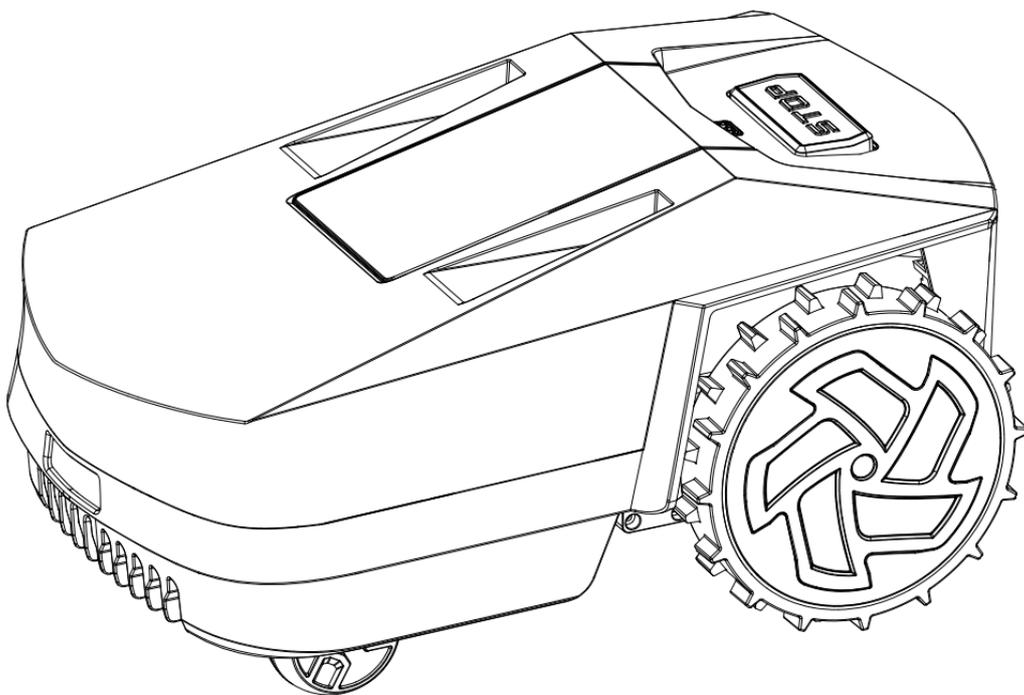


# MR GRASS

## ROBOTIC LAWN MOWER

### INSTRUCTIONS FOR USE



**THANK YOU FOR PURCHASING THE MR.GRASS ROBOTIC LAWN MOWER**

Please read this manual carefully before use and retain it for future reference.

## INTRODUCTION

MR.GRASS is a battery-powered robotic lawnmower. It mows the grass independently, while

It constantly alternates between mowing and charging. Thanks to the planned path, it achieves fast and efficient mowing.

Grass collection is not necessary.

The mower's working area is inside the area delimited by the perimeter wire. When

When the mower approaches the perimeter wire, the mower's sensors will detect it. The front of the mower always passes a certain distance from the perimeter wire before the mower turns.

You can control the operating settings using the buttons on the robot display or in the app.

You will find these symbols on the product. Make sure you understand them.



**WARNING:** Before using the mower, read the instruction manual carefully to understand its meaning.



**WARNING:** Turn off the product before working on or lifting it.



**WARNING:** Keep a safe distance from the product when operating. Do not run after the robot.



**WARNING:** Do not ride on the product. Do not put your hands or feet near or under the product.

## **WARNING**

Failure to observe the following warnings may result in damage to the mower or serious injury.

### **GENERAL WARNINGS**

- The robot is intended only for mowing grass and must not be used for other purposes.
- Read the instructions for use before use or maintenance. Children and persons with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, must not use the robot unless they are supervised or have been instructed in the safe use of the robot and are aware of the hazards involved. Cleaning and maintenance must not be carried out by children without supervision.
- If the robotic lawnmower is used in public areas, warning signs must be placed around its working area. The signs must have the following text: "Warning! Automatic lawnmower! Do not approach the machine! Supervise children!"
- Except for the simple routine maintenance described in this manual, the robot should always be taken to a professional for maintenance.
- Installation companies must follow the manufacturer's instructions and comply with national or local installation standards. The manufacturer is in no way responsible for the consequences resulting from failure to comply with applicable standards or local regulations.
- Incorrect installation or use of the robot may cause serious property damage or personal injury.
- If an injury or accident occurs, seek medical attention immediately.
- Use only the charger and power supply provided by the manufacturer. Improper use may cause the battery to be damaged by electric shock, overheat or leak corrosive liquids. In case of liquid leakage, clean the battery with water/neutralizer; in case of accidental eye contact, seek medical attention immediately.
  
- Never connect the power supply to a socket if the plug or cord is damaged. A damaged cord must be replaced by a service technician.
- Do not use the robot if there are people, especially children or animals, in the working area.
- Never put your hands or feet near or under the robot when it is turned on.
- Never allow people to sit on the robot.
- Never lift the robot to check the blade or carry it while it is running.
- Use only original batteries recommended by the manufacturer.
- Lithium-ion batteries may explode or cause a fire if disassembled, short-circuited, exposed to water, fire, or high temperatures.
- Do not charge the robot if the bottom of the robot has been flooded with water, there is a risk of battery explosion. If the robot is flooded, move to a safe distance in time.

### **WARNINGS FOR USE**

- The product may only be operated, maintained and repaired by persons who are fully familiar with its specific features and safety regulations. Before using the product, read the instruction manual carefully and make sure you understand its instructions.
- Switch off the robot before carrying out any adjustment or maintenance that is authorized to be carried out by the user. Use personal protective equipment recommended by the manufacturer, in particular always wear protective gloves when handling the cutting blade.
- The product should only be used with equipment recommended by the manufacturer.
- It is not allowed to modify the original design of the product. All modifications are at your own risk.
- Do not install the charging station (including accessories) under or within 60 cm of flammable material. In the event of a malfunction, the charging station and power supply may become hot and create a potential fire hazard.
- Do not install the charging station in places where pests (e.g. ants) are present or where there is a risk of water accumulation.

- Do not place the power cord and extension cord in the robot's working area. Do not place the power supply on the ground or at a height where there is a risk of it falling into water, as this may cause damage.
- In work areas that are not enclosed by a fence that cannot be easily climbed over, supervise the equipment during operation.
- Check for foreign objects such as rocks, branches, tools or toys on the lawn. If the blades hit foreign objects, the blades may be damaged, turn off the product before removing the obstacle. Check the product for damage before turning it on again.
- If the product starts to vibrate abnormally, turn it off and check for damage.
- Do not use the robot with damaged external parts. If the mechanical parts of the robot are damaged, replace them.
- Do not use the robot if the cutting blade is damaged. Replace the cutting blade.
- Regularly visually inspect the robot for wear or damage to the blades, mounting screws, and cutting mechanism. All screws and bolts must be tightened to keep the robot in good operating condition.
  
- Never touch moving dangerous parts, such as the blade, until it has come to a complete stop.
  
- Do not place any heavy objects on the product or its charging station.

**SPECIAL TERMS AND CONDITIONS APPLICABLE TO ROBOT**

- The temperature range for operation is 0-50°C/32-122°F, for storage -20-50°C/-4-122°F, for charging 5-45°C/41-113°F. Excessive temperatures may damage the product.
- The robot does not guarantee full compatibility of the product with other types of wireless systems, such as remote controls, radio transmitters, hearing loops, underground electric fences for animals, etc.
- Metal objects and closed coils can interfere with the loop signal, which can lead to tripping or other abnormalities.
- Do not use the robot during thunderstorms or stormy weather.
- If there is a risk of a thunderstorm, it is necessary to disconnect all connections to the charging station (power supply, boundary wire).
  
- Do not operate the robot in areas with standing water, such as puddles from heavy rain. This could damage the machine and the lawn.
- If the button panel and STOP button do not work, do not use the robot.
- The robot does not work if it is outside the wire-bound area. It must be moved inside the bounded area.

# Contents

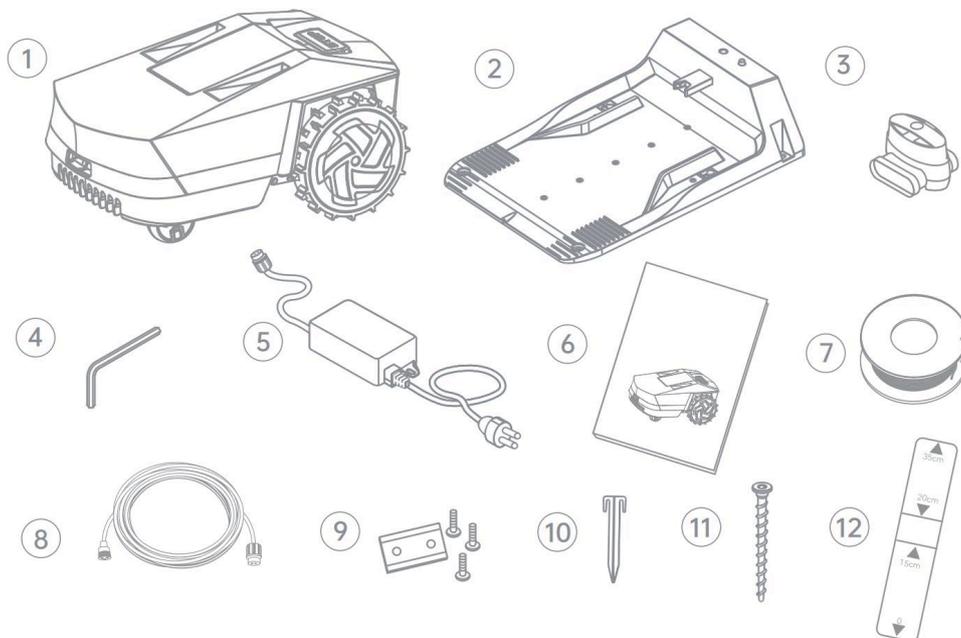
<b>PART 1. PRODUCT DESCRIPTION .....</b>	<b>1</b>
1.1 Package contents.....	1
1.2 Robot Parts.....	1
1.3 Technical specifications .....	2
<b>PART 2. INSTALLATION .....</b>	<b>3</b>
2.1 General instructions .....	3
2.2 Installation procedure.....	4
<b>PART 3. OPERATION.....</b>	<b>10</b>
3.1 Control panel description.....	10
3.2 Description of mowing modes.....	11
3.3 Instructions for first use .....	11
3.4 General settings.....	13
3.5 Charging the battery.....	15
3.6 WiFi settings .....	15
<b>PART 4. MAINTENANCE .....</b>	<b>19</b>
4.1 Maintenance schedule.....	19
4.2 Robot care and cleaning .....	19
4.3 Replacing the blades .....	21
4.4 Battery .....	21
<b>PART 5. TROUBLESHOOTING .....</b>	<b>22</b>
5.1 Operational information.....	22
5.2 Error messages .....	23
5.3 Charging station indicator light .....	25
5.4 Symptoms .....	26
<b>PART 6. STORAGE AND DISPOSAL.....</b>	<b>27</b>
6.1 Storing the robot.....	27
6.2 Disposal of the robot.....	28
<b>PART 7. WARRANTY .....</b>	<b>29</b>
<b>PART 8. DECLARATION OF CONFORMITY .....</b>	<b>30</b>

## **PART 1. PRODUCT DESCRIPTION**

### **1.1 Package contents**

The following items are included in the robot package, if they are damaged or lost, please contact your dealer.

