



ECOVACS: 机密图档

平面印刷品基本技术要求			
科沃斯机器人股份有限公司			
物料名称	GOAT LiDAR PRO 美国说明书 -MP	尺 寸	145*210mm
型 号	MR2507	印刷颜色	单色 K
物料编码	451-2507-0402	装订方式	胶装
版 次	A	页 数	100p
材 质	封面 157 哑粉纸 + 内页 80g 双胶纸	比 例	1:1
变更记录：			
	设计	审核	批准
	PLD 2025.10.22 江丽萍		



ECOVACS GOAT

A2000 LiDAR PRO/A3000 LiDAR PRO

Instruction Manual

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1. Original Instructions

IMPORTANT

READ CAREFULLY BEFORE USE KEEP FOR FUTURE REFERENCE

Read the instructions carefully. Make sure you understand the instructions and be familiar with the controls and the proper use of the appliance. Please understand that you can reduce the risk by following the instructions and warnings in this manual, but you cannot eliminate all the risks.

Lawn Mowing Robot (hereinafter referred to as "GOAT") has many built-in safety sensors, however, safety risks still exist.

All related residual risks have been described or informed in this manual.

Description of intended use: Intelligent lawn mowers are mainly used in mowing grass, especially in parks, private villa yards, and football fields.

For machines used in public areas, that warning signs shall be placed around the working area of the machine. They shall show the substance of the following text: WARNING! Automatic

lawnmower!

Keep away from the machine! Supervise children!

DO NOT modify the mower by yourself.

Modifications could interfere with mower operations, result in serious injury and/or damage, or void the Limited Warranty. Use only Ecovacs approved parts and accessories.

WARNING

Never allow children, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge or people unfamiliar with these instructions to use the machine, local regulations may restrict the age of the operator.

To avoid using the machine and its peripherals in bad weather conditions especially when there is a risk of lightning.

Before each mowing session, check that all parts of the mower can function normally.

Periodically inspect the area where the machine is to be used and remove all stones, sticks, wires, bones, and other foreign objects.

NEVER allow children to touch the power supply unit, charging station, blades, the battery compartment, or any parts with gaps such as the wheels.

 WARNING

Never to operate the machine and/or its peripherals with defective guards or shields, or without safety devices, or if the cord is damaged or worn.

Keep away from the rotating blades! DO NOT put hands or feet under or near the rotating blades.

Keep a safe distance from the mower when operating.

DO NOT overreach. Keep your balance at all times and always be sure of the footing on slopes. Walk, never run while operating the machine or its peripherals.

 WARNING

Never allow children to be in the vicinity or play with the machine when it is operating.

 WARNING

DO NOT touch moving hazardous parts before they have come to a complete stop.

 WARNING

For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance (CH2491C/CH2491D).

This appliance contains batteries that are only replaceable by skilled persons.

 WARNING

Before use, make sure mowing area has clear and enclosed boundaries, which can be a no-grass zone wider than 50 cm or a fence higher than 15 cm.

When GOAT is moved to a new area for the first time, it should be supervised by an intellectually unimpaired adult during initial mapping in case GOAT enters no-mowing zones.

To set a No-Entry Zone, enclose it with a no-grass zone wider than 50 cm or a fence higher than 15 cm.

Safe Usage:

Not to connect a damaged cord to the supply or touch a damaged cord before it is disconnected from the supply for the reason that damaged cords can lead to contact with live parts; keep extension cords away from moving hazardous parts to avoid damage to the cords which can lead to contact with live parts; to connect the machine and/or its peripherals only to a supply circuit protected by a residual current device (RCD) with a tripping current of not more than 30 mA.

Unplug the Power Supply from the power socket and then untangle when the power cord or the extension cable is damaged or entangled during use. During the operation, pull the body of the plug rather than the cord to avoid the hazard. Contact Customer Service and let the skilled professional to repair or replace the cord.

Please use the extension cable manufactured by ECOVACS. If you have any problem, contact Customer Service.

If the SUPPLY CORD is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

Press the STOP Button at once when the mower makes the abnormal sound or raises the alarm.

