





MARNING: 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 LANDROID WORKS**

In the following section, we would like to help you better understand how Landroid works.

Landroid is an autonomous machine, capable of operating on its own. It knows when it needs to go to its charging base, can sense when it is raining, can stop itself if it senses a problem and knows to stop, draw back, and turn around when it bumps into something blocking its path. To prevent an accident, Landroid will also automatically stop its blade disc from rotating if it is lifted off the ground.

#### **Charges itself**



When your Landroid needs to recharge, it will stop mowing and follow the boundary wire in an anti-clockwise direction back to its charging base. Once charging is complete, Landroid will automatically resume mowing or stay in the charging stationaccording to its mowing schedule.

# **Border management**



Landroid is programmed to mow the grass along the perimeter of your lawn twice a week on Monday and Friday. If you want to change this pre-set, you can modify it via your smartphone or by using the control panel in "Work time-Customize Work time" menus. See detailed instructions at the end of this manual.

#### Rain sensor



Landroid is 100% weather proof and happy to be outside. But mowing wet grass does not give you the best finish or result. Landroid is equipped with a rain sensor which detects rain and tells Landroid to stop mowing and go back to its charging base.

#### Rain delay time



After a rainfall, Landroid re-starts when the grass is no longer wet. The default Rain Delay time is 180 minutes. You can change the Rain Delay time setting via Landroid App

#### In more extreme weather



In case of a lightning storm, protect Landroid by unplugging the charging base, disconnecting the boundary wire, and making sure Landroid is not allowed to charge. In the Winter and especially in case of very cold weather and snow, we recommend you store your Landroid inside. In some countries we offer a Winter servicing of your Landroid so it's ready for the Spring growing season. Contact your dealer or check online for more details.





#### No more grass clippings to collect



Landroid's daily mowing produces very short clippings that don't need to be raked. These clippings are a perfect organic nutrient for your lawn. Frequent mowing boosts the density of grass blades and effectively prevents the propagation of weeds.

# **Cut to edge**



The special offset blade gets as close as possible to the border of your lawn, leaving you little or no trimming to do.

# **Cutting Height**



Before starting your Landroid for the first time, make sure your grass is no longer than 10cm. If longer, use a regular mower to cut it before operating Landroid. If you want to drastically shorten the height of your grass, it is recommended that you do so progressively, by adjusting the cutting height in steps.

#### **Security & PIN Protection**



To prevent unauthorised people from being able to use it, Landroid is protected by a PIN code that you can easily set up.

## **Hose cleaning**



You can hose Landroid off to get rid of dirt, grass and grime that it picks up while mowing. Keep Landroid looking and performing its best.

# Self-levelling cutting deck

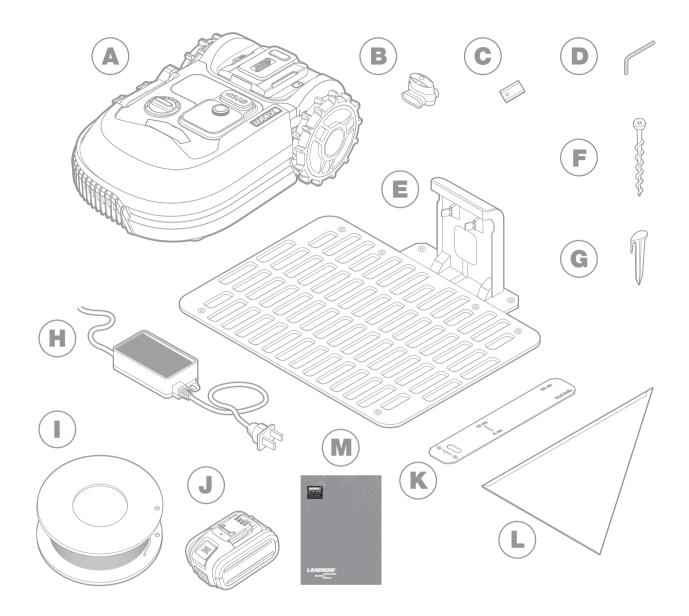


Ground Tracer automatically adjusts the blade's height to match the natural unevenness found in most lawns.