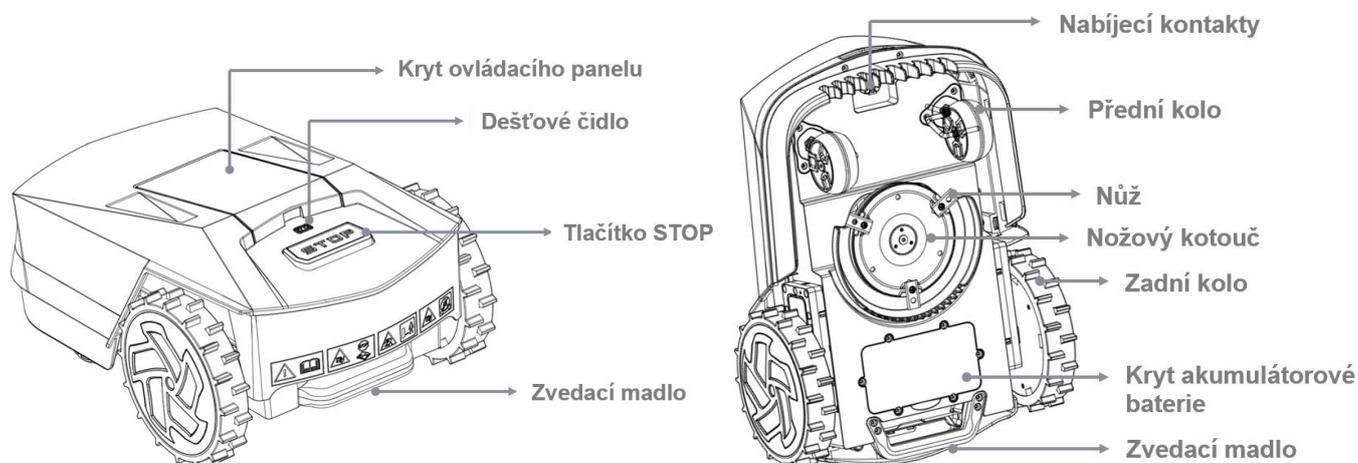
1. Robot
2. Charging station
3. Hydrogel wire connector
4. Hex key
5. Charging adapter
6. Instructions for use
7. Perimeter wire
8. Extension cord
9. Spare blade set
10. Fixing pins
11. Mounting screws
12. Ruler for installing the boundary wire (removed from the product box).



**Note: Different models may have different items in the package.**

**Keep the supplied packaging properly for annual maintenance and winter service.**

### **1.2 Robot parts**



### 1.3 Technical specifications

Model	AI55	AI36	AI25
<b>Operational data</b>			
Area capacity,m <sup>2</sup>	≤2000	≤1100	≤500
Recommended surface for S Path,m <sup>2</sup>	≤1000	≤800	≤500
Mowing time per charge, h	5.5	3.6	2.5
Battery type	Li-ion	Li-ion	Li-ion
Battery capacity, Ah	10	6	4
Battery voltage,V	21	21	21
Charging current, A	4	4	2
Charging time, h	2.5	1.5	2
<b>Mowing system</b>			
Blades	3	3	3
Cutting unit speed, rpm	2300-3100	2300-3100	2300-3100
Cutting height min/max, mm	30-60	30-60	30-60
Working width, mm	180	180	180
Mowing speed, m/s	0.35	0.35	0.35
Maximum slope inside/at the perimeter	45% / 10%	45% / 10%	45% / 10%
<b>Features</b>			
Noise level, dB(A)	55	55	55
Apps / WiFi / Bluetooth	Yes	Yes	Yes
Optimal working temperature,°C	0-50	0-50	0-50
Degree of protection (waterproofness)	IP66	IP66	IP66
Dimensions, mm	566*402*259	566*402*259	566*402*259
Net weight, kg	10	9.9	9.8
Extension cable, m	10	10	On request
Ultrasonic anti-collision sensor	Yes	Yes	Yes
Navigation system	Random / With PATH	Random / With PATH	Random / With PATH



## 2.2 Installation procedure

### 2.2.1 Instructions for connecting the charging station

The charging station is where the robot charges and rests after mowing. Its location is crucial for the robot to function properly. When choosing a suitable location, follow these steps:

#### Step 1

- ① Place the charging station within reach of a 100-240 V AC outlet.
- ② Place the charging station in the shade with a strong Wi-Fi signal (if possible).

#### Step 2

- ① For Systematic Mowing Mode S Path

Lay the perimeter wire in front of the charging station at least 1.5 m straight without any bends or slopes, at least 1 m from the station.

The end of the perimeter wire in front of the back of the charging station should be run straight without any bends for at least 1.0 m.

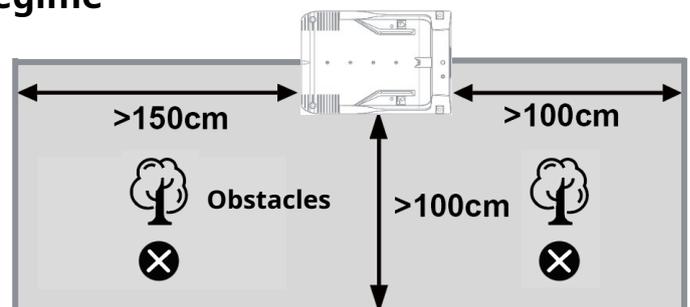
- ② For Random Mowing Mode

Lay the perimeter wire in front of the charging station at least 1 m straight without any bends or slopes, at least 1 m from the station.

**Note: Do not place any obstacles within a vertical distance of 1 m from the charging station.**

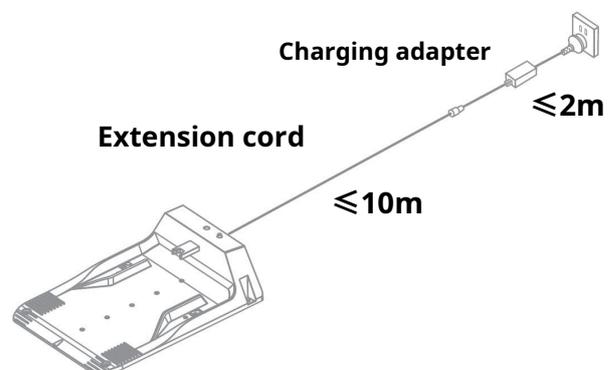
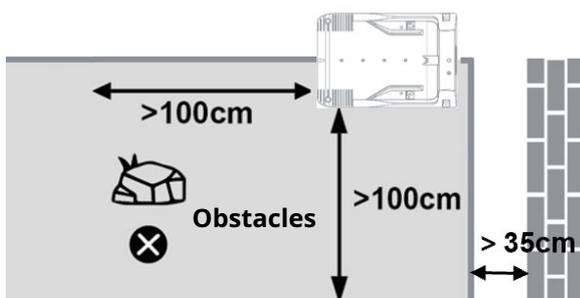
### Checklist for a systematic mowing regime

- ① Lawn area  $\leq 800\text{m}^2$
- ② Lawn slope  $\leq 8^\circ(14\%)$
- ③ Number of prohibited zones  $\leq 3$
- ④ Narrow passages  $\geq 1.5\text{ m}$

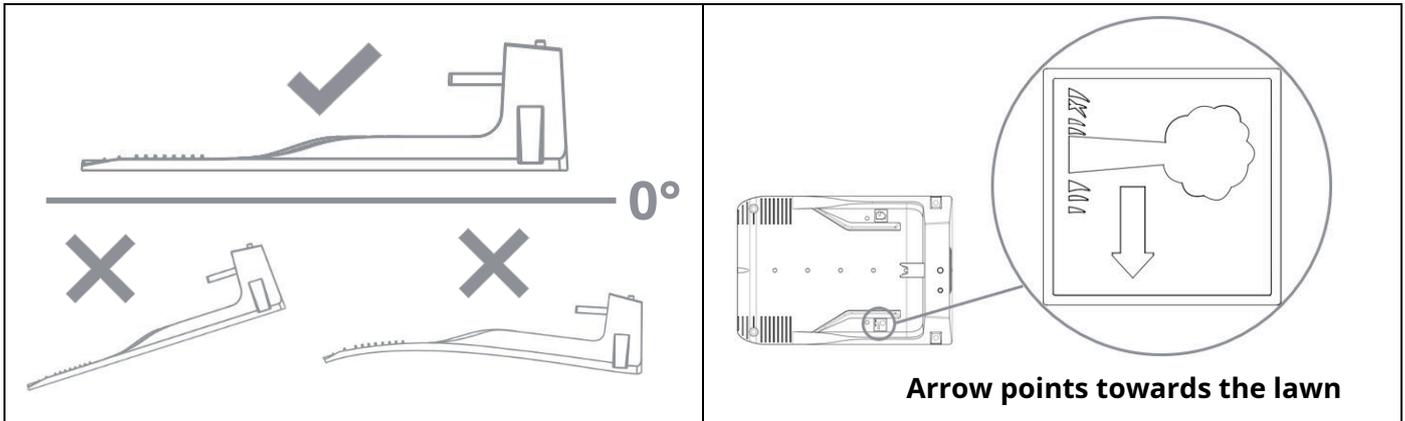


**Note: If the garden meets the above checklist, you can choose the systematic S-Path mowing mode.**

### Random mowing mode



To ensure efficient charging, the charging station must be placed on a flat and horizontal surface. The arrow with the lawn mark must point towards the inside of the lawn, and the arrow with the house mark must point outside the lawn.



### 2.2.2 Laying the Perimeter Wire

Run the perimeter wire as a loop around the workspace. The robot's sensors will detect when the robot approaches the wire and the robot will then choose a different direction.

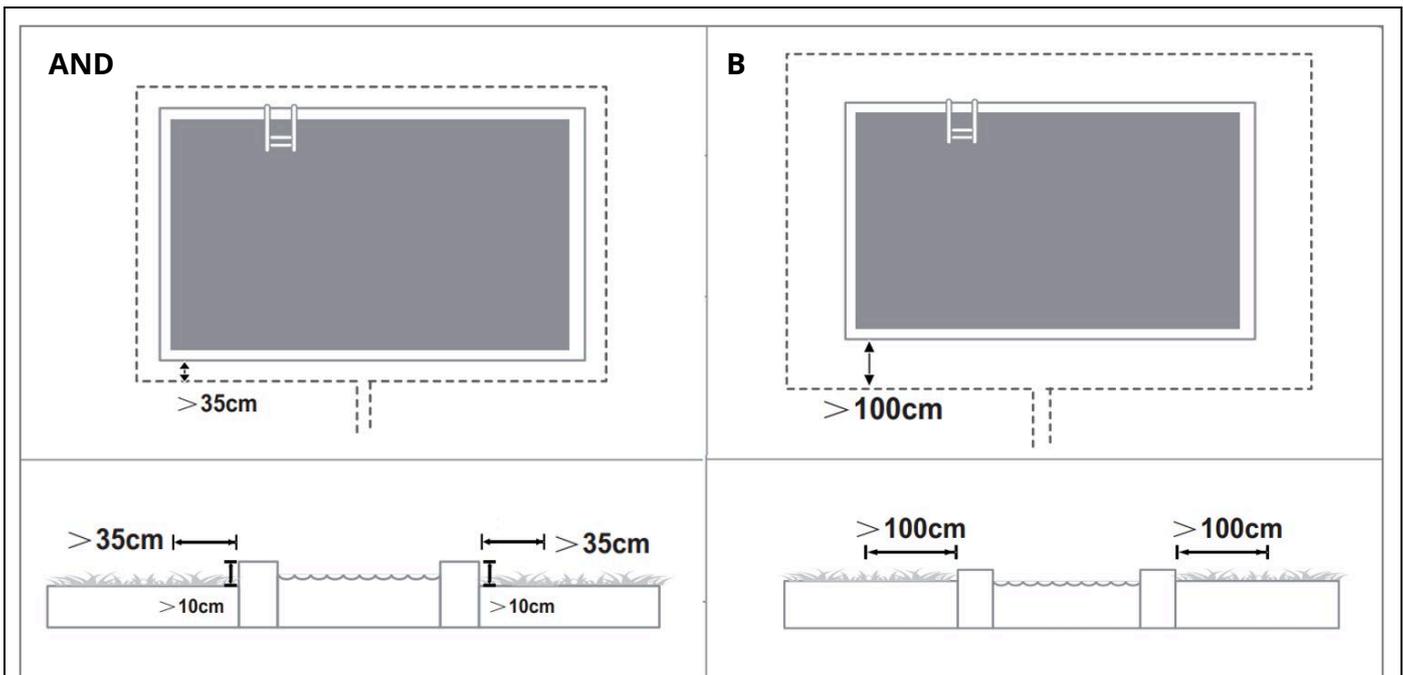
The perimeter wire must be placed at a certain distance from the edge of the lawn. This distance varies depending on what the edge is made of. Different parts of the lawn may have different edges: for example, paving stones, a fence, a swimming pool, etc.

