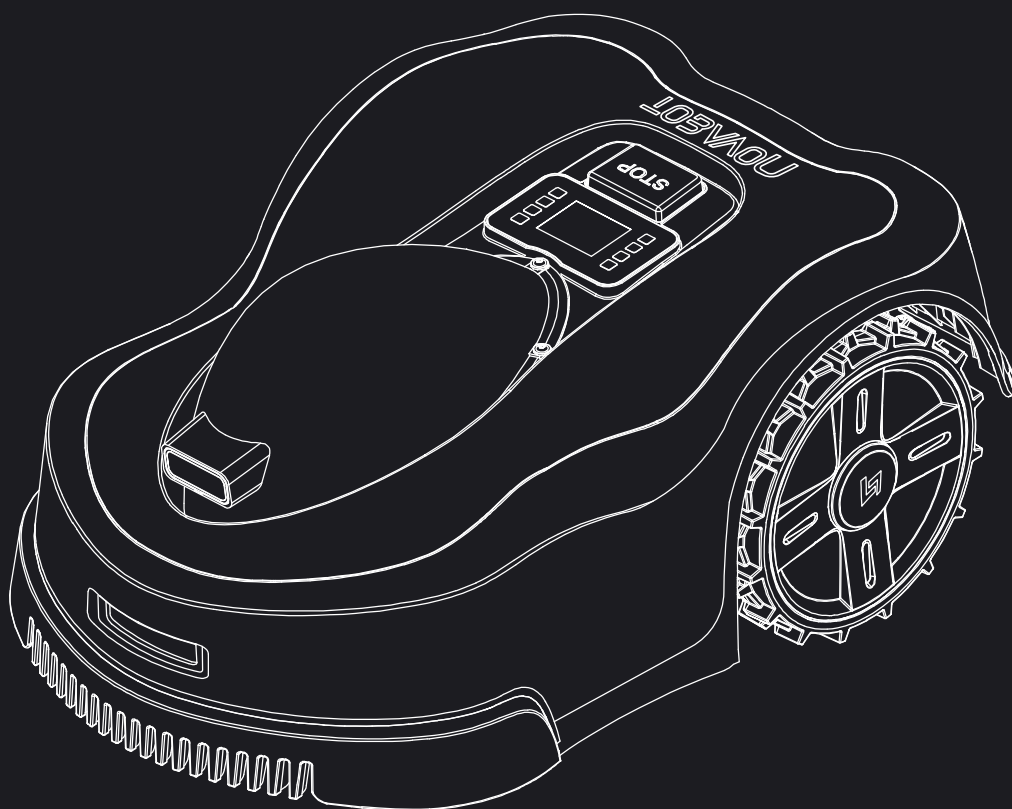# NOVABOT™

User Manual

*Please read the user manual carefully before using our product.

N1000/N2000

CONTENTS

1 INTRODUCTION

In the following section, we aim to explain how NOVABOT operates. Equipped with AI and multiple sensors, it can autonomously handle complex scenarios.

1 Multi-map Mowing

NOVABOT can mow multiple(currently up to three) lawns in succession, intelligently planning the mowing path for efficient completion.

2 Intelligent Mowing

NOVABOT is capable of intelligent mowing, which involves using panoramic vision, inertial navigation, RTK GPS, and visual perception technology to achieve intelligent mapping, charging, mowing, and obstacle avoidance functions. Additionally, NOVABOT can adjust the mowing height to meet the personalized needs of our users.

3 Auto Recharging

If the battery is running low, NOVABOT will automatically pause the task and return to the charging station. Once fully charged, NOVABOT will either resume its unfinished mowing task or stay at the charging station, depending on its mowing schedule.

4 Obstacle Avoidance

NOVABOT's AI cameras detect obstacles, preventing interference. Obstacle areas can be set in the NOVABOT App to avoid disruption of normal work.

5 Schedule

You can set mowing and security schedules in the NOVABOT APP, allowing NOVABOT to automatically mow the lawn or activate watchdog mode based on the specified schedules.

6 PIN Code Protection

The PIN code is used to prevent theft and unauthorized use. If the machine malfunctions or the STOP button is pressed, NOVABOT will lock and require the PIN code to unlock.

7 Watchdog Mode

NOVABOT will initiate security patrols near the entrance as required.

2 SAFETY INSTRUCTIONS

⚠ WARNING

Please read all safety warnings and instructions carefully before performing any operation. These documents should be saved for future reference. Only use this product in accordance with the instructions provided in this manual.

Who should not use this product

1. Do not let children, individuals with impairments, inexperienced people, or those unfamiliar with instructions use the machine. Local regulations may impose age restrictions on operators.

2. Do not allow children to be near or play with the machine while it is operating.

Where this product cannot be used

1. Do not leave any objects in the work area that could cause damage to the product or injury to people.

2. Avoid damaging cords and contact with live parts by keeping supply and extension cords away from the mowing area.

3. Warning signs should be placed around the working area of the machine when it is used in public areas. They shall show the substance of the following text: "Warning! Automatic Lawnmower! Keep away from the machine! Supervise children!".

When this product cannot be used

1. Avoid using the machine and its peripherals in inclement weather conditions, particularly when there is a risk of lightning.

2. Timely check the working area to remove any foreign objects that may damage the product or be damaged by the product.

3. Timely inspect the product to ensure it is in good condition. Never operate a machine with a defective guard, a worn blade, a damaged cord, or any missing parts. Do not connect a damaged cord to the power supply or touch a damaged cord before it is disconnected from the power supply.

4. Only use peripherals that come with the original product, such as the battery and charger. Using unofficial peripherals may result in unexpected outcomes.

## What should be done with this product

1. Recommend connecting the peripherals only to a supply circuit protected by a residual current device (RCD) with a tripping current of not more than 30 mA.

2. Turn off the product and remove the plug from the mains before the following operations.

   A.Lifting up the product or carrying it.

   B.Any assembly or disassembly of the machine that is allowed in this manual, such as changing blades and batteries.

   C.Clearing a blockage on the machine.

   D.Checking, cleaning or working on the machine or charging station.

   E.If the machine starts to vibrate abnormally, check for damage before restarting.

3. If abnormal vibrations occur, press the STOP button immediately and carefully inspect the product for any obstructions. Clear it and restart the product. Contact the service center if the vibration persists.

4. Only touch blades when it's totally stopped and wear anti-cut gloves before changing blades.

5. In the event of leakage of electrolyte from the battery flush with water and seek medical help if contact with skin or eye.

What cannot be done to this product

1. Keep away from the product when it's working. Please make sure to keep your hands and feet away from the rotating blades.

2. Always be sure of footing on slopes, walk, and never run while operating the machine or its peripherals.

3. Do not place anything on top of the product or its charging station.

4. Avoid making any modifications to the product that could result in unforeseen outcomes.

5. Do not disassemble any component that is not specified in the manual.

6. Keep the battery in a secure location, away from any hazardous materials that could potentially cause issues, such as fire or water. Do not put the battery in a short-circuit condition.

