



SOLEM

Connected Irrigation Made Simple

MySOLEM App

User Manual



Introduction

MySOLEM application, available on iOS and Android download platforms, allows you to control, configure, and operate irrigation controllers, as well as read and retrieve sensor data from probe modules.

SOLEM products can be controlled using the MySOLEM application in two different ways: either via short-range Bluetooth (BL-IP/BL-IS/BL-OL/WooBee) or via Bluetooth/LoRa technology (LR-IP/LR-IP-FL/LR-IS-FL/LR-AG) through a gateway connected to the internet (LR-MB 10/30 or LR-BST REACT/Irrigation Station) from anywhere in the world.

By installing Bluetooth-only irrigation controllers, you can operate them at a maximum distance of up to 15 meters, depending on the obstacles between the product and your phone.

The distance between an internet-connected gateway and a LoRa/Bluetooth controller averages around 800 meters, but this can vary greatly depending on any radio signal obstacles encountered.

All newer and older Android/iOS phones are compatible, as long as your phone has BLE (Bluetooth Low Energy) with a minimum version of 4.0.

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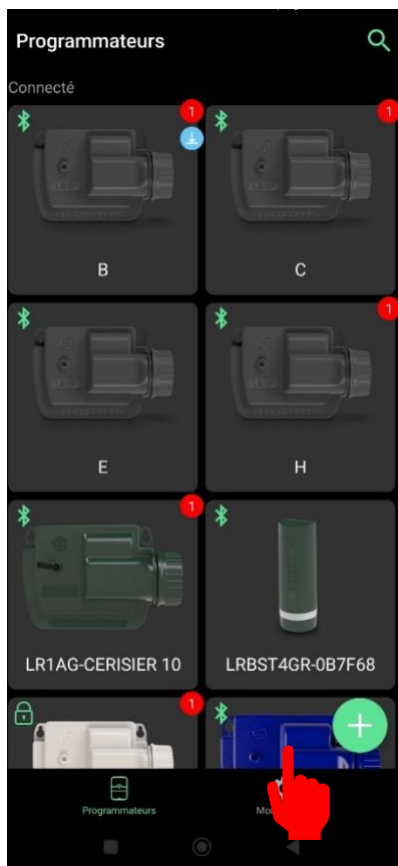
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I – CONNECTING TO YOUR USER ACCOUNT UTILISATEUR

A) CREATE YOUR ACCOUNT

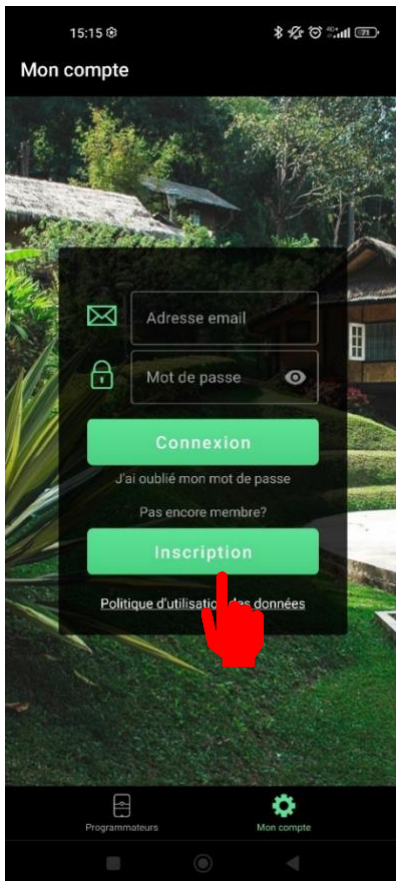
Your MySOLEM account allows you to:

- Automatically save your devices and their programs in the app and on the platform, ensuring you always have access to your data in case of loss.
- For professionals, you can extend your services by offering a park management contract.
- Activate the anti-theft function when pairing your device via the app using Bluetooth.



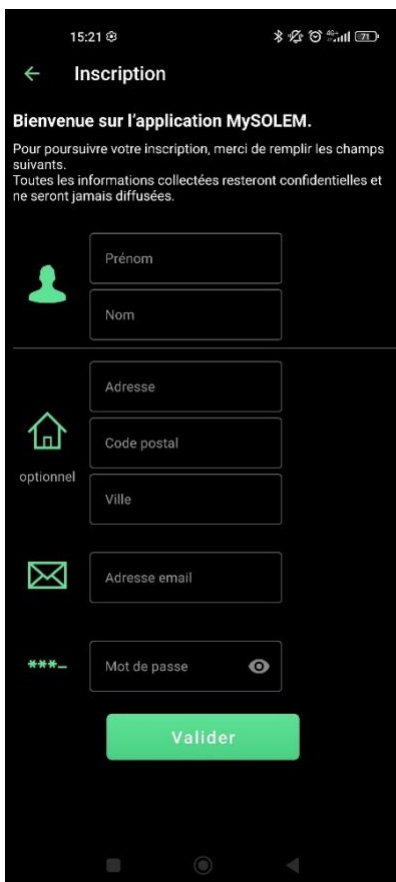
Download the MySOLEM app from the Play Store for Android or the App Store for iOS.

Select "My Account" on the main screen.



Create your user account by selecting "Sign up."

If you already have an account but cannot remember your password, you can select "Forgot Password" in gray. You will receive a password reset email in your inbox, which may take a few minutes (if you have not received an email yet, please also check your spam folder).

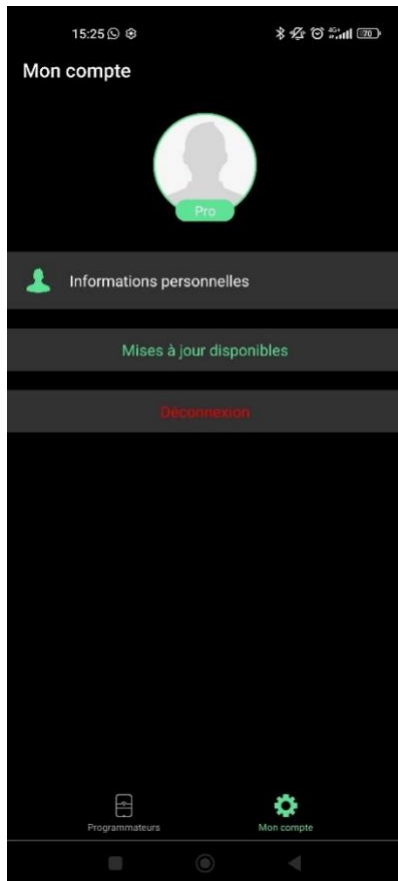


i Once you have selected "Sign up," you will reach this screen where you can enter your personal information and validate it.

To create a strong and secure password, you must provide the following:

- Minimum of 8 characters.
- At least one number (0-9).
- At least one uppercase letter (A-Z).
- At least one special character (@, #, %, & !, \$, etc...).

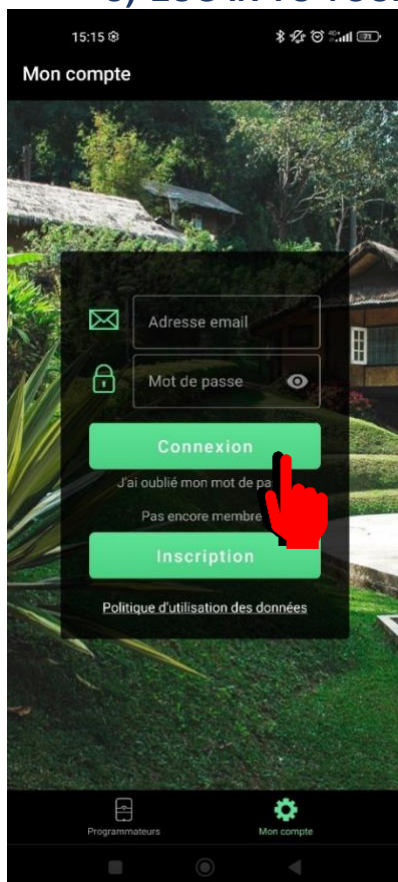
B) CHANGE YOUR PERSONAL INFORMATION



i Once your account is created, you will be automatically logged into the app. You will then see this screen displayed. You can select "Personal Information" if you wish to modify any information.

This is also the screen where you can verify that you are connected to your account with the "Log Out" information in red.

C) LOG IN TO YOUR MYSOLEM ACCOUNT



Renseignez votre adresse email ainsi que votre mot de passe aux endroits indiqués.

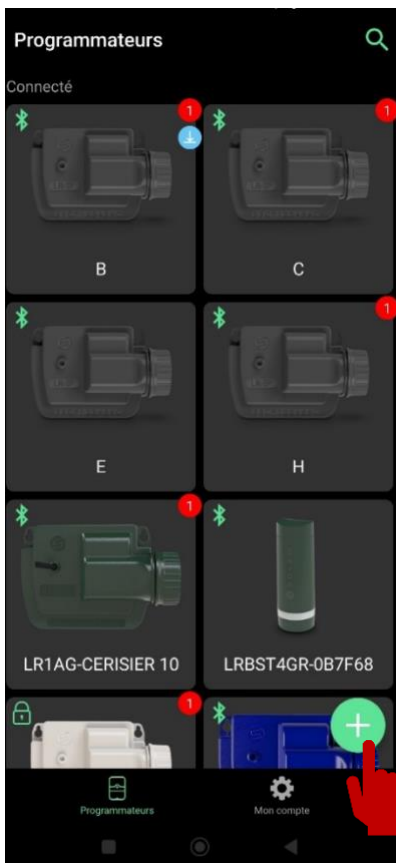
D) CHANGE YOUR PASSWORD WHILE LOGGED INTO YOUR ACCOUNT



If you want to change your password, you must first make sure that you are already logged in to your account. Then, you can change your password in the indicated location.

