LANDROID®

UNMANNED MOWING VEHICLE

INSTALLATION GUIDE

WARNING: Read all safety warnings and all instructions. *Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.*

Carefully read the instructions for the safe operation of the machine.

Save all warnings and instructions for future reference.

How to install your Landroid®

The installation Landroid® of is easy. The entire process only takes a little time, depending on the size of your garden. If you are like us, you hate wasting time to mow your lawn. Your Landroid® will prove to be a great investment, providing you with years of lawn care.
You can watch the installation demo video at **www.worx.com**.

Landroid® loves to mow

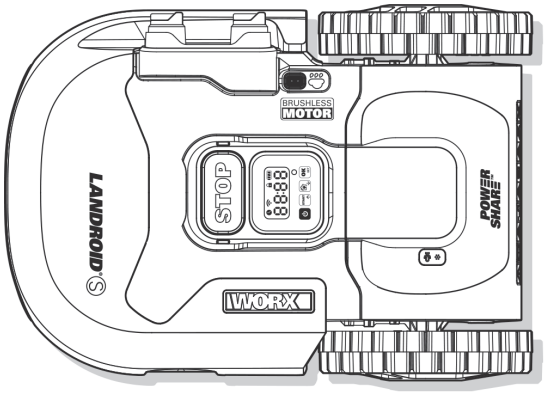
Your Landroid® is designed to mow regularly, maintaining a healthy and better looking lawn than before. Depending on the size of your lawn, Landroid® may be programmed to operate at any time or frequency with no restrictions. It is here to work for you.

Preparation

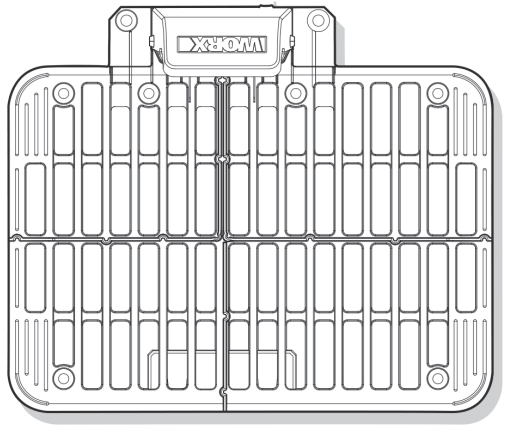
Before starting the installation process, read through this entire Installation Guide carefully. Sketch the working area, including all obstacles, to make it easier to see the ideal positions for the charging base and where the boundary wires should be routed.

In the box

WR130E WR131E



Landroid®

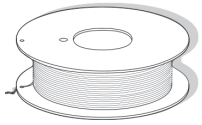


Charging base

Base fixing nails

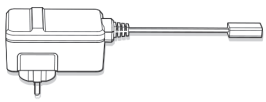
Hex key

Spare blades



Boundary wire reel

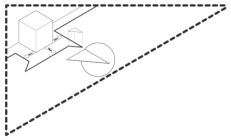
Wire pegs



Power adapter

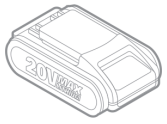
Connector

Distance gauge*



Get Started

Warranty statement

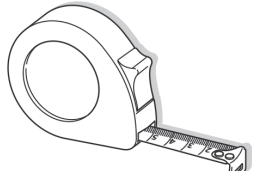


Battery

From your shed

Scissors

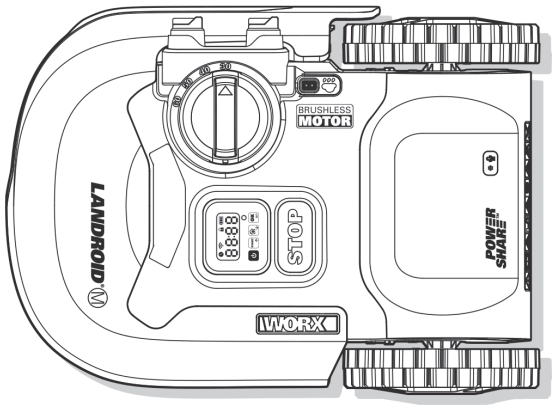
Hammer



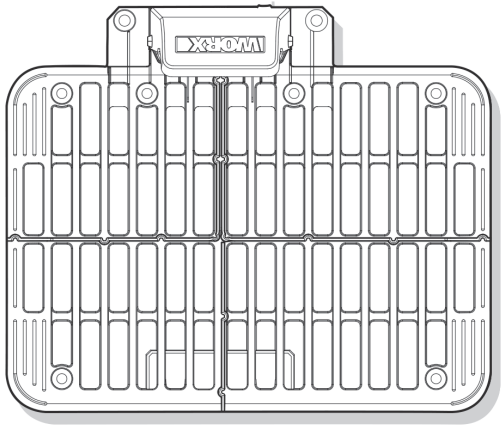
Tape

In the box

WR141E WR144E



Landroid®



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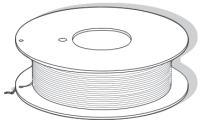
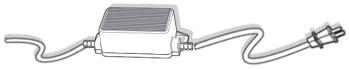


Boundary wire reel

Wire pegs



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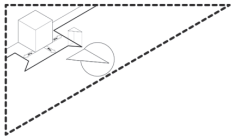

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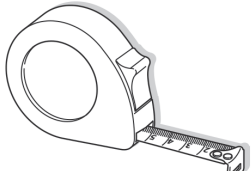
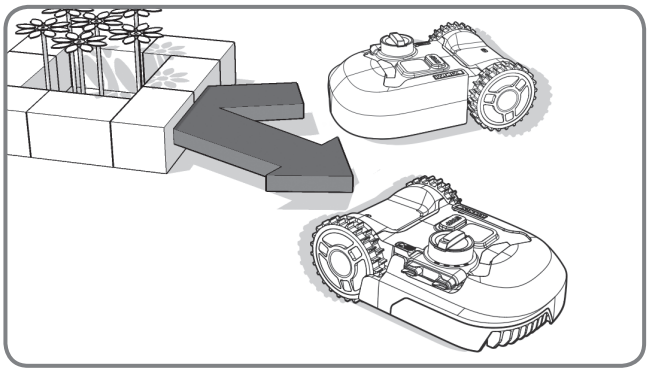


Tape

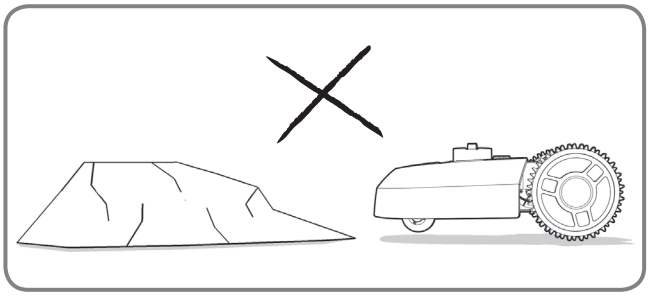
Landroid®'s new home: your garden

Let's start by having a closer look at Landroid®'s new home - your lawn - highlighting the areas where it can safely go and areas Landroid® should avoid.



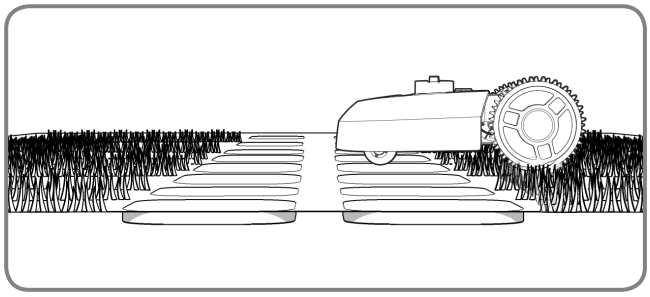
Obstacles that can be hit

When hitting any obstacle that's rigid, stable and taller than 10cm - such as a wall or a fence - Landroid® will stop and re-direct away from the obstacle.



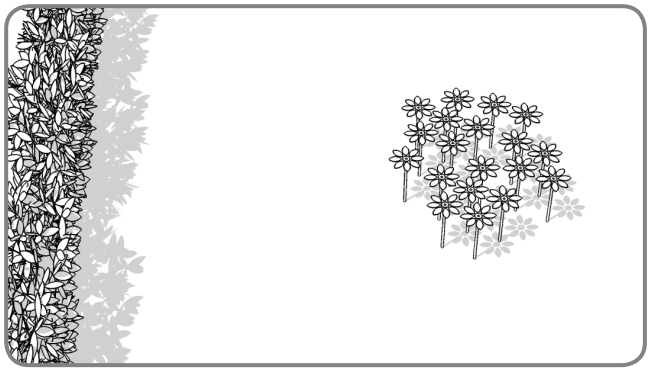
Stones

Stones too heavy to be moved by your Landroid® can be safely hit. However, if a stone has an inclined surface that your Landroid® can climb, it should be removed or excluded from the working area.



