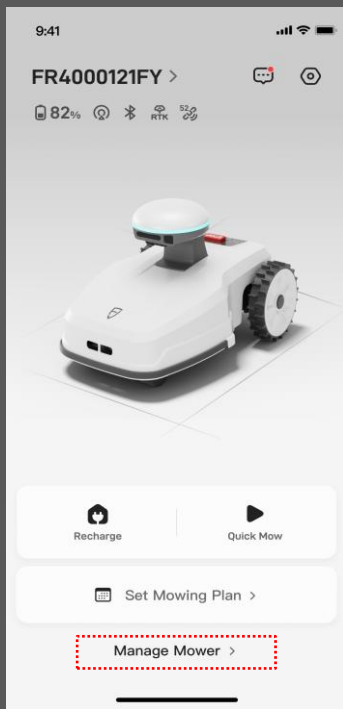


Wait for the mower to sync data to the cloud platform.

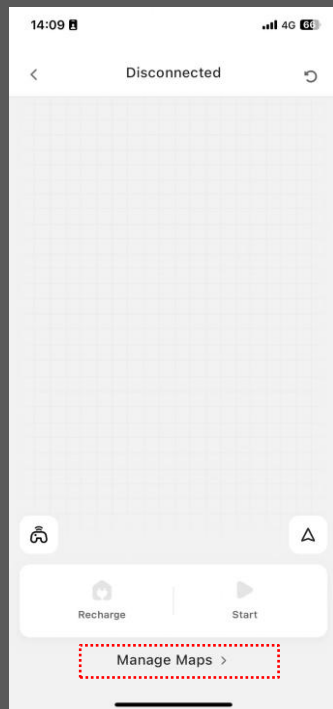


Section 6.3 -- Map Your Yard: Manage Your Maps

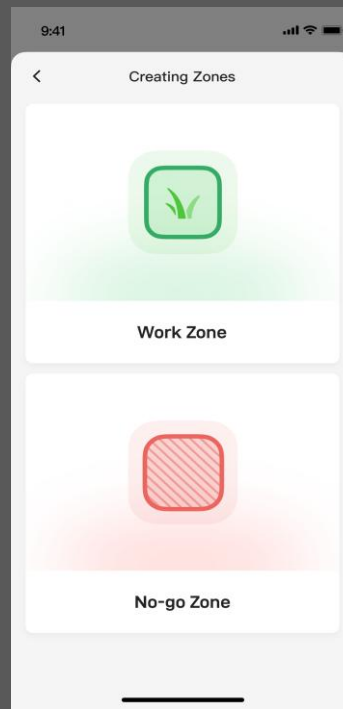
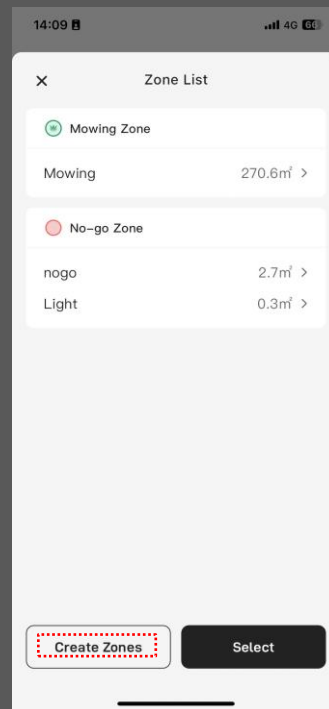
① Tap [View in Maps] from the home page.



② Tap [Manage Maps] to enter zone list page.