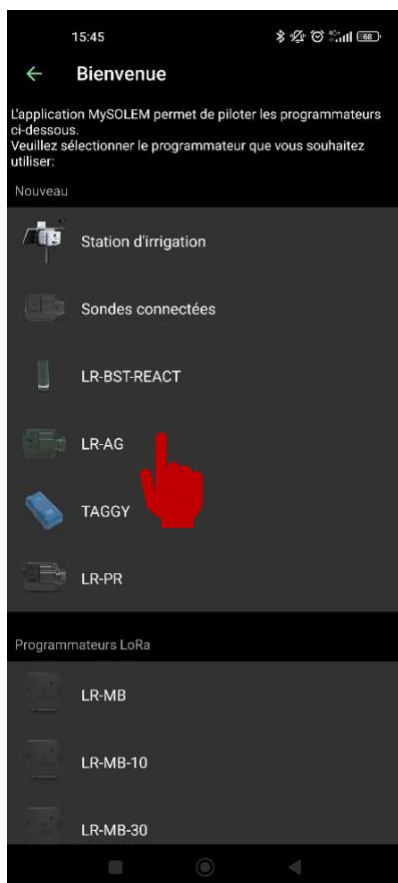
II – PAIRING A SOLEM MODULE

A) BLUETOOTH PAIRING



To associate any module, whether it is Bluetooth or LoRa, such as a gateway, a programmer, or a sensor module, the Bluetooth association procedure will be the same.

Select the "+" icon (or "Add Device" if it's your first connection).



You can now select the product model you want to associate. Here are some examples:

WOOBEE / BL-IP / LR-IP / LR-IP-FL LR-AG: Device powered by a 9V battery.

LR-MS: Multi-sensor device powered by a 9V battery.

LR-PR: Pressure control device powered by a 9V battery.

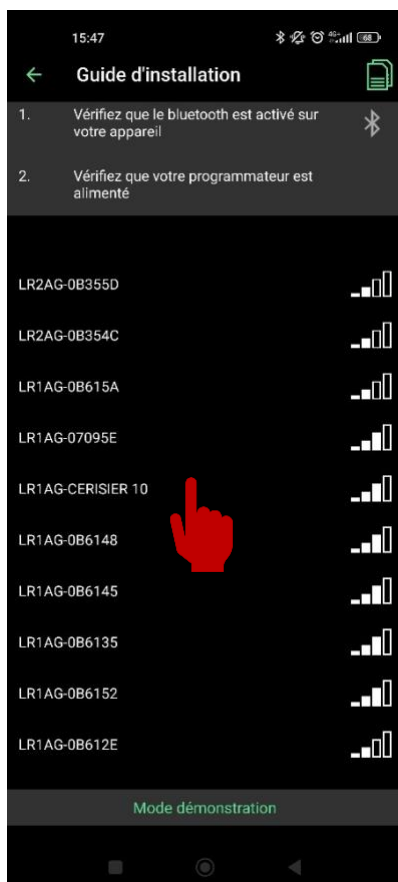
LR-PM: Master valve device powered by a 9V battery.

SMART-IS / LR-IS / BL-IS: 24 VAC Irrigation controller.

LR-BST: 3G/4G gateway.

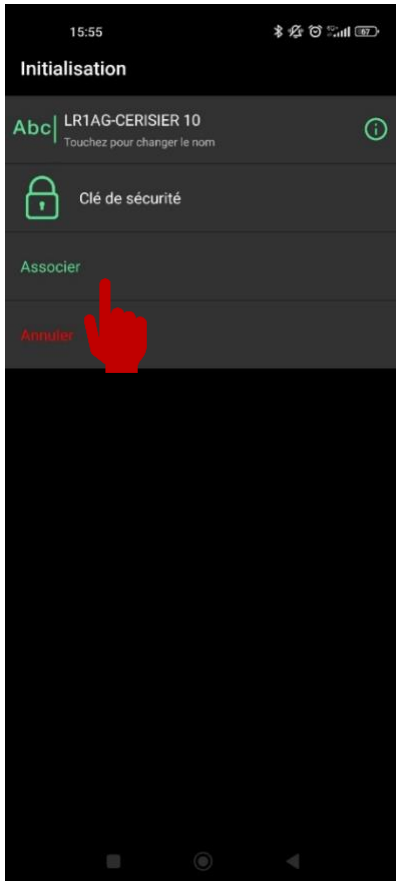
LR-MB: Wi-Fi gateway.

IRRIGATION STATION: Autonomous device with a solar panel and equipped with gateway and sensor module.



i You will see the modules that are within Bluetooth range of your phone.

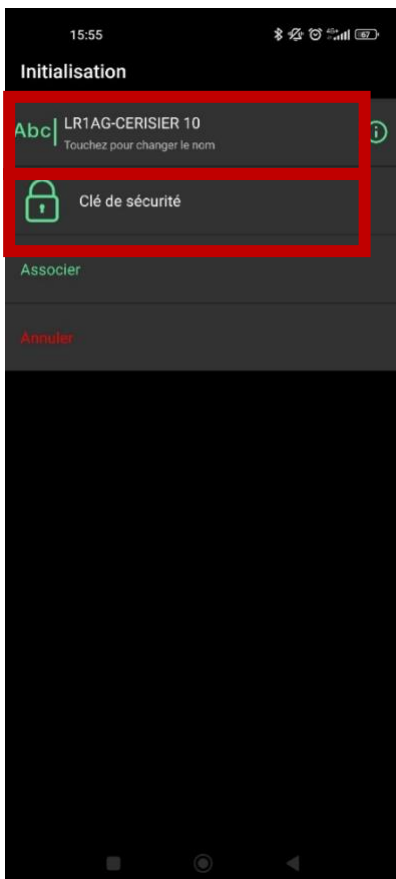
Select your product with its default name that appears in green if it is the first installation. You can also find this default name on the label on the back of the product.



i The application will send you a request to activate the anti-theft function of your device after associating it. An account is required to activate this function. This will allow you to disable the module in case of theft/loss to prevent its use, or to reactivate it if it is found.

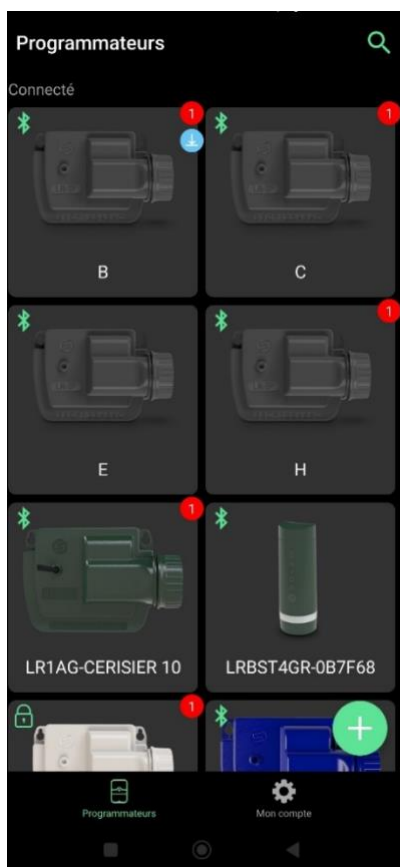
Note: This anti-theft feature can be activated later.

Select "Associate".



i On this screen, you can also change the name of your product for better identification.

You can also set a Bluetooth security key (which can be up to 7 digits). Only users who know this key will be able to access the device.



As soon as your product has been associated and the connection has been established, you will see the product appear on the main screen.

You can also see how your product is connected through the logo in the top left of the product image.



You are connected via the Internet.



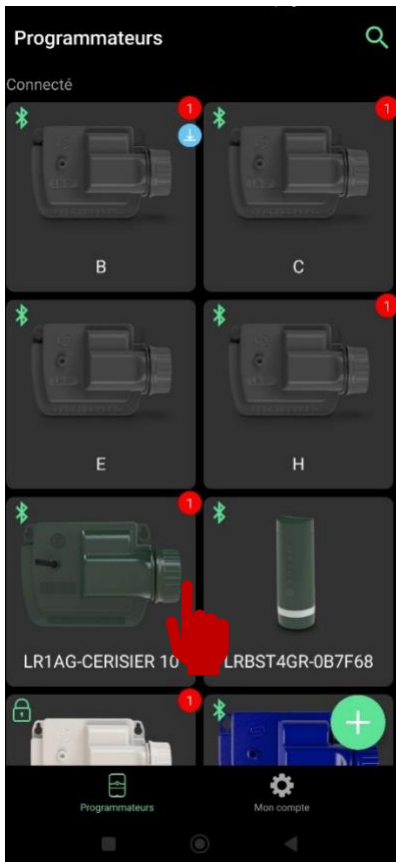
You are connected via the Bluetooth.



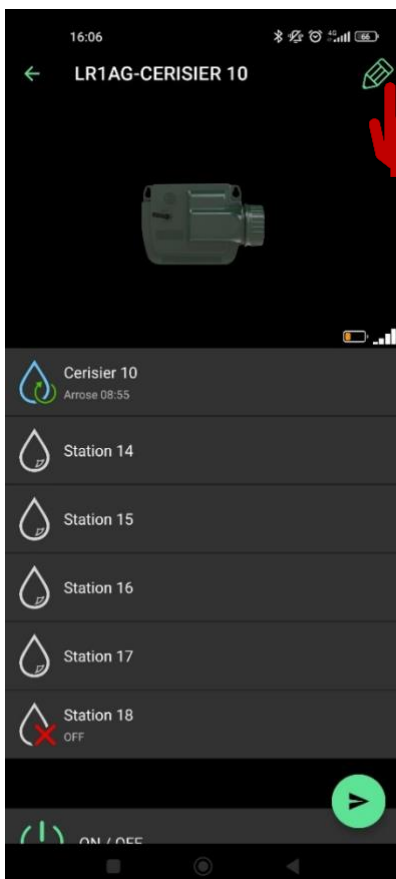
You are connected via Bluetooth and have entered a security key for your device.