Driveways

If your driveway is level with your lawn, without any protruding surface, Landroid® can freely run over it. If you'd like Landroid® to avoid it, place the boundary wire 10cm* away from it.
If it's covered with gravel, you should not allow Landroid® to travel over it. Using the distance gauge for spacing, keep a 26cm* space between the boundary wire and the driveway.
* This is the recommended distance. The provided distance gauge ensures proper installation.

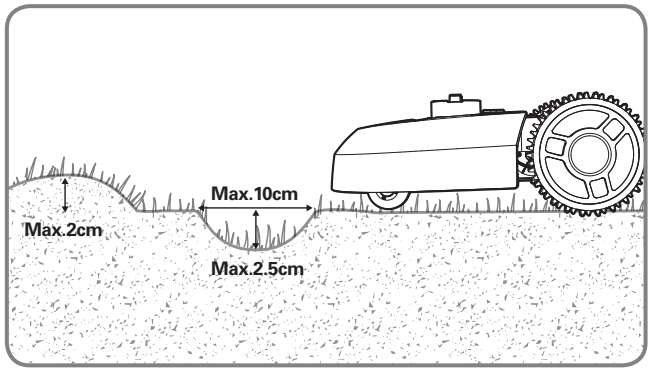


Flowerbeds, ponds, pools...

You certainly don't want Landroid® to mow your flowers, or fall into the water. These areas should be avoided.
Additionally, obstacles between 2cm-10cm high should also be excluded from Landroid®'s operation area.

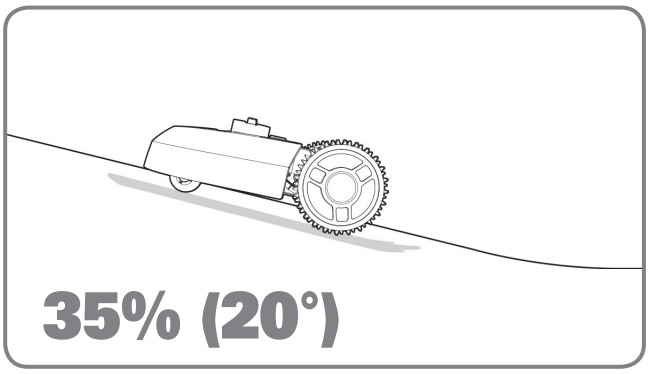
Trees

Roots emerging from the ground should be avoided to prevent damage.



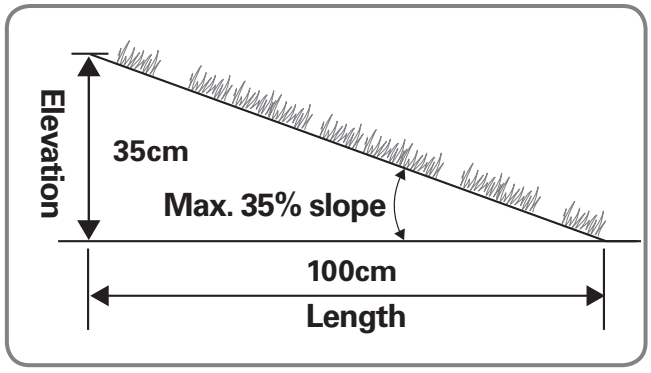
Depressions and bumps

In case of large bumps (higher than 2cm) or dips (wider than 10cm and deeper than 2.5cm), please determine if the blades would touch the ground or if Landroid® would get stuck. If this is the case, either make the inclines smoother or exclude these areas from Landroid®'s operation.



Slopes

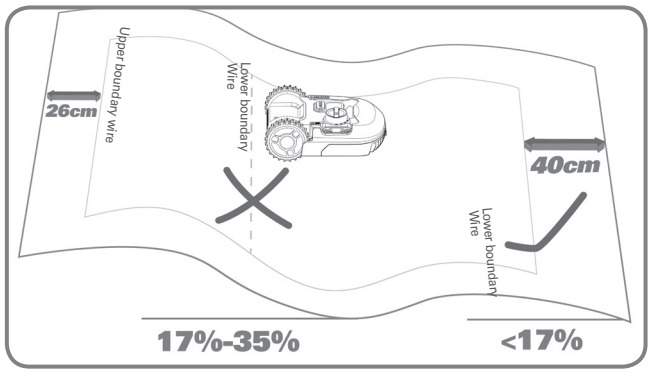
Your Landroid® has the ability to safely climb slopes up to 35% (20°)**, so please avoid areas steeper than this.



****How to calculate the slope of your lawn:**

The slope would be:

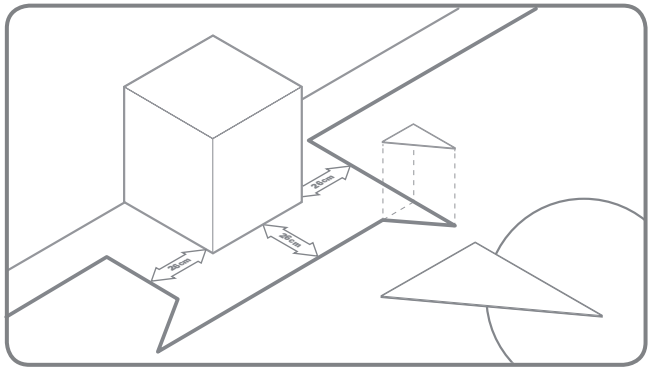
$$\frac{\text{35cm (Elevation)}}{\text{100cm (Length)}} = 35\% \text{ (slope)}$$



Placement of boundary wire on slopes

The upper boundary wire should NOT be placed on slopes steeper than 35% (20°), and it should be placed at a distance of 26cm from any obstacle. The lower boundary wire should NOT be placed on slopes steeper than 17% (10°), and it should be placed at least 40cm away from any obstacle when positioned on a slope that is 17%.

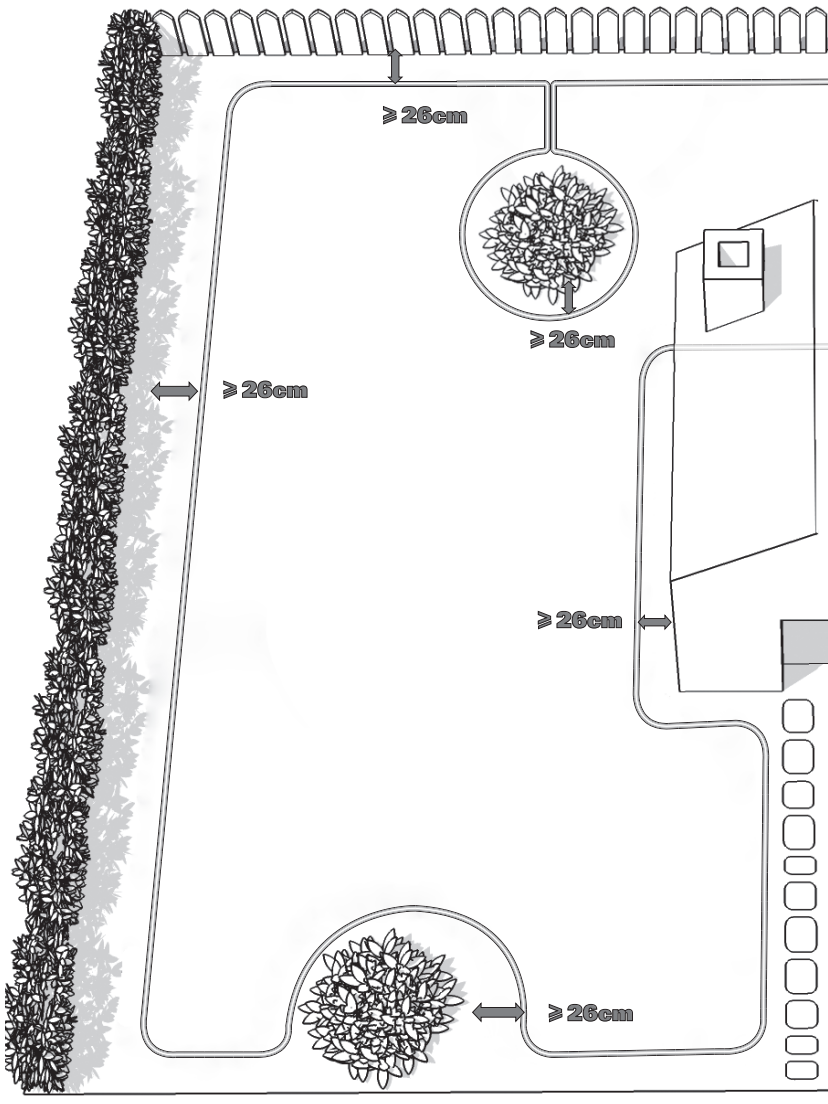
NOTE: The lower boundary wire cannot be laid across a slope steeper than 17% as Landroid® will slip and cross outside the wire, especially when the grass is wet.