# **WHAT'S IN THE BOX**



The picture is only for reference

A	Worx Landroid
В	Boundary wire connectors
С	Spare blade kit
D	Hex key
E	Charging Station
F	Charge base fixing screws

G	Wire pegs
Н	Power supply
ı	Boundary wire
J	20V battery
K	Boundary wire distance gauge
L	Bertelsen Ruler
M	Manual

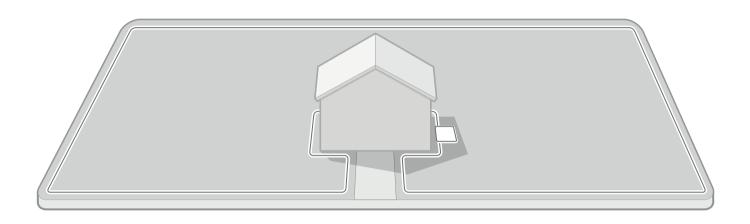




# **INSTALLATION**

It is recommended you carefully follow these installation instructions to properly install your Landroid. In addition to the manual, you can access comprehensive video tutorials on our YouTube Channel (Worx Tools)\*.

\* This information is provided for your convenience but the video information provided online does not replace the instruction manual and the safety instructions that need to be read and understood.



Plan out your installation

Install the charging station

Lay the boundary wire

Connect charging base to AC

Power up Landroid. Test and get ready to mow

# **EVERY MINUTE SPENT IN PLANNING SAVES YOU 10 MINUTES IN EXECUTION**

Installing Landroid is even easier if you have made a clear idea of what you need to do. Proper planning will also help you avoid mistakes or having to rework the installation once it's done.

#### 1. On the surface or buried?

Landroid's boundary wire is designed to stay on the surface of your lawn. Nearly invisible from the first day, it will be engulfed in the soil in a few weeks. If you will want to bury the wire, it is recommended to first peg it down and test the installation is successful by running Landroid over the perimeter. This allows you to easily test that the installation is successful and, if necessary, change the layout before burying the wire. Bury the wire no more than a few centimetres below ground level, so that the wire maintains a good signal.

# 2. Plan for the charging base

The charging station is where your Landroid goes to have its battery recharged. It's also the home where it rests in between mowing sessions.

Locate a proper position for it, bearing in mind:

- A. It needs to be powered, so it should be no more than 10m away from an AC outlet. Using a GFCI outlet is recommended.
- B. If possible, choose a shaded area to prevent the battery and charger from over-heating in direct sunlight. \*Landroid Garage accessory available for purchase.
- C. It should be placed on flat, level ground to ensure effective docking.
- D. Avoid places close to irrigation sprinklers.

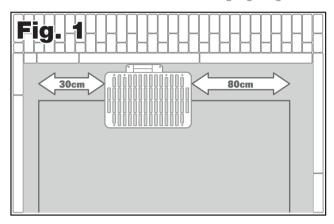


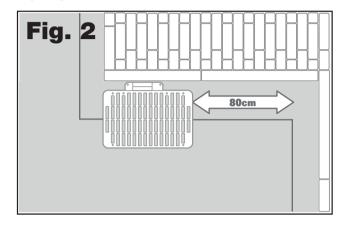


You can place the charging station on your lawn or on a hard surface like a walkway, provided that the lawn and the hard surface are at the same height (no steps).

For Landroid to successfully dock in the charging station, the following measures will need to be taken when laying the first segments of boundary wire immediately entering and exiting the charging station.

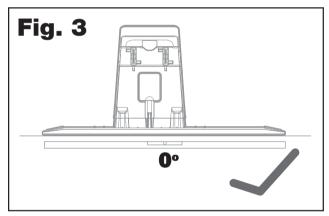
- 1. For the boundary wire leaving the charging station:
- There should be a minimum of 30 cm of wire coming straight from the station before any turns are made (fig. 1, left side of station).
- If the yard layout is such that the boundary wire makes an immediate right turn (fig. 2), then the distance requirement is not necessary.
- 2. For the boundary wire entering charging station:
- There should be minimum of 80 cm of wire going straight to the station (fig. 1, fig. 2).





### 3. Charging station checklist:

- A. Within reach of AC outlet (GFCI outlet recommended).
- B. In the shade (if possible).
- C. Straight path on entrance; straight path on exit if necessary (fig. 1, fig. 2).
- D. Flat land (fig. 3).
- E. No irrigation sprinklers nearby.