B) PAIRING LORA MODULES WITH A GATEWAY

Follow the procedure in section II.A to associate your LR-MB/LR-BST gateway and compatible LoRa products via Bluetooth.



Select the device you want to associate with your gateway.

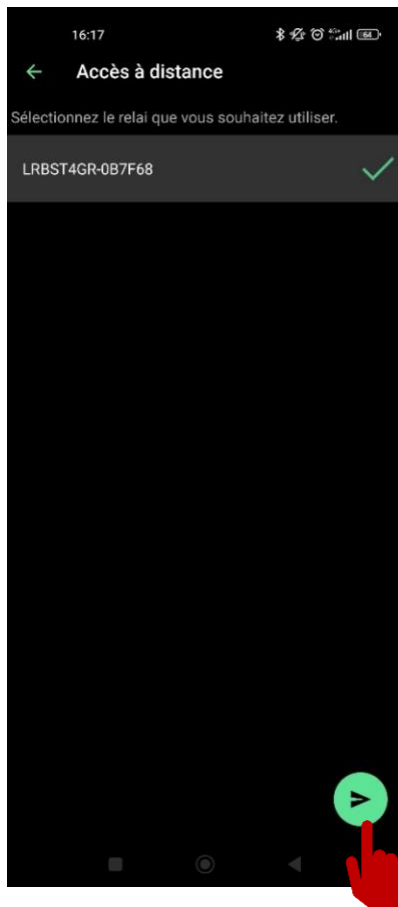


i Once your product is selected, press the pencil icon located in the top right corner of your screen to access the information about your product.



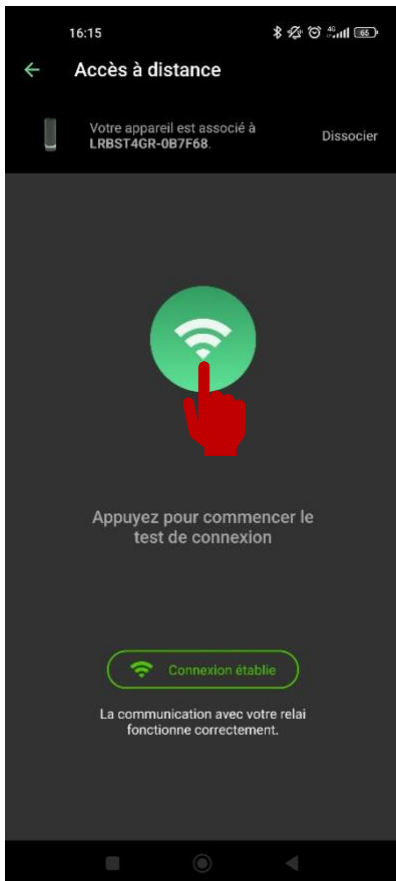
This page summarizes all the information related to your product, such as: the default name, the possibility to modify the security key, the location address, the software version, and the ability to erase all programming or create/restore a backup.

Scroll down this page until you reach "Remote access". Select this option.



Select your gateway.

Send the association command with the green arrow at the bottom right of your screen. You will hear a notification sound if the command is correctly sent.



The LoRa radio communication allows for an average range of 800m between the gateway and the programmers.

i Once the association is completed, you can perform as many radio communication tests as you wish. Simply follow these steps:

Press the green icon to launch the range test.

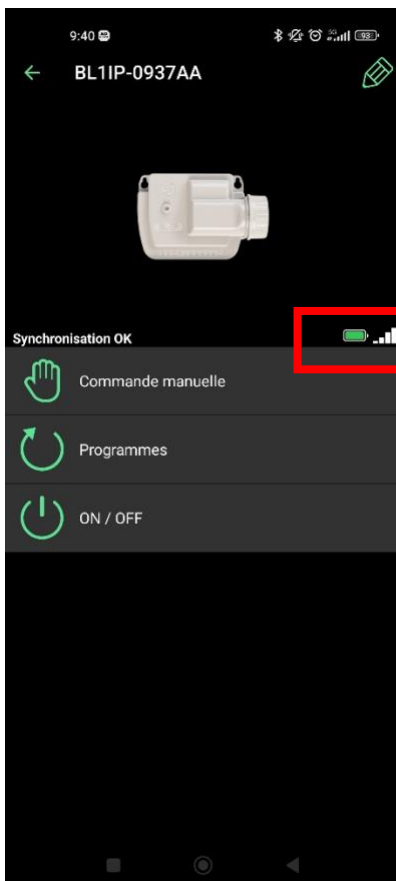
Wait until the range test is completed.

If the connection is successfully established, the message "Connection established" will be displayed.

If the connection fails, the message "No connection established" will appear.

This button can be used to test the radio range between your gateway and your product at any time.

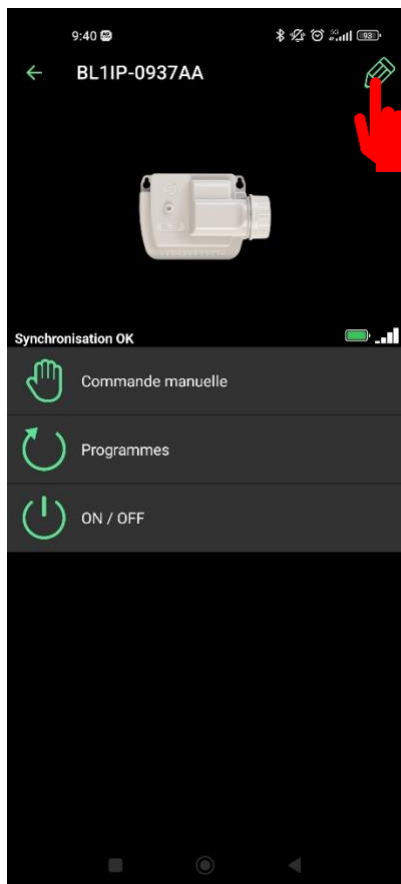
III- RESIDENTIAL PROGRAMMING (LR-IP; BL-IP; SMART-IS) MODULE INFORMATION



i Upon selecting your module, you will be directed to the main screen where the various available commands and programs for your device are displayed.

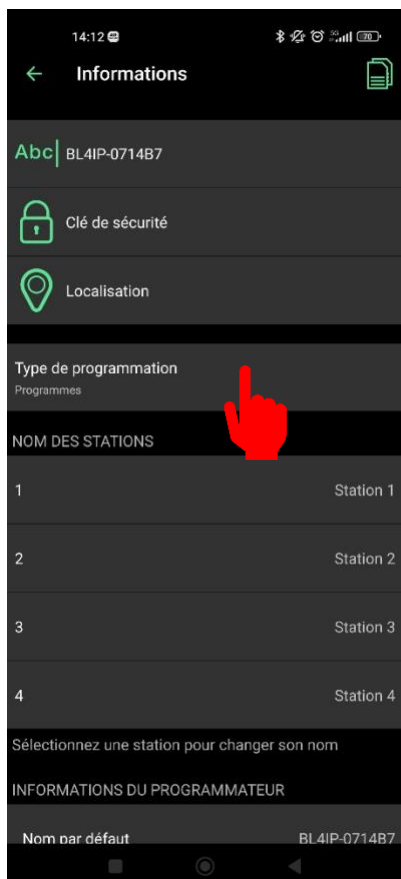
Additionally, information regarding the battery status and connectivity signal is also provided.

A) IRRIGATION PROGRAM



Information: Only applicable to BL-IP

There are 2 types of programming available. In this explanation, we will use the programming by program. To ensure this, select the pencil icon in the top right corner of your screen.



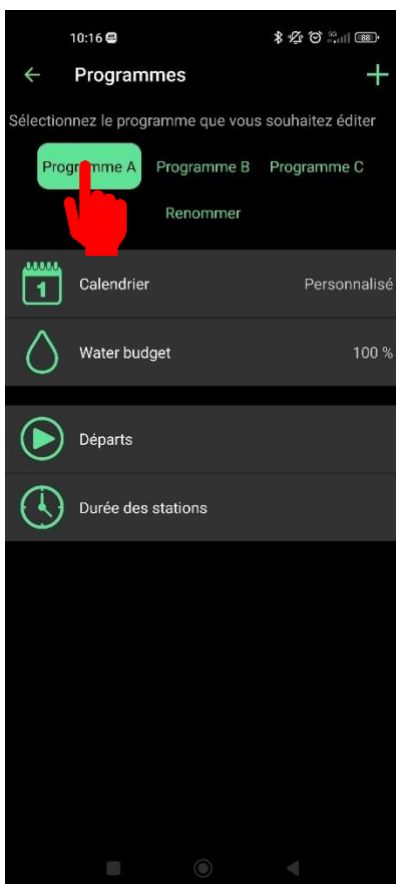
This is where you need to define the type of programming in the information and settings window. For the purposes of this manual, please select the programming type: Programs.

The other products WOOBEE / LR-IP / LR-IP-FL / LR-IS / SMART-IS only have this type of programming, so this operation is not necessary.

1) PROGRAMMABLE IRRIGATION



In order to create a program, select the BL-IP / WOOBEE / LR-IP / LR-IP-FL / LR-IS / SMART-IS/.../ device for which you want to set up a program.



Select the program you wish to configure.