① If the edge of the lawn is a wall/bush: place the wire 35 cm from the edge.  
 ② If the edge of the lawn is a flat area at the height of the lawn: place the wire 20 cm from the edge.

The diagram shows a lawn area with a dashed line representing the perimeter wire. On the left, a wall/bush edge is shown with a double-headed arrow indicating a distance of '>35cm' between the wall and the wire. In the center, a flat area edge is shown with a double-headed arrow indicating a distance of '>20cm' between the flat area and the wire. On the right, a paving stone edge is shown with a double-headed arrow indicating a distance of '>35cm' between the paving stones and the wire. A small robot icon is shown near the wire.

③ If the edge of the lawn borders an in-ground pool:  
 A. Place the wire 35 cm from the edge; if the pool has a solid border with a height of at least 10 cm  
 B. If the pool does not have a solid boundary with a height of at least 10 cm, the wire must be laid 100 cm from the edge of the pool.

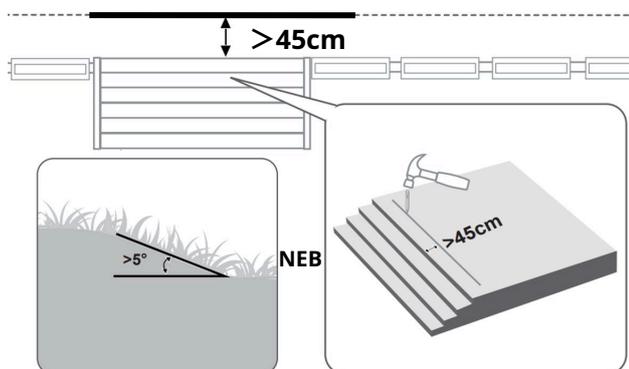
The diagram shows a lawn area with an in-ground pool. A dashed line representing the perimeter wire is shown around the pool. The wire is placed at a distance of '>35cm' from the edge of the pool.



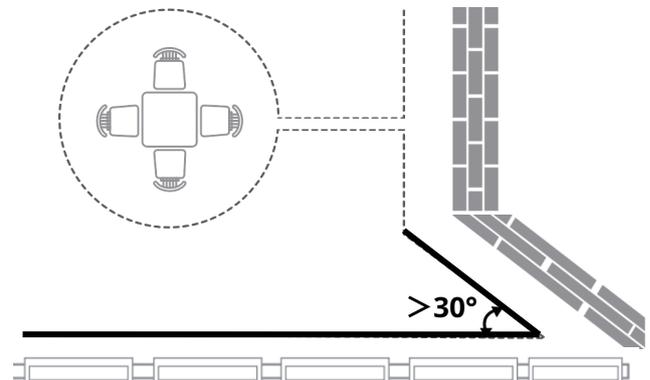
**Note: If the lawn edge borders**

**with a river/pond: run the wire 100 cm from the edge.**

④ If the edge of the lawn borders a descending step or slope ( $>5^\circ/10\%$ ): run the wire 45 cm from the edge.



⑤ If the lawn is in corners, ensure that the wire is bent at an angle greater than  $30^\circ$ .



### 2.2.3 Creating islands/no-go zones

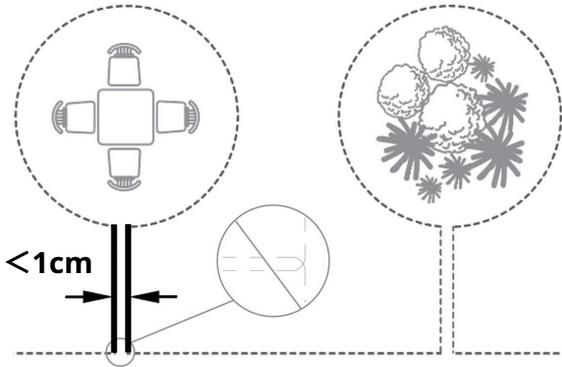
Islands can be used for: (Find these areas and enclose them with boundary wire).

A. Areas that affect the robot's performance, such as slopes with a slope greater than  $25^\circ$  (45%).

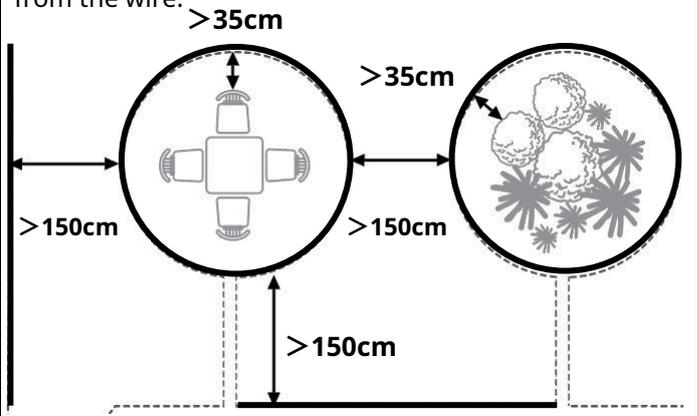
B. Swimming pools, dining tables and other places where the robot is not allowed to enter.

Some obstacles, such as trees, are collision-resistant, the robot will hit them and choose a new direction.

① The perimeter wire is a single loop that starts at the charging station. Run the perimeter wire from the perimeter to and around the obstacle to create an island, then run the wire back through the same groove very close to you, towards the perimeter of the lawn.



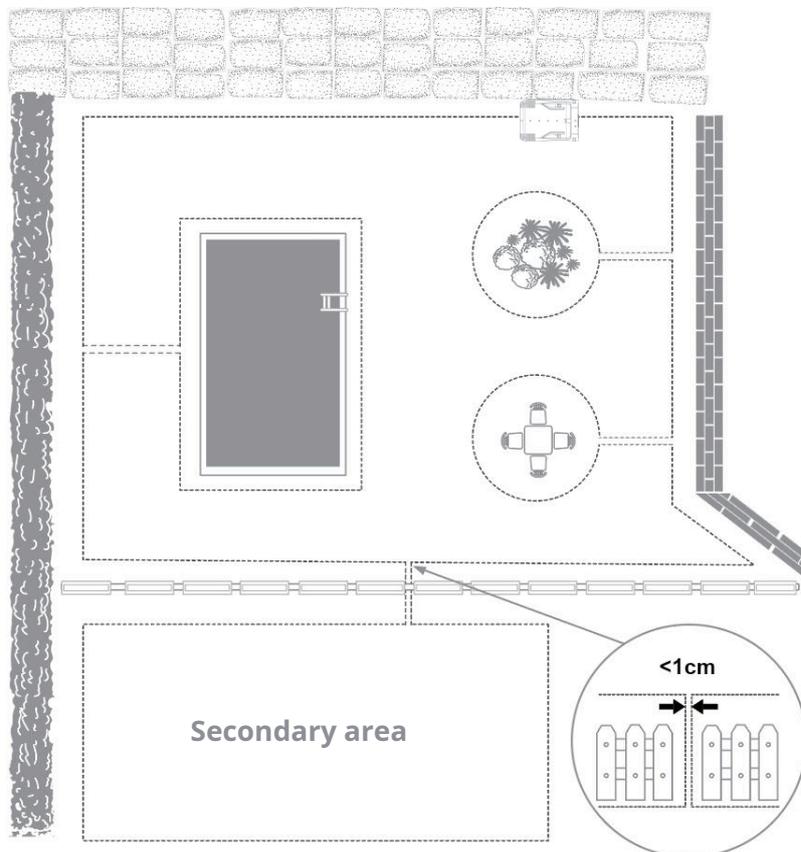
② Maintain a distance of at least 1.5 m from the boundary of the island to the perimeter of the lawn. Individual islands must also be more than 1.5 m apart and all objects in the island must be at least 35 cm away from the wire.



### 2.2.4 Creating secondary areas

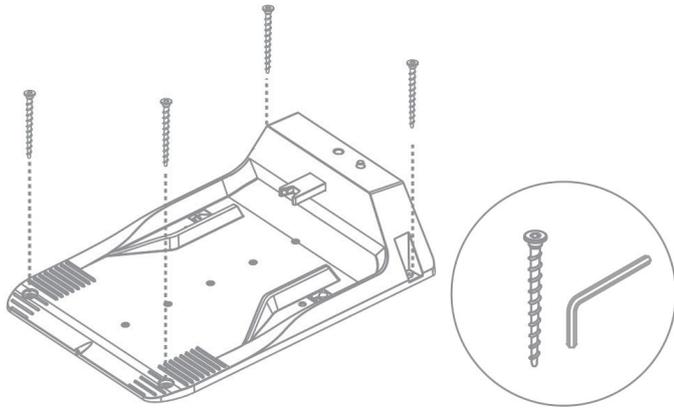
If the garden has 2 or more parts that are not connected by a wide passage, create secondary areas. The working area where the charging station is located is considered the main area, the other parts of the garden are secondary areas. Although these are multiple separate areas, the perimeter wire only needs to form one loop.

**Note: The robot must be moved manually between the main and secondary areas.**

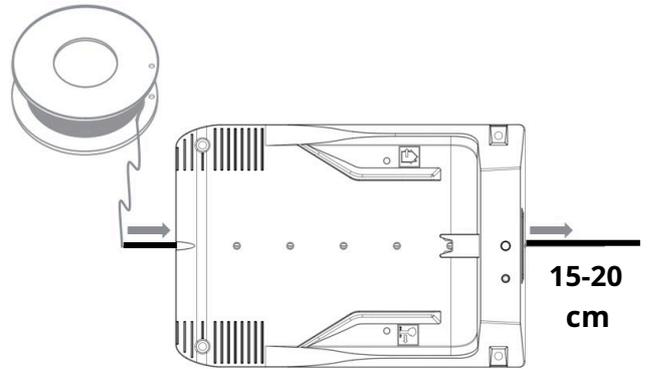


### 2.2.5 Installation procedure

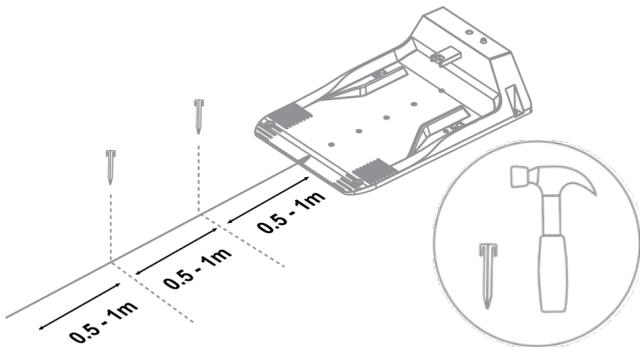
① Using the included hex key, secure the charging station to the ground with the included screws.