7. Only use the detachable power supply unit provided with this appliance for recharging the battery.
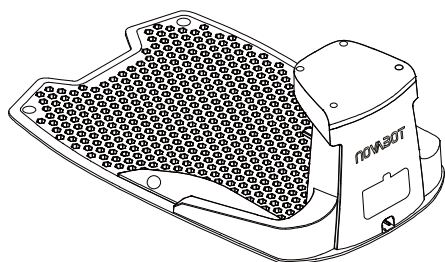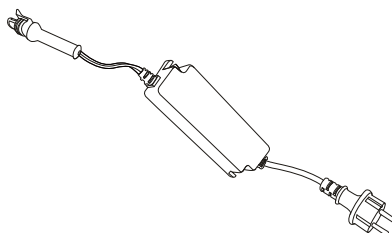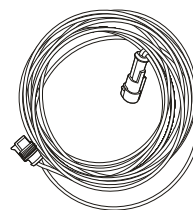
3 MY NOVABOT

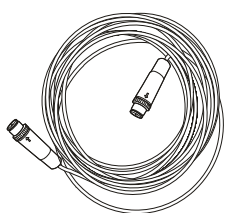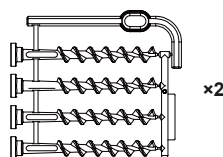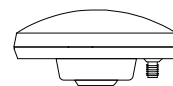## 3.1 Unboxing
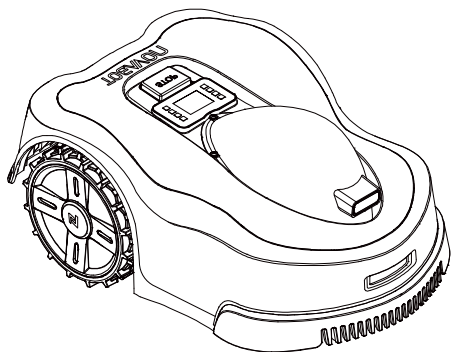
NOVABOT
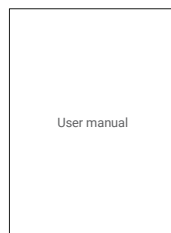
User manual

Letter of Thanks

Charging station

Power supply

Extension cord

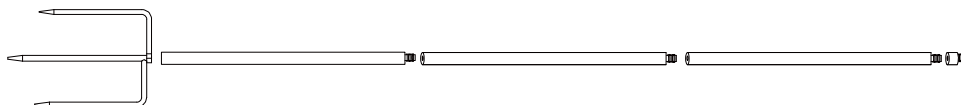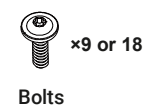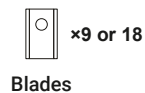TNC Extension cord

Screw and wrench set ×2

GNSS antenna

Bracket set

NovaCanopy

In order to better protect your NOVABOT, we recommend that you purchase a NovaCanopy. Please consult customer service or purchase on the official website.

Velcro ×3

Blades ×9 or 18

Extension cord pegs ×8

Bolts ×9 or 18

3.2 Top View

Control Panel

Stop button

Top camera

Headlight

Front camera

Charging port

3.3 Control&Panel

Time

Wi-Fi

Bluetooth

Battery

15:32

Navigate
Up/Down/Left/Right

0 0 0 0

Power: On/Off

Setting: Main menu

Back: Return one step

Back

Enter: Confirm selection

Enter

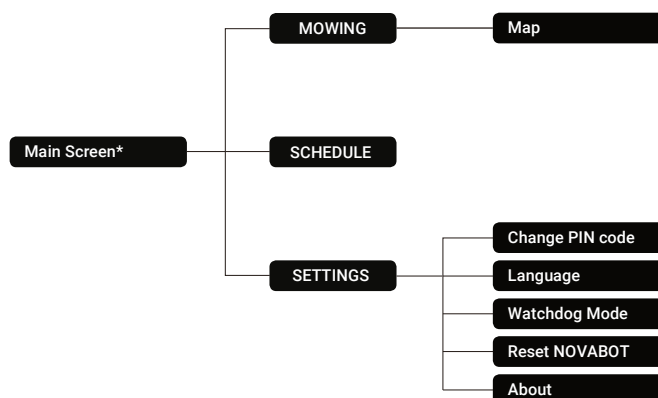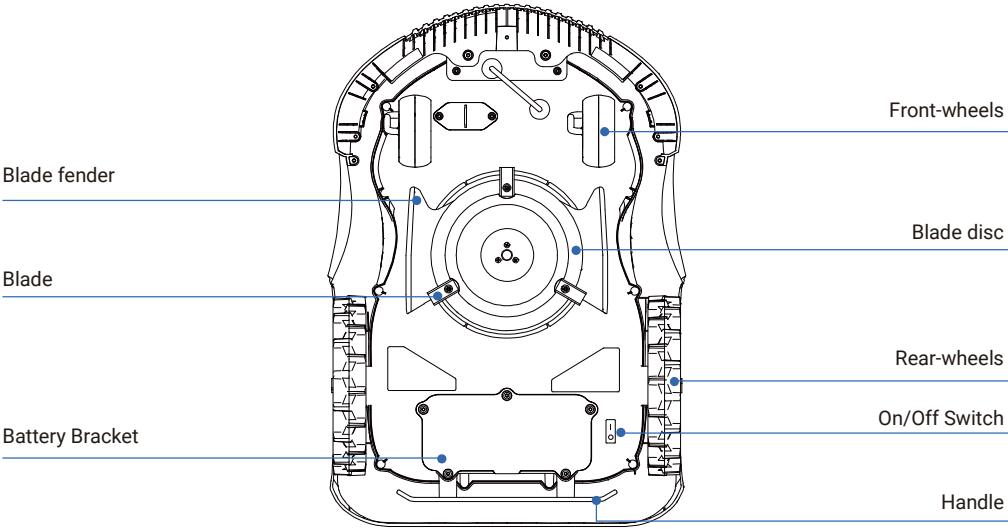PIN code