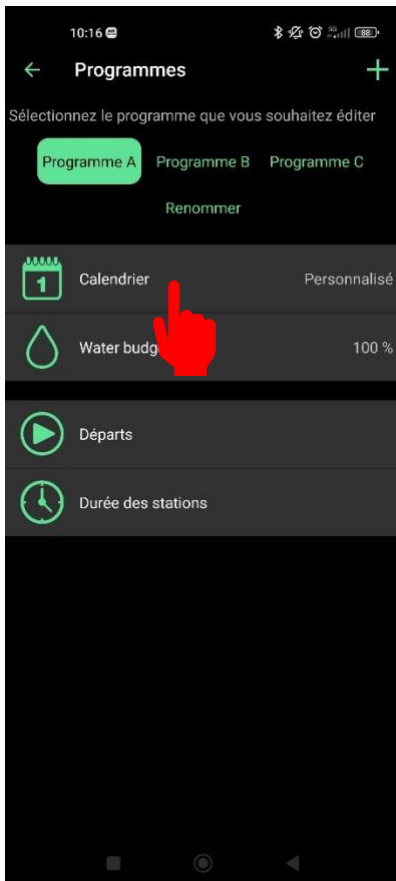
You can use only one program if you have only one watering session in the morning or evening with the same duration.

If you want to use a different duration on one station for the morning and evening, you must use two programs.

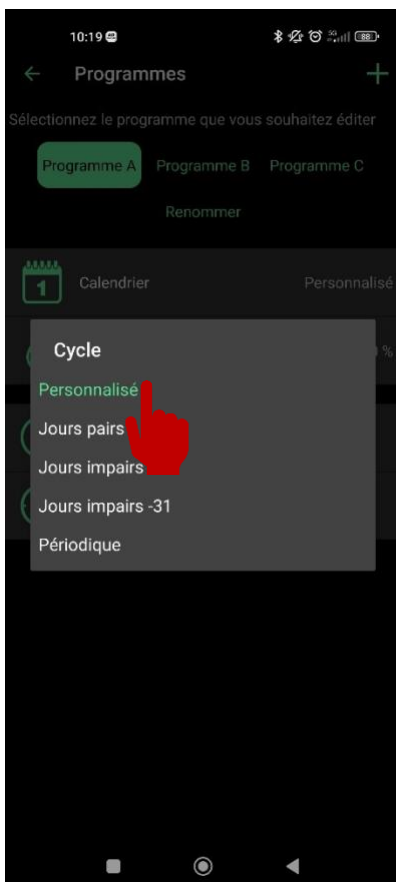
For example, Program A: Station 1 = 5min and Program B: Station 1 = 10min.

Then, program the morning start on Program A and the evening start on Program B.

Another important information is that your device is a sequential device, which means that all stations with a duration on one program (for instance, Program A) will be run one after the other. Therefore, you only need to enter one start time.

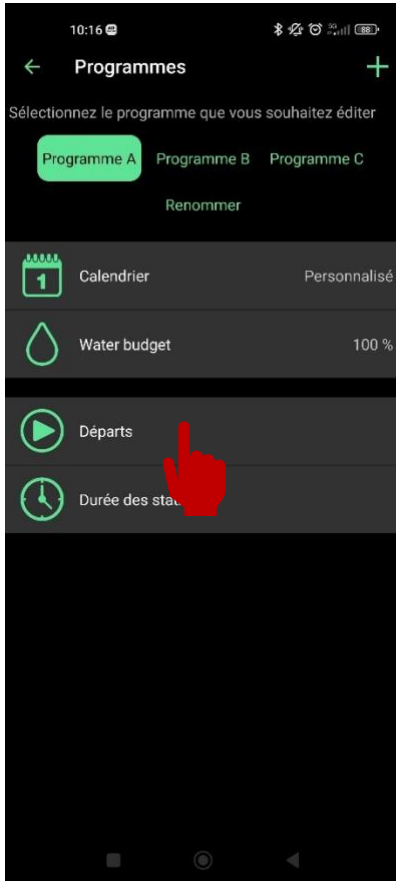


You can define your watering frequency by selecting the calendar.

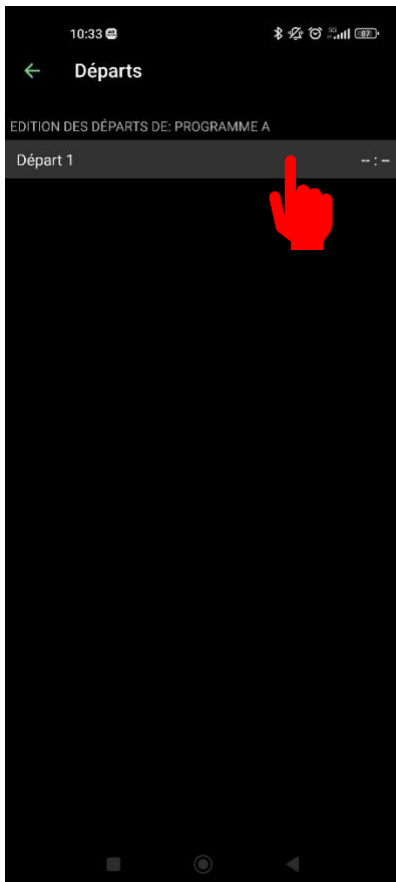


i Regarding the calendar, you have 5 options, select the one that suits your needs:

- Custom if you want to select specific days.
- Even days (2nd, 4th, 6th...).
- Odd days (1st, 3rd, 5th...).
- Odd days without the 31st. You can have a month ending on the 31st, so with this function, it will not water for 2 consecutive days (will water only on the 1st of the next month).
- Periodic (examples)
 - Every day.
 - Every two days.
 - Every three days.

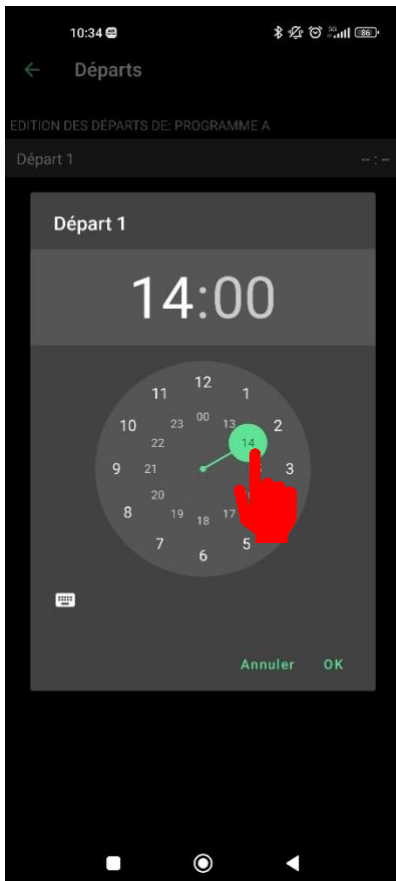


To continue setting up your irrigation program, select "Start Times".

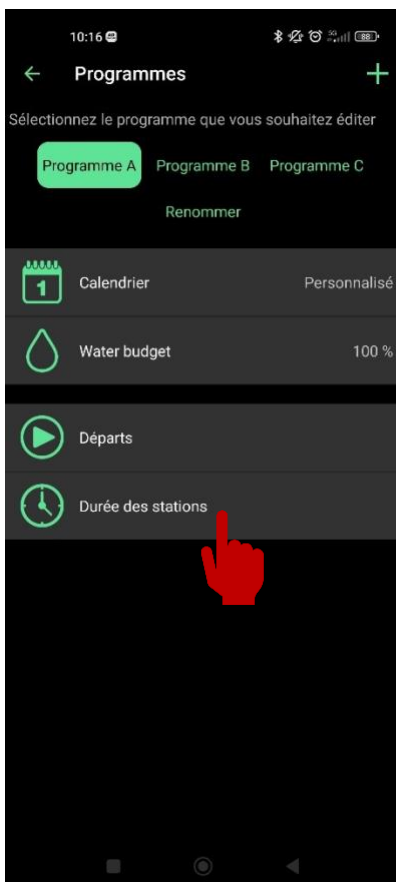


i When you select "Start time 1", you can set the start time for your program.

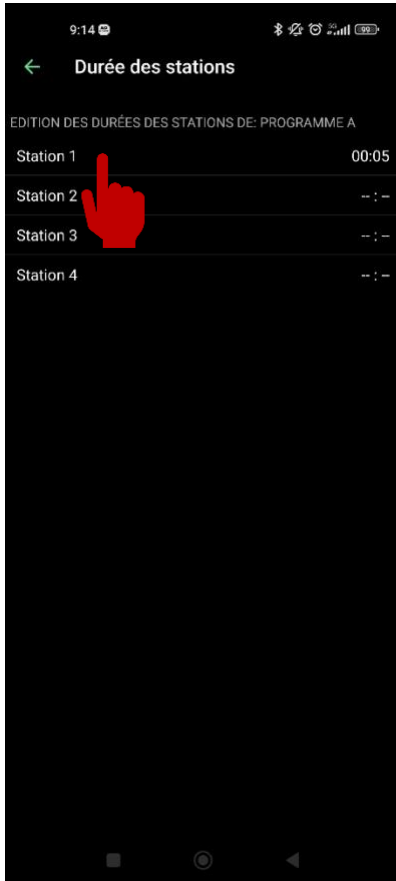
Then, press "OK" in the bottom right corner of your screen to confirm.