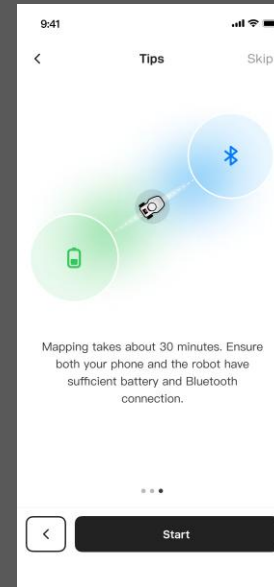
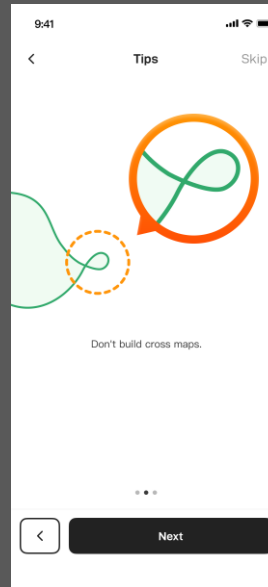
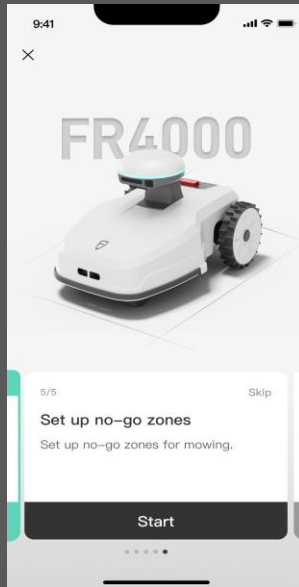
③ You can select [Create Zones] to continue building up a new workzone/no-go zone. **There's no quantity limit for creating the mowing zones or no-go zones.**



Section 6.4 -- Map Your Yard: Create Your No-go zone

① After creating a workzone. You can create a no-go zone for the mower to stay out, such as pools, flowers, toys, and rocks.

② Please read the instructions to ensure a smooth no-go zone creation process.

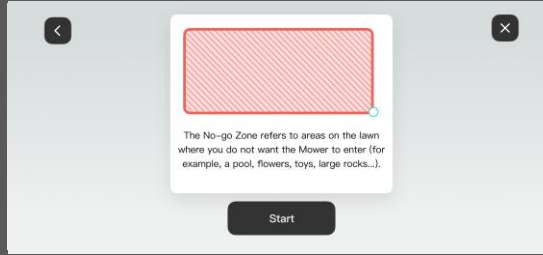


Section 6.4 -- Map Your Yard: Create Your No-go zone

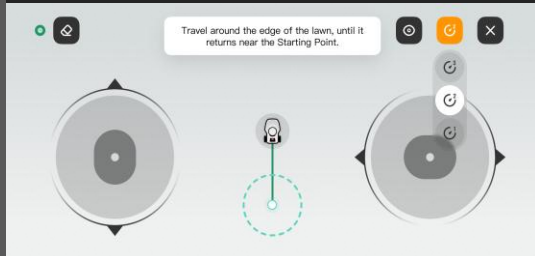
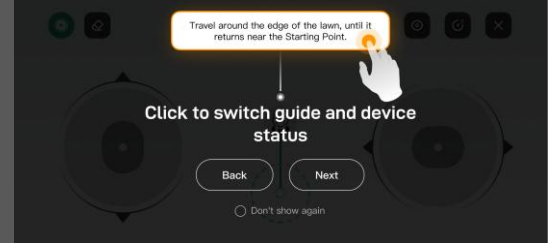
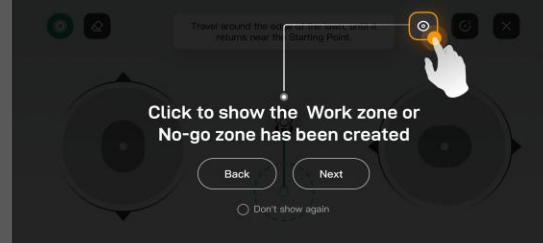
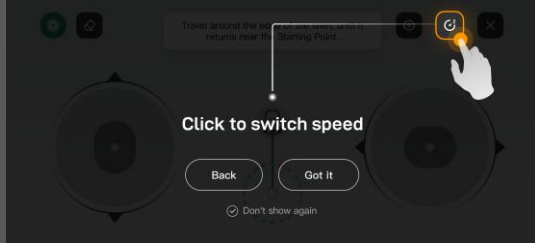
Drive the mower along the edges of the no-mowing area and click [Next].



Build up the virtual boundary to create your no-go zone.