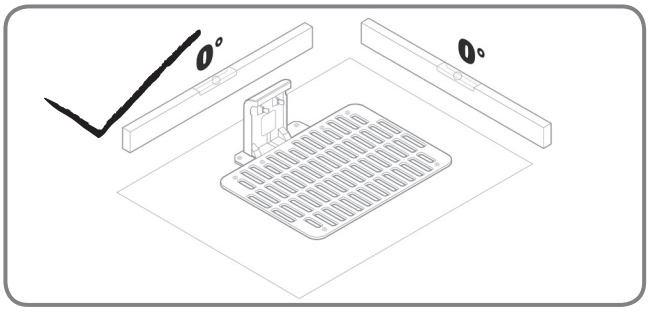


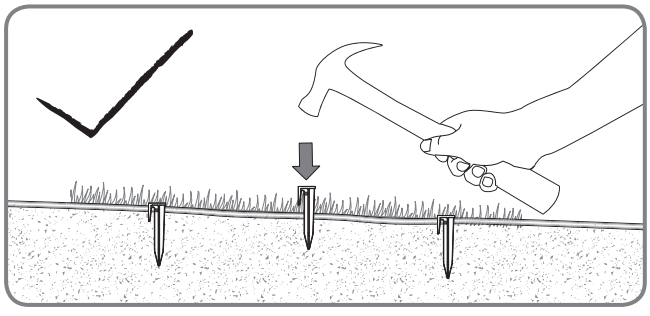
Placement of boundary wire at a corner

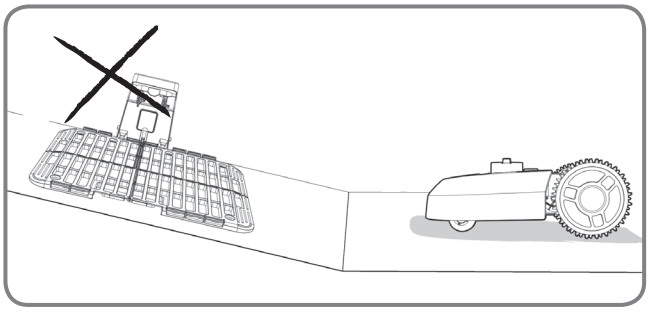
If you want Landroid® to turn a right angle, lay down the boundary wire as the illustration shown.

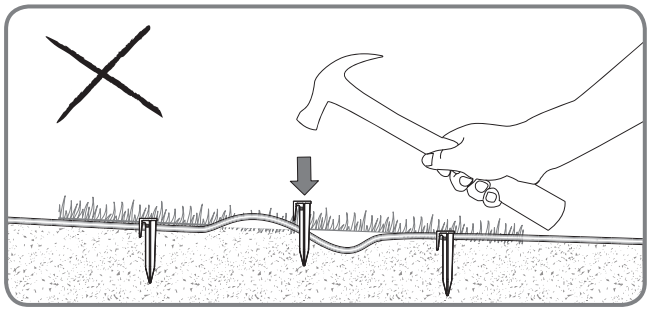
Overview





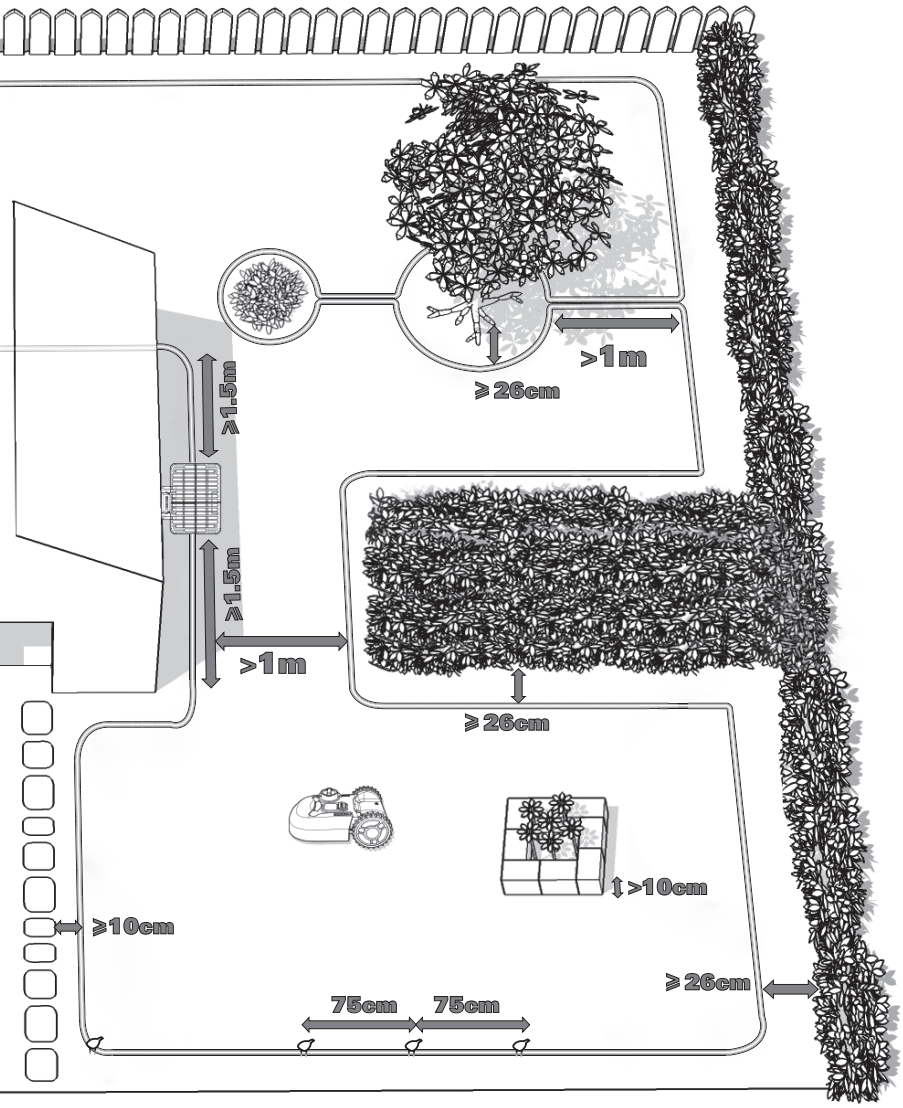


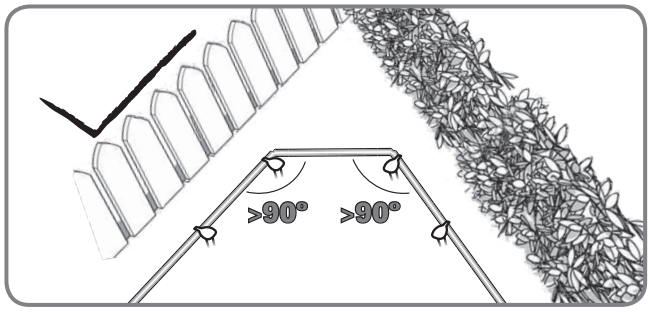


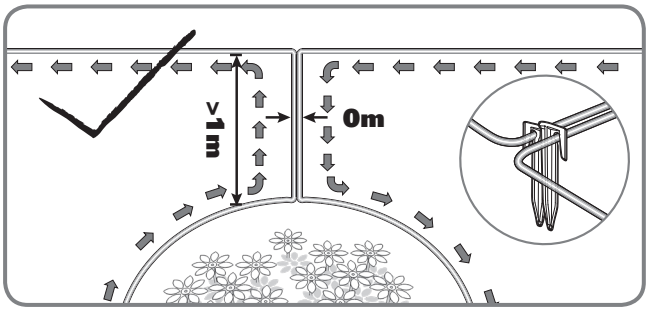


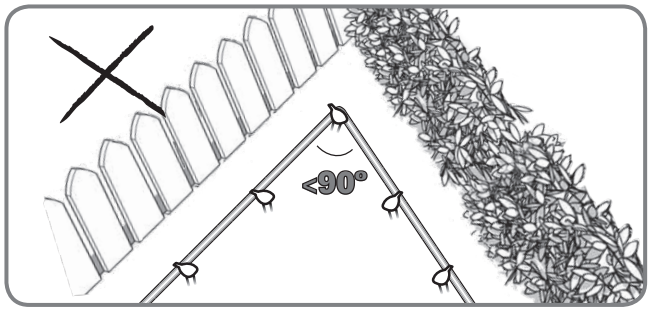
Your Landroid® needs to know where to mow. Using the boundary wire, you'll define Landroid®'s working area and form an invisible fence. This wire will also guide Landroid® to its charging base.