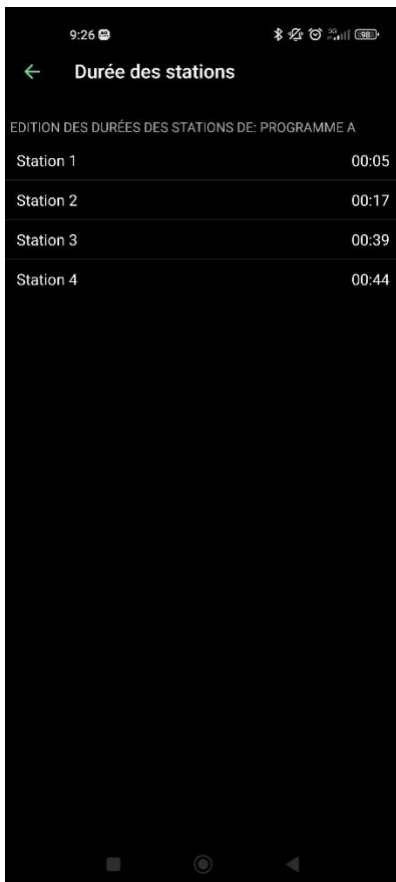
To set the time, use the wheel.



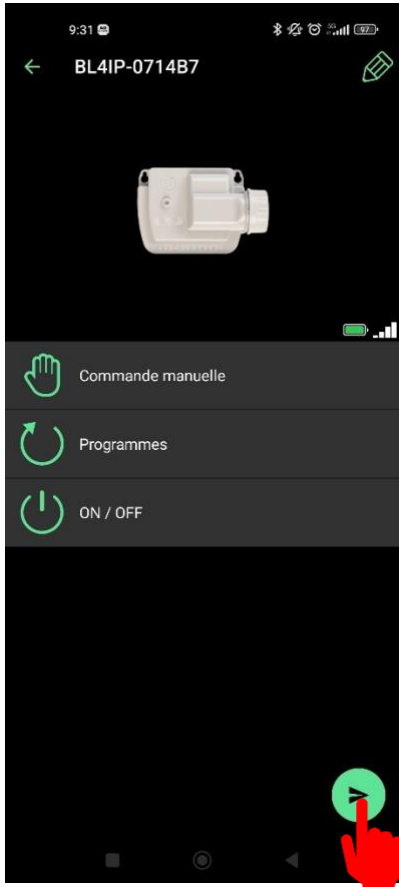
You can set the watering duration for each station.



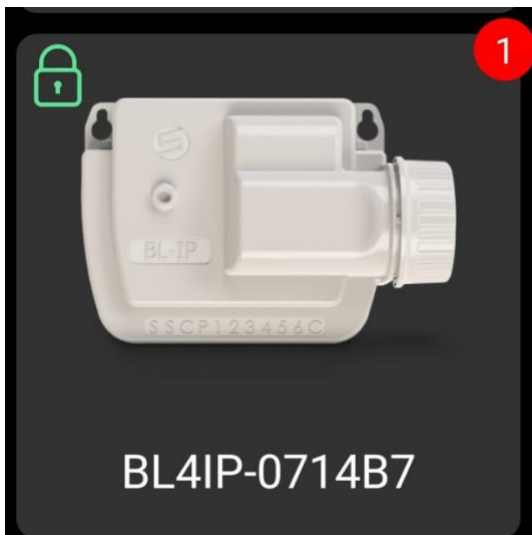
When you select "Station 1", you can set the activation duration for your station 1.



Repeat this same procedure for the other stations.



! To send the command to the module, don't forget to use the arrow located at the bottom right corner of the screen when your program is complete.



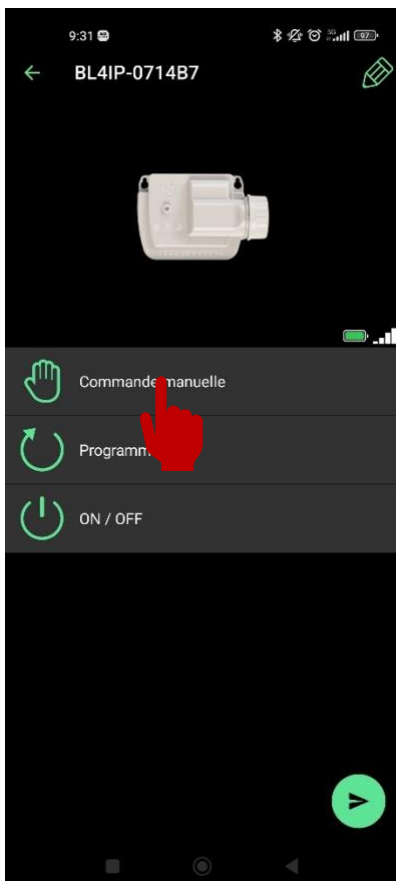
While the module is waiting for synchronization, the program will be suspended. A notification will be displayed in the top right corner of the module image to indicate to the user that a program is waiting to be sent.

If your LoRa type module (LR-IP/LR-IP-FL, etc.) is attached to a LR-MB/LR-BST gateway, a "1" may appear for a moment while the programmer retrieves its program from the gateway.

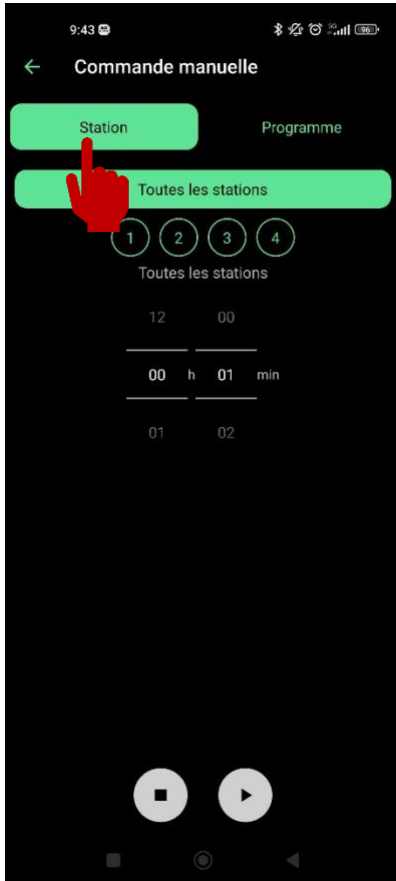
B) STARTING A MANUAL COMMAND



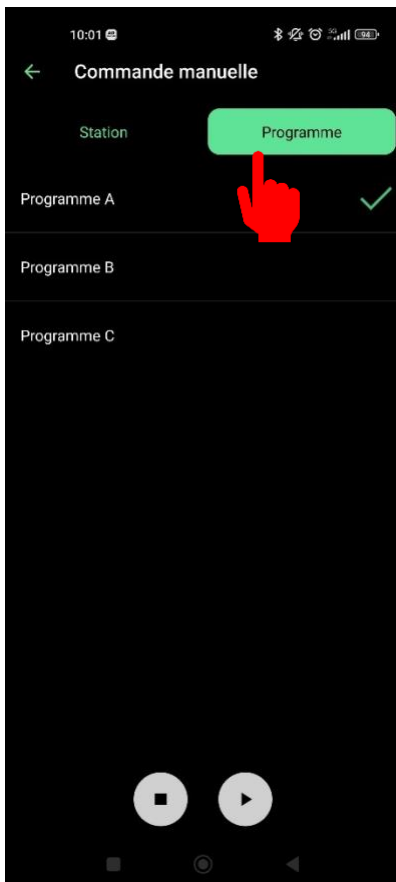
Select the product that you want to start.



Select « Manual control »



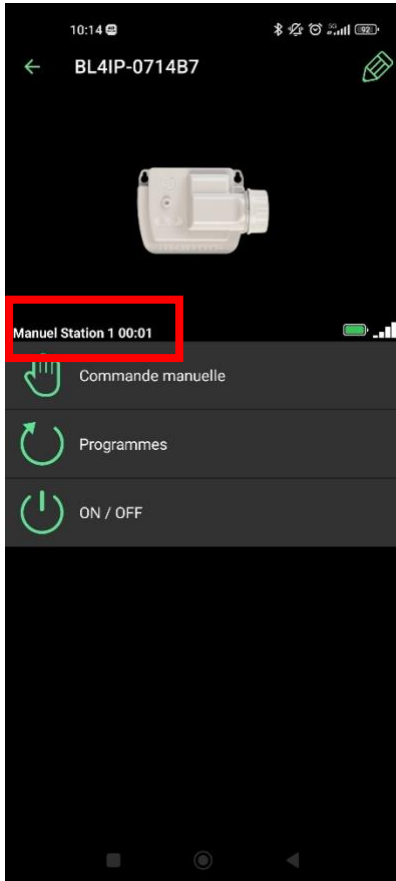
Select one, several, or all of your stations and set a watering duration for each.



You can also start a program manually by selecting the "Program" tab.

In this example, we choose Program A.

All stations with a duration in Program A will start during their programmed time.

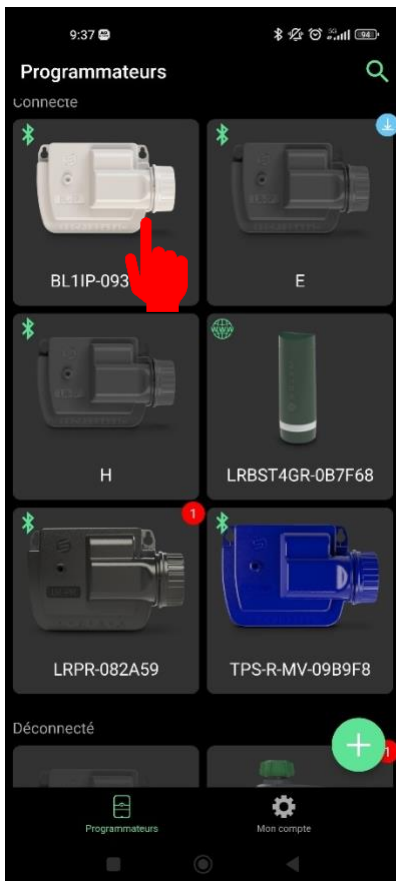


With this example, you can see in the red box that Station 1 is activated in "Manual" mode for another 1 minute.