You can use the eraser to modify your no-go zone boundary by long press.



Tap to hide or view other zones created on the map. Also, you can adjust the driving speed from 3 different levels according to your needs.

Low: 0.3m/s
Medium: 0.4m/s
High: 0.5m/s

Tap to view the mower status, including:

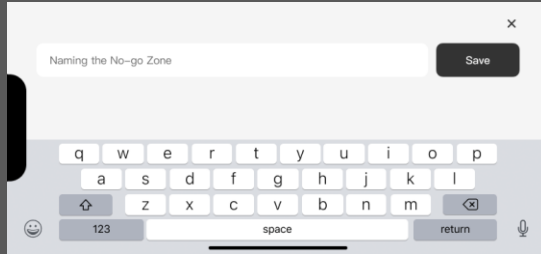
- Battery status
- Wi-Fi or cellular network status
- Bluetooth connection status
- RTK base station connection status
- RTK positioning status
- Number of connected satellites

Section 6.4 -- Map Your Yard: Create Your No-go zone

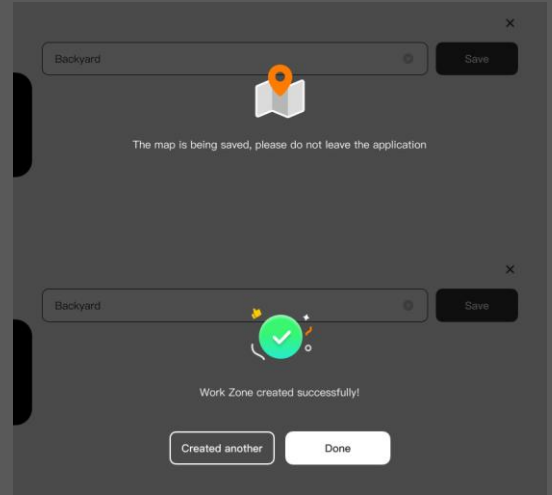
Once the mower returns near the starting point after circling the lawn, click "Finish" and name the no-go zone.



Name your no-go zone and tap [Save].



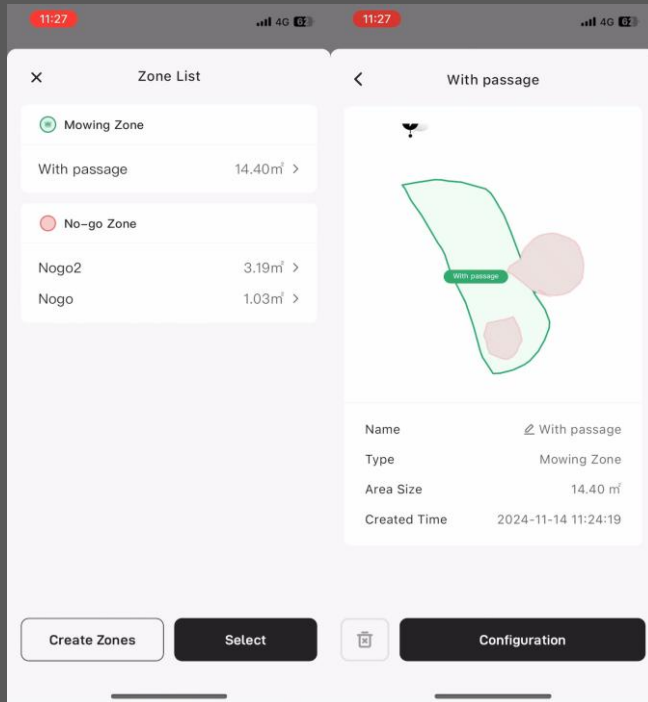
Wait for the mower to sync data to the cloud platform.