In case of leakage of electrolyte flush with water or neutralizing agent, ask for medical help once it gets contact with the eyes etc.

If there are abnormal vibrations, please restart the mower. If the problem persists, please Contact Customer Service.

Instructions to always wear substantial footwear and long trousers while operating the machine with a manual controller.

Additionally when using the manual controller

- a) Mow only in daylight or in good artificial light.
- b) Avoid operating the machine in wet grass.
- c) Do not operate the machine when barefoot or wearing open sandals. Always wear substantial footwear and long trousers.
- d) Always be sure of your footing on slopes.

- e) Use extreme caution when reversing the machine towards you.
- f) Always switch on the motor according to instructions with feet well away from the blade(s).

	Class III
	Direct current
	Alternating current
	Polarity of the charging port
	Before charging, read the instructions.

This Device Complies with DHHS Radiation Rules, 21CFR Chapter 1, Subchapter J.

Statement

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.

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 to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

RF exposure warning

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

This equipment must be installed and operated in accordance with provided instructions and the antenna(s) used for this transmitter must be installed to provide a separation distance of at least 20 cm from all persons and must not be collocated or operating in conjunction with any other antenna or transmitter.

This equipment complies with radio frequency exposure limits set forth by the Innovation, Science and Economic Development Canada for an uncontrolled environment.

This equipment should be installed and operated with a minimum distance of 20 cm between the device and the user or bystanders.

This device must not be co-located or operating in conjunction with any other antenna or transmitter.

To ensure compliance, operations at closer than this distance is not recommended.

SAVE THESE INSTRUCTIONS

To reduce the risk of electric shock, this appliance has a polarized plug (one blade is wider than the other). This plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician to install the proper outlet. Do not change the plug in any way.

Device Update

Typically, some devices are updated bi-monthly, but not always so specific.

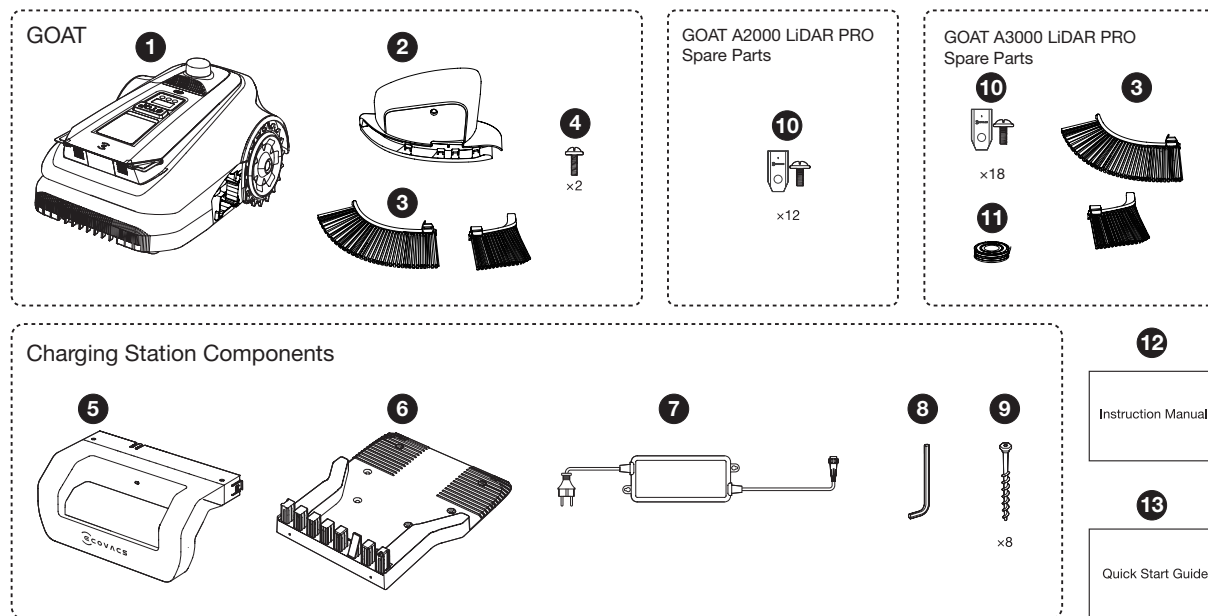
Some devices, especially those that went on sale more than three years ago, will only be updated if a critical vulnerability is found and fixed.