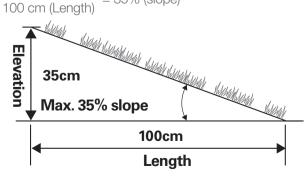
#### 4. Placement of boundary wire on slopes

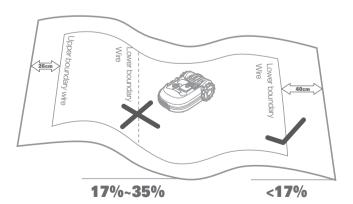
Landroid can handle slopes and inclines up to 35% or 20°. Ensure that when you place the boundary wire, you do not place it at the bottom of the slope or incline of 17-35% to account for the extra gravitational force Landroid will have to overcome.

\*How to calculate the slope of your lawn:

The slope would be:

35 cm (Elevation) = 35% (slope)





Two stakes can be placed 2.5 m apart. With one stake at the bottom of the slope and the other on the slope. Tie a string to the bottom of the stake on the slope, ensure that it's leveled and tie it to the other stake. Measure the distance from the string to the ground. Use this value as the elevation in the formula.

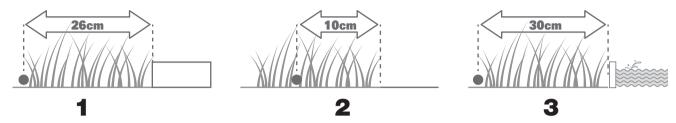




#### 5. Plan for the boundary wire

The wire has to be placed at a certain distance from the edge of the lawn. This distance changes depending on what's on the other side of the edge. Different parts of your lawn may have different border scenarios: ie. stone pavers, fence, patio, etc.

- A. If the edge of the lawn borders a step: keep the wire 26 cm from the edge. (figure 1).
- B. If the edge of the lawn borders a path of the same height: keep the wire 10 cm from the edge. (figure 2).
- C. If the edge of the lawn borders a pool: keep the wire at least 30 cm from the edge. (figure 3).



If a side of your lawn borders a neighbor's lawn with a robotic mower in use, lay your wire at least 1 m apart from your neighbor's wire to avoid possible interference.

#### **PLAN YOUR INSTALLATION**

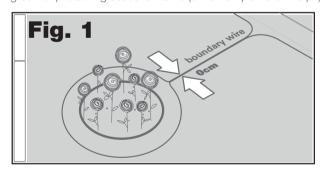
Landroid is designed to manage the most complex of lawns. Carry out a visual inspection of your lawn so you are prepared for a trouble-free installation of the boundary wire.

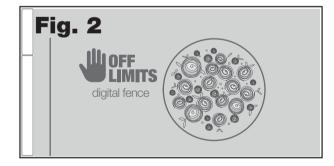
#### 6. Identify Off-Limits Areas

You don't want Landroid to mow flowers, dive into water, or become imobilized on tree roots that are above ground. Locate these areas and surround them with boundary wire to prevent Landroid from accessing them.

The boundary wire is a single loop that starts at the charging station, encircles your yard, and then terminates back at the charging station. To exclude the off-limits areas, the wire will need to be diverted at a right angle from the outer perimeter of the yard, directed towards the area, and then laid in a counter clockwise path around the area, as show below in Fig. 1. Then the wire would go back to the yard perimeter, making sure that there is no gap between the wires going to and coming from the off-limits area. This ensures that the mower will not "see" this section of wire and will pass over it while mowing. This exercise does not involve cutting the wire in any way, and still maintains one continuous loop.

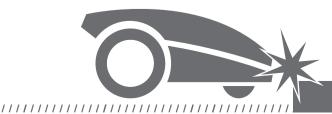
A great alternative is to purchase the Landroid Off Limits Digital Fence accessory. With this option, you simply surround the off-limits area with the provided magnetic strips. They do not have to be connected to the boundary wire. The Off-Limits Digital Fence is also great for protecting seasonal items (ex. a trampoline or fire pit).





# 7. Identify obstacles

Landroid is equipped with a bump sensor which allows you to avoid surrounding all obstacles with boundary wire. Landroid can lightly bump into solid obstacles like trees and furniture without harm. If your lawn has several obstacles like pavers and trees, we recommend purchasing the Landroid ACS (Anti-Collision Control) accessory which helps Landroid steer around obstacles instead of bumping into them.