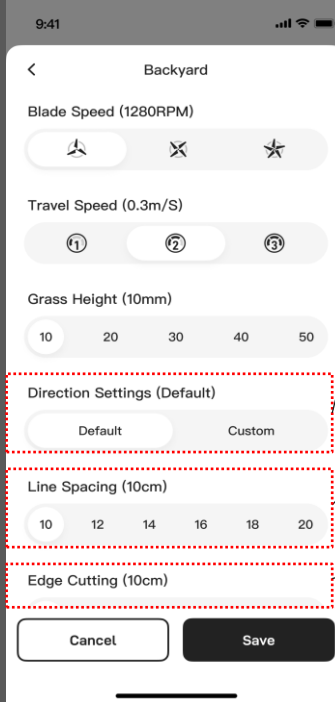
Functions 7.1 -- Mowing Configuration Settings

① Select a mowing zone from your zone list.

② Click [Configuration].



③ Now you can start setting the configuration according to your needs.

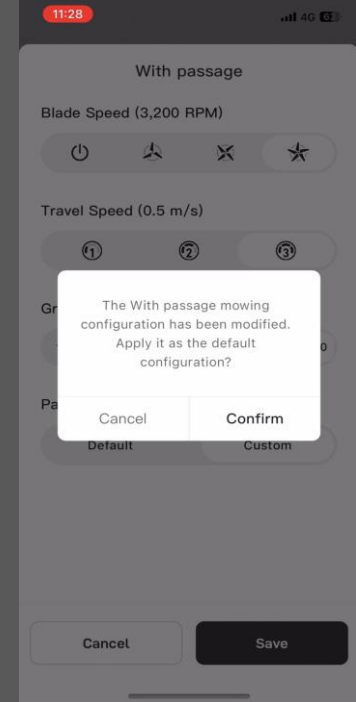


Slide to change the direction of the path planning.

Slide to change the path spacing (path overlap). Decreasing spacing increases overlap, leading to longer high-quality cuts.

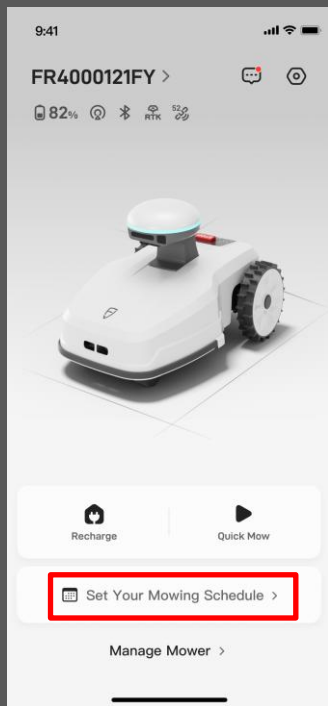
Slide to change the edge distance of the path planning. Avoid cutting near hard objects to protect the blade.

④ Click "Save" and confirm the changes as default settings

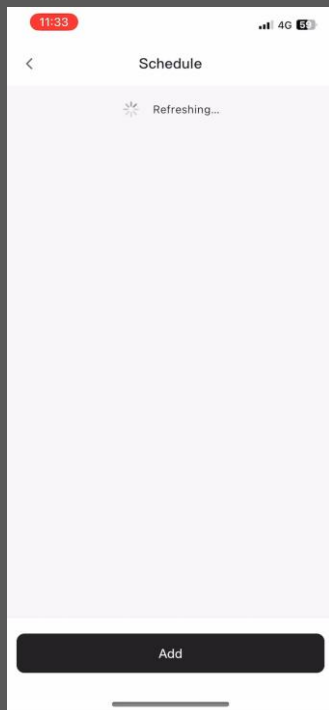


Functions 7.2 -- Mowing Schedule Settings

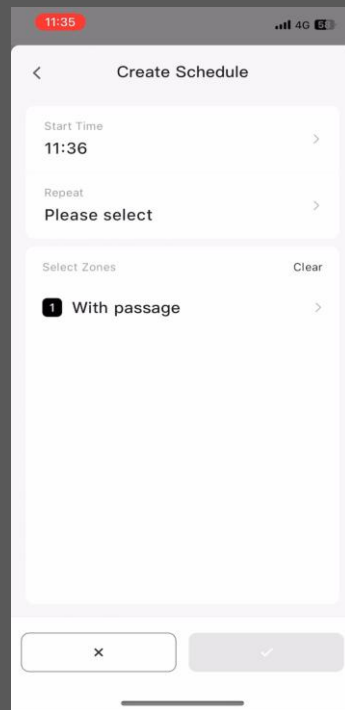
① Tap "Set Your Mowing Schedule" on the home page.