General Setting

1. Press → or ← select"Mowing", or "Schedule".Then
   press "Enter" to enter.
2. Press "Setting" to enter the functions selection.
3. Select the item you need by pressing ↑ or ↓ .
   Then press "Enter" to confirm the selection.
4. Press "Back" to return to the previous step.
5. Keep pressing the 'Back' button for 3 seconds and
   NOVABOT will automatically return to the charging
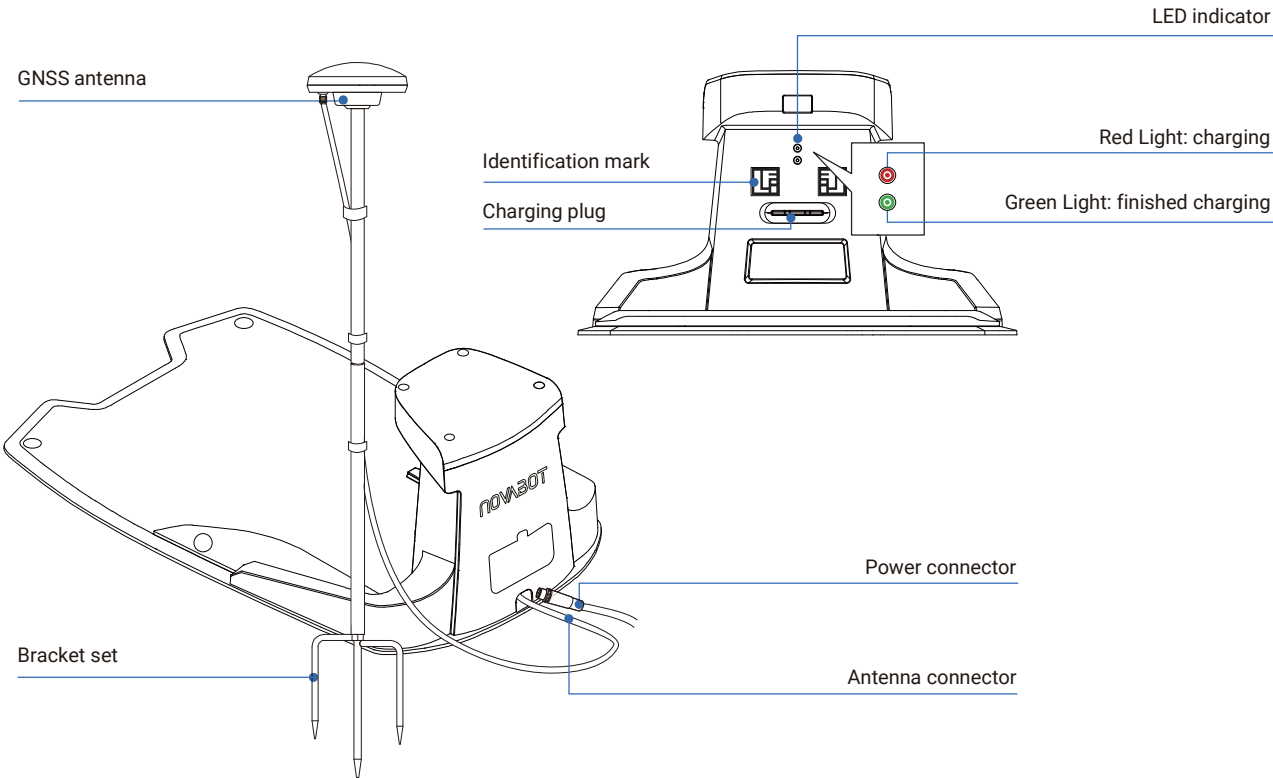   station.

The Frame of Functions on Control Panel

MOWING — Map

Main Screen* — SCHEDULE

SETTINGS — Change PIN code
Language
Watchdog Mode
Reset NOVABOT
About

3.4 Bottom View

Blade fender

Blade

Battery Bracket

Front-wheels

Blade disc

Rear-wheels

On/Off Switch

Handle

3.5 Charging Station & Receiver Holder

GNSS antenna

Identification mark

Charging plug

Bracket set

LED indicator

Red Light: charging

Green Light: finished charging

Power connector

Antenna connector

3.6 Rear View - Symbols

WARNING: Read the user manual before operating the product.

WARNING: Maintain a safe distance from the product while operating it. Keep your hands and feet away from the working blades.

WARNING: Engage the disabling device before performing maintenance or lifting the product.

WARNING: Do not ride on the product, and avoid placing your hands or feet near or under it.
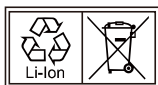
Read operating instructions and safety notices.

Preventing product from being incinerated or dumped in landfills.
Ensure proper recycling in accordance with local legal requirements.

Power supply unit.

Product ClassIII appliance.

Lithium-Ion Battery. This product has been marked with the "collected separately" symbol for batteries and battery packs. It will then be recycled or dismantled to reduce environmental impact. Batteries can be harmful to the environment and human health because they contain harmful substances.

4 SET UP YOUR NOVABOT

⚠ ATTENTION

- Plan the installation area and mowing area in advance, including the location of the charging station, obstacle areas, distance from home Wi-Fi, GPS signal distance, etc.
- You can also download the NOVABOT APP to watch the video tutorial.
- After the installation is complete, the APP will automatically detect the status of the installation signal.

4.1 Download NOVABOT APP

- Download the NOVABOT APP from Android or Apple app stores.
- After installing the NOVABOT APP, please complete the registration and login.

Tip

For security purposes, the password you create during registration must contain at least one uppercase letter, one lowercase letter, one symbol, and one number.
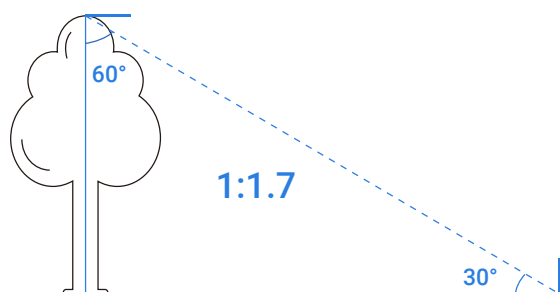
4.2 Plan Your Installation Location

A. GNSS Base:

1. Ensure a 120° obstruction-free zone above the GNSS antenna. Avoid densely treed and obstructed areas for optimal signal reception.
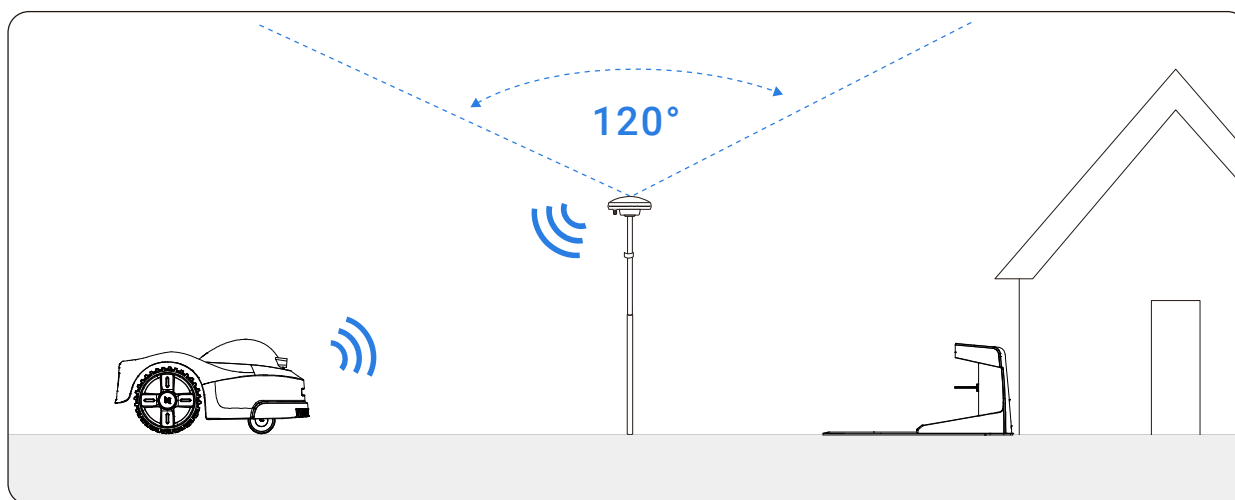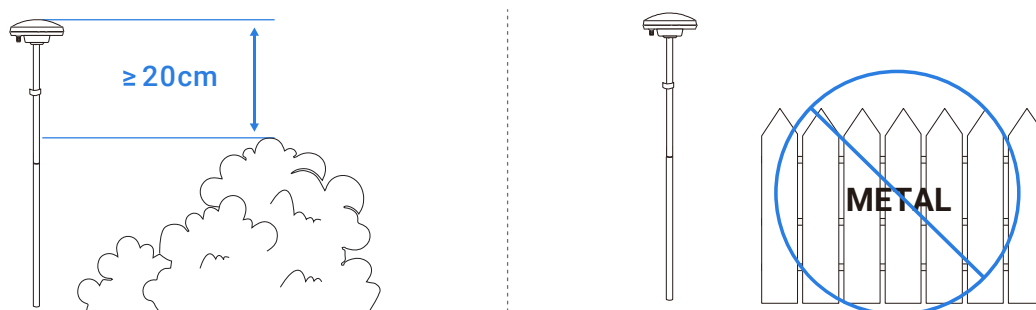