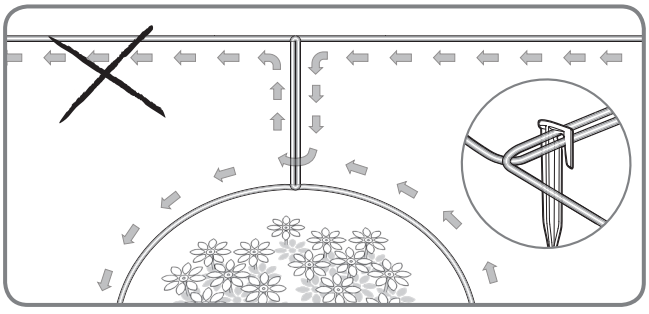
"Please note: Under certain conditions, additional magnetical fields generated by reinforcement steel (Rebar), which is often found in underground constructions like a parking garage or an underground





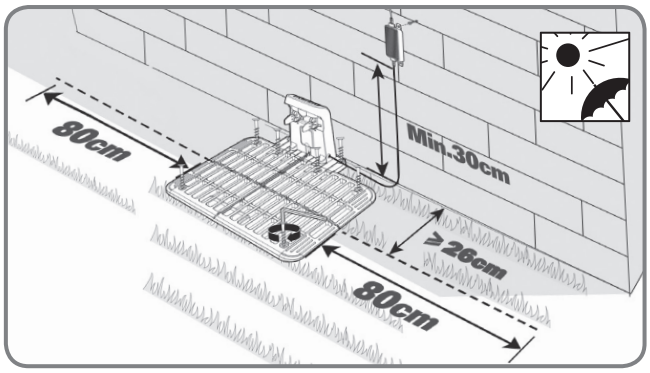






hangar, can lead to navigational disturbances of robotics lawn mowers."
If your neighbor also uses a Landroid®, you must keep a space of at least 1 metre between your boundary wire and your neighbor's.

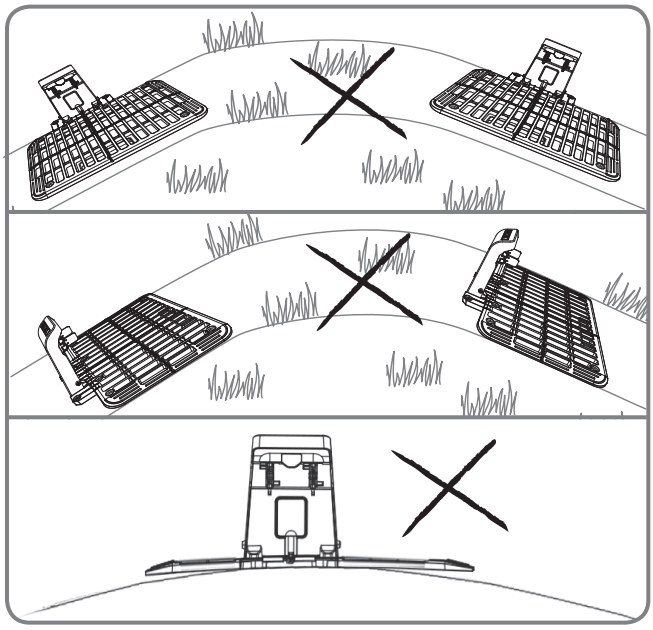
Installation



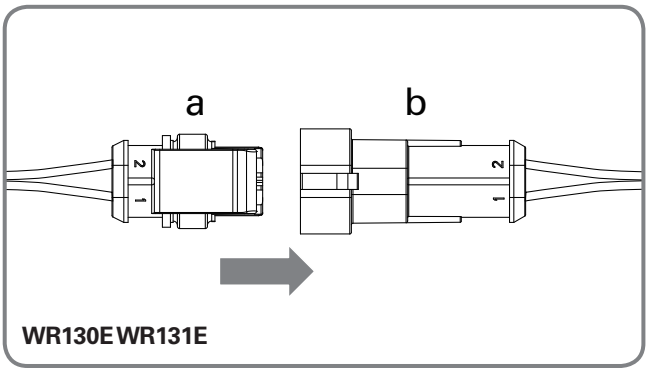
1

Place the charging base

Find a flat surface for the charging base, the place should be dry and out of direct sun light and the adapter can be mounted on the wall.
Landroid®'s charging base can be placed against the wall or fence, with the charging components facing your lawn. If possible, place the charging base in the shade, and batteries are better recharged in a cool place. When laying the boundary wire, leave at least 150cm of straight wire with no obstacles on each side of the charging base. Make sure the adapter and electrical outlet are always kept in a dry place.
You can now permanently fix the charging base to the ground by tightening the supplied base fixing nails with the supplied hex key.
NOTE: Boundary wire on each side of the charging base should be straight for 80cm without corners or obstacles to ensure proper docking.



The charging station must be positioned on relatively level ground. It must not be positioned on an inclined surface or anywhere that makes its plate bend.



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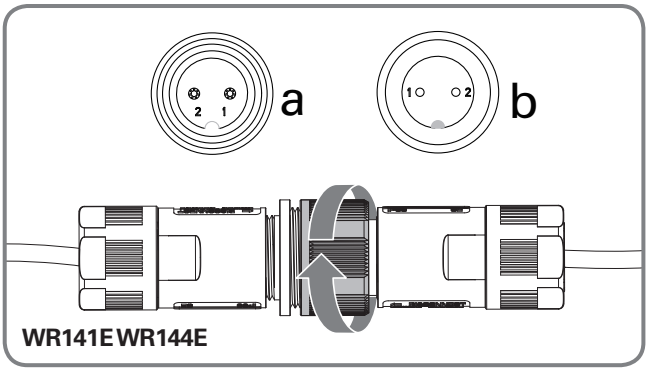
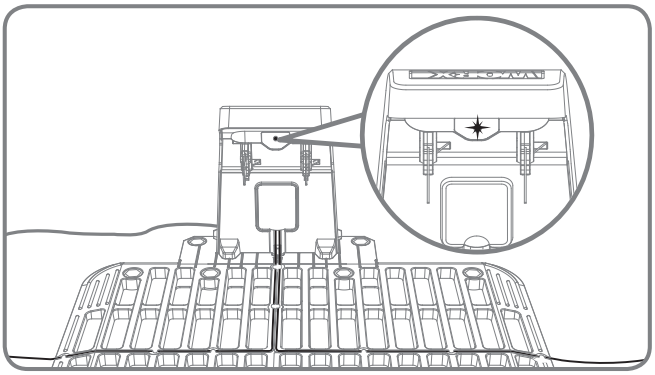


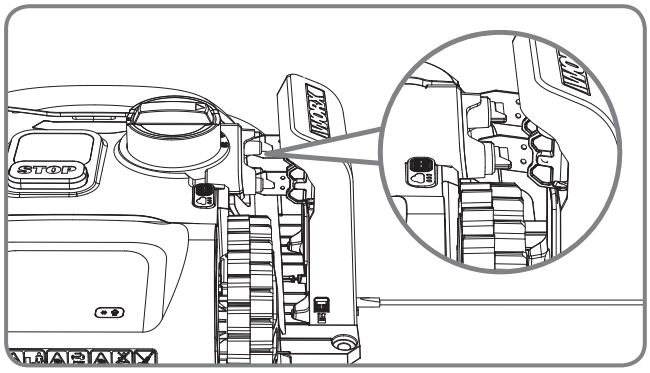
WR141E WR144E

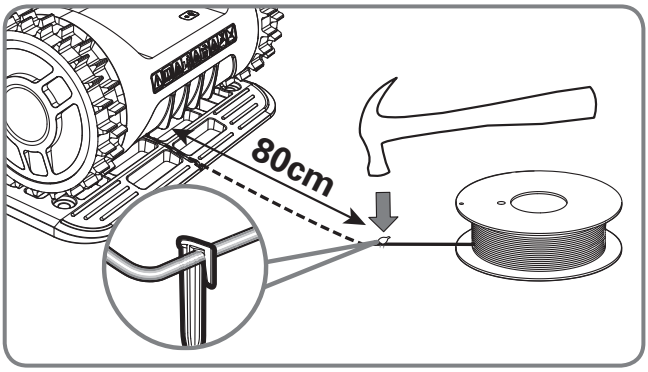
2

Charge your Landroid® before the first operation

When connecting the power cord of the charging base to the adapter, align the notch on the power cord (b) with the groove on the adapter (a).
Connect the adapter to the electrical outlet. The LED on the charging base will turn on in red color. Manually dock Landroid® into the charging base while Landroid® is powered off. The green light on the charging base will turn green and Landroid® will begin to charge.
If the power cord is in Landroid®'s working area, you may bury it if desired.
NOTE: If you want to plug the adapter in an indoor electrical outlet, you need to route the power cord through the hole in the wall.