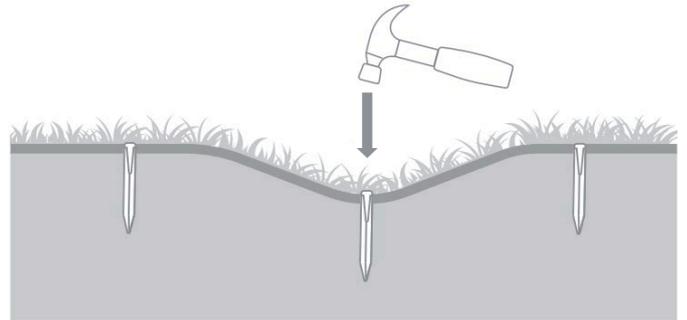
② Insert the stripped end of the wire into the hole in the bottom of the charging station and pull it through the charging station. Leave 15-20 cm of slack in the wire at the back of the charging station.



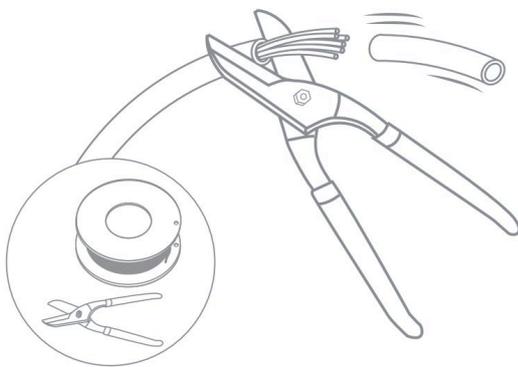
③ Lay the perimeter wire as needed, spacing the pegs approximately 0.5-1 m apart. Reduce the spacing as needed at corners, bends and slopes.



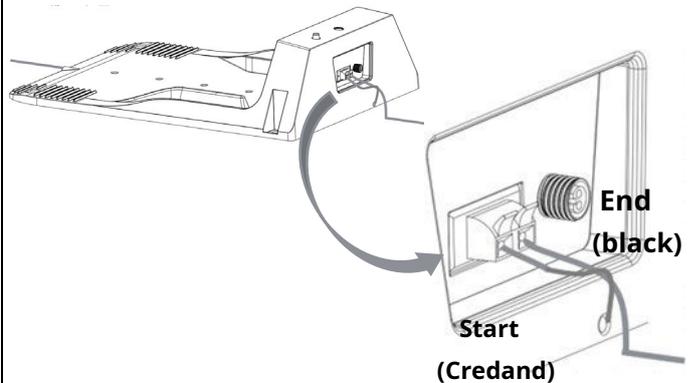
④ Drive the stakes all the way into the ground so that there is no gap between the stretched wire and the ground.



⑤ Use wire strippers to strip 2 cm of the wire. Then fold the stripped wire in half and twist the wires together to form a coil.



⑥ Complete the perimeter wire loop and **Place the beginning of the wire leading from the station into the red terminal in the charging station and the end of the wire into the black terminal.**

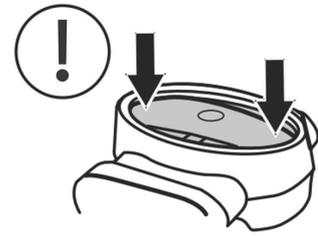
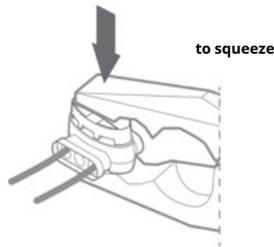
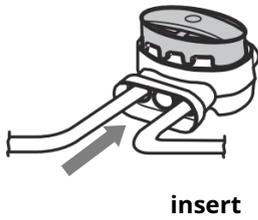


⑦ Hydrogel couplings can be used if:

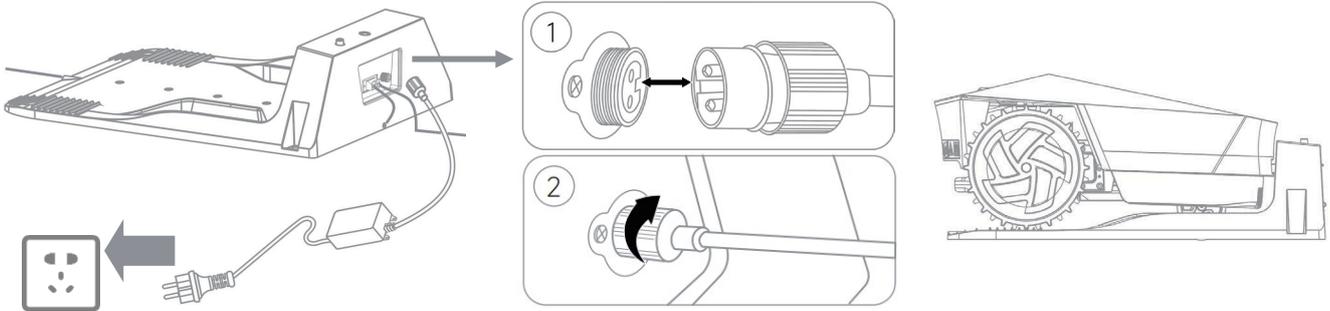
A. You need to extend the perimeter wire to complete the installation.

B. You need to repair a broken perimeter wire or modify the original perimeter wire installation.

Remove 2 cm of black insulation from the ends of the wire. Insert the wire into the connector and press it with pliers so that the blue terminal completely fits into the connector body.

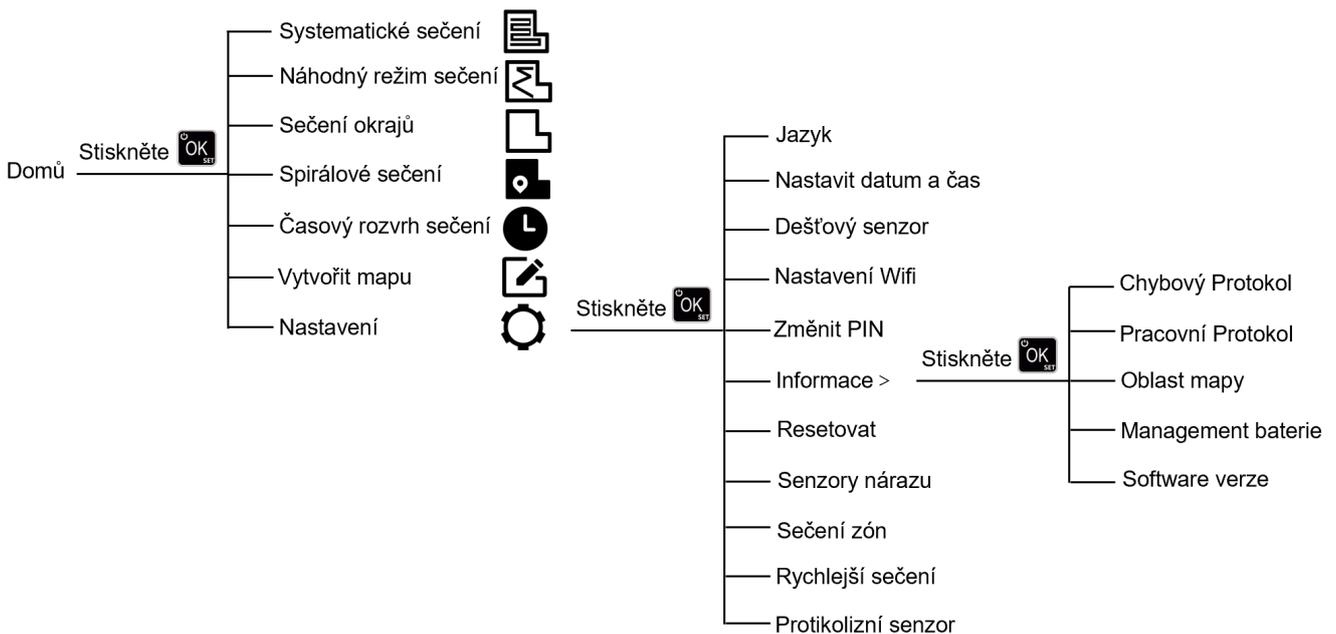
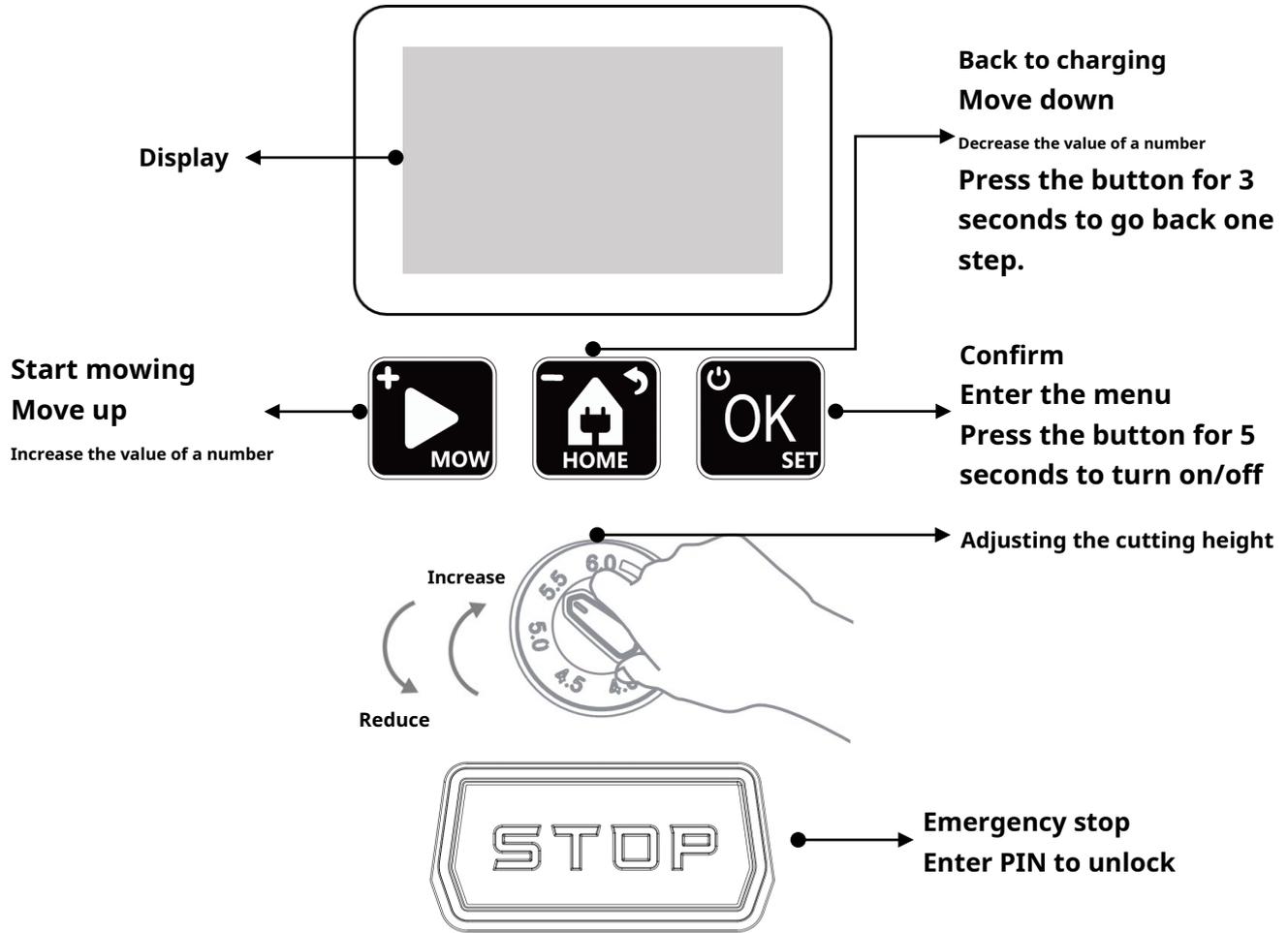


⑧ Connect the charging station to the power adapter, tighten the screw securely, and plug the adapter into a 100-240 V AC outlet. If the indicator light on the charging station is green, the connection is successful. The indicator light should pulse when the robot is placed in the charging station. If it is pulsing, you can charge the robot. **Charge it to at least 70% before use.**



# PART 3. OPERATION

## 3.1 Control panel description



### 3.2 Description of mowing modes

#### 3.2.1 Systematic mowing

1. Before the first mowing, select the "create map" icon. The robot will go around the perimeter wire and then calibrate the defined working area into several zones measuring 4\*6 m.
2. It will mow zone by zone at an angle of 90°. After completing the last area of 4\*6 m, the robot will move to the adjacent area.
3. In systematic mode, the robot mows each zone at angles: 90°、45°、135°. In total, the robot mows the entire lawn in three directions.
4. After mowing the lawn from three angles, the robot will mow the perimeter of the lawn along the perimeter wire and then automatically return to the charging station.