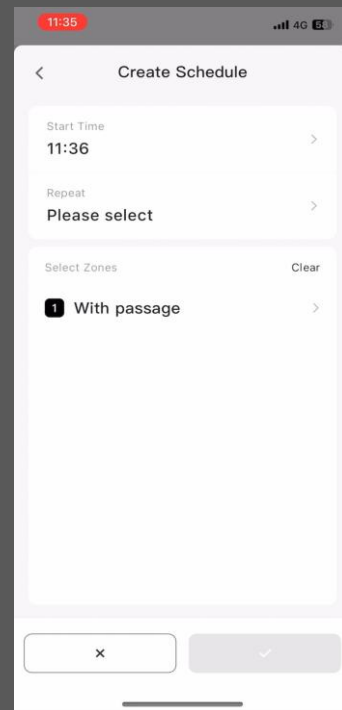
② Click "Add" to create a new mowing schedule.



③ Click "Start Time" to select one.

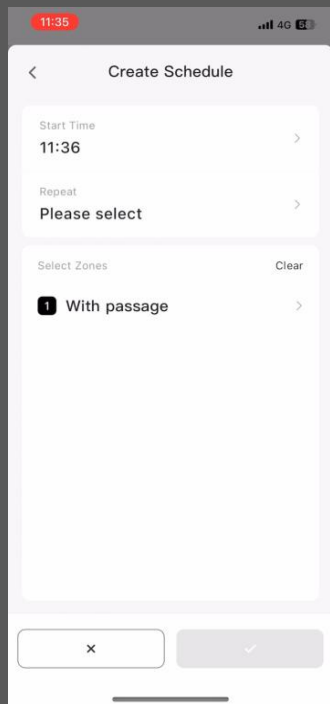


④ Click "Repeat" and select "Weekdays".

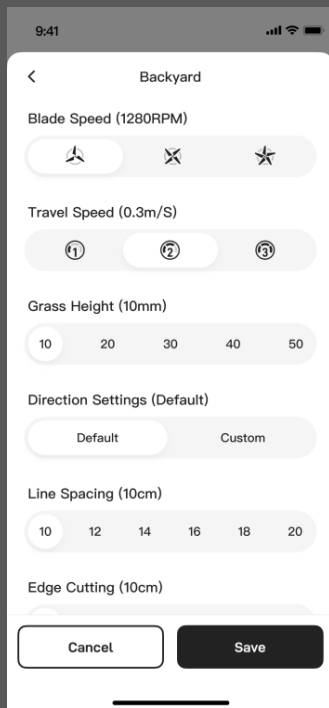


Functions 7.2 -- Mowing Schedule Settings

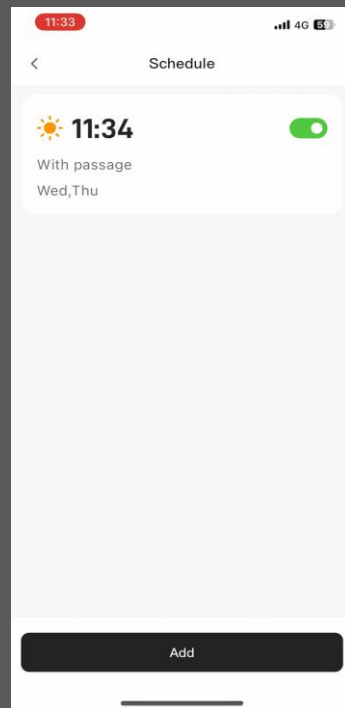
⑤ Click the number prior to zones for your preferred mowing sequence