Symbols

	WARNING— Read instruction manual before operating the machine.
	WARNING— Keep a safe distance from the machine when operating.
	WARNING— Do not ride on the machine.
	WARNING— Operate the disabling device before working on or lifting the machine.
	CAUTION— Do not touch rotating blade.

2. What's in the Box

2.1 Package Contents



1 GOAT

2 Trimmer Module

3 Trimmer Brush

4 Screw

5 Pile of Charging Station

6 Base of Charging Station

7 Power Supply

8 Allen Key

9 Screws (For Base)

10 Spare Blade Kit

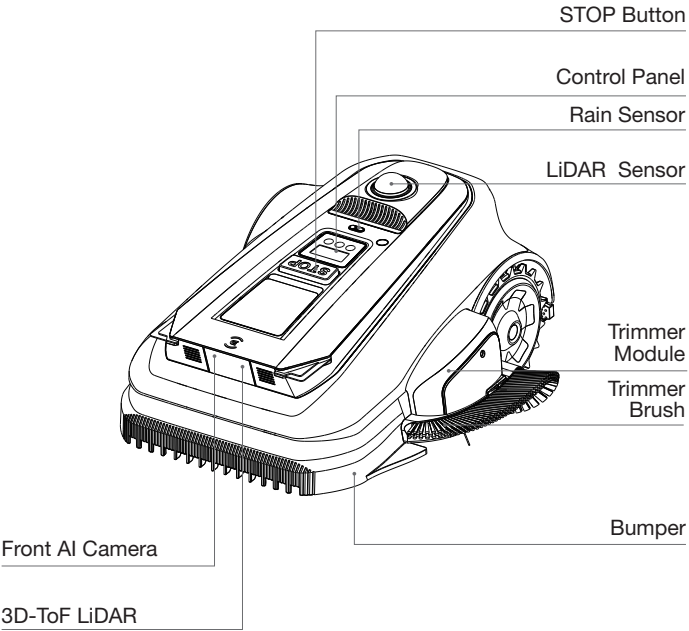
11 Trimmer Line

12 Instruction Manual

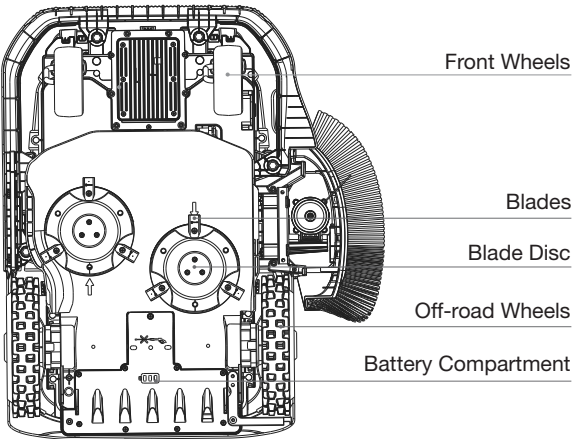
13 Quick Start Guide

2.2 Views and Functions

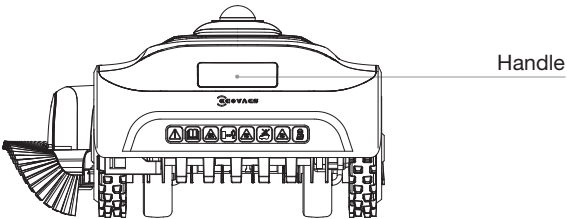
1 Top View



2 Bottom View



3 Back View



Sensors

Name	Description
LiDAR sensor	By measuring the distance between GOAT and the surrounding environment, the sensor helps GOAT determine its own position. Horizontal: 360 degrees; Vertical: 50 degrees. The farthest distance is 60m(196.85').
Fisheye Camera	Perceive the environmental information around GOAT, identify special targets, and help GOAT to interact with the user intelligently. Horizontal: 150 degrees; Vertical: 80 degrees
3D-ToF LiDAR	Perceive obstacle information in front of GOAT and help GOAT to avoid obstacles actively. Range: Detect the longitude and latitude coordinates of GOAT position. Horizontal: 90 degrees; Vertical: 70 degrees The farthest distance is 3~4m (9.84'~13.12').
Rain Sensor	Detect whether it is raining in the current environment, and help GOAT decide whether to continue working.