#### 3.2.2 Random mowing mode

The robot mows randomly until the battery level is low, then it automatically returns to the charging station. For comfortable use, we recommend setting a mowing schedule on the robot display or in the app.

#### 3.2.3 Edge cutting

The robot mows the grass once along the defined perimeter of the lawn and then automatically returns to the charging station.

#### 3.2.4 Spiral mowing

The robot mows in a spiral motion in the place it is located (except the charging station). It stops after 3 minutes of spiral mowing and then continues in the original mode according to your settings.

#### 3.2.5 Turbo/Standard/Quiet modes

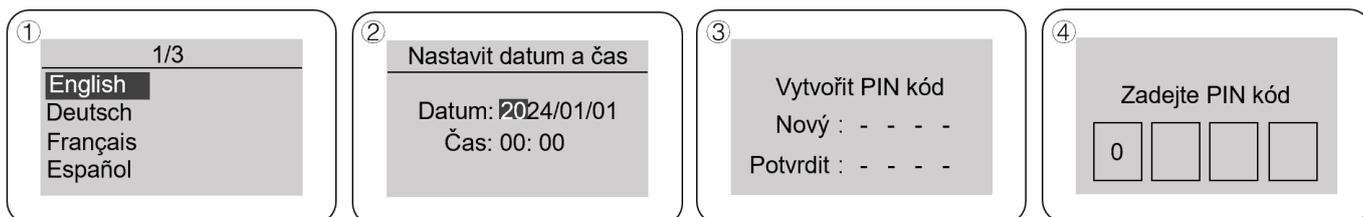
The robot mows at higher/normal/lower mowing motor speeds. These three modes have different mowing performance. Turbo mode is recommended for fast growing seasons and demanding conditions, Standard mode for everyday mowing and Quiet mode for cutting grass by 1 cm.

### 3.3 Instructions for first use

#### 3.3.1 Turning on the robot

1. Hold the button  for 5 seconds until the display lights up.
2. Select the language. Use the buttons  /  move up/down, use the button to confirm the selection .
3. Set the date and time. Select the buttons  at the  bar, confirm with the button. In the same way  complete the month/date/hour/minute as well.
4. Set your security PIN code. The PIN is a combination of 4 digits from 0 to 9, selected by pressing the buttons.  /  select the PIN number, press  Confirm. Re-enter the PIN code to confirm it and remember the code.  
remember / record.

**Note: If you have forgotten your PIN code, please contact your dealer.**



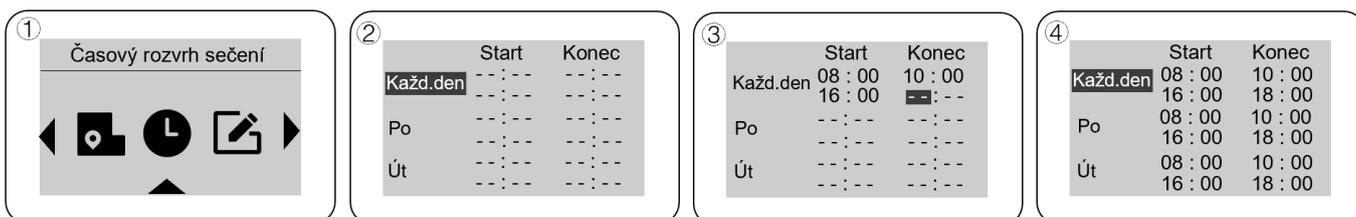
### 3.3.2 Setting the mowing schedule

1. Press the button go to the menu, using the buttons / find and confirm by button .

2. In the same way as for the date and time, use the buttons to select / the day and time you want the mowing schedule.

3. A maximum of two mowing times per day can be set in the schedule.

4. You can delete the schedule with one click: move the cursor to "Everyday" (Fig. 2) and then press 3 sec. button .



### 3.3.3 Setting the cutting height and starting to mow

1. Set the cutting height to 6.0 cm so that the robot can successfully create a map.

2. If you choose and The robot will start mowing in Random mode by default.

3. Alternatively, you can choose and choose or . The robot will start creating a map and then mow in Systematic S-Path mode.

4. When the robot first works in Systematic mode, it first follows the perimeter wire for one cycle and then creates a map of your lawn. With this map, the robot will mow in a scheduled mode.

#### Note:

**If the grass is tall or thick, mow the edges of the lawn manually before creating the map.**

**Do not interrupt the robot by using the emergency "STOP" button while it is storing the map in the charging station.**

### 3.3.4 Robot signal beeps

1. When mowing is started, there is no sound signal and the cutting deck starts rotating after 5 seconds.

2. If the robot starts calibration, changes position or is lifted, it will start after the mower is restarted.

The device will beep. The cutting disc will start rotating after 5 seconds of robot operation.

3. The alarm is triggered when the robot collides.

### 3.4 General settings

#### 3.4.1 Selecting the mowing mode

1. Press the button  go to the menu, use the buttons  /  select the mowing mode and then select the power (Turbo/Standard/Silent) and start mowing by pressing the button .

2. In the main garden with the charging station, if you have already created a map, you can choose  and  robot to The robot mowed in Systematic mode. Without a created map, the robot will mow in Random mode.

3. In the secondary area (without charging station), the robot can only mow in random mode. If you still If you select Systematic mode, the robot will mow for a while and then report an error because it cannot detect the signal from the charging station.

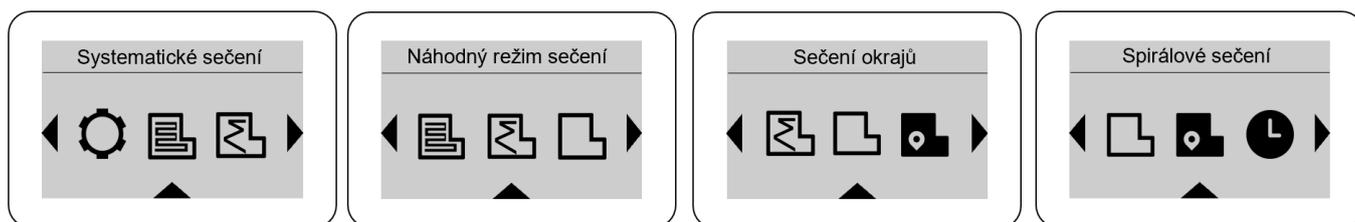
4. After completing the Systematic/Random/Edge Mowing mode, the robot will automatically return to the charging station.

5. When using Spiral Mowing, place the robot at least 0.75 m away from the perimeter wire. After finishing Spiral Mowing mode, the robot will continue in the original mode that you have primarily set.

#### Note:

**1. Modes: Systematic Mowing/Create Map/Quick Mowing cannot be used in the secondary area.**

**2. After the robot creates a map, it needs to be cleared using the "Reset" function so that it will be reset every time The next time it started it crashed in random mode.**

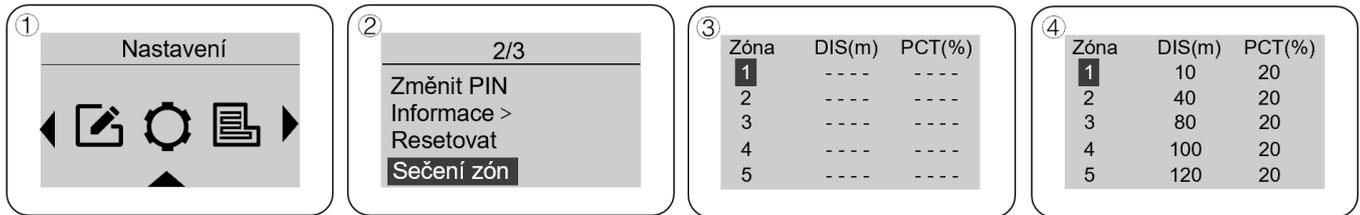


#### 3.4.2 Mowing individual zones

1. Press the button  go to the menu, use the buttons  /  go to page , confirm 

2. Enter the approximate distance to the entrance to each zone in meters, taking into account The probable distance of the 5-zone areas adds up to 100%.

**Note: The Zone Mowing feature is only available in Random Mowing mode..**

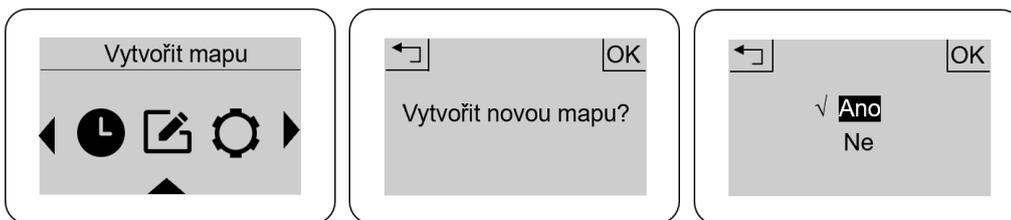


### 3.4.3 Manual map refresh

1.If you adjust the working area boundaries or move the robot to another lawn, the original map will become invalid, the robot must create a new map to continue mowing in Systematic mode.

2.Using the button enter the menu, using the buttons / select , pressing the button create a new map.

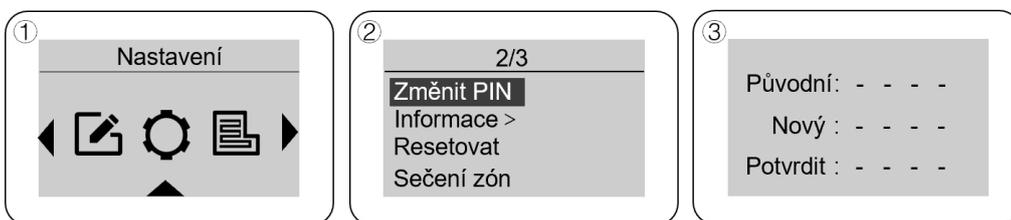
3.The cutting disc with blades does not rotate when creating a map.



### 3.4.4 Changing the PIN code

1. Press to enter the menu, use the buttons / find , by pressing the button go to settings page, select and enter the "Change PIN" page.

2.Using the buttons / enter the old and new PIN, pressing the button confirm and repeat Verify the new PIN.



### 3.4.5 Deactivating the rain and ultrasonic anti-collision sensors

1.By selecting the button go to the menu, use the buttons / go to settings by pressing the button go to the settings page, select and enter the "Rain sensor" / "Anti-collision sensor" page.

2.Select "off" / "on" to turn the sensor off / on.

