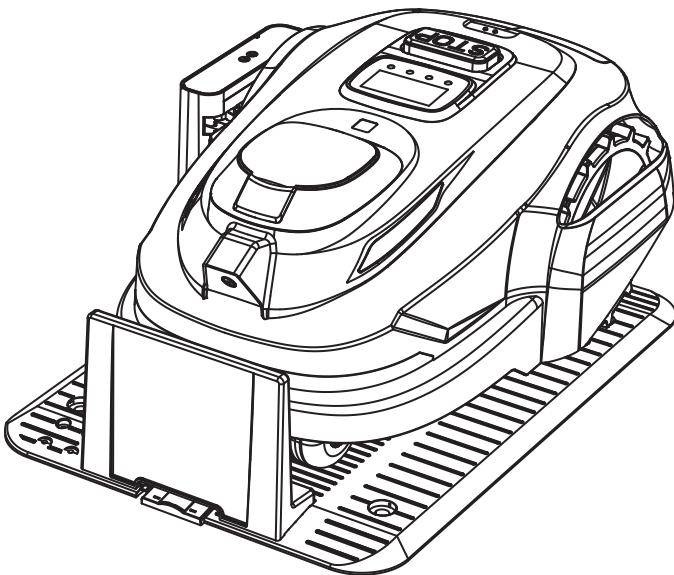


# ROBOTIC LAWNMOWER

## User Manual

N1600Pro



Read the User Manual carefully before first use.  
Make sure you understand all the instructions and safety warnings



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# 1. Safety Warnings

## 1.1 Important

*READ CAREFULLY BEFORE USE. KEEP FOR FUTURE REFERENCE*

1. Be sure to install and operate the mower according to the instructions.
2. The mower has many built-in safety sensors, but safety risks still exist. Inform your family and neighbors about the risks for accidents or hazards.
3. When using the mower on a public lawn, or when your lawn is open to your neighbor or street, protect or fence the lawn, or put up a warning sign around the working area that says:

**WARNING! Automatic lawnmower! Keep away from the machine! Supervise children!**

4. DO NOT repair the mower by yourself. Repair may interfere with the mower operations, resulting in serious injury and damage.
5. Please contact a qualified specialist and use the approved parts and accessories.

## 1.2 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.

### **Before Mowing:**

1. Before each mowing session, check that all parts of the mower can function normally.
2. For the best mowing results, it is recommended to mow in dry weather. Mowing in the rain can make the grass stick on the product and the mower may slip. DO NOT mow in bad weather such as heavy rain, thunderstorm, or snow.
3. Periodically inspect the area where the machine is to be used and remove all stones, sticks, wires, bones, and other foreign objects. The Limited Warranty does not cover damages caused by objects left on the lawn.
4. To avoid possible damage, keep the operating mower at least 100m (3 feet) away from sprinkler heads. The mower and the sprinkler should NOT work simultaneously. Time the mower so that it works at a different time from the sprinkler.
5. NEVER allow children to touch the power supply unit, charging station, blades, the battery compartment, or any parts with gaps such as the wheels.
6. Keep away from the rotating blades! DO NOT put hands or feet under or near the rotating blades.
7. Watch out for throwing objects! Keep a safe distance from the mower when operating.
8. DO NOT leave the machine to operate unattended if you know that there are pets, children or people in the vicinity.
9. DO NOT overreach. Always keep your balance and be sure of the footing on slopes. Walk, never run while operating the machine or its peripherals.
10. Instructions on when, where, and how to inspect the machine and its peripherals, connecting cords, and extension cords for signs of damage or aging and, if permitted, how to make repairs.

11. A note not to connect or touch a damaged connection line to the power supply before it is disconnected from the power supply, because damaged connection lines can lead to contact with active parts.
12. Connect the machine and/or its peripheral devices only to supply circuits protected by a residual current device with a tripping current of not more than 30 mA.
13. The device must not be used at altitudes higher than 2000m(78740.16inch).
14. A note not to lean forward when operating the machine and its peripherals, and always to maintain balance and a firm footing on slopes; and always to walk and not to run.