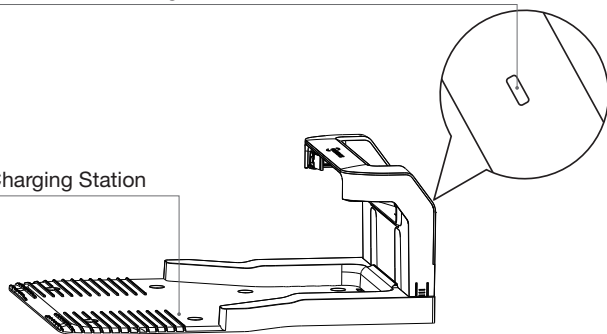
Interface

Name	Description
Bluetooth(GOAT)	Enable Bluetooth during network setup to connect the robot to the network. During regular use, enable Bluetooth mode to perform tasks like manual mapping and manual mowing.
WiFi	Enable Wi-Fi to transmit data between the app and the robot, allowing app-based control.
ECOVACS HOME APP	Download and enable the latest version of the ECOVACS HOME app to access smart features such as network setup, mapping, and mowing (features may vary by product).
Charging Contacts	Enable charging by connecting the robot to a power source.
Bluetooth(Charging Station)	Bluetooth is used to connect the charging station to GOAT. During regular use, this connection supports functions such as OTA firmware updates.

4 Charging Station

Station Indicator Light

Charging Station



Charging Station Light

Solid Blue: Powered on/ Fully charged.

Quick Flashing Blue: Charging.

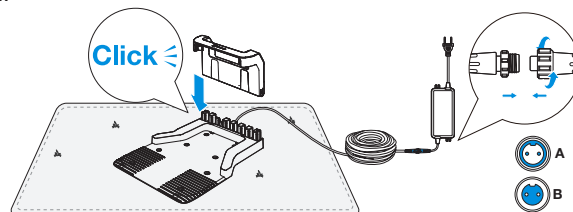
3. Get Your GOAT Ready

3.1 Charging Station Installation

1 Assemble the Charging Station

Insert the Pile into the Base until you hear a "click".

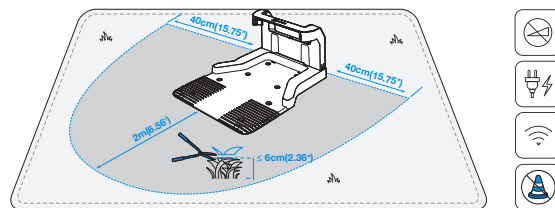
Connect the power cable to the power adapter. Please align the notch (A) with the groove (B) and screw the nut until they are locked into each other.



2 Place the Charging Station

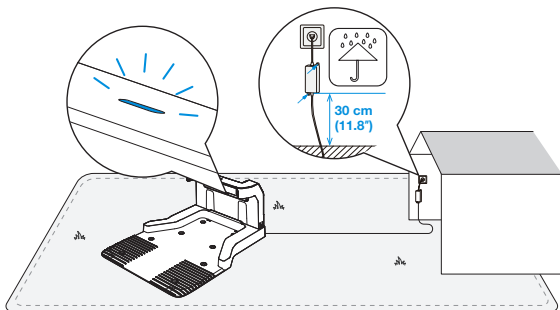
The specific range will be formed around the Charging Station installation site(as shown in the figure), and it needs to meet the following conditions.

- Strong Wi-Fi signal coverage
- Flat and open area without slopes
- No obstacles around the Charging Station
- Precut the grass around the Charging Station to a height<6cm (2.36")



③ Connect Power

Connect the Plug to the power supply and ensure the blue light on the Charging Station is steady on.