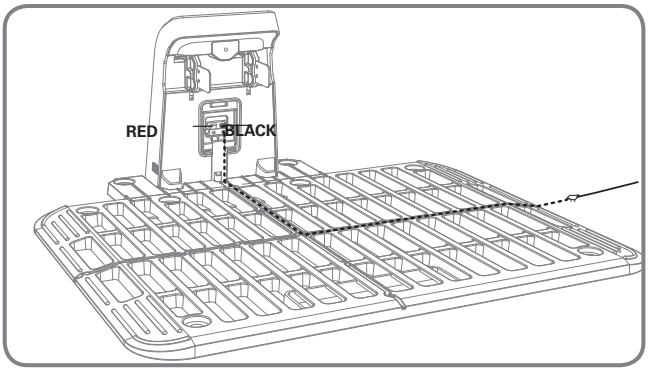


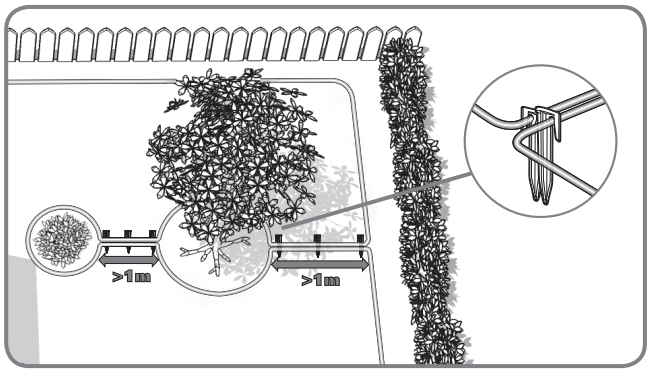


3

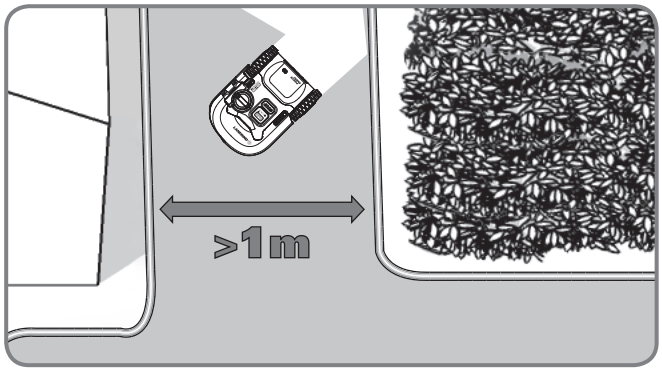
Peg the boundary wire

Before pegging the boundary wire, it is recommended to use a normal lawn mower or a grass trimmer to cut the grass along the boundary. Then the wire should be laid as close as possible to the ground to prevent your Landroid® accidentally cutting the wire. The boundary wire is powered with a very low voltage totally safe to humans and pets.
Pull out a length of boundary wire around 80cm and fasten it to the ground near the charging base. Later, this end of the boundary wire (IN-wire) will be connected to the BLACK terminal after pegging your boundry wire.
NOTE: The extended boundary wire should not exceed 400m or it may cause signal problem.

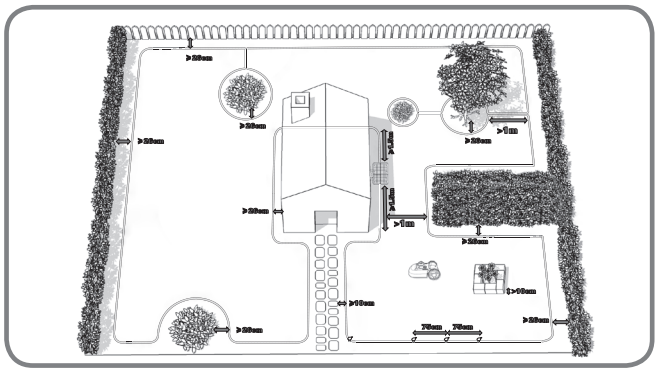


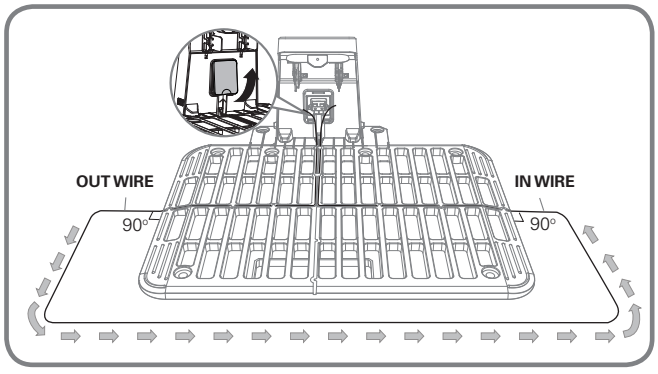


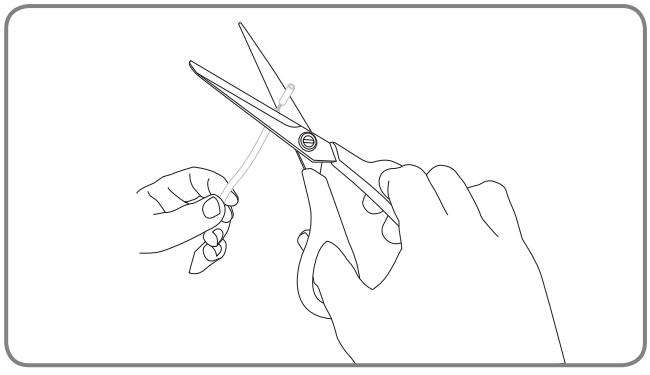
In the case of two islands that are close to each other, it would be convenient to lay out the wire as illustrated in the picture. Landroid® can travel freely over the boundary wire between the areas and the mowing boundary.

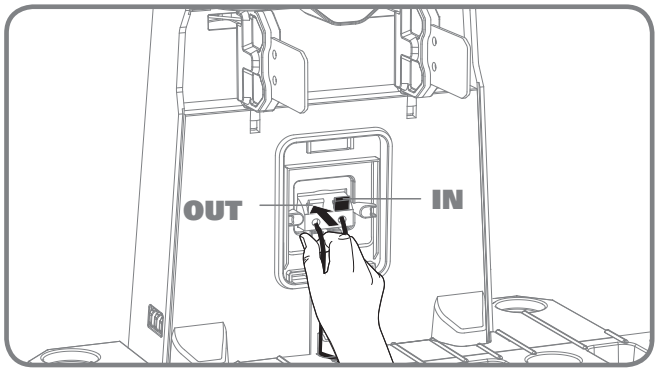


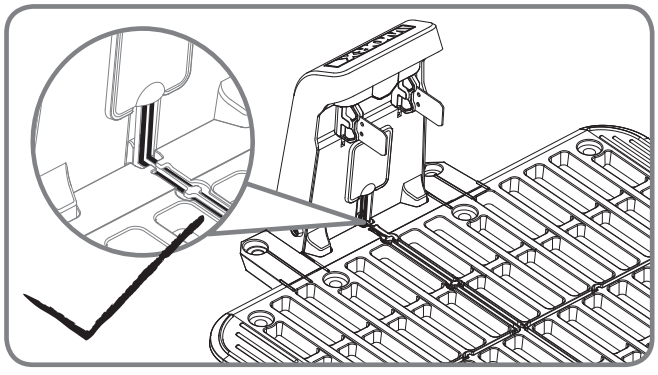
If your lawn has multiple areas connected to each other by a corridor, it should be at least 1 meter wide. If the corridor is narrower than 1 meter, Landroid® will have difficulty travelling between. In this case, it is recommended to set up a main area and a secondary area in your lawn. The boundary wire should be placed as illustrated in the picture. When the secondary area has to be cut, please pick up Landroid® and bring it to the secondary area. Landroid® will mow without problem, but you have to bring it back to the charging base when the battery runs out.