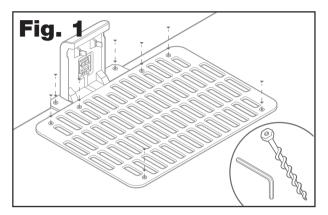


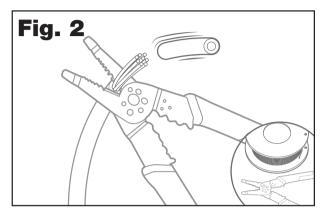
#### **NOW ROLL YOUR SLEEVES UP. YOU'RE READY FOR INSTALLATION!**

Now that you have planned out your installation, you are ready to begin!. Before starting, you may want to use your old mower for the last time to clean up your lawn and make the installation easier.

# 1. Secure the charging station in the selected location

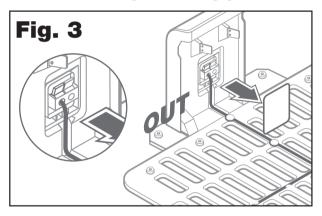
- A. Secure the charging station to the ground with the included screws, using the provided hex key (fig. 1)
- B. See page 17 for tips on correctly installing your charging station.

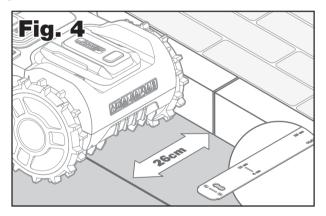




#### 2. Connect one end of the boundary wire to the charging station

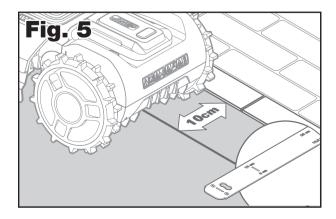
- A. Strip the end of the wire with a wire stripper (fig. 2).
- B. Open the plastic door and insert the stripped end into the red left clamp (fig. 3).
- C. Press the wire into the guide of the charging station as shown in fig. 3.

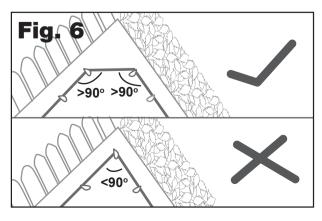




#### 3. Lay the boundary wire around your lawn

- A. Use the supplied wire distance gauge (item K) to ensure that the boundary wire is the appropriate distance from the edge of the yard.
- B. If there is a step at the edge of your lawn, keep the wire at 26 cm from it (fig. 4).
- C. If the edge is flush to the lawn, keep the wire at 10 cm from the edge (fig. 5).
- D. When laying the boundary at corners, ensure that the corner angle of the wire is great than 90° (Fig. 6). This will ensure that the boundary sensor can properly detect the wire.



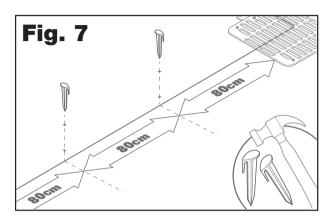


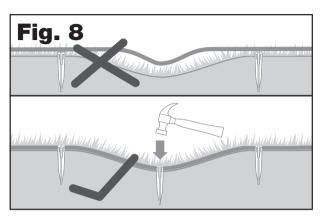




#### 4. Secure the wire to the ground using the supplied wire pegs

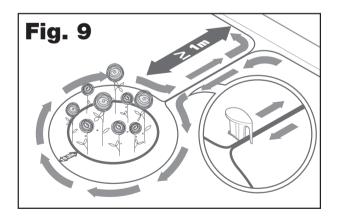
- A. Space the pegs roughly 80 cm apart (Fig. 7). For corners and turns, as wells as dips in the yard, this spacing should be reduced as necessary.
- B. Make sure that the pegs are hammered all the way to the ground to ensure that there is not a gap between the wire and the ground (Fig 8) and that the wire has no slack. Any loose wire could be caught by the mower blades and potentially cut.