Note:

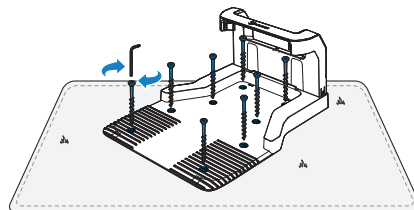
- Please ensure the Power Adapter is positioned 30cm (11.8") above the ground to prevent water and moisture damage.
- Please plug the device into an indoor outlet or an outdoor waterproof outlet.
- You can choose to buy the Extension Cable by connecting it to Power Interface if needed.

④ Fix the Charging Station

Please use the Charging Station Fastening Anchors and the Allen key to fix the Charging Station to the ground.

Note:

Fix the Charging Station only after everything is set up.



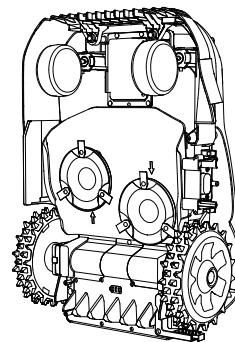
3.2 GOAT Setup

① Trimmer Module Installation

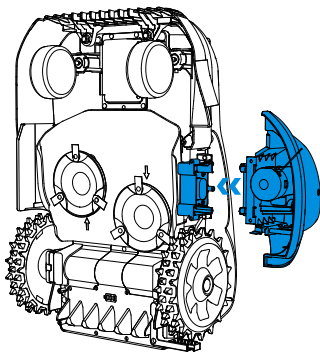
1. Turn Off GOAT

Warning: DON'T forget to wear gloves and turn off your GOAT before installing the Trimmer module.

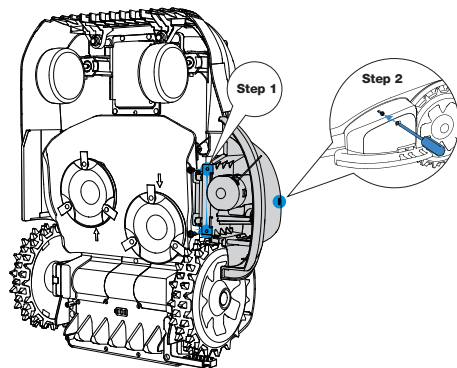
2. Place GOAT upright



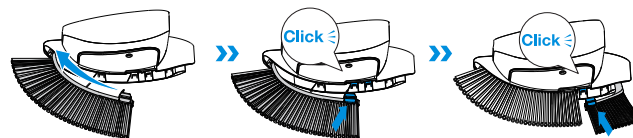
3. Align the Trimmer's connector and insert the Trimmer Module into GOAT's interface.



4. Install the screws in the three screw holes on the Trimmer Module.



5. Place the brush onto the buckle position of the Trimmer and install the brush until a "click" sound confirms installation.



Warning:

- GOAT CANNOT be used if the Trimmer Module is not installed properly.
- If the Trimmer Brush next to the Trimmer Module is not installed, grass pulp may adhere to GOAT during trimming, making cleaning difficult. Please ensure the Brush is installed and replace it regularly.
- Do not use the trimming function at night.

2 Start GOAT and Set PIN Code

Control Panel:

STOP



POWER ON/OFF

ADD

START

OK

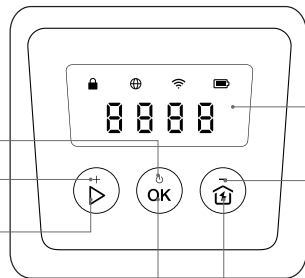
Panel Icons:

Lock		GOAT locked. Please enter PIN code to unlock the GOAT. If it flashes, please set the PIN code.
WiFi		Connected to Wi-Fi.
Battery		Battery level. White --- More than 15% charge. Red --- Less than 15% charge Flashing indicates charging; Steady indicates in use or fully charged.
4G Connection		Lights up when additional Connection Module is installed with a SIM Card.

DISPLAY

SUBTRACT

CHARGE



Buttons and Functions

Buttons	Functions
 --> OK	Start mowing. Resume mowing.
OK	Press to confirm. Press and hold for 3 seconds to power on the GOAT.
 --> OK	Send GOAT back to the Charging Station to get charged.
STOP	Stop GOAT.
	Press and hold for 5 seconds to reset the GOAT.
[+]	For a bigger number.
[-]	For a smaller number.
	Press and hold for 3 seconds to enable Bluetooth pairing.
	Press 5 times to show the battery level.
	Press and hold for 5 seconds to enter in the Trimmer's maintenance status.