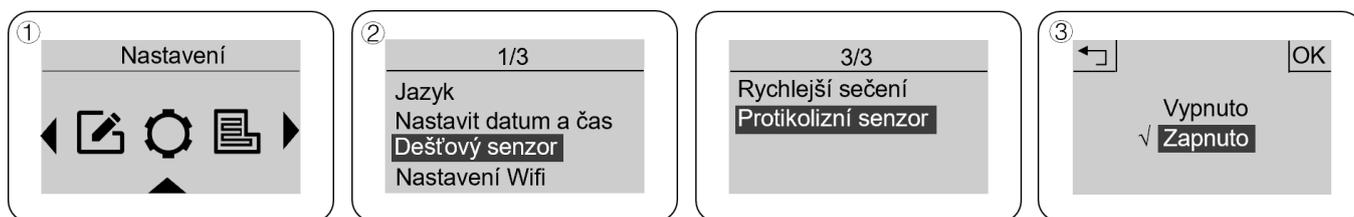
3.The robot will work even during rainy weather if the "Rain Sensor" is in the "Off" position.

4.If you want the robot to start mowing only after the rain has stopped for a while, you can set the time in the mobile app set the mowing delay after rain.

**Note:**

1. The ultrasonic anti-collision sensor automatically switches to the "Off" state when the robot is mowing. lawn edges/returns to charger/creates map/changes position. After the operation is complete, the sensor automatically turns on again.

2. When the robot is in standby mode on the charging station, the rain sensor is not active. In If it rains during standby mode, be careful and cancel the mowing schedule to avoid provided that you do not have the "After Rain Delay" function set, to damage the lawn.



### 3.5 Charging the battery

- 1.Press the button  to make the robot follow the perimeter wire to the charging station and recharge to 100%.
- 2.When the battery is low, the robot will automatically return to the charging station to recharge to at least 90% battery capacity and then completed the remaining tasks.
- 3.The LED on the charging station pulses while charging and turns solid when charging is complete.

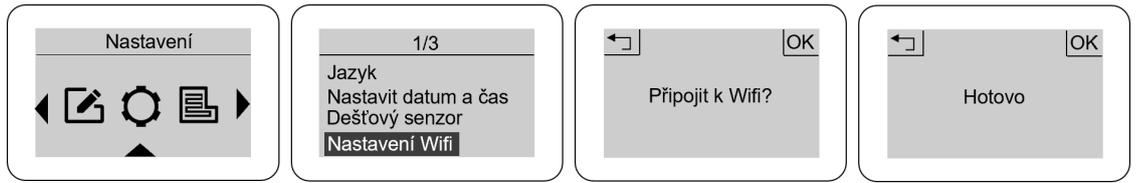
### 3.6 WiFi settings

#### 3.6.1 Setting up WiFi on the robot and installing the application

1. By choice  go to the menu by pressing the button  /  go to the settings page, select  and using  Enter the "WiFi Settings" page.
- 2.Press the button  and the display will show "DONE". This means the robot is connecting.
- 3.Confirm that you are connected to 2.4GHz Wi-Fi and have Bluetooth turned on, open the "InverGo" app to device search and go to pairing.

**Note:**

Scan the QR code and download the "InverGo" app from the iOS App Store/Google Play.



### 3.6.2 Creating an account



### Register

Mobile Number/Email

I Agree [User Agreement](#) and [Privacy Policy](#)

Get Verification Code

### Enter Verification Code

Verification code input field (6 digits)

A verification code has been sent to your email  
1062662394@qq.com Resend (56s)

### Set Password

Password

Use 6-20 characters with a mix of letters and numbers

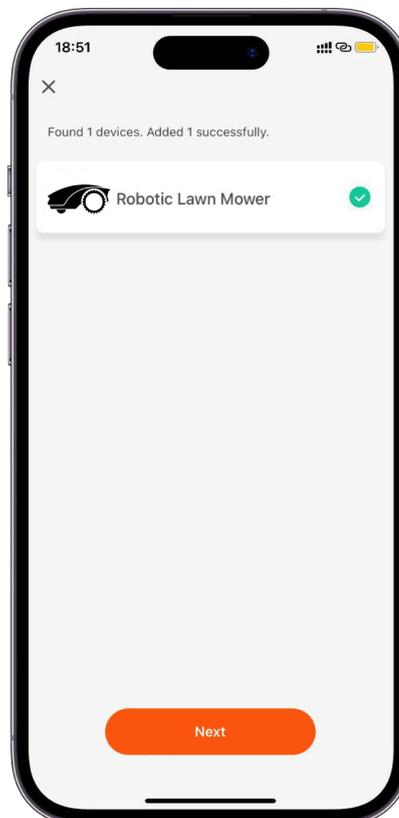
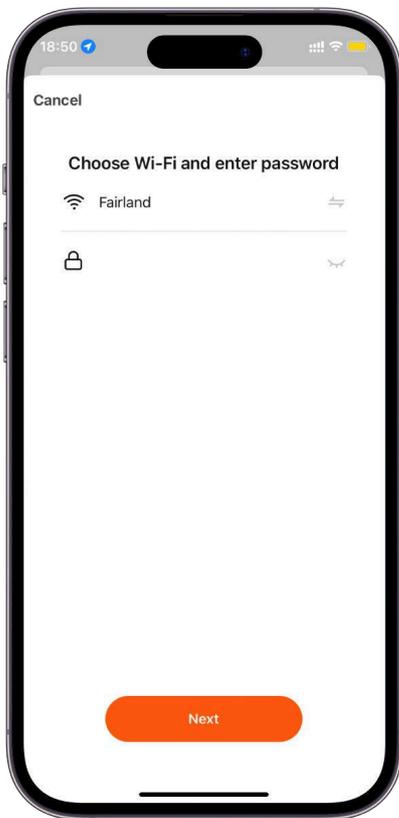
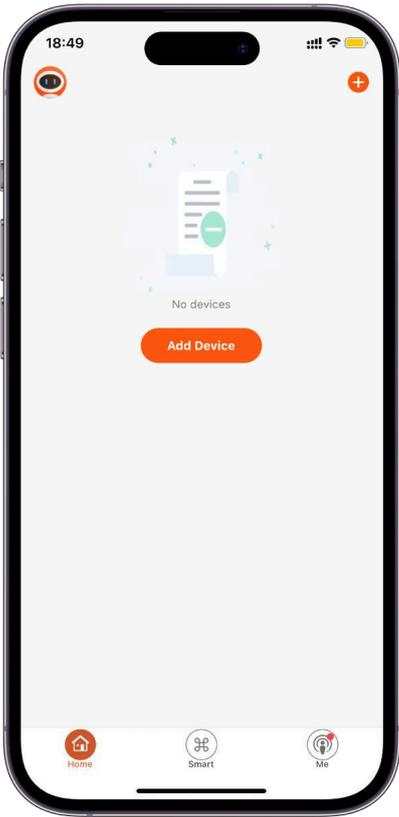
Done

### 3.6.3 Adding a device

#### Note:

Search for the robot within the time limit of 2 minutes and click the "Add" button or repeat 3.6.1 and search for it again.

If adding the mower fails, please check if the WIFI is 2.4GHz or use a personal hotspot to reconnect.

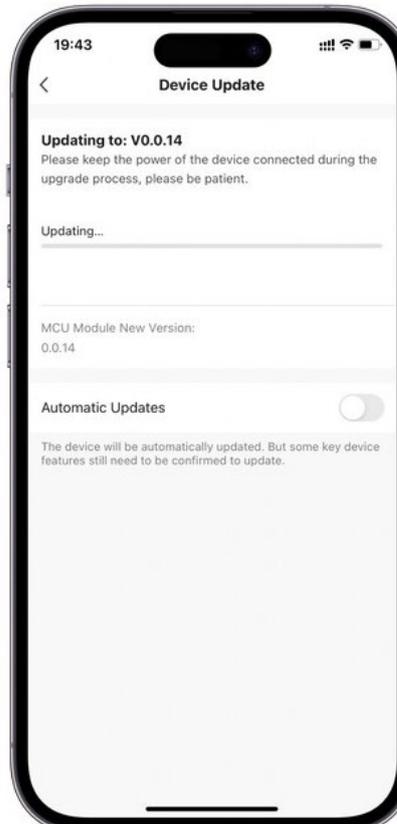
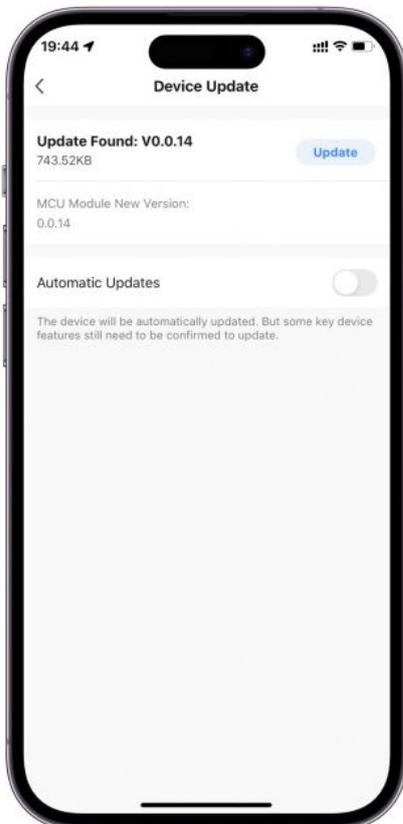
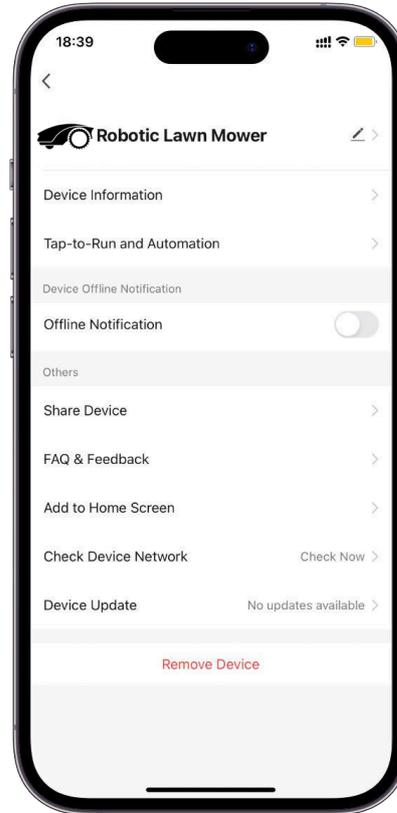
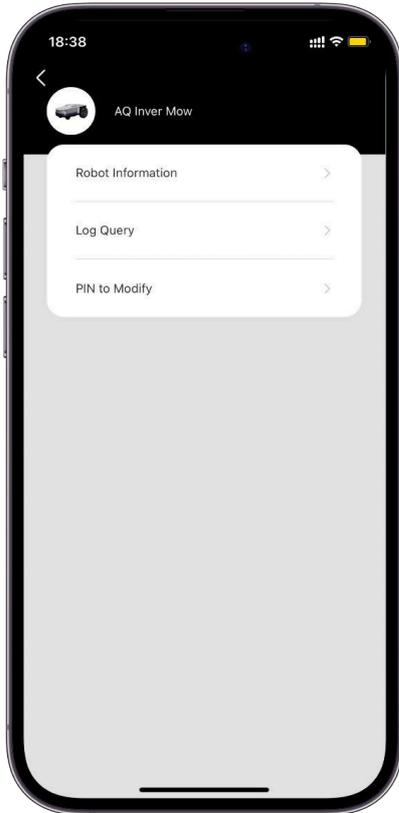


### 3.6.4 Update

Click



pages



**Note: To update, the robot must be in a location with a strong WiFi signal.**

- ① **You can update the robot while it is charging on the charging station.**
- ② **You can also move the robot to a location with a strong WiFi signal to update. The battery must be charged to 80%. Please note that you will need to manually restart the robot afterwards.**

## **PART 4. MAINTENANCE**

For optimal operation and long product life, clean it regularly and replace worn parts. Wear protective gloves when performing maintenance, especially when working with the blades. Make sure the robot is turned off before performing any type of maintenance.