2. Keep the GNSS antenna at a certain distance, as recommended in the chart, from obstacles based on their height.

| Obstacle Height	Recommended Installation Distance
1 m	1.7 m
2 m	3.5 m
3 m	5 m
4 m	7 m
5 m	8.7 m

3. Ensure that the GNSS antenna is at least 20 cm higher than nearby bushes or walls.

4. Avoid metal objects nearby (metal fences, metal gates, etc.)


≥ 20cm

METAL

B. Charging station:

1. Please install the charging station on flat ground to ensure proper charging, avoiding slopes, potholes, and metal surfaces.

2. Make sure the charging station has access to your home Wi-Fi for a better signal connection.

3. Make sure there are no obstacles or sprinklers within a 2-meter radius of the charging station. If there is any long grass(≥11 cm) around, please cut it before installation.

4. For watchdog mode, it is recommended to install the charging station within a 3.5-meter radius. You can disregard this information if you do not require security protection functions.

5. When installing the charging station, ensure that it faces the grass and is positioned perpendicular to the border of the lawn.
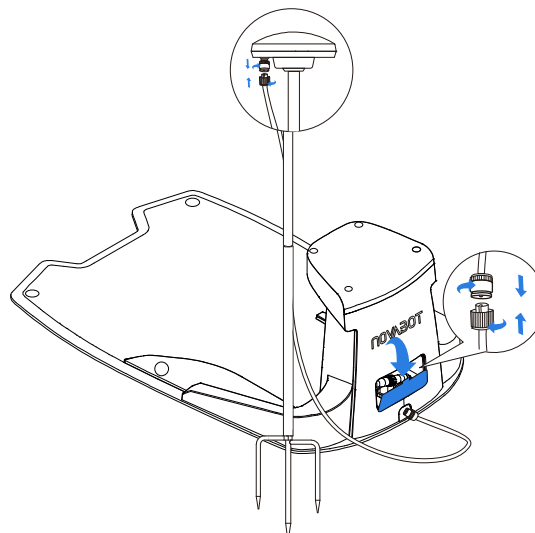

Near Wi-Fi signal

≤2m

≤3.5m
Watchdog Mode
(automatic security patrol area)
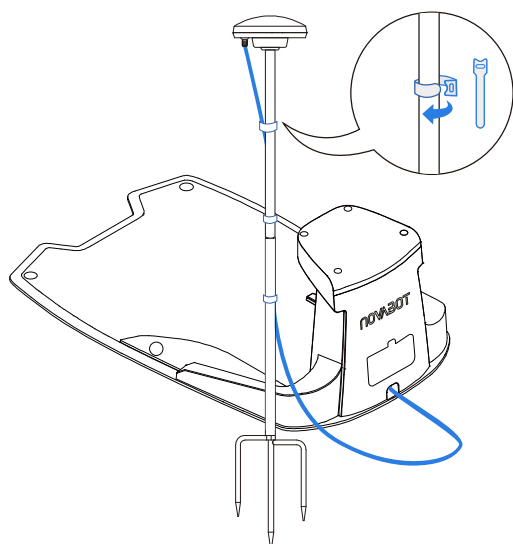
≤11cm
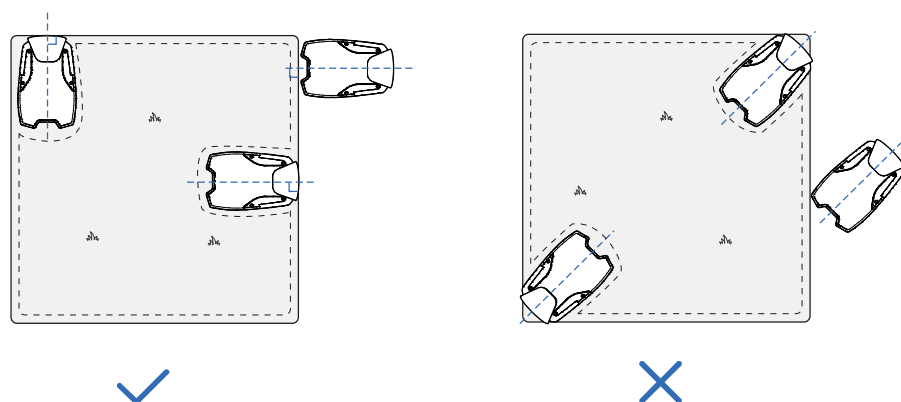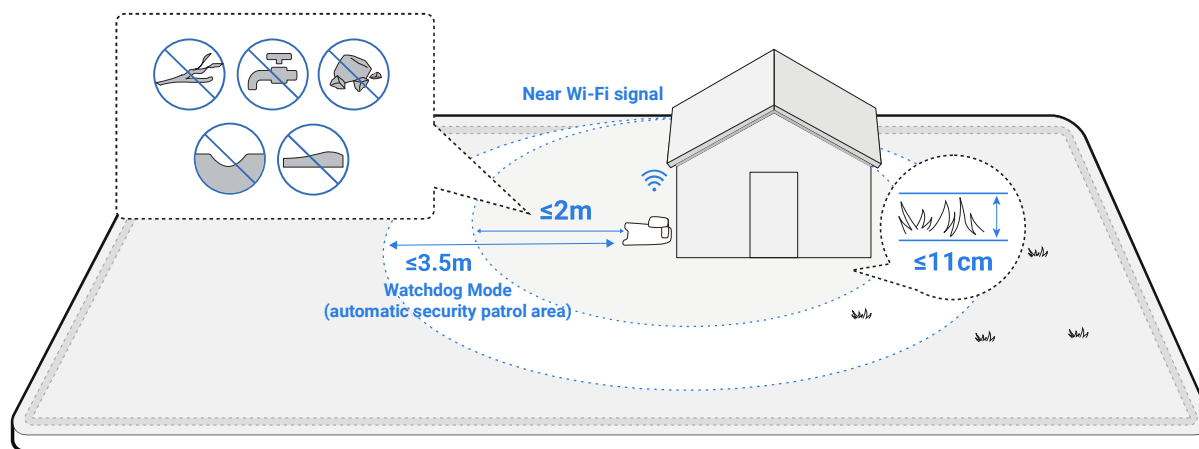
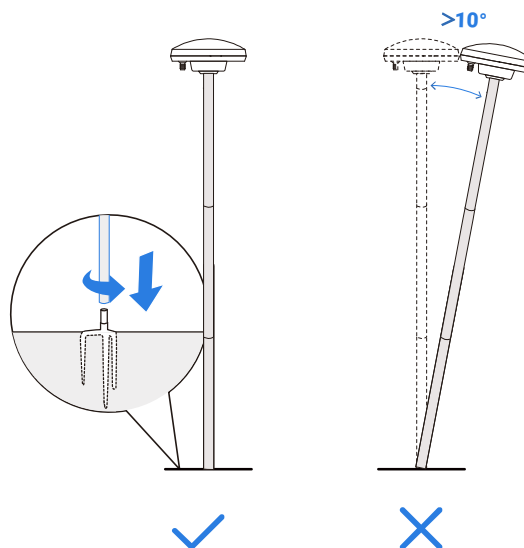## 4.3 Assembly