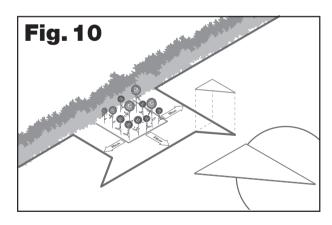




#### 5. Exclude any off-limits areas, if needed

- A. Lay the boundary wire as instructed until you come near the off-limits area.
- B. When you are able, make a 90° left turn with the wire so that the direction of the wire is directly towards the off-limits area (Fig 9)
- C. Surround the area with the wire, making sure to keep the appropriate 26 cm of distance from the area edge according to Fig. 4. Be sure to keep a minimum distance of 1 m from the edge of the perimeter boundary wire (Fig. 9).
- D. Always lay the wire in a clock-wise direction around the off-limits area. Failing to adhere to this rule could result in erratic mower behavior up to and including the mower traversing into the off-limits area.
- E. When you have completely surrounded the off-limits area and the wire has arrived back at the starting point of the loop, return the wire to the perimeter boundary by laying the wire along the same path it took to get to the off-limits area. It is crucial that there is no gap between these two wires (Fig. 9 inset). Tip: Use the same wire peg to secure both wires. This will ensure that there is no gap between each wire.
- F. Refer to pg. 18 for tips on creating an off-limits area.





# 6. Bertelsen method: Perfect $90^{\circ}$ turns with this simple layout technique

Note: This method is only applicable for outside right angle corners.

- A. The supplied Bertelsen ruler (Item L) acts as a template for the shape of the boundary wire.
- B. Lay the ruler on the ground 26 cm past the outside corner (Fig. 10).
- C. Using the ruler as a guide, lay the boundary wire around the edge of the ruler.



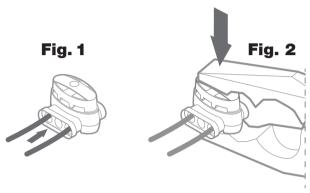


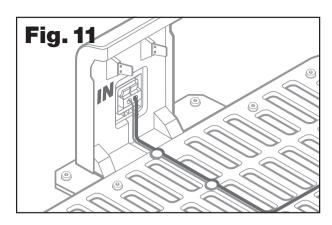
#### 7. Complete the perimeter boundary loop

Once you have completed laying the wire around the perimeter of your lawn, you will arrive back to the charging station.

- A. Place the wire into the guide of the charging station, up to the black clamp (fig. 11).
- B. Cut the excess wire and strip the end with a pair of wire cutters.
- C. Insert the stripped end into the black wire clamp on the right. There should be no excess wire hanging out of the terminal cover. This may cause improper docking of the mower.







Included with Landroid are two small, waterproof boundary wire connectors (Item B). They can be used for the following:

- A. When your lawn has a very long perimeter and you need extra boundary wire to complete the installation. Please do not exceed 984 ft. of boundary wire: this is the maximum length of the boundary wire perimeter.
- B. When the boundary wire is cut by accident and you need to fix it.
- C. When you decide to rework your garden in the future and need to modify the original boundary wire installation.

### Proper use of the boundary wire connectors

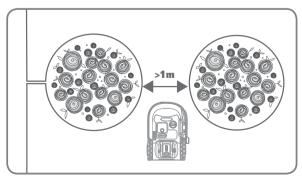
A. Insert both ends of the wire into any two of the three holes of the connector; no need to strip the wires.

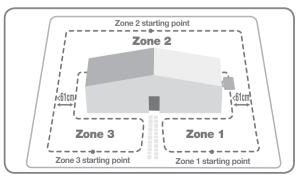
- B. Insert the wires fully until both wire ends are visible on the other side of the connector.
- C. Press the connector firmly by using a pair of pliers. Make sure that the blue clamp is fully seated into the connector body. Check that the wires are securely connected by slightly pulling on them. If any of the wire ends comes out, then the crimping process should be repeated.

Attention: it is not recommended to simply splice the boundary wire with insulating tape or use a screw terminal block for connection. A broken circuit may occur after a period of time as soil moisture can oxidize the wire.

#### 9. Zones

If your yard has more than one area and these areas are separated by a narrow opening or corridor (see figure below), then it may be necessary to establish user-defined zones in order to aid Landroid in reaching every part of your yard. The term narrow is defined as any passageway that is less than 61 cm in width. A zone is essentially a starting point along the boundary wire that the Landroid travels to before starting to mow. This allows the mower to get to those hard to reach areas. These starting points are defined as a distance from the charging station to the zone starting point. Once the starting points are defined, you will also be able to define how frequently Landroid travels to each starting point. This will allow Landroid to travel to the hard to reach areas more frequently, ensuring that every square inch of your yard is mowed. It is necessary to define zone frequency because Landroid does not stay within a specific zone for a specified amount of time. Once Landroid starts mowing from a particular zone starting point, it will mow randomly according to its normal algorithm. Zones are set up via the control panel or Landroid App.