Below are some necessary routine maintenance items. For detailed maintenance, please contact your dealer.

### **4.1 Maintenance schedule**

<b>Frequency</b>	<b>Part</b>	<b>Maintenance type</b>	<b>Link</b>
Weekly	Blades	Clean and check the efficiency of the blades. If bent or badly worn, replace them.	See "4.3 Replacing the blades".
	Rain sensor	Clean and remove any rust	See "4.2.4 Rain sensor".
	Charging contacts	Clean and remove any rust	See "4.2.5 Charging contacts".
Semi-annually	Bottom of the robot	Cleaning the bottom of the robot	See "4.2.1 Bottom".
	Robot wheels	Cleaning the robot wheels	See "4.2.2 Wheels".
Monthly	Robot	Cleaning the robot	See "4.2 Cleaning the robot"
Every year	Robot	Let robot to service in authorized service center.	See "6.1 Storing the robot"

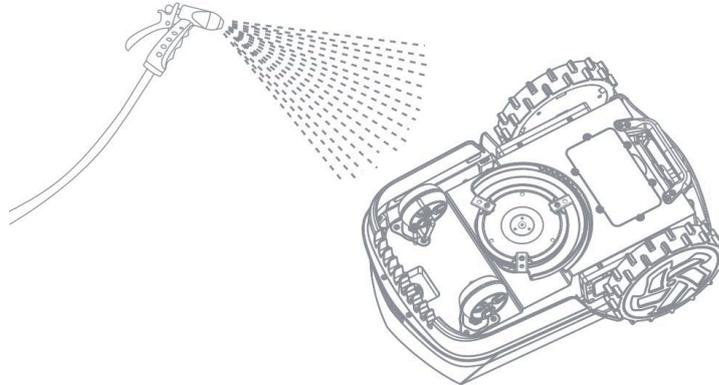
### **4.2 Robot care and cleaning**

1. The robot and charging station are waterproof to IPX6 standard and you can use it to clean all their surfaces hose.
2. For better results, we recommend using a brush and cloth to clean grass and mud debris before rinsing.
3. Do not clean the internal parts of the robot and do not use high-pressure water jets as this may cause damage electrical and electronic parts.

#### 4.2.1 Bottom of the robot

1. Turn off the robot and clean it with a brush and hose.
2. After cleaning the robot, check to make sure the disc and blades rotate freely.

**Note: If the robot is working on a wet lawn, clean the bottom of the robot immediately after mowing.**



#### 4.2.2 Wheels

Remove mud and grass from the wheels using a brush and water hose to ensure proper wheel traction.

**Note: If the robot is working on a wet lawn, clean the bottom of the robot immediately after finishing mowing.**

#### 4.2.3 Robot cover

1. Use a cloth and water hose to clean the robot housing.
2. Do not use solvents or polishes to avoid possible damage.

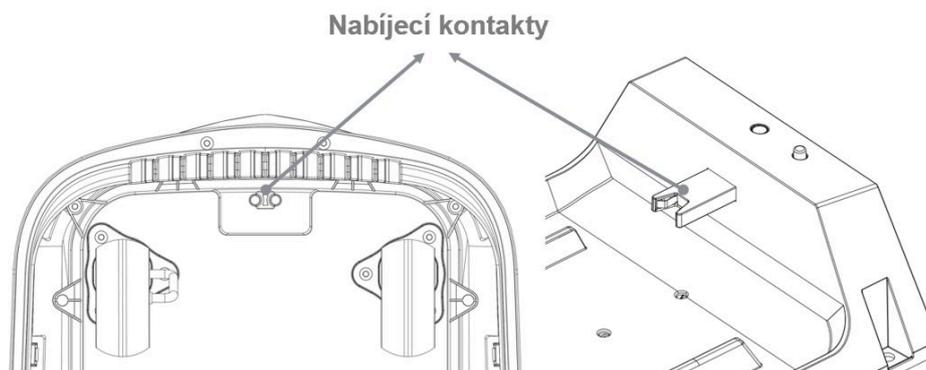
**Note: Before cleaning the robot cover, close the control panel cover, do not rinse the screen directly, to avoid damaging the robot.**

#### 4.2.4 Rain sensor

Regularly clean and remove oxides from the rain sensor with a cloth. Prevent rust from forming on the rain sensor due to long-term exposure to water, especially on rainy days.

#### 4.2.5 Charging contacts

1. Clean the charging contacts of the charging station and the robot with a cloth and a hose with water.
2. Regularly remove grass clippings and dust from around the charging contacts to ensure that the robot always charges successfully.



#### 4.3 Replacing the blades

1. Turn off the product.
2. Turn the robot upside down and place it on a soft and clean surface to prevent scratching the product.
3. Before removing or installing the screws, use a long screwdriver to secure the cutting disc against rotation. This will prevent accidental injury due to the rotating blade disc.
4. Use a flat-head or Phillips screwdriver to remove the screws.
5. Remove the worn blade and install a new one.
6. Use a flathead or Phillips screwdriver to tighten the screws, making sure the blades they can rotate freely.

#### Note:

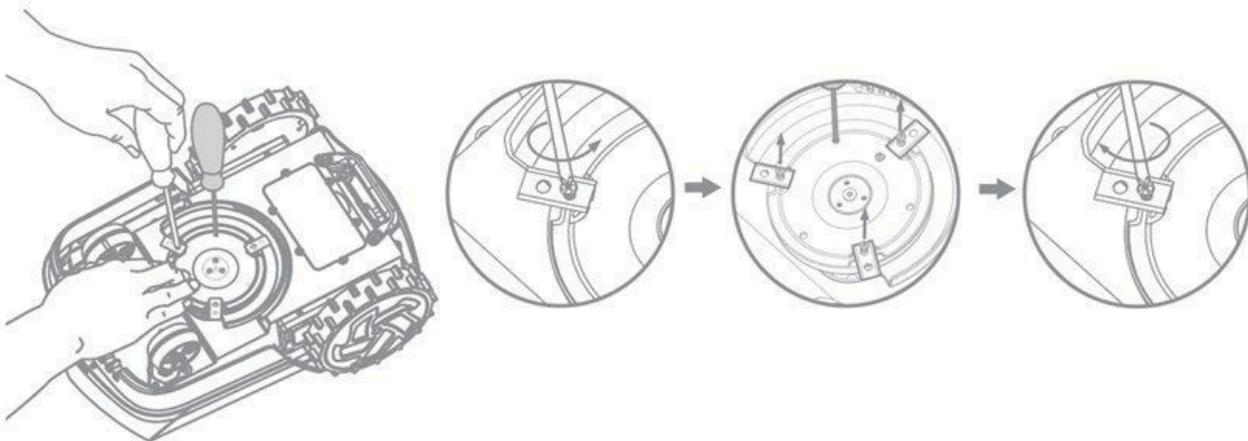
**Double-hole blades provide double the life, use each hole for one series use.**

The usual lifespan of the blades is 1 to 3 months.

**Ensure safe operation by replacing worn or damaged cutting edges.**

**To achieve satisfactory mowing results and low energy consumption, replace the blades regularly.**

**All 3 blades and bolts must be replaced at the same time to keep the cutting system balanced.**



#### 4.4 Batteries

1. We recommend that you always store the battery in a cool, dry place and for safety reasons, replaced by your dealer if necessary.
2. Battery life depends on the number of hours of use and the length of use per day.
3. If you do not use the robot for a long time, we recommend that you fully charge it at least once every six months to ensure protected the battery capacity.

## **PART 5. TROUBLESHOOTING**

### **5.1 Operational information**

<b>Information</b>	<b>Cause</b>	<b>Robot action</b>
The battery is almost dead. discharged	The battery has less than 20% capacity.	Return to the charging station to recharge
	The battery is less than 70% charged when starting a scheduled task or when manually starting mowing.	Continue charging until the battery is more than 70% charged.
The robot is not in charging station	Starting Systematic Mowing Mode Outside the Charging Station	Return to the charging station to start systematic mowing mode
Place the robot in bounded space and try that again	Starting spiral mowing mode in the charging station or on the perimeter wire	Return to charging station after 3 seconds
Spiral mowing completed	The robot has completed spiral mowing mode.	Standby mode for 3 seconds
Charging interrupted	Charging was manually stopped	Standby mode for 3 seconds
Watering time	Starting mowing at irrigation time	Back to previous page after 3 seconds
The time interval would should have been longer than 30 minutes	The delay between two tasks is less than 30 minutes	Back to previous page after 3 seconds
Invalid time	The task ends before the start time.	Back to previous page after 3 seconds
Loading map...	Robot loading map	Back to previous page after 3 seconds
Saving map...	Robot saves map	Back to previous page after 3 seconds
Now it's raining, I'm coming back on the charger	Rain sensor is triggered	Return to charging station after 3 seconds
Rain sensor activated	Rain sensor is not dry when mowing starts	Back to previous page after 3 seconds
Update failed	Firmware update failed	Back to previous page after 3 seconds
Please close. cover	Starting mowing	Back to previous page after 3 seconds
Time limit calibration	Robot calibration exceeded 3 minutes	Back to previous page after 3 seconds
Anomalies in GPS system	No GPS data after calibration	Back to previous page after 3 seconds

## 5.2 Error messages

Message	Cause	Action
Perimeter signal wire lost	The power supply is damaged or not connected.	If the LED on the charging station is not lit, it means that there is no power available. Check the connection to the socket, reconnect it or replace it.
	The perimeter wire is broken or not connected to the charging station or there is loose contact between the wires	If the LED on the charging station flashes green, it means that there is a break in the perimeter wire or loose contact between the wires. Find the break and repair it with a hydrogel connector or reconnect the wire firmly.
	The robot is too far from the boundary wire.	Check that the work area does not exceed the capacity of the area and reduce the work area if necessary.
Blocked left engine	Grass or other objects are entangled in the left rear wheel	Check the left rear wheel and remove grass or other objects
Blocked right engine	Grass or other objects entangled in the right rear wheel	Check the right rear wheel and remove grass or other objects
Blocking the mower engine	Grass or other objects are tangled in the blade disc.	Check the cutting disc and remove grass or other objects
Left engine disconnected	Possible problem with the left motor connection to the control panel	Restart the robot. If the problem persists, contact an authorized service dealer.
Right engine disconnected	Possible problem with connecting the right motor to the control panel	Restart the robot. If the problem persists, contact an authorized service dealer.
Mowing motor disconnected	Possible problem with the connection of the mower motor to the control panel	Restart the robot. If the problem persists, contact an authorized service dealer.
Abnormality in left engine	All three levels of the Hall sensor in the left motor are consistently low or high.	Do not pick up the robot and enter the PIN code to deactivate the fault.
Abnormality in right engine	All three Hall sensor levels in the right motor are consistently low or high	Place the robot in the restricted work area, then enter the PIN to deactivate the fault
Abnormal operation from engine	All three levels of the Hall sensor in the mower motor are detected as consistently low or high	Place the robot horizontally within the boundary wire and enter the PIN code to deactivate the fault
Fault on left engine	Grass or other objects tangled in the left rear wheel	Check the left rear wheel and remove grass or other objects
Fault on right engine	Grass or other objects entangled in the right rear wheel	Check the right rear wheel and remove grass or other objects