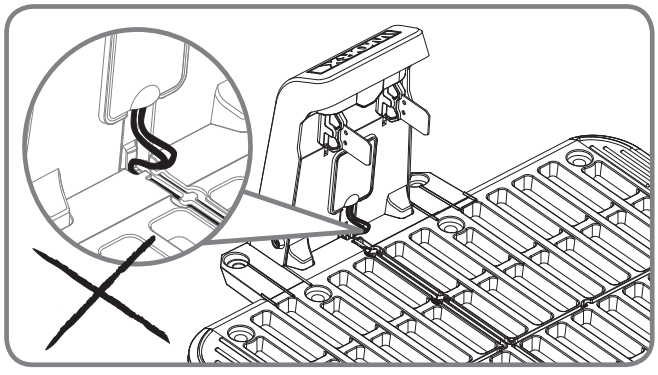












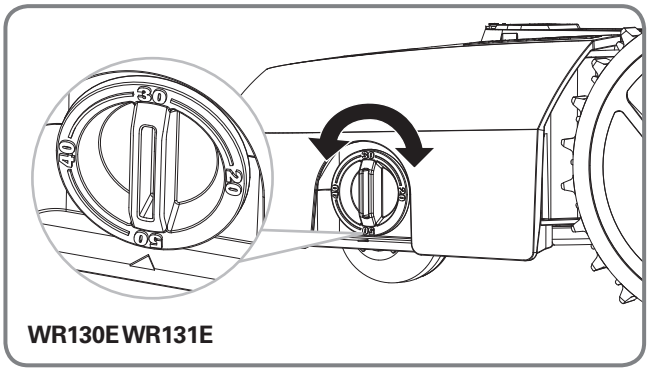
4

Complete the entire boundary wire setup

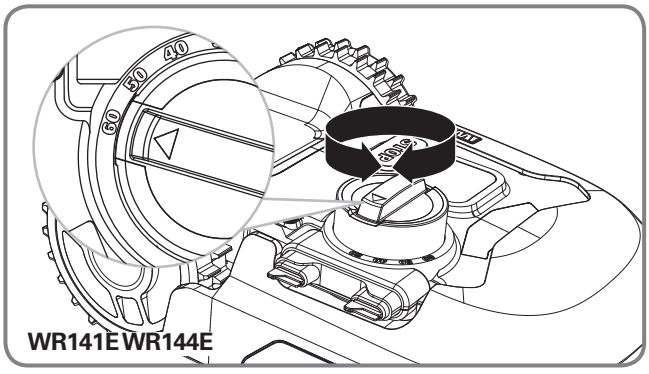
Lay down the boundary wire around the working area as the illustration shown.
After pegging the boundry wire, please take your Landroid® away from the charging base. Lead the boundary wire back to the charging base, leave a length of the boundary wire (OUT-wire) around 80cm and cut it off. Insert both wire ends into the grooves on the charging base. Peel off the plastic skin at the end of both wires (around 1cm), and connect the naked metal wire end of the IN-wire to the BLACK terminal and the end of OUT-wire to the RED terminal.
NOTE: If you need to extend the boundary wire, please refer to "**Joining the Boundary Wire"** in Owner's Manual for instructions.

Verification

Before it starts mowing for the first time, make sure Landroid®'s working area is clear of objects such as toys and branches...



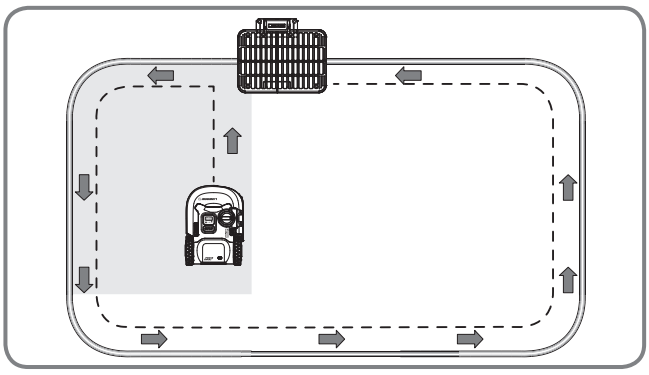
WR130E WR131E



WR141E WR144E

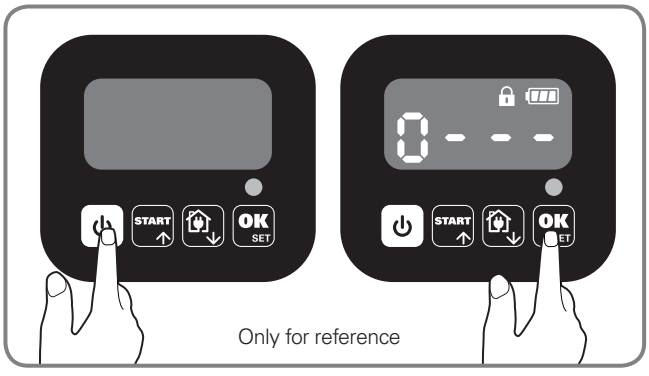
1

Set the cutting height to the maximum level (50mm (WR130E WR131E) / 60mm (WR141E WR144E)).



2

Place your Landroid® a few meters in front of the charging base.



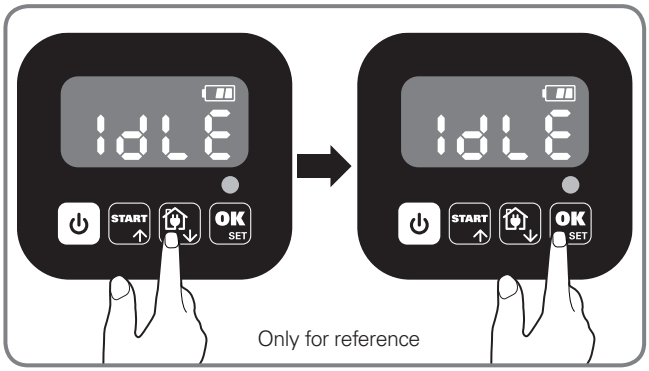
Only for reference

3

Press ⏻ until Landroid® turns on. For the first use, input the default PIN code 0000 by pressing OK SET for four times when the number 0 is blinking.

NOTE: When Landroid® turns on, all lights on the display will be illuminated and then turn off. Check if there is any light damaged. It is recommended to shield the display with your hand when the outdoor light gets too strong.

NOTE: Landroid® will turn off if it does not receive any input within 30 seconds after it is turned on. If you enter wrong PIN code three times, Landroid® will raise the alarm "di-di" and then turn off.



4

Press then to send Landroid® back to the charging base.
Landroid® will follow the boundary wire to the charging base.

5

Fine tune the outline shape of the boundary wire if necessary.

NOTE: If the boundary wire is broken during the testing or you need to extend the boundary wire, please refer to "**Joining the Boundary Wire**" in Owner's Manual for instructions.

Check the status of the LED light indicator on the charging base to make sure the connection is OK.
If the verification test is completed smoothly, you can start mowing by pressing START then OK SET .
If there is any problem during verification test, please refer to "Owner's manual-Troubleshooting".

LED light indicator on the charging base	Status	Action
Light does not turn on	There is no power.	Confirm that the power cord is connected properly to the charger and that the charger is connected to a suitable power supply.
Green light on	Boundary wire is connected successfully; Landroid® is fully charged.	/
Red light on	The Boundary Wire isn't connected.	Confirm that there are no breaks in the boundary wire.
	Power supply is connected successfully, while the wire is connected unsuccessfully.	Check that the boundary wire has been connected correctly to the charging base. Confirm that there are no breaks in the boundary wire.
Green light flashing	Landroid® is auto charging.	/

Warning

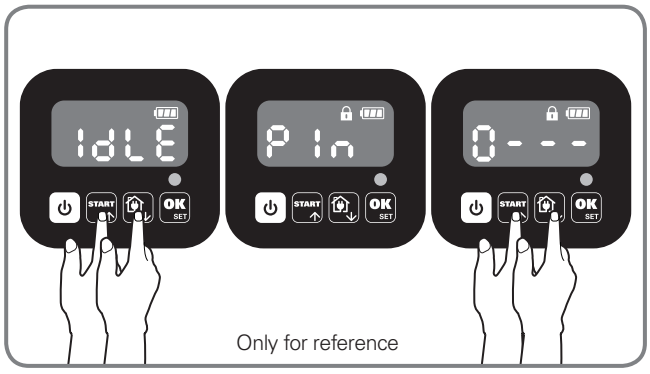
- If your Landroid® is outside its territory, it will not move and "-E 1-" will be displayed. Move it inside its territory and repeat Verification.
- If your Landroid® is inside its territory but "-E 1-" is displayed, please refer to "**Error Messages**" in Owner's Manual for solutions.
- Your Landroid® should always remain switched on. If you ever need to turn it off, then make sure you place it within its boundary area before you switching it back on again.
- Should your Landroid® stop operating, simply restart it and operate it as you normally would.