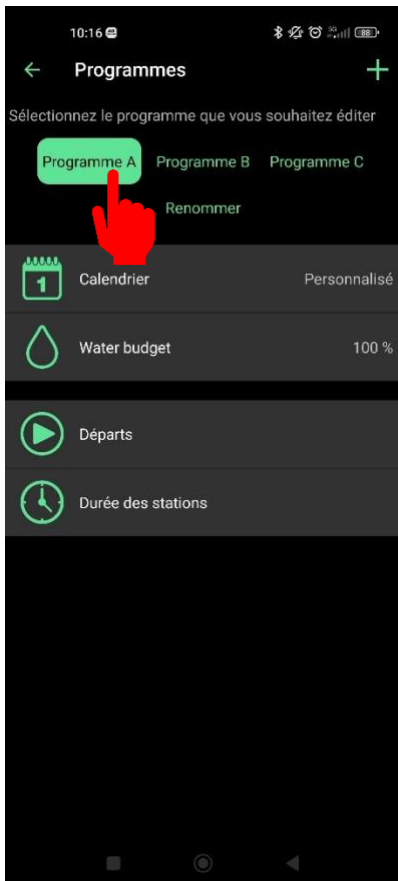
i If your device is associated with a gateway and you want to activate a station remotely, please take into account the LoRa delay which can take up to 3 minutes.

If you send the command directly via Bluetooth, the manual command will start immediately.

C) EDIT YOUR PROGRAM



Please select the relevant module.



Select the program you want to edit.

You can then choose to modify the calendar, the Water budget, your starts, and watering durations. (see Chapter III A,1)

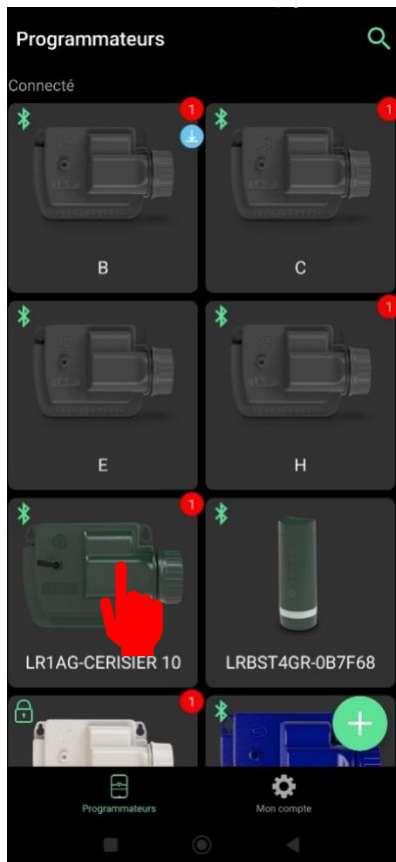
IV- IRRIGATION PROGRAMMING (BL-AG ; LR-AG) MODULE INFORMATION



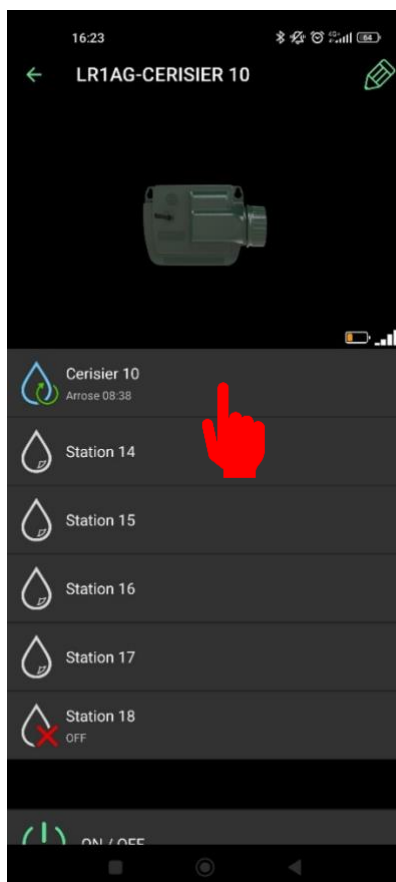
i When you select your module, you access the main screen that indicates if stations are currently watering and the remaining time. You also have information about the battery status and connectivity signal.

A) IRRIGATION PROGRAM

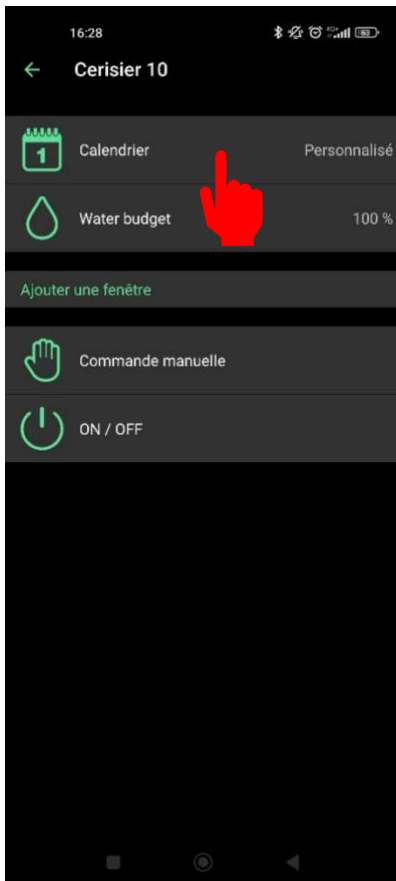
1) CYCLIC IRRIGATION



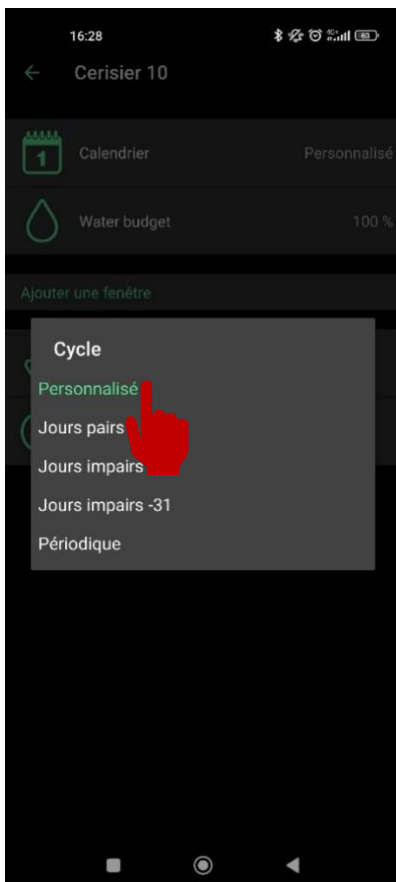
To create a program, select the device you wish to configure.



Select the station you wish to configure.

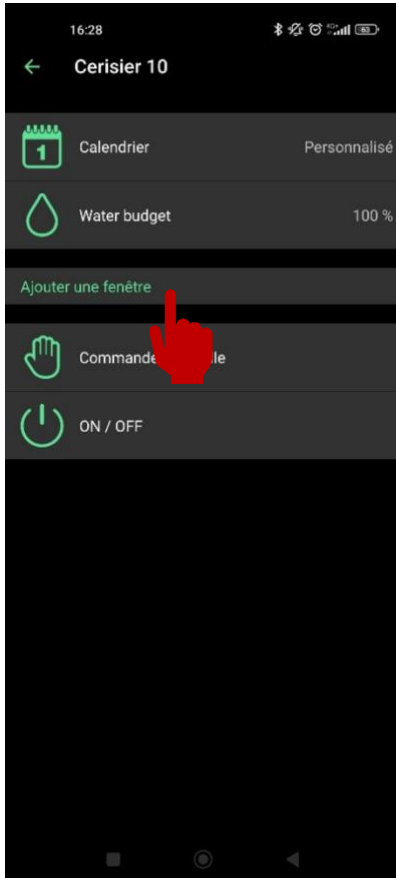


First, you can define your irrigation frequency by selecting the calendar.



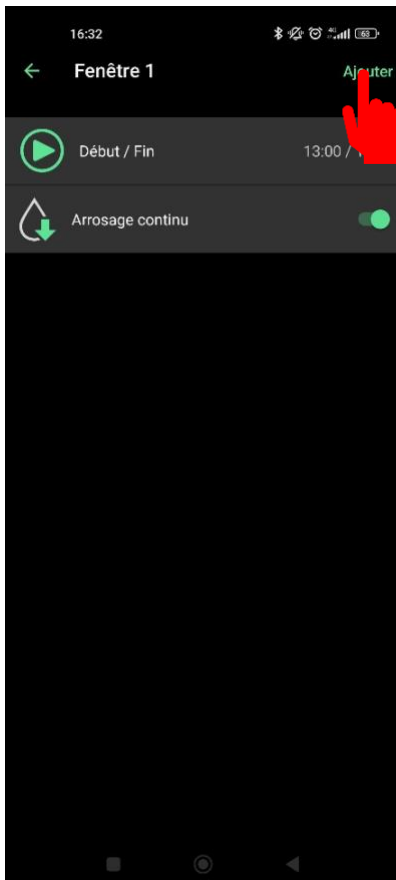
Concerning the calendar, you have 5 options, select the one that fits your needs:

- Custom if you want to select specific days.
- Even days (2nd, 4th, 6th...).
- Odd days (1st, 3rd, 5th...).
- Odd days without the 31st. You may have a month ending on the 31st, so with this function, it won't water for two days in a row (will only water on the 1st of next month)
- Periodic (examples)
 - Every day.
 - Every other day.
 - Every three days.