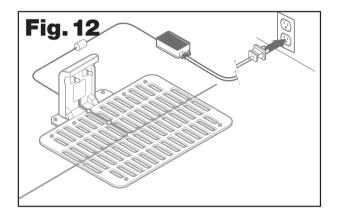


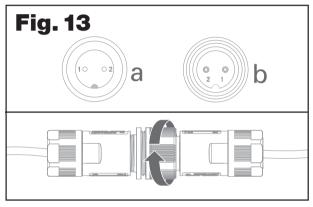


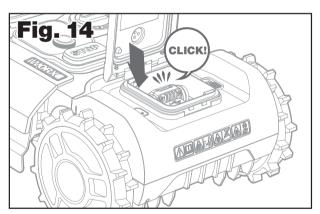
#### 10. Final steps

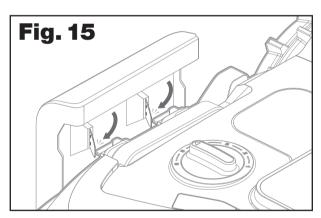
There are only a few more steps to go:

- A. Connect charging station to the AC outlet (fig. 12).
- B. Connect the charging station power cord to the power supply by aligning the notch on the power cord connector (a) with the groove on the adaptor connector (b). (Fig.13).
- C. When installed and connected properly, the LED light on the charging station will be green.
- D. If the LED light is red, check that the boundary wire ends are properly clamped into the charging station. If problem persists, ensure the boundary wire around your lawn is not broken. If wire connectors were used, check these connections to make sure that the electrical contact is present.
- E. Open the rear of Landroid and insert the Power Share<sup>™</sup> battery into the slot until it clicks (fig.14)
- F. Place Landroid on the charging station and ensure that the charging terminals on Landroid have firm contact with the paddles on the charging station (fig 15). The paddles should be at a 45° angle to ensure correct charging. The LED light will blink green when properly connected. The light will turn solid green when fully charged.
- G Allow Landroid to fully charge the battery before use. While Landroid is charging, it would be a good time to download and connect Landroid to the app.











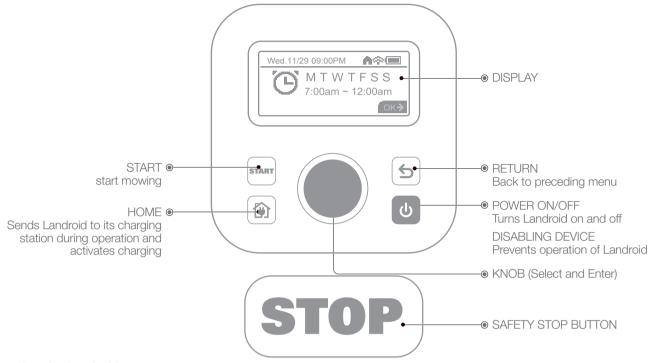


# NOW FOR THE EXCITING BIT! START LANDROID FOR THE FIRST TIME.

#### Get familiar with the control panel

Landroid's control panel provides the key functions in a minimalistic design.

For advanced functions, the free Landroid app provides further options in a richer interface: your smartphone.



# **Starting the Landroid**

- A. Position the Landroid inside the work area
- B. Press and hold down of until the display lights up
- C. Enter the default PIN code 0000 by pressing three times. The display will show 0000. Press again to confirm. The display will show "PIN code OK"
- D. Press the start button and then the button to confirm. The Landroid will start mowing the lawn
- E. You can stop the Landroid at any time by pressing the large red button STOP
- F. To send the Landroid to the charging base, press the half button and confirm by pressing .

# LANDROID CONTROL PANEL

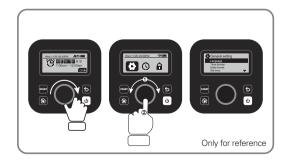
#### Advanced functions via the built-in interface

Despite its minimalistic design, you can set several advanced functions through the built-in control panel.

However, for the best user experience we recommend you use the free Landroid app to do this, given its much richer and intuitive interface.