NOTE: Please refer to the Owner's Manual for more information.

Setting

First please set the height to a desired grass level after cut and you can do the program setting manually or using mobile App.

NOTE: When doing the program setting manually, Landroid® will enter the standby page if it does not receive any input from the user within 30 seconds.

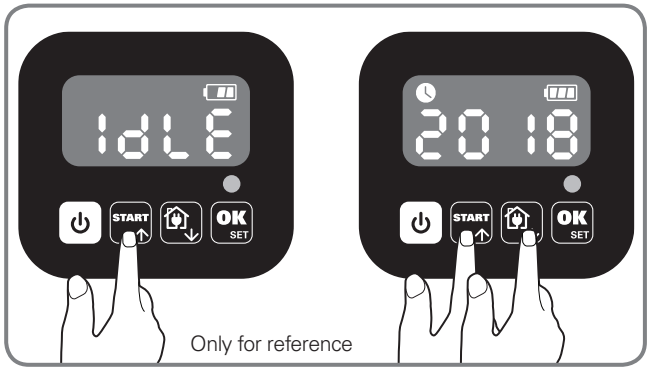


Only for reference

1

Change PIN code

To change the PIN code, keep pressing both START and buttons at the same time for 5 seconds. The icon will be blinking, and "P in1" will be rolling flashing. After that, the first number will be blinking, use START or to select the number you want and press OK SET to confirm. The next number will be blinking. Use the same method to complete other numbers. For example, the new PIN code is set to be 0326. After that, "P in2" will be rolling flashing and the first number will be blinking again. Use the same method to input the new PIN code you set just now (in this example, 0326). Then "P in0326" will be rolling flashing on the display. Your PIN code has been changed successfully.

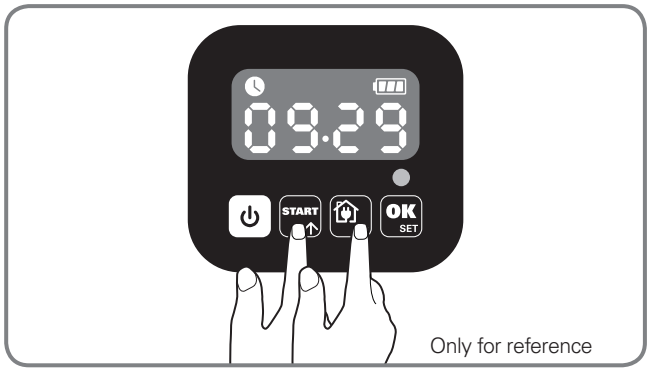


Only for reference

2

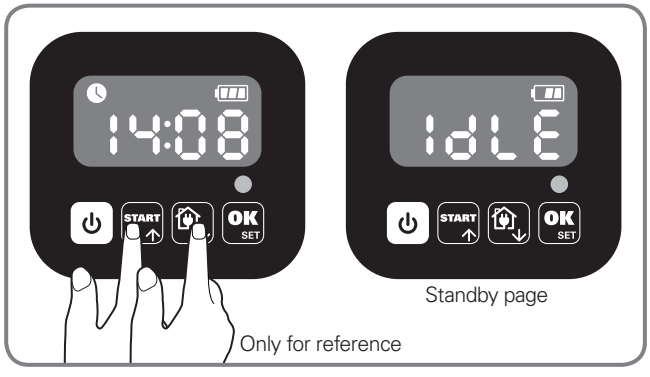
Set year, date and time

Set year, date and time are compulsory setting items. If you don't set these items, it will influence the schedule time in the following setting. These items should be set in the order of year, date and time. For the year setting, keep pressing START for 3 seconds until the icon and a number are blinking on the display, for example, 2018. Use START or to select the year you want. Then press OK SET to confirm to finish the year setting.



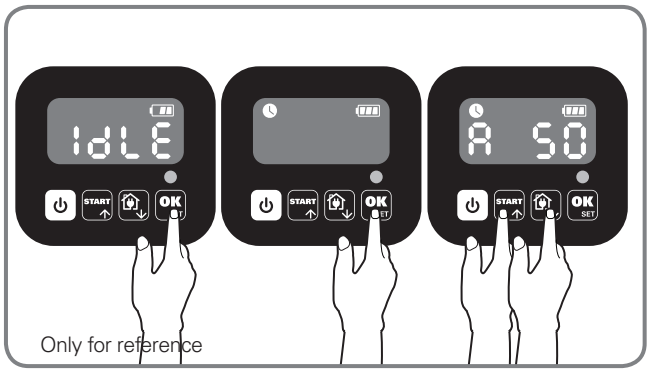
Only for reference

Meanwhile, the icon will be flashing again and a number will be displayed to indicate the date, for example, 09:29, meaning September 29. When 09 is flashing, use START or to select the number and press OK SET to confirm. Then 29 will be flashing. Use the same method to select the number and press OK SET to confirm to finish the date setting.



Only for reference

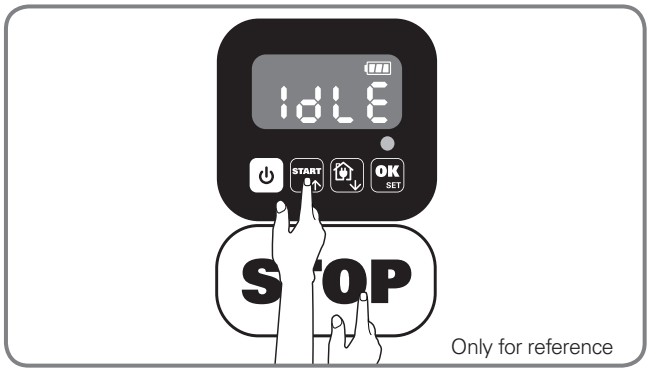
Meanwhile, the icon will be flashing and the time will be displayed, for example, 14:08. When 14 is blinking, use START or to to select the number and press OK SET to confirm. Then 08 will be blinking, use the same method to select the number and press OK SET to confirm. Now the time setting is completed and Landroid® will enter the standby page.



3

Set work area

Keep pressing OK SET for 3 seconds. When the icon is blinking, press OK SET . A number will be blinking on the display, for example, A 50, which is the lawn area. The working time will be automatically set according to the size of your garden. Use START or to set the lawn area (the area will increase / decrease by 50m^2 each time the START / is pressed), and press OK SET to confirm. Then Landroid® will enter the standby page.



4

Change default start time

The default start time of 8:00 can be changed to anytime by keep pressing both START and STOP buttons at the same time until a ding sound is heard.
For example, keep pressing both START and STOP buttons at 14:05, and your Landroid® will start mowing from 14:05.

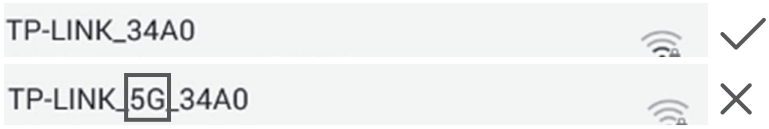
App

Your Landroid® is able to connect with smartphone. Using Landroid® App for your smartphone, you can change your Landroid®'s general settings, and view the machine's status and error messages.

Checklist before connecting your App to Landroid®

Step 1: Check your smart phone

1. Make sure the Wi-Fi that your smart phone connected is 2.4GHz instead of 5GHz.
Example:



2. Make sure the APP installed on your smart phone is the latest version.

Step 2: Check your Landroid®

1. Make sure your Landroid® is under the same router environment as your smart phone.
2. Make sure the firmware on your Landroid® is the latest version.
3. Make sure the distance between your Landroid® and smart phone is as close as possible during connection (less than 3 meters).
4. Make sure the distance between your Landroid® and router is as close as possible during connection (less than 3 meters).