A. GNSS:

1 Assemble the bracket set.
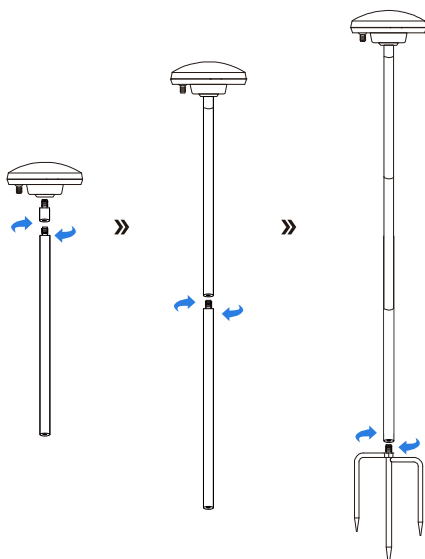
2 Open the charging station's case. Install the GNSS antenna and TNC extension cord as needed.

**3** Secure the extension cord to the bracket with velcro.

4 Insert the antenna vertically into the ground, avoiding slopes, pits, and metallic surfaces. Ensure the angle with the ground is less than 10° during installation.
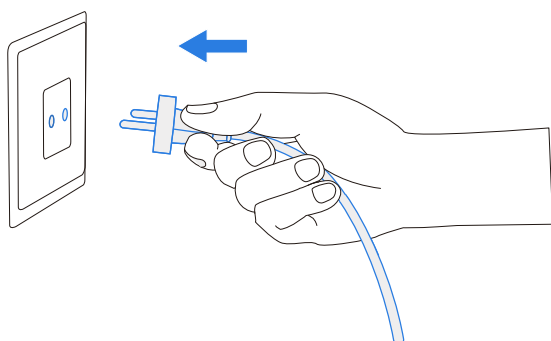
>10°

B. Charging station:

1 Align the charging station wire notch (a) with the groove (b) of power supply, ensure they are securely fastened.

2 It is recommended to install the power supply on the wall with a minimum distance of 30 cm from the ground to prevent overheating.
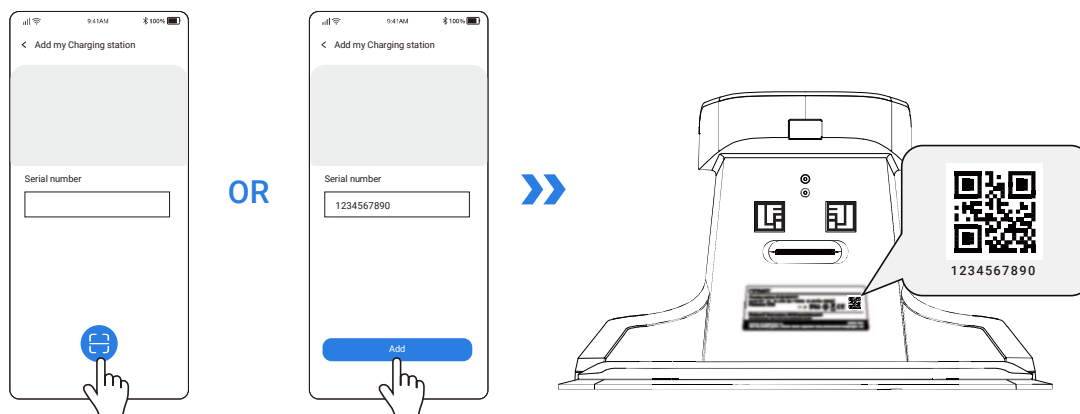
A　　B

30 cm
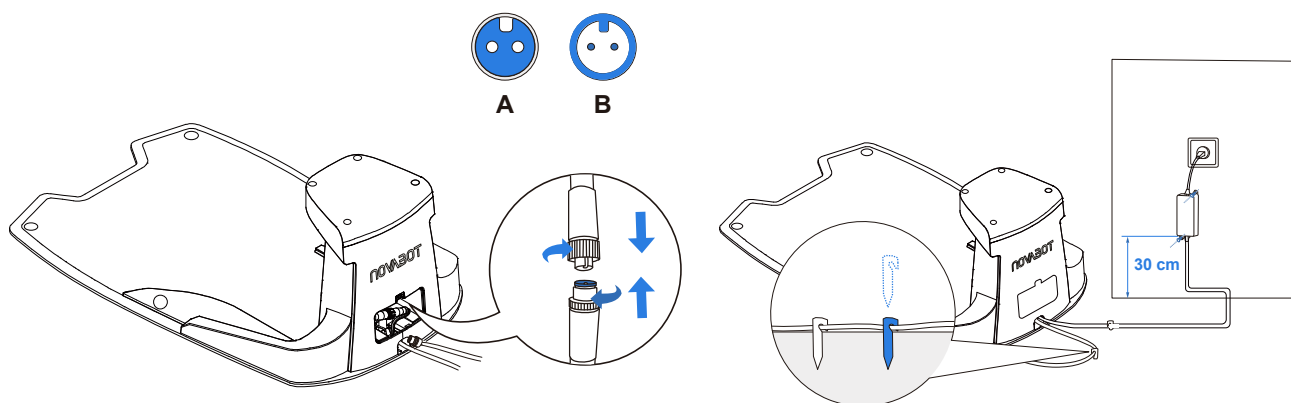
3 Plug the power supply into the wall socket.