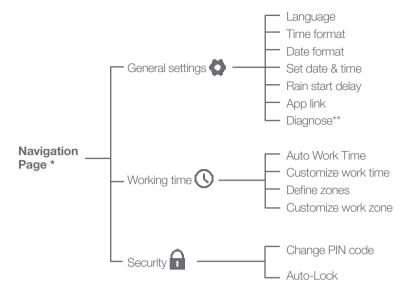
# 1. Settings

- A. To access the main menu, rotate clockwise
- B. Rotate to select the menu items: "General settings", "Working time", "Security", then press to enter.
- C. Use the same procedure for the following actions.





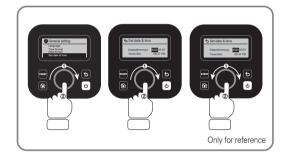




- \* Be continuously updated according to the software version.
- \*\* For after-sales service only

#### 2. Set date and time

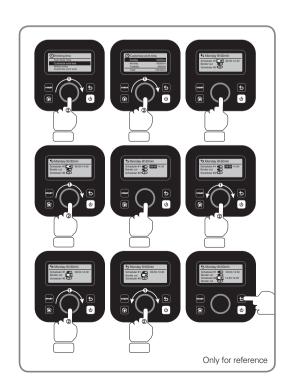
- A. Return to "General settings"
- B. Rotate Oclockwise to select "Set date & time", then press O to enter.
- C. Rotate clockwise to select the date, then press to confirm. The selected option (day, month or year) will start flashing.
- D. Rotate to select the day, month or year and press quickly to confirm. Use the same method to complete the "Year / Month / Time".



#### 3. Set work schedule

Note: it is possible to set two work schedules per day: "Scheduler #1" and "Scheduler #2"

- A. Return to the main menu and rotate clockwise to select "Working time", then press to enter.
- B. Rotate clockwise to select "Customize work time", then press to confirm.
- C. Rotate Clockwise to select the day of the week, then press to confirm.
- D. Press to enter settings
- E. Rotate Clockwise to activate "Scheduler #1 \*". Press to confirm.
- F. Rotate Oclockwise. Select the start time "Hour/minute" and press oto enter. The selected number will start flashing.
- G. Rotate to select the time you want the Landroid to start working on that day, and press to confirm. Follow the same procedure to set the time to stop work.
- H. Next, rotate Clockwise to select "Border cut" and press to enter settings.
- I. Rotate clockwise to choose whether or not to activate "Border cut" and press to confirm.
- J. If you want to set a second working time ("Scheduler #2"), follow the same procedure.\_\_
- K. Press the button and follow the same procedure to set the other days of the week.







#### 4. Working time adjust

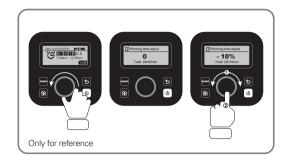
You can rapidly adjust the work time of the week. The increment /decrement of time will be evenly allocated to required working days.

A. Return to main interface.

B. Anticlockwise rotate 
to activate the working time adjust.

**NOTE:** The total time is based on the customize work time, and can be adjusted by gradient of 10%.

C. Then rotate to adjust and short press to confirm.



#### 5. One time schedule

To cut the lawn on a day or at a time outside the programming period, simply start the Landroid by pressing the button and then the button to confirm. However, in this case the Landroid will only cut the lawn for the duration of the battery life and once back at the base for charging it will stay there until it is programmed to start again.

However the new "One time schedule" function allows a precise working time to be programmed with a border cut option.

It is also possible to decide whether at the end of the cutting session the Landroid should return to the charging base or switch off on the spot. This is very useful in any situation where an area of the lawn is not connected by a path that the Landroid can travel over to the main lawn (where the recharging base is located), i.e. those areas where the Landroid needs to be transported by hand, preventing it from continuing to operate until it runs out of battery.

If the Landroid has access to the recharging base.

**Note:** to activate the "Border Cut", option, the Landroid must be positioned in the recharging base.

A. Position the Landroid at the recharging base

B. Go to the main menu

C. Quickly gress the button three times

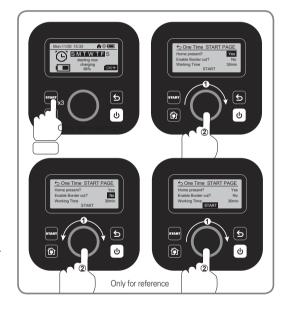
D. Rotate Clockwise, select "Charging base - Yes / No", then press to enter settings.