**WARNING!** If the mower makes an abnormal sound, abnormally vibrates, or signals an alarm, press the STOP button immediately.

**WARNING!** DO NOT touch moving dangerous parts before the mower is powered off.

**WARNING!** Do not touch moving dangerous parts before they have come to a complete standstill.

**WARNING!** Ensure that you always wear sturdy shoes and long trousers when operating the machine.

**WARNING!** Cut off the power:

Before blocking it.

Before the machine is tested, cleaned, or processed.

Before cleaning foreign objects in the machine.

When the machine starts to shake violently, please stop the machine immediately for inspection.

## 1.3 Symbols and decals

Please study the symbols on the product and labels carefully and understand their meaning.



**⚠ WARNING**-Read instruction manual before operating the machine.



**⚠ WARNING**-Do not touch rotating blade.



**⚠ WARNING**-Keep a safe distance from the machine when operating.



**⚠ WARNING**-Do not ride on the machine.



**⚠ Remove (or operate) the disabling device before working on or lifting the machine\*.**

\*Make sure the mower is locked by the PIN code before lifting or operating.



**⚠ WARNING**-It is not permitted to dispose of this product as normal household waste. Ensure that the product is recycled in accordance with local legal requirements.



Before charging, read the instructions.



Class II appliance.



SMPS incorporating a short-circuit-proof safety isolating transformer (inherently or non-inherently).



SMPS (Switch mode power supply unit).



Direct current.



Alternating current.

**RoHS** This product conforms to the regulations of Restriction of Hazardous Substances.

## 2. Introduction

### 2.1 About N1600Pro

The N1600Pro Perimeter Wire Free Robot Lawn Mower utilizes floating cutting discs to ensure precise cuts across diverse terrains and features, maintaining a pristine lawn effortlessly. Its advanced positioning is driven by a state-of-the-art AI vision and RTK fusion-mapping system, enabling precise navigation and mapping without the need for perimeter wires.

Ideal for homeowners seeking efficient and perimeter-free lawn maintenance, N1600Pro sets a new benchmark in automated mowing technology.

#### 2.1.1 About AI Vision Module

The N1600Pro is equipped with a vision module that provides AI vision obstacle avoidance.

1. AI Vision Module can intelligently identify obstacles.

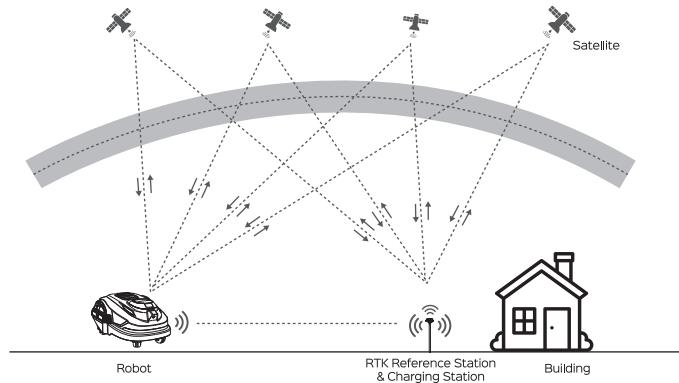
2. AI Vision Module can intelligently identify boundaries.

#### 2.1.2 About Positioning

The N1600Pro is equipped with an RTK (Real Time Kinematic) navigation system, a multi-sensor integrated navigation system, and an AI vision system to provide more accurate positioning data.

#### 2.1.3 RTK Positioning

RTK is a differential GNSS positioning technology that greatly enhances positioning accuracy to approximately 5 cm (2 inch). N1600Pro accesses four global navigation systems (GPS, GLONASS, BeiDou, and Galileo) and incorporates supplementary sensors, thus, providing nearly 100 times improved accuracy than conventional GPS systems.