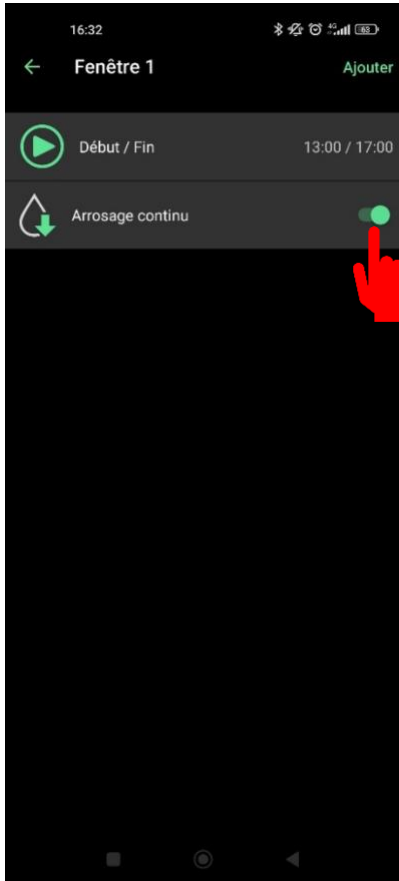
Each station is independent and can have a different irrigation cycle or frequency. Each station can have up to 4 watering windows.

Select "Add a window".

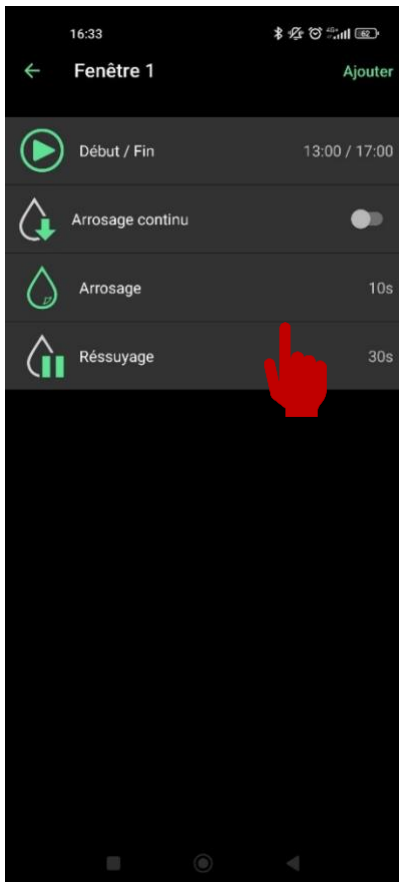


i When you select "Add a window", you can set an irrigation duration by defining the start and end times.

Then, press "Add" at the top right of your screen to confirm.

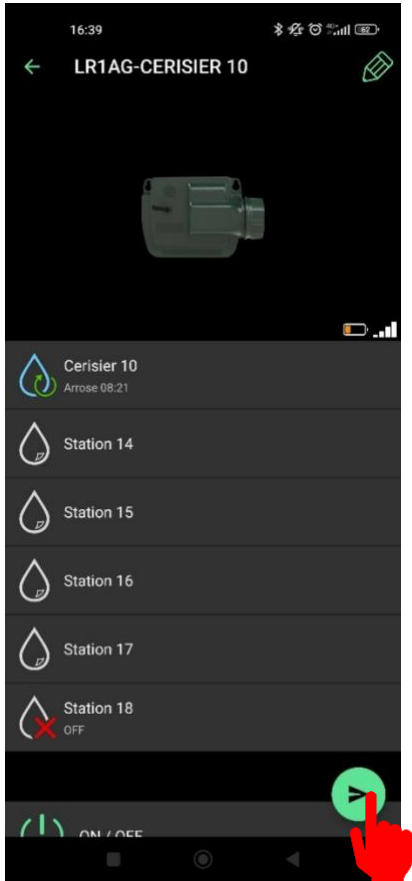


You have the option to select continuous watering.



Or, you can choose a watering cycle that requires both watering and drying periods. To do this, uncheck "continuous watering".

You can then set the watering and drying times.



Repeat this same process for the other stations.

⚠ When your program is complete, don't forget to send the command to the module using the arrow in the bottom right of your screen.



While the module is waiting for synchronization, the program will be on hold.

A notification will be displayed at the top right of the module image to indicate to the user that a program is waiting to be sent.

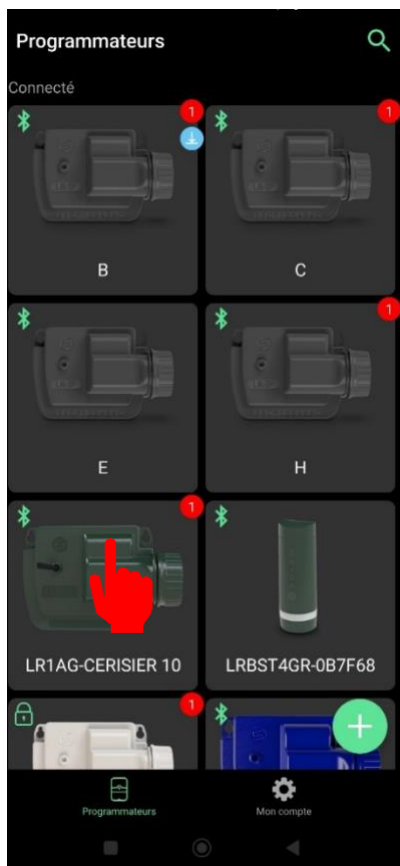
2) VOLUMETRIC AND RAIN GAUGE PROGRAMMING



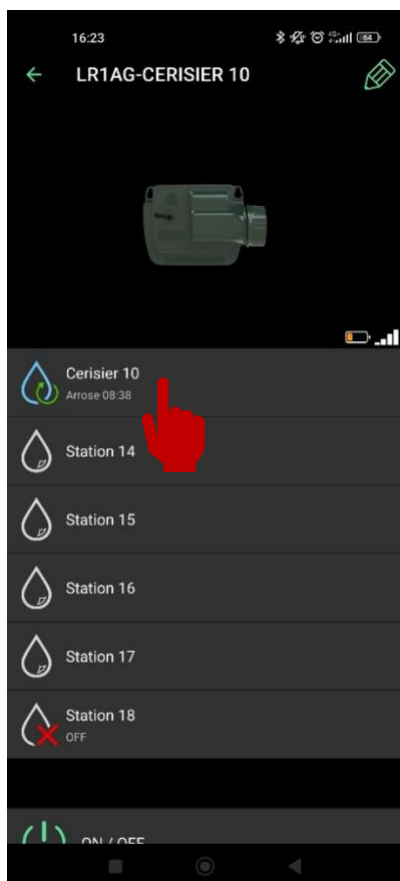
Volumetric and pluviometric irrigation can only be managed through the MySOLEM platform.

Please refer to the MySOLEM user manual for instructions.

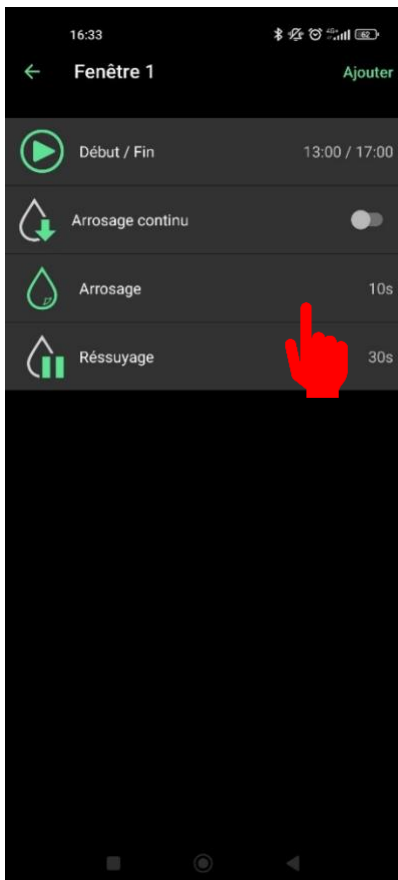
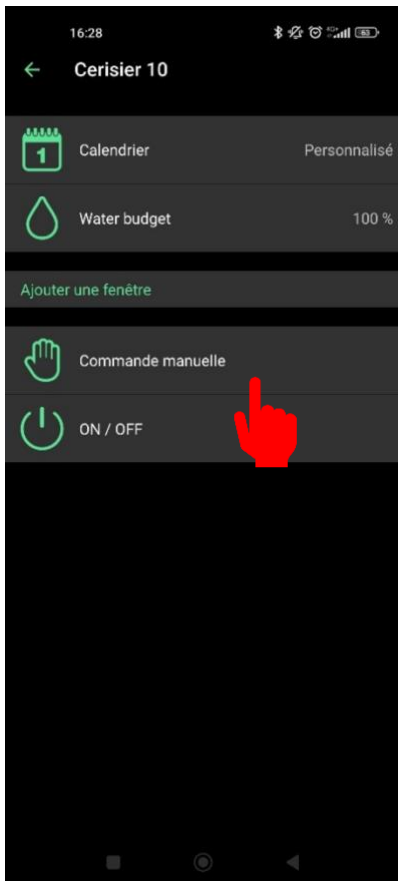
3) START A MANUAL COMMAND



Select the product that you want to start.



Select the station that you want to start.