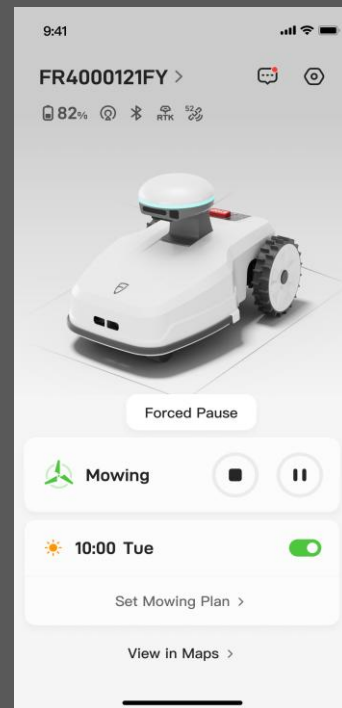
⑥ Click on the specific zone to change the configuration for this area in present task.



⑦ Click the tick icon [v] to save the mowing schedule.

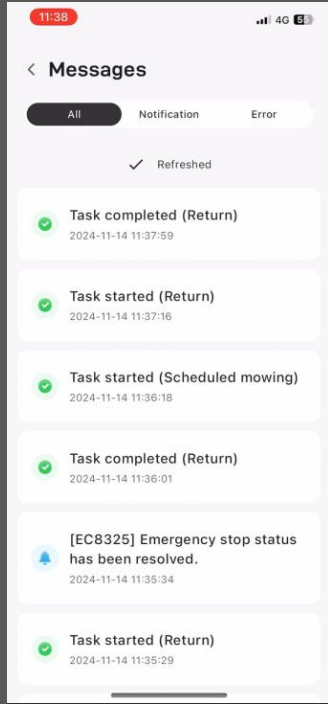


⑧ Start auto-mowing at the scheduled time based with the preset configuration.



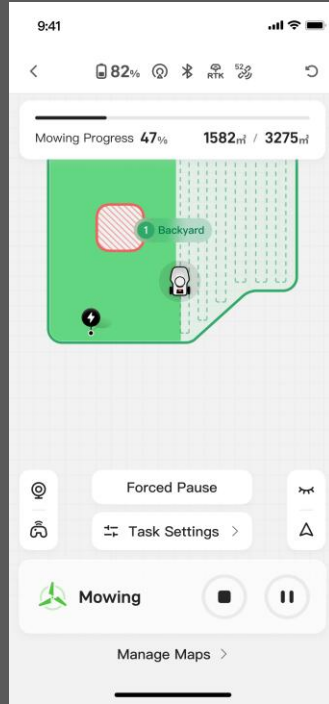
Functions 7.2 -- Mowing Schedule Settings

You will receive a notification when the mowing task starts as scheduled.

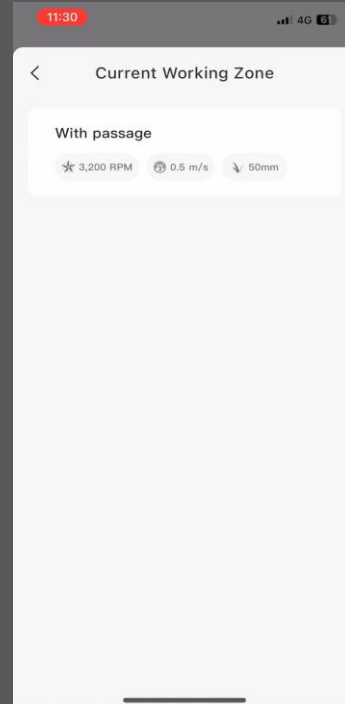


Click "View in Maps" to see:

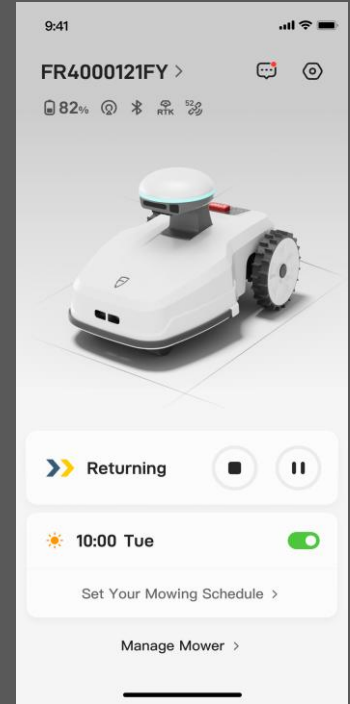
- The path planning of the current mowing zone.
- The dynamics and real-time location of the mower.
- The percentage progress of this mowing task.