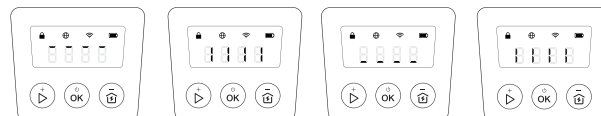
Panel Display Reads:

Display	Description
	Standing by. No task assigned
	Current Battery Level (For example, the number shown in the image represents the current battery level as 100%.)
	STOP GOAT is paused. Please press ► --> OK to continue working, or ⏮ --> OK to return to the charging station.
	ON GOAT is working
	OTA GOAT is undergoing OTA updates
	E and a 3-digit Error Code. Go to the Troubleshooting section of this manual or visit https://www.ecovacs.com/global for the meaning of the Error Code messages and recommended solutions.

1.Start Your GOAT:

Press and hold [OK] for 3 seconds on GOAT and the digital tube display will flash as below.

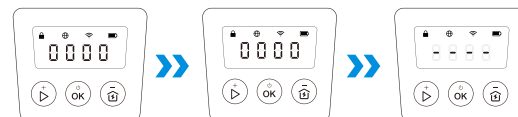
Note: Your GOAT will be automatically powered on when it docks at the Station.



2.Set PIN Code:

The PIN code you set for your GOAT at the very beginning is used to prevent the device from being stolen or operated by children. When GOAT is off the map, or needs to be powered on or reset, it will automatically be locked. You can unlock it by entering the right PIN code.

Set the PIN code when the display shows as below



Press [+] or [-] to select the PIN code numbers one by one. After the first digit is decided, press [OK] to confirm, and the cursor will move to the next digit. Repeat until all 4 digits are confirmed, and the display will show a new PIN code input page with a lock icon at the left top corner. Now enter the PIN code you just set to confirm and unlock your GOAT.

Note:

- 0000 is an invalid PIN code.
- PIN code is to be entered twice to confirm the setting.
- If you enter the wrong numbers while setting the PIN code, the setting process will start all over again.
- After the initial setup or reset, you must set the PIN code on GOAT. You may then change the PIN code in the App.

3.3 APP Setup

① Download the ECOVACS HOME App

Scan the QR code on the GOAT, Download and install the ECOVACS HOME App, complete the registration, and log in. You may also find the Instruction Manual and How-to-use by scanning the QR code.



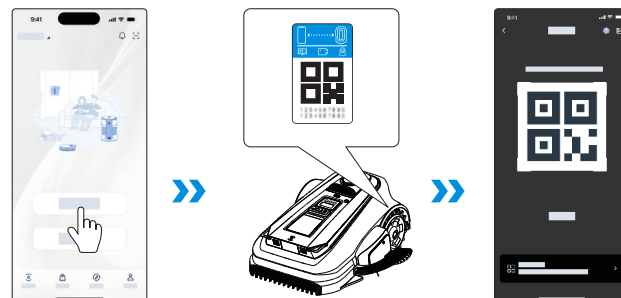
② Connect GOAT to the App

Note:

- Your mobile phone is connected to a Wi-Fi network.
- The 2.4GHz band wireless signal is enabled on your router.
- Make sure your GOAT and your phone are in the same 2.4GHz network router environment.
- Ensure your phone has Bluetooth function and your GOAT is within the effective distance of 10 m (32.8').
- The GOAT series robotic lawn mowers are designed for domestic mowing scenarios. A home Wi-Fi network is required for operation, and anti-DDoS protection can be configured by users through router settings.

Bluetooth Connection and Wi-Fi Connection

1. Turn on the Bluetooth on your phone.
2. Scan the QR Code on GOAT or select GOAT manually on the App.



3. Follow the instructions on the App to complete the Bluetooth connection and Wi-Fi connection.

4.  on GOAT's panel display will light up after successful connection.