Step 3: Check your router

1. Make sure your router is 2.4GHz or 2.4GHz mixed 5GHz, and please enable 2.4GHz band.
2. Make sure your router 802.11 mode of wireless setting is b/g/n mixed. (See Fig. 1)
3. Make sure your router channel/ band width of wireless setting is Auto or 20M or 20M mixed 40M. (See Fig. 1)
4. Make sure your router Enable the SSID Broadcast function when you connect the machine with the APP. And you can close it after you connect successfully. (See Fig. 1)

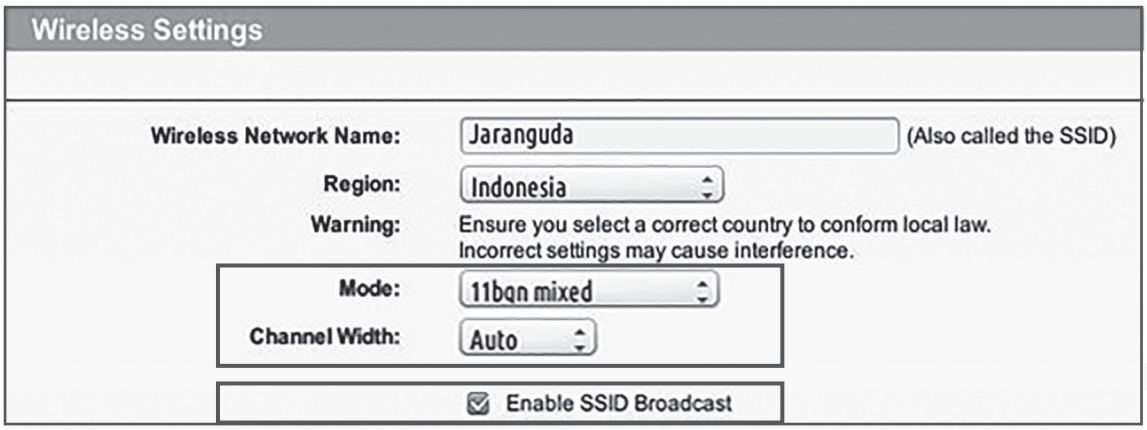


Fig. 1

5. Make sure DHCP function is enabled. (See Fig. 2)

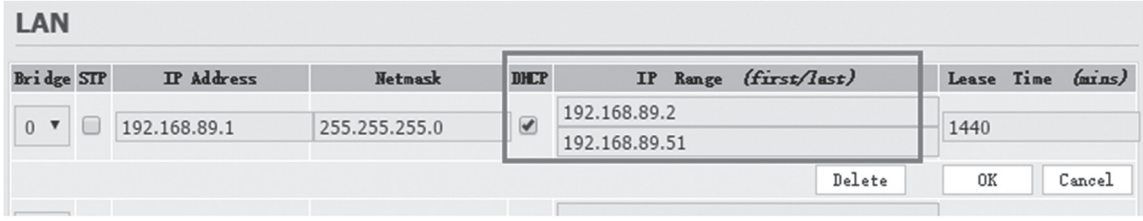


Fig. 2

6. If you have a "Fritz!box" Router, please make sure activate "Allow communication between devices in same network" in the settings.
7. Mare sure Port 8883 TCP is open. If it's blocked (See Fig. 3), please modify the setting.

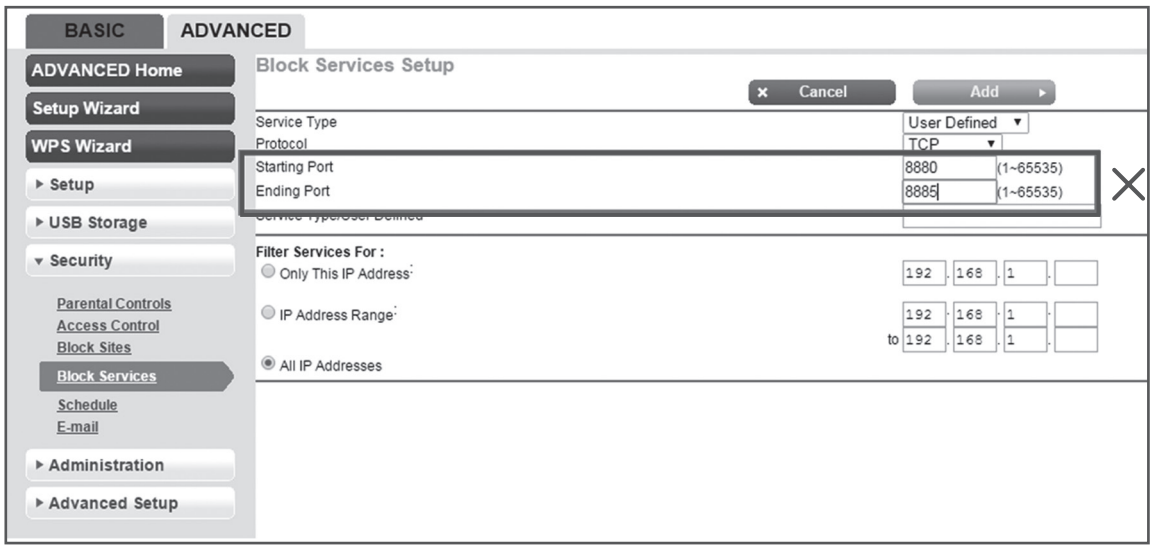
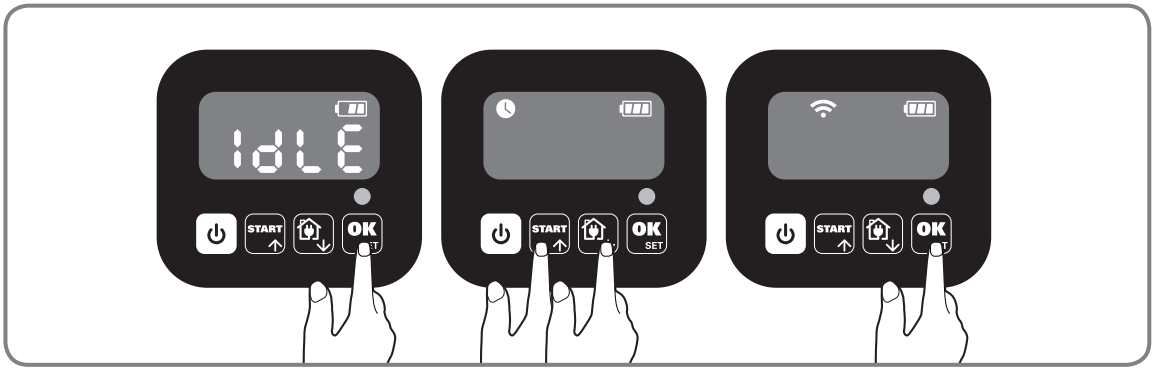


Fig. 3

To connect smartphone to your Landroid®:

Step 1: To download the Landroid® App, scan the QR code below or download it from Playstore (Google-Android), AppleStore (Apple-iOS) or our website www.worx.com.

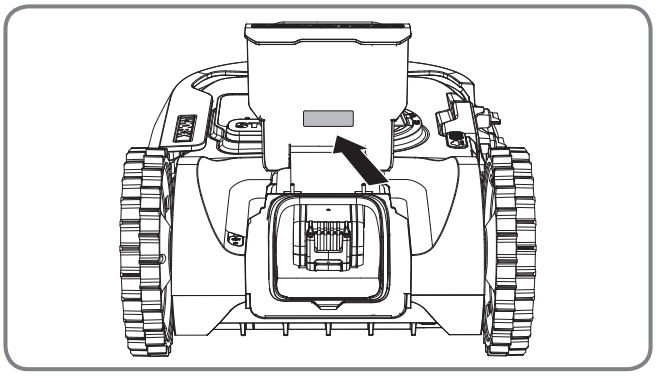
Step 2: Keep pressing OK for 3 seconds, the icon will be blinking. Use START or to choose the icon , then press OK to confirm.



Step 3: Enter the Landroid® APP, and then follow the instructions to connect to your Wi-Fi.
*The Serial No. can be found at the rear of Landroid® as shown.

ANDROID APP ON Google play

Download on the App Store



NOTE:

1. If your Wi-Fi information changes, Landroid® needs to be re-set according to Step 3.
2. When Landroid® is located in an area with low or no Wi-Fi signal, instructions sent from the mobile App may not be executed immediately. Landroid® will receive instructions when it returns to an area with good Wi-Fi signal.
3. For strong Wi-Fi signal to ensure stable connection, it is recommended to install Wi-Fi extenders to cover areas with weak or no Wi-Fi signal.

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