Click "Task Settings" to adjust mowing settings like blade speed, graass height, and travel speed anytime during mowing.

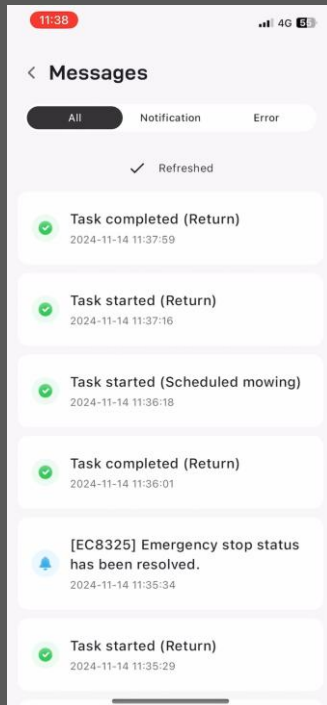


The mower will return to the charging station automatically upon task completed.

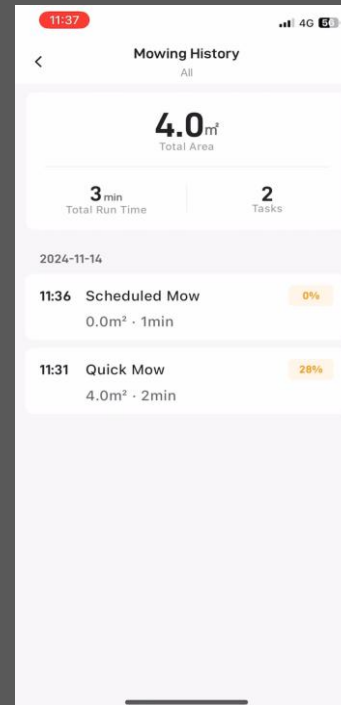


Functions 7.2 -- Mowing Schedule Settings

You will receive a notification after the task is completed successfully.

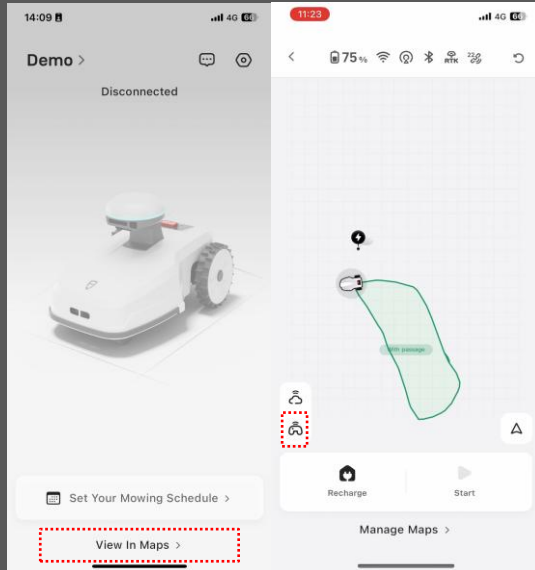


You can also track more details for the mowing task from [Mowing History].