E. The selected word will flash. Select "Yes" and press to confirm

F. Rotate to select "Enable Border Cut - Yes / No", select the desired option and confirm.

G. Follow the same procedure to select the "Working Time".

H. Rotate Oclockwise to choose whether or not to activate "Start" and press Oto confirm. Once the battery has run out, the Landroid will return to the base to recharge and, if necessary, restart in accordance with the newly set working time.



If the Landroid does NOT have access to the charging base.

**Note:** the option "Border Cut" is not available for areas without access to the charging base

A. Go to the main menu

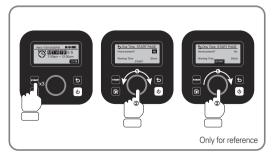
B. Quickly press the START button three times

C. Rotate Oclockwise, select "Charging base - Yes / No", then press to enter settings.

D. The selected word will flash. Select "No" and press to confirm

E. Follow the same procedure to select the "Working Time".

F. Rotate clockwise to choose whether or not to activate "Start" and press to confirm. Once the battery or working time has run out, the Landroid will shut down on the spot.







#### 6. Auto-Lock

Auto-lock prevents accidentally messing up with Landroid's settings, especially in situations where children or bystanders could have access to the machine. Auto-lock blocks the functionality of Landroid's keyboard and menu. Once this functions is active, you will have to input the PIN code before being able to access the menu with the settings.

In case any button is pressed while Landroid is mowing, it will stop. To resume mowing and to access the menu, the PIN code will have to be entered.

Please be aware that Auto-lock will not affect Landroid's regular work sessions – unless, of course, someone tampers with the keyboard.

A. Return to main interface.

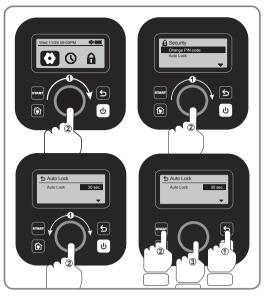
B. Clockwise rotate to "Security" and short press to enter.

C. Clockwise rotate to "Auto-Lock" and short press to enter.

D. At this moment, people will see the black shading under the lock-time number. Short press , the black shading will disappear. Then, clockwise rotate to adjust the lock time from 30 seconds to 10 minutes (For example, if 30 seconds are selected, the display will be locked in 30 seconds.). Each rotate will add 30 seconds. After set, short press .

E. Next, return to main interface and short press "Start" then , mower will start or continue to work.

F. To change the Auto-lock setting, push any button on the keyboard. If Landroid is moving, it will stop. Enter the PIN code to unlock the keyboard and change the settings.



Only for reference

# **CONNECTING LANDROID TO THE INTERNET**

# Why should you connect your Landroid? Your Landroid can be connected by Wi-Fi or Bluetooth

Landroid is an IoT (Internet of Things) device. To get full functionality out of your Landroid and keep it updated with the latest software,

it must be connected to the internet via your Wi-Fi network. Please see our privacy policy at https://www.worx.com/privacy-policy.

#### **BEFORE YOU START**

#### 1. Download the app

Download the free Landroid App first. Find it in the Android or Apple app stores by searching "Worx Landroid" or by scanning the provided QR codes beside.







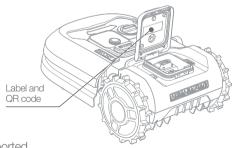


#### 2. Ensure you have:

A. Your WiFi network SSID and password / Bluetooth function on your smartphone.

B. Landroid Serial Number: it can be found in the label under the rear battery door of the machine

If you don't want to type the 20-digit Serial Number, you can simply scan the QR code next to the Serial Number with your smartphone when prompted by the app.



# 3.Check your settings Wi-Fi connection

A. Landroid works with 2.4GHz Wi-Fi signal only. 5GHz frequency signals are not supported.

B. Make sure your smartphone is connected to your home Wi-Fi network.

C. Make sure the distance between your Landroid, smartphone and your router is as close as possible during connection.

**Tip:** when Landroid moves to an area of your lawn with poor or no Wi-Fi signal, alerts from the app will only be received when Landroid returns to an area with good signal.

#### **Bluetooth function**

A. Bluetooth function on your smartphone is activated.

 $\ensuremath{\mathsf{B}}.$  Make sure your Landroid is within the connectable distance .