Fault on mower engine	Grass or other objects get tangled in the cutting disc	Check the cutting disc and remove grass or other objects
Low temperature battery	Battery temperature is too low	The robot will start mowing again as soon as the temperature is within the set limits and the schedule settings allow it to work. Make sure the charging station is placed in a place protected from the sun.
Overheated battery	Battery temperature is too high	
Excessive voltage in the battery	The power supply unit is under excessive voltage or is defective.	Restart the robot. If the problem persists, contact an authorized service dealer.
Battery damage	Inappropriate battery type	Use only original batteries recommended by the manufacturer.
Low voltage in battery	The battery has not been used for a long time.	Charging the battery
Mower tilted	Robot tilt above 35° and less than 55°	Move the robot to a flat surface.
Mower raised	The front wheels are raised.	Move the robot to a flat surface.
Mower overturned	Tilting the robot above 55°	Move the robot to a flat surface.
Robot stuck	Stuck in the charging station for more than 3 minutes.	Manually rescue the robot from trouble
	Automatic recharge failed three times	Make sure the charging station is properly installed on a flat surface. Clean the charging contacts
	The collision duration is longer than 10 seconds or crashed three times	Remove obstacles and restart the robot.
Outside of work space	The perimeter wire connections to the charging station are crossed.	Make sure the perimeter wire is connected to the charging station correctly.
	The working surface is too steep for the perimeter wire.	Ensure the boundary wire is laid correctly. See "PART 2. Installation"
	The perimeter wire is too close to the boundary of the working area.	
	The perimeter wire around the island is not installed correctly. The perimeter wires are crossed.	
	Interference with the perimeter wire by metal objects (fences, iron bars) or wires placed nearby	Try moving the perimeter wire and/or creating a an island where the robot is not allowed to enter to increase signal strength
	The robot cannot find the perimeter signal due to interference from the loop signal from another robot installed nearby	Place the robot on the charging station and create a new loop signal. See "5.3"

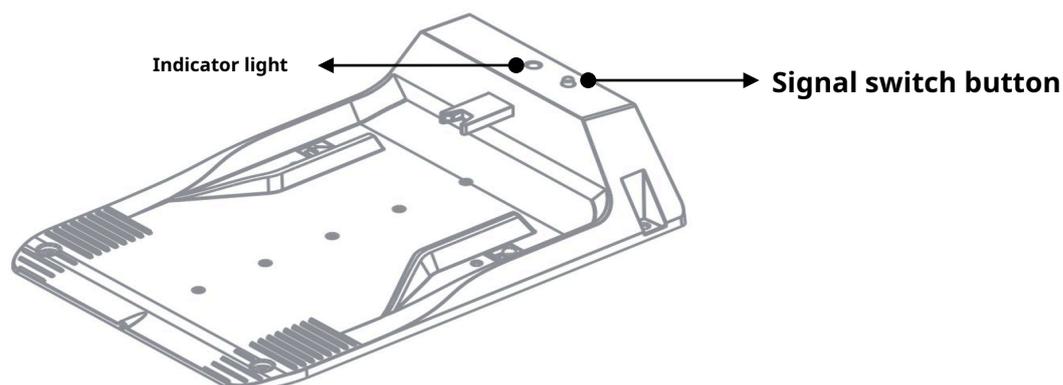
Creating a map failed	There are objects on the perimeter wire or charging station.	Removing obstacles
	Robot slipping while creating a map	Manually mow thick and tall grass on the perimeter wire
	The work area exceeds the capacity of the area.	Reducing the work area
Anti-collision Ultrasonic sensor disconnected	Potential problem on the printed circuit board (DPS)	Restart the robot. If the problem persists, contact an authorized service dealer.
Sensor failure stroke		
Left malfunction Sensor perimeter wire		
Right-hand malfunction sensor perimeter wire		

### 5.3 Charging station indicator light

Light	Description
Green pulsation	The robot is charging in the charging station
Green constant	The robot is fully charged in the charging station/The perimeter wire loop signal is OK.
Green flashing	The perimeter wire loop signal is abnormal.
Red flashing	Press the button on the charging station to create a new perimeter wire loop signal.

**Note: In the following two cases, the perimeter wire signal can be activated by pressing the button on the switch charging station.**

- ① The indicator light is flashing green, the loop signal is abnormal.
- ② Signal interference caused by the perimeter wires of two robots being too close to each other.



## 5.4 Symptoms

Symptoms	Cause	Robot Action
LED indicator on The charging station is not lit.	Power error	Check that the charging station is properly connected to the charger and that the charger is connected to a suitable power source
Flashing green charging indicator lights station	The perimeter wire is broken, not connected, or the wires to the charging station are connected in reverse.	Check that the perimeter wire is properly connected to the charging station and that the wire is not broken anywhere along the perimeter.
The robot turns on, but the cutting disc does not rotate.	Robot creates map / returns to charging station	This is normal behavior: when the robot is creating a map / returning to the charging station, the cutting disc with blades does not rotate.
The robot vibrates	Unbalanced cutting disc, blades may be damaged	Check the blades and replace them if damaged, remove dirt and foreign objects from the blades and disc
The grass is cut unevenly	The robot works too few hours a day	Extension of mowing time
	The blades are worn and not sharp.	Replace all blades for maximum cutting efficiency.
	The cutting height is set too low for the length of the grass.	Raise the cutting height and gradually lower it
	Grass or other objects caught in the cutting disc	Check the blade and remove grass or other objects that could prevent the blade from rotating.
The robot is in its workspace and the perimeter wire is connected, but the display shows "The robot is outside the bounds area "	The ends of the perimeter wire are connected in reverse	Swap/reverse the ends of the perimeter wire to the charging station
Charging time significantly exceeds the specified charging time	Poor connection caused by dirt on the charging station	Clean the contact surfaces on the charging station and the charging contacts on the robot.
	Battery temperature is too high	Place the charging station in a place protected from the sun or wait until the temperature drops
The robot cuts shorter time between charges, than usual	The battery may be dead or old.	Battery replacement
	Grass or other foreign object is blocking the cutting disc	Remove and clean the cutting disc
	Dull blades, the robot uses more energy when mowing the grass	Replace the blades
The robot is not working properly. connected to the charger	Charging station on uneven ground	Use a spirit level to make sure the charging station is standing on a level surface.

station	Poor connection caused by dirt on the charging station	Clean the contact surfaces on the charging station and the charging contacts on the robot.
Slipping or repeatedly rear wheel slippage <small>wheels</small>	Foreign obstacles, such as branches, may become stuck under the robot.	Remove foreign objects from the bottom of the robot
	The lawn is too wet.	Wait until the lawn is dry
Failure ultrasonic sensor when avoiding with obstacles	The position of the obstacle is out of range of the ultrasonic sensor. (Recognition range: 1. Angle between the robot and the obstacle: 60-120°, 2. Minimum obstacle size: 25 cm*φ3 cm)	In addition to the ultrasonic sensor, the robot also has protection against current collision.  For soft obstacles in fixed positions, it is recommended to demarcate them as prohibited zones
	The robot turns or an obstacle suddenly appears	
Control system The robot is not charging or in standby mode. <small>the regime collapses</small>	Software or display malfunction	Restart the robot. If the problem persists, contact an authorized service dealer.
The robot is docked in the charging station <small>turns off</small>	The robot is not charging due to overheating protection and is turned off.	Place the charging station in a place protected from the sun or wait until the temperature drops
	Poor connection caused by dirt on the charging station	Check the LED on the charging station and the connection between the contact sensors located on the charging station and the charging contacts on the mower.

## **SECTION 6. STORAGE AND DISPOSAL**

### **6.1 Storing the robot**

After the mowing season is over, a number of maintenance tasks must be carried out to ensure that the robot is ready for use in the future. reuse work well.

1. Fully charge the battery before winter storage and ensure it is recharged at least every 6 months.
2. Unplug the power plug from the electrical outlet. If necessary, also disconnect any power cords to the charging station.
3. Clean the robot and charging station, check for any worn or damaged parts (e.g. blades) and evaluate whether a replacement is necessary.
4. Store the robot and charging station in a cool, dry place at an ambient temperature of 10-20°C, out of the reach of children, animals, other foreign objects, etc.

To keep the robot in good condition, we recommend that it be serviced regularly by an authorized dealer.

Professional service usually includes the following operations:

1. Complete cleaning of the robot and all other moving parts.
2. Checking the robot's functions.
3. Check for worn or damaged parts and replace components (e.g. blades) if necessary.
4. Check the battery capacity and replace it with a new one if necessary.
5. If necessary, the seller will update the robot software.

## 6.2 Disposal of the robot

At the end of its useful life, this product will be classified as WEEE (Waste Electrical and electronic equipment). Therefore, it must not be disposed of as normal household waste, mixed municipal waste (unsorted) or municipal waste (sorted).

If disposal is necessary, the user must ensure that the product is recycled in accordance with the requirements local legislation; in particular, electrical and electronic components must be separated and sorted in an authorized center for the disposal of waste electrical and electronic equipment or handed over to the retailer in its original condition when purchasing a new product. Misuse of WEEE will be punished according to applicable local legislation.



### Note:

- 1. Packaging - Users must dispose of product packaging in a sustainable manner in designated waste containers or at authorized waste disposal centers.**
- 2. Batteries - Old or discharged batteries contain substances that are harmful to the environment and human health. health and must not be disposed of as household waste. The user must dispose of the batteries carefully into a special waste container or at an authorized waste disposal center. waste disposal.**

## **PART 7. WARRANTY**

AQUARK's warranty covers the functionality of all models for 2 years from the date of purchase. Warranty covers serious defects related to materials or manufacturing defects. During the warranty period, the product will be replaced or repaired free of charge if the following points are met:

The robot and charging station may only be used in accordance with the instructions in this operating manual.

This manufacturer's warranty does not affect warranty claims against the seller.

End users or unauthorized third parties must not attempt to repair the product.

Examples of defects not covered by the warranty:

Damage caused by water leakage when using a high-pressure cleaner or by immersion in water, for example when heavy rain, when puddles of water form.

Damage caused by not closing the control panel cover before cleaning the robot and rinsing it directly on the screen.

Damage caused by lightning.

Damage caused by improper battery storage or handling.

Damage caused by using a non-original AQUARK battery. Damage caused by not using original AQUARK spare parts and accessories, such as blades and installation material, are used.

Damage to the loop wire.

Damage caused by unauthorized modification or tampering with the product or its power supply.

Blades and wheels are considered disposable and are not covered by the warranty. If your product AQUARK detects a defect, contact the customer service of Mr.Grass sro, who will provide you with further instructions. When contacting Mr.Grass sro customer service, please have your receipt and product serial number.

**PART 8. DECLARATION OF CONFORMITY**

AQUARK TECHNOLOGY LIMITED, RM D 10/F TOWER A BILLION CTR1 WANG KWONG RD KOWLOON BAY KL,  
declares that MR.GRASS robotic lawnmowers comply with the requirements of the COUNCIL DIRECTIVE:

**Product name:** ROBOTIC LAWN MOWER MR.GRASS

**Product model numbers:** AI55, AI36, AI25

**The purpose of the declaration described is to ensure that the models comply with the relevant Union harmonisation legislation:**

- Radio Broadcasting Directive 2014/53/EU (RED)**
- Electromagnetic Compatibility Directive 2014/30/EU LVD**
- Directive 2014/35/EU**
- Machinery Directive 2006/42/EC**
- RoHS Directive 2011/65/EU and amending Directive ((EU)2015/863)**

**Complies with the following harmonized**

**standards: EN IEC 62311: 2020**

**EN 301 489-1 V2.2.3 EN 301**

**489-17 V3.2.6 EN**

**55032:2015/A11:2020**

**EN 55035:2017/A11:2020**

**EN 300 328 V2.2.2**

**EN 60335-1:2012/AC:2014+A11:2014+A13:2017+A1:2019+A14:2019+A2:2019+A15:2021 EN**

**50636-2-107:2015/A1:2018+A2:2020+A3:2021**

**EN 62233:2008**

**EN IEC 63000:2018**



(Authorized representative of AQUARK TECHNOLOGY, responsible for technical documentation.)

Responsibilities.....: Current certification department

Place and date.....: Guangzhou 2024.11.28

First and last name...: Eric Zhang

Signature.....: *Eric zhang*