### 2.1.4 About Obstacles Detection

N1600Pro recognizes obstacles through AI vision and walking motors. AI vision systems can recognize obstacles and make corresponding responses.

### 2.1.5 About Connectivity

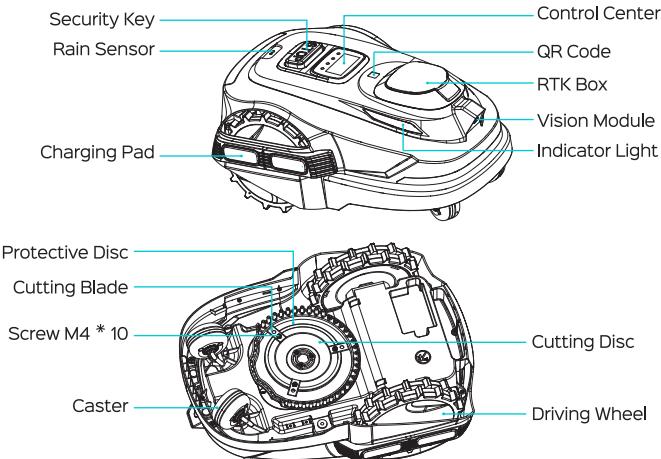
N1600Pro supports 2 methods of connectivity, namely, Bluetooth and Wi-Fi. Bluetooth is used to connect N1600Pro with your phone, while WiFi is used to access the internet.

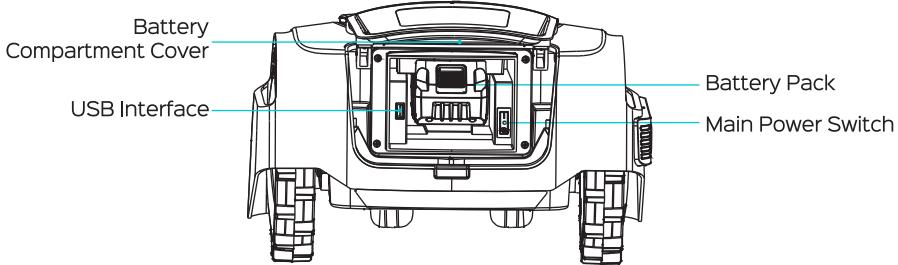
### 2.1.6 About Auto-recharge

N1600Pro supports automatically returning to charge when the battery is lower than 20%.

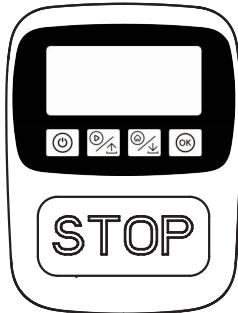
## 2.2 Product Overview

### 2.2.1 N1600Pro





## 2.2.2 Control Center



Button/Icon	Description	Function
	Main Power Switch	Open the battery compartment cover at the rear of the machine and find the switch, switch to 'O' for off, 'I' for on.
	Power Button	Long press the button  to turn on/off the robot.
	OK Button	After turned on, press the button  four times to unlock the machine. After entering standby mode, long press the button  to enter the state for adjusting the height, then press  or  to adjust the cutting height. After confirm the height adjustment, Press this button  to save.

Button/Icon	Description	Function
	Start Button	After entering standby mode, press once , then press once  to start the full-cover bow mowing. After entering standby mode, press twice , then press once  to start the edge-cutting mowing. After entering standby mode, press triple , then press once  to start the spot mowing.
	Home Button	After entering standby mode, press once , then press once , the machine will automatically return the charging station.
	Stop Button	If any unexpected problems arise, press the button  to stop the robot immediately.