Tip

To enhance the protection of your charging station and NOVABOT, you can purchase NovaCanopy from the official website or the App Store.
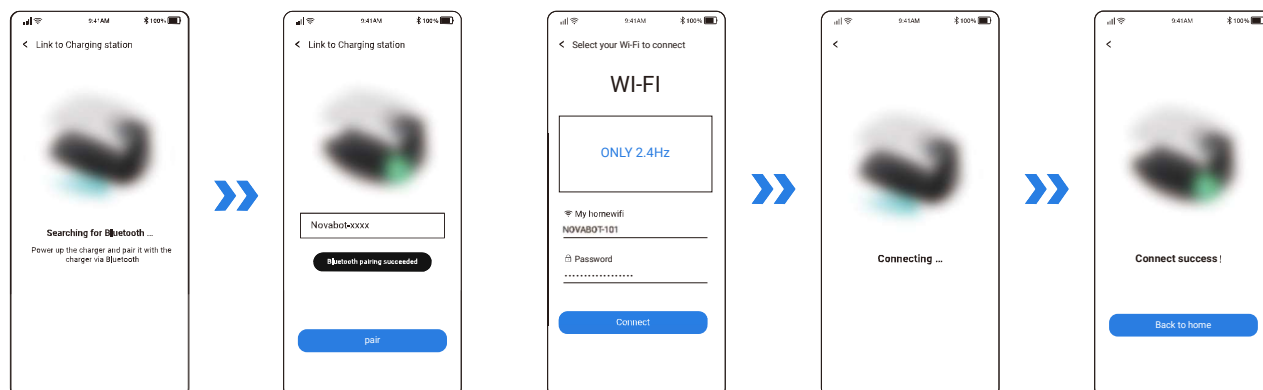
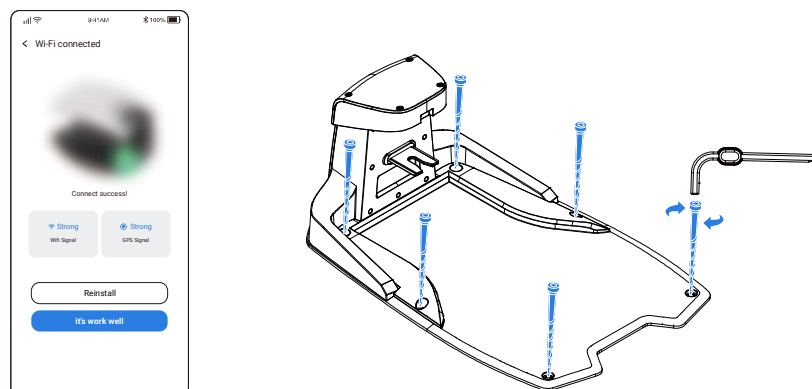## 4.4 Connect

A. Charging station:

1. Scan or enter the charging station's serial number and add the device to the APP.

2. Activate your phone's Bluetooth and pair it with the charging station.

3. The NOVABOT Wi-Fi signal operates at 2.4GHz. If it does not match your home signal, please contact after-sales customer service.Learn how to connect to 2.4G home Wi-Fi, please scan the QR code of the video guide on converting 5G network to 2.4G, or visit www.novabot.com/Support.

4. Enter your home Wi-Fi account and password.

5. The APP displays the charging station's current Wi-Fi and GPS status. (If there is a weak signal, consider relocating the charging station and re-binding it.)

6. Fix the charging station with the screws and wrench set in the box.


Tips

- After connecting, if the Wi-Fi or GPS signal is weak, you need to reconsider the location of the charging station.
- After the charging station is connected, if the signal and Wi-Fi are good, it is recommended not to move the GNSS and charging station.
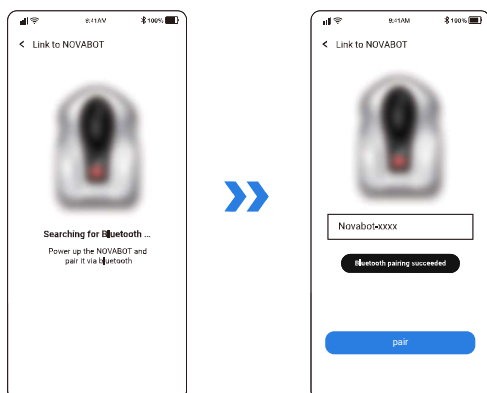
B. NOVABOT:

1. Use the button at the bottom of the NOVABOT to turn it on. Scan or enter its Serial Number and add the device to the APP. Upon startup, position NOVABOT on a level surface and refrain from any movement in the first minute.
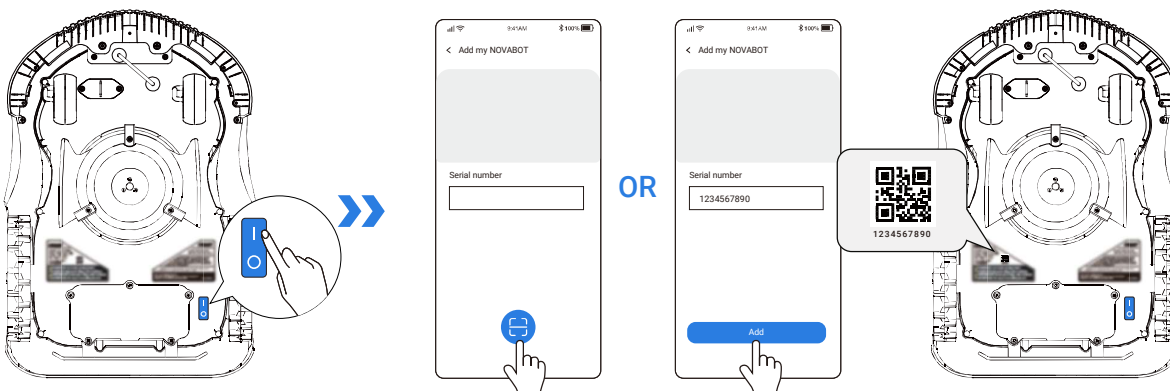
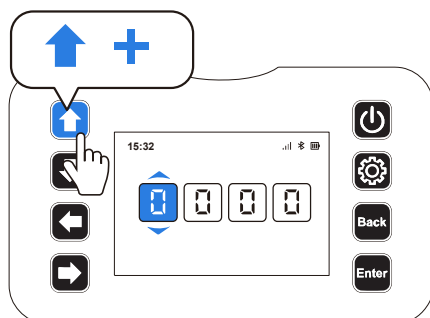2. Plug NOVABOT into the charging station for charging.
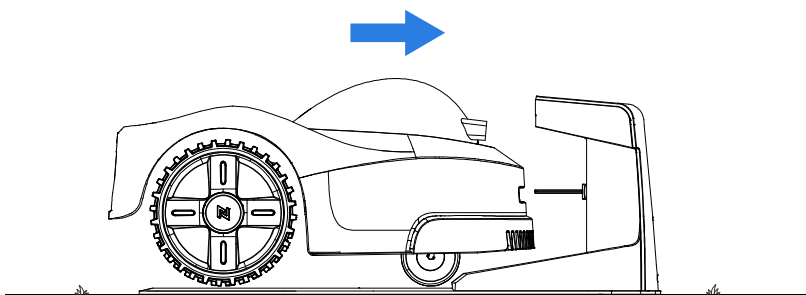
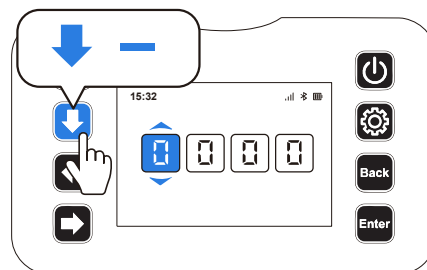3. Turn on your mobile phone's Bluetooth and pair it with NOVABOT.
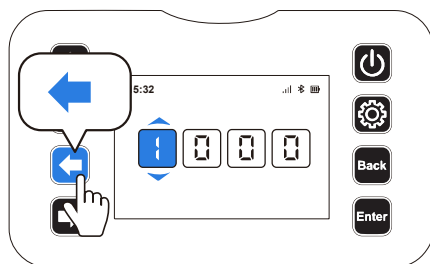
4. Set up a PIN code on the panel.