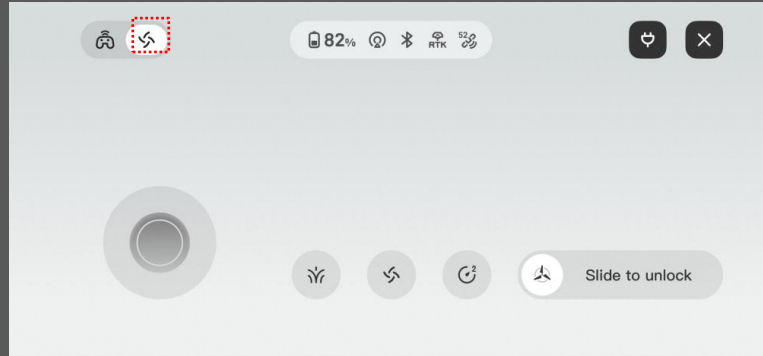


Section 7.3 -- Functions: Manual Mode

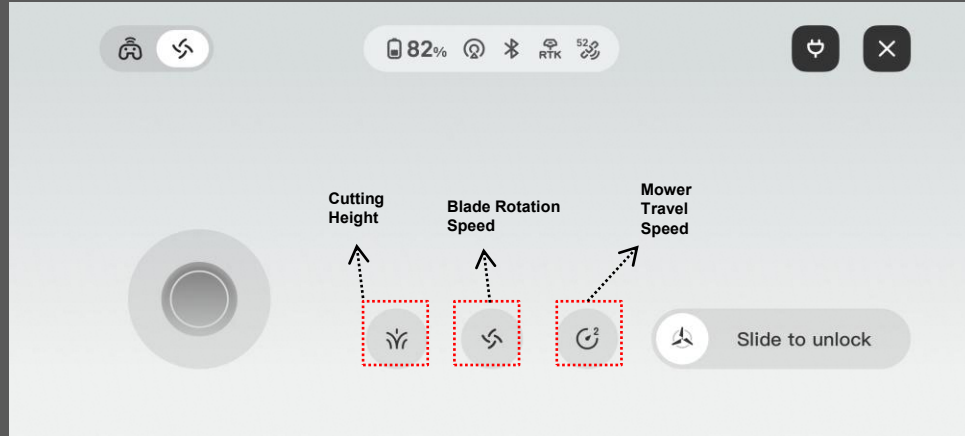
For an overgrown lawn or direct mower control, start "Manual Mode" via Bluetooth. Tap "View in Maps" on the home page. Then tap the joystick icon in the lower left corner to enter the manual mode.



(1) Tap the blade icon in the upper left corner to switch to the single joystick interface.



(2) You can set the configurations by tapping these marked icons according to your mowing requirements.



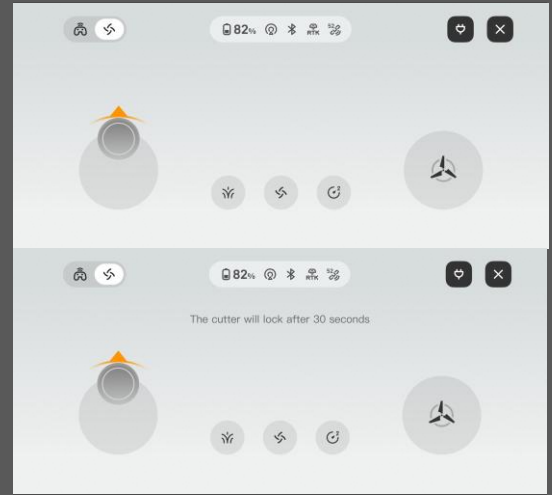
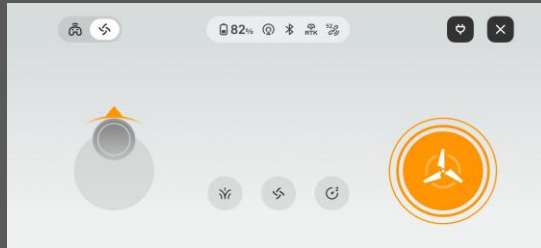
Section 7.3 -- Functions: Manual Mode

(3) Slide to unlock and keep pressing the cutting blade icon on the right. Keep pressing until you hear three beeps(You will see a countdown on the APP interface), the mower blades then start spinning.

Use the left joystick to steer the mower in any direction you intend.

Release the right blade icon to stop the mowing blades for safety.

The blades will get locked again after 30s of inactivity.



Thank You

Please don't forget to contact us if you have any other issue with the product usage. Our FAE engineer team will offer each of our customers the best service!

Contact FJD by any of the following methods below

Mailbox:

service@fjdynamics.com

Official website:

<https://www.fjdynamics.com>