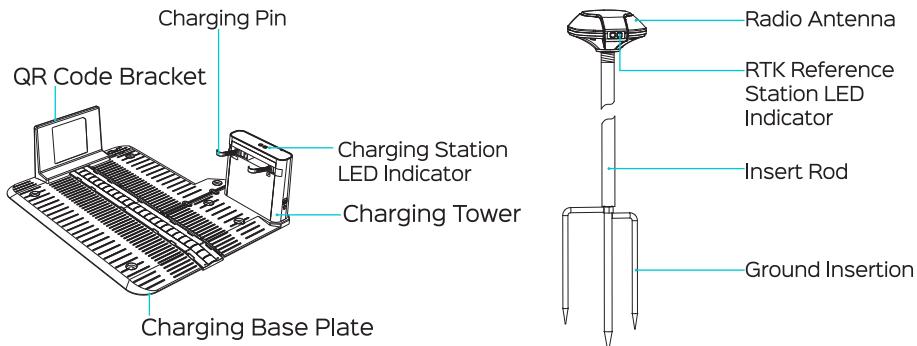
**NOTE:** Turn off the main power switch and install the battery pack.

**NOTE:** When starting, do not shake the machine, so as to avoid startup failure; If not, try again.

**NOTE:** Start by setting the mower to 60mm(2.36inch) for the first cut, then lower it to your preferred height once the lawn is even.

**NOTE:** If you do not use the mower for a long time, unplug the battery pack and store it in a cool, dry place.

## 2.2.3 Charging Station and RTK Reference Station



## 2.2.4 LED Indicator Information

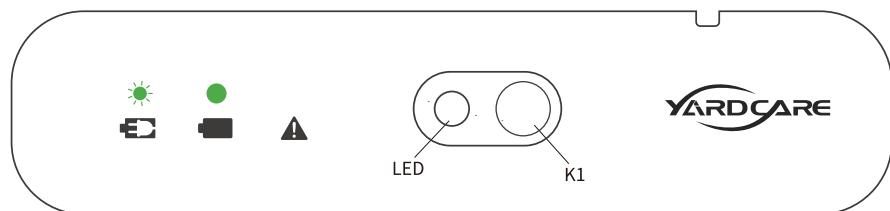
### N1600Pro Indicator Light

Status	Information
Flash Yellow	Wait for machine positioning.
Flash Blue	Mowing mode.
Steady Blue	Build map or standby mode.
Flash Green	Charging mode.
Steady Green	Full charged.
Steady Red	Error mode.
Flash White	Go home mode.
Status	Information
Wi-Fi icon	Determine whether the robot lawnmower is connected to the network.
Bluetooth icon	Determine whether the robot lawnmower is connected to the mobile app.
Cutter head icon	Determine whether the cutter head starts.
Lock icon	Determine the robot lawnmower locked or not.
Battery icon	Green light: The battery capacity is higher than 50%. Yellow light: The battery capacity is 20%-50%. Red light: The battery capacity is below 20%, the machine automatically back charging station.

## N1600Pro Control Center LED Display Information

Status	Information
--STOP--	The robot lawnmower is in standby mode.
--MOW--	The robot lawnmower is in full covered bow mowing condition.
E--MOW--	The robot lawnmower is mowing along the edge.
--SPOT--	The robot lawnmower is in spiral mowing mode.
--HOME--	The robot lawnmower is in automatic recharging station mode.
--MAP--	The robot lawnmower is in drawing mode.
LT--	The robot lawnmower is in cutting height adjustment mode. (The last two digits are the cutter height, adjustable range 20-60mm).
E--	Error screen, the last three digits are fault codes.
b--	The robot lawnmower is in charging status mode. The last three digits show the battery level information.

## Charging Station



Status	Information
Green Steady	The connection is successful (currently not charged or fully charged).
Green Flash	The mower is charging.
Red Steady	Power connection failed.
K1	Long press K1 to activate the battery pack when power is too low (use under expert guidance).

## RTK Reference Station

Status	Information
Flash Red	The reference station initialization.
Steady Red	The reference station initialization succeeded.
Flash Green	Faster blinking indicates a better reference station installation environment.
Steady Green	The reference station environment location is very good.
Steady Blue	The reference station has been moved or the environment is poor.
Flash Blue	The reference station is tilted.