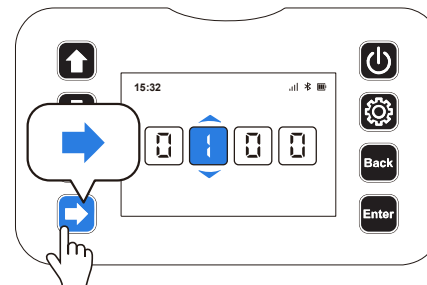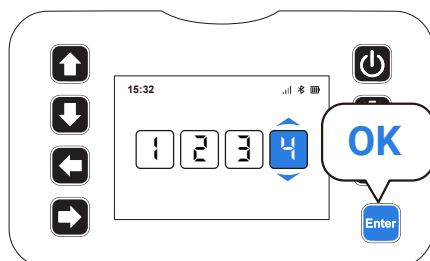**Tip**

• To enhance your NOVABOT's security, it is not recommended to use 4 same numbers as the PIN code.

5 MAPPING AND MOWING
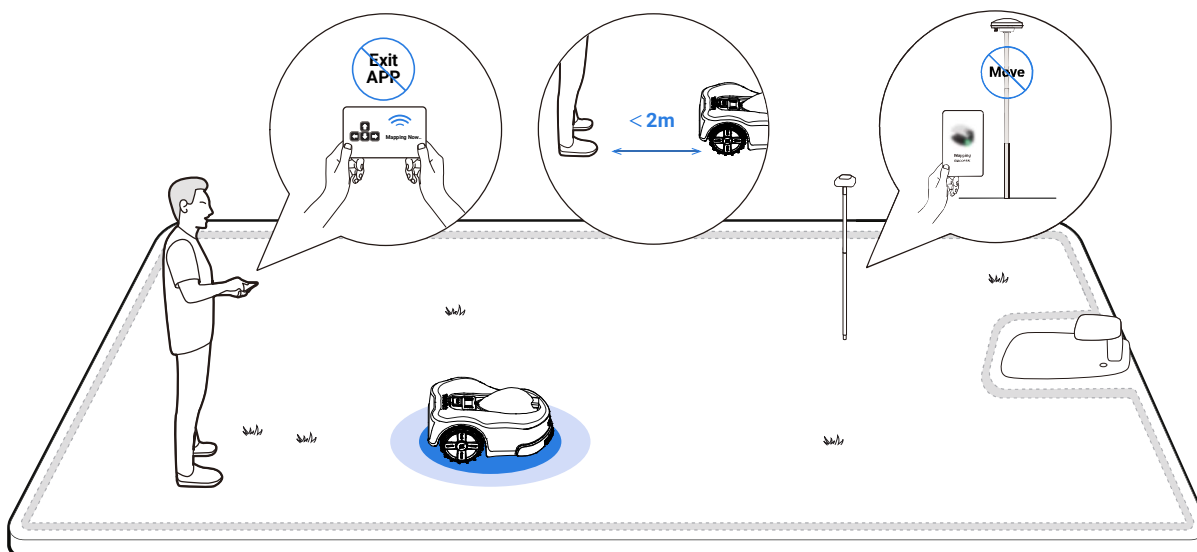
5.1 Mapping

⚠ ATTENTION

- Before mapping, watch the relevant video tutorials carefully.
- To ensure successful mapping, please ensure adequate Wi-Fi and GPS signals. Also, make sure the battery power is no less than 50% for both your mobile phone and NOVABOT itself.
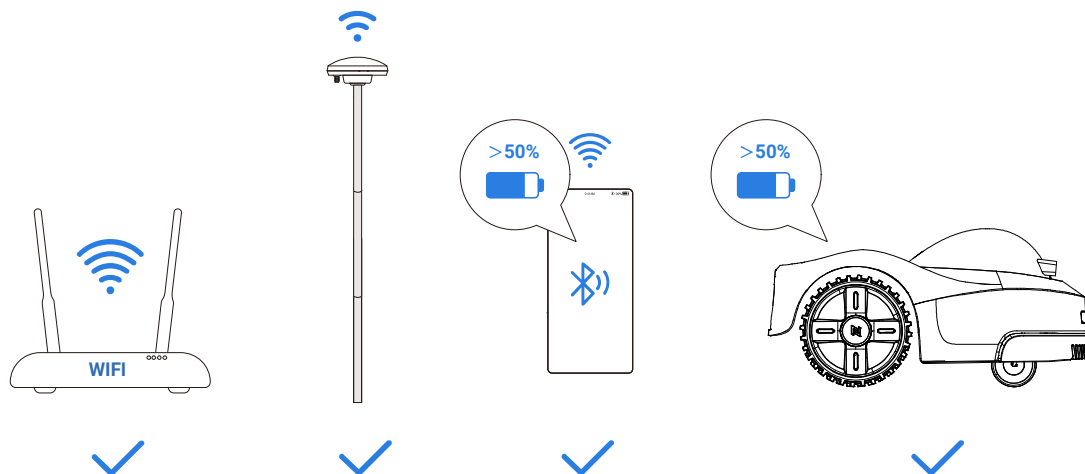
- Do not exit the current interface during mapping to prevent failure.
- Maintain a distance of 2 m from NOVABOT while mapping.
- If you encounter an unresolved mapping situation, you can check the Troubleshooting section or consult after-sales customer service.

⚠ WARNING

- After successful mapping, do not move the charging station and GNSS. If moved, remapping is required. Please proceed with caution.
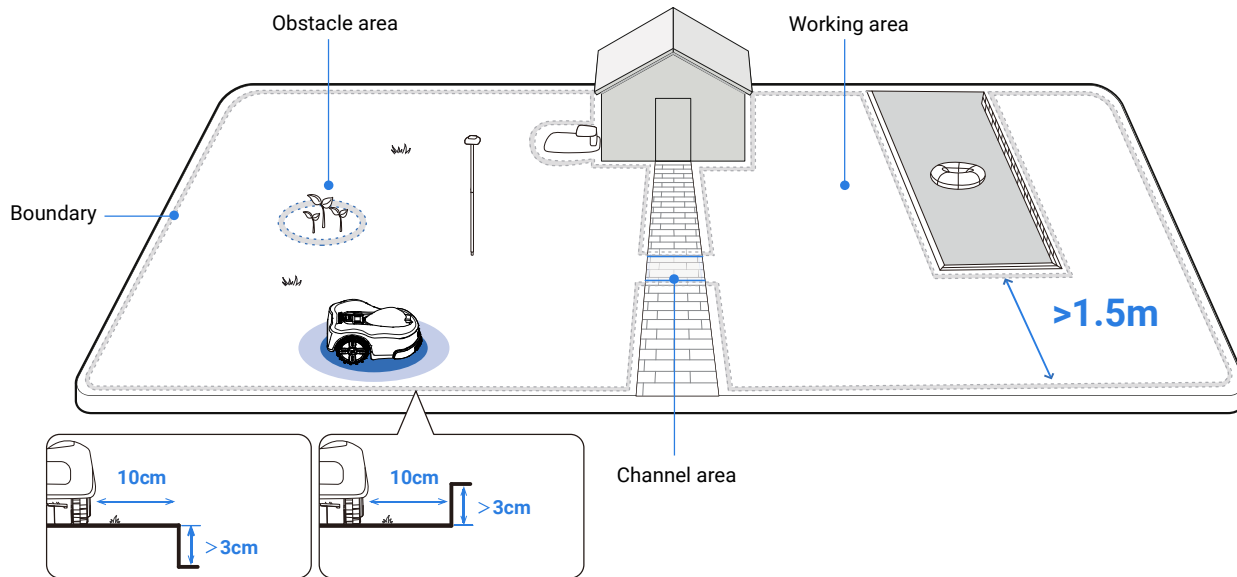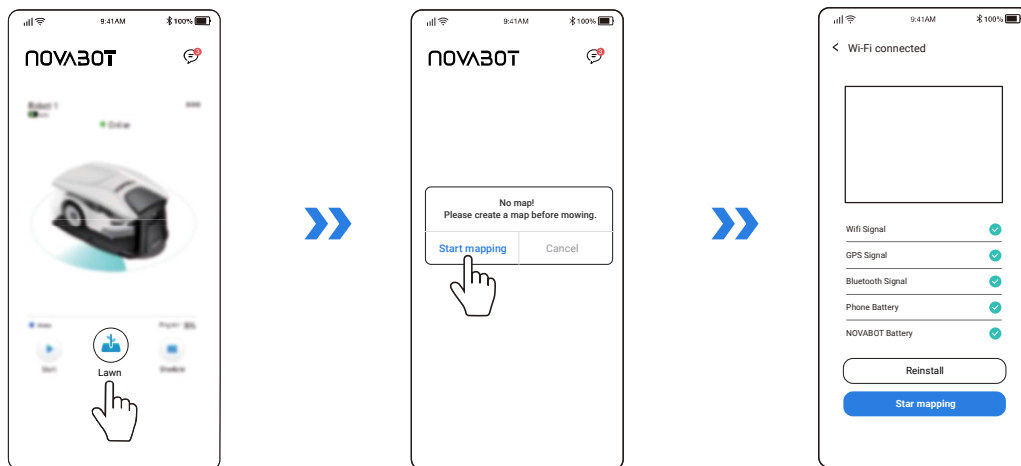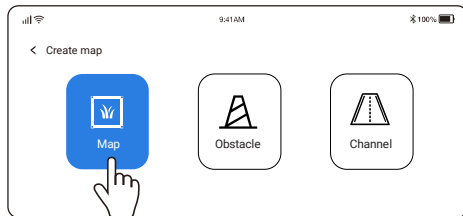
Create a new map

⚠ ATTENTION

- Keep a distance of greater than 10 cm from the lawn border.
- Do not map mowing areas smaller than 1.5 m wide.

Obstacle area

Working area

Boundary

>1.5m

10cm

>3cm

10cm

>3cm

Channel area

1. To initiate mapping, please open the NOVABOT APP, click 'Start' or 'Lawn,' and then select 'Start mapping'.

2. NOVABOT will start checking the machine's status. Mapping can only be done when the GPS signal, network, Bluetooth connection, and power meet the conditions.

NOVABOT

Lawn

No map!
Please create a map before mowing.

Start mapping   Cancel

Wi-Fi connected

Wifi Signal ✓
GPS Signal ✓
Bluetooth Signal ✓
Phone Battery ✓
NOVABOT Battery ✓

Reinstall

Star mapping

3. Click the 'Map' button to start the mapping process.

4. Navigate NOVABOT along the boundary until the map is complete. Ensure the starting and ending points coincide.
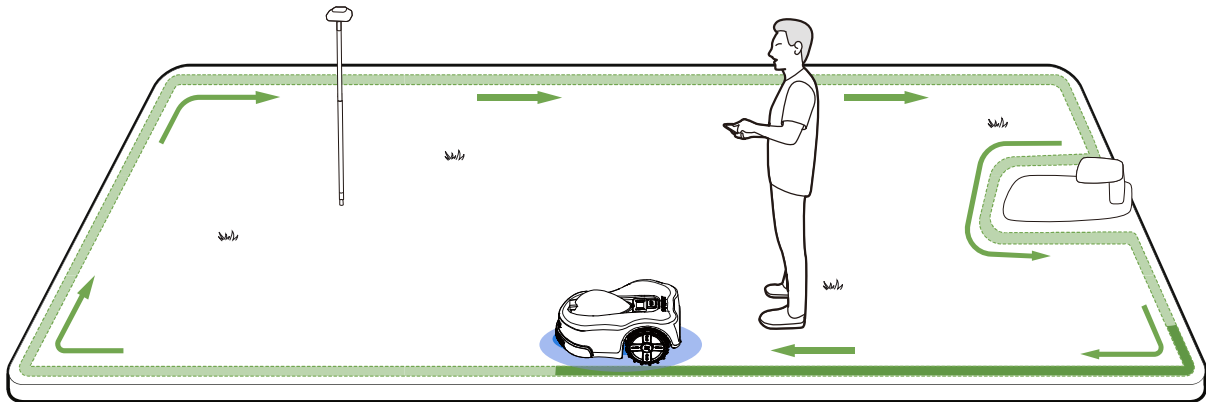
5. After perimeter mapping, ensure that NOVABOT is facing the charging station (not farther than 0.5 m), click 'Confirm', and the machine will automatically return to the charging station. Complete the area network upload. (If the automatic return fails, you can switch to the remote control mode to guide the NOVABOT back to the station.)