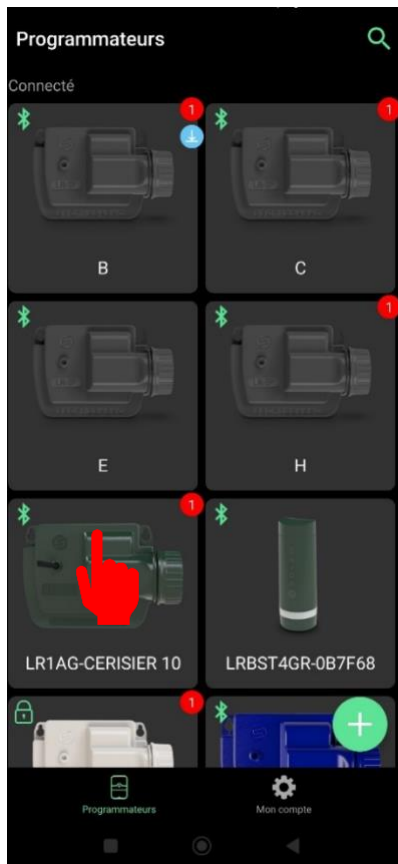


i If your device is associated with a gateway and you want to activate a station remotely, please take into account the LoRa delay which can take up to 3 minutes.

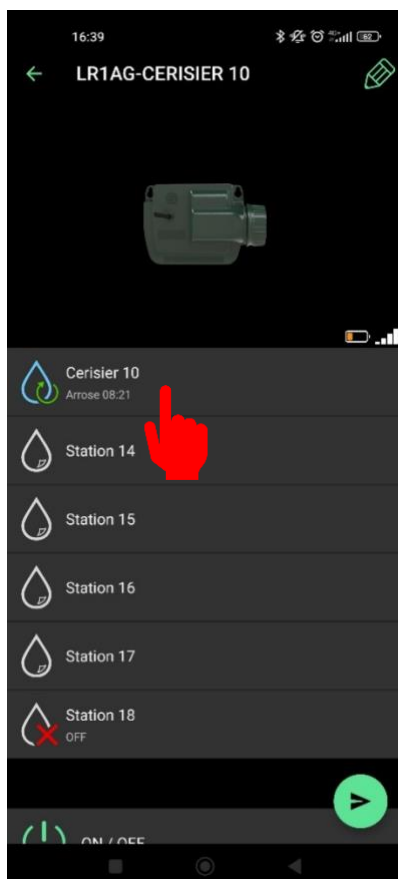
If you send the command directly via Bluetooth, the manual command will start immediately.

Select the duration and whether you want continuous irrigation or irrigation with drying time. Then send the command as shown in the example.

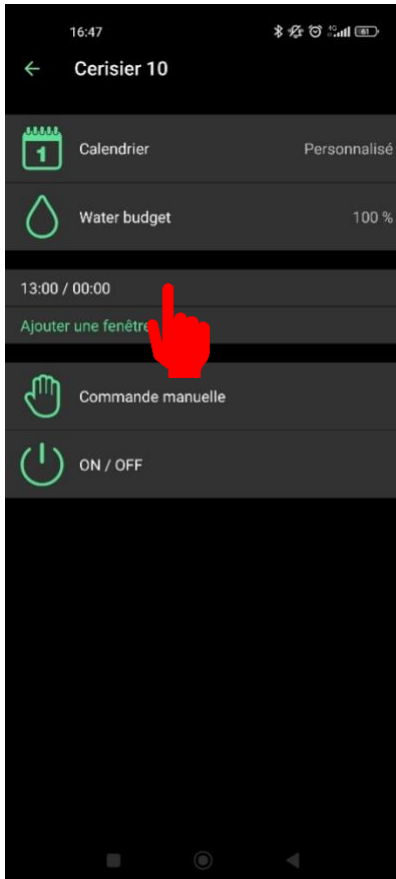
4) MODIFY YOUR PROGRAM



Please select the relevant module.

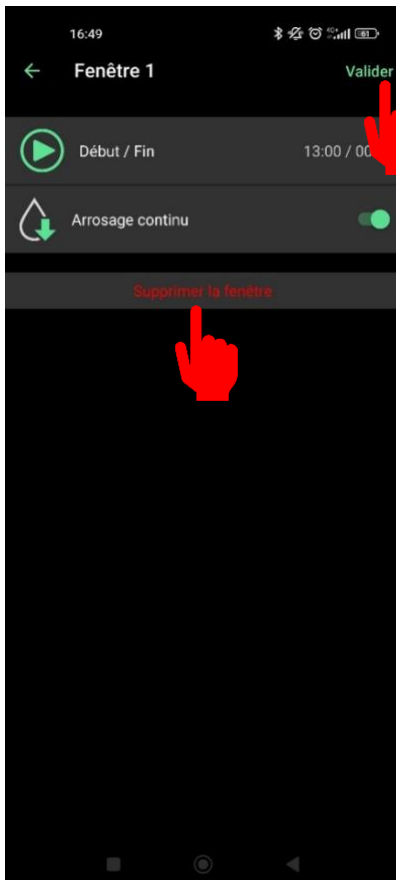


Select the station that you want to modify.



i You can also view your existing programs on this screen.

To modify your program, access the existing window. You can change all the data, for example, the start and end of a time window, the watering cycle, etc..

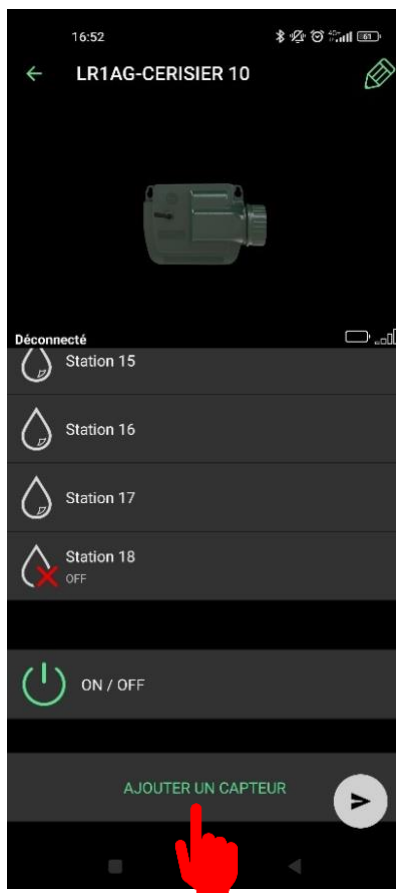


When you select the existing time window, you can either change the duration (see Part III.B.1), or delete the existing window using the option displayed in red "Delete window".

Do not forget to validate your modifications with the corresponding button in the top right corner of your screen.

5) ADDING A SENSOR TO THE LR-AG

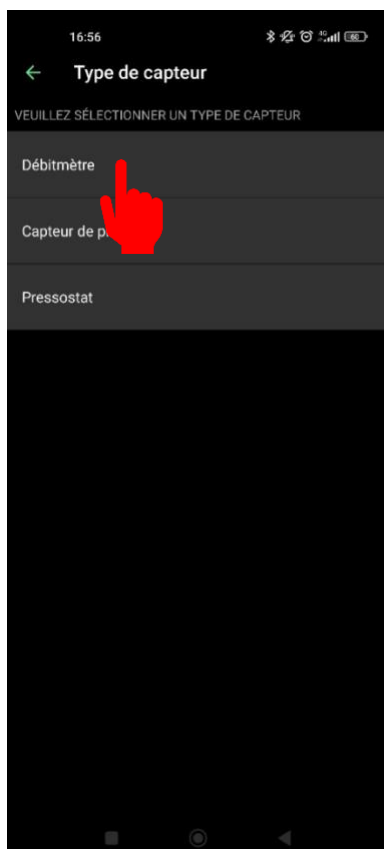
1) FLOW METER



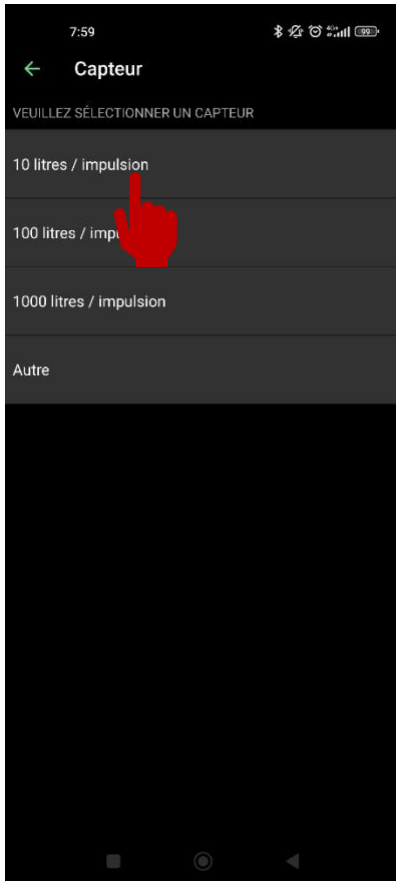
Your LR-AG can be wired with a sensor (either a flowmeter, rain sensor or pressure sensor).

Select "Add a sensor".

1.1) Sensor settings



Select "Flowmeter".



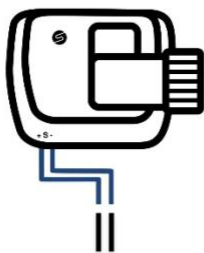
Select the K factor to set up your flow meter.



The K factor is provided by the flow meter manufacturer



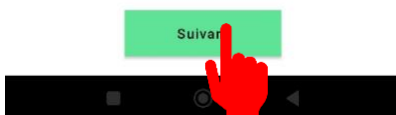
Connectez le capteur à l'entrée 1



Cut the blue cable of your device in the middle.

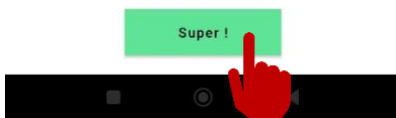
Connect the two strands of the blue cable according to the polarities of the pulse contactor of the flow meter.

Select the "Next" option to move to the next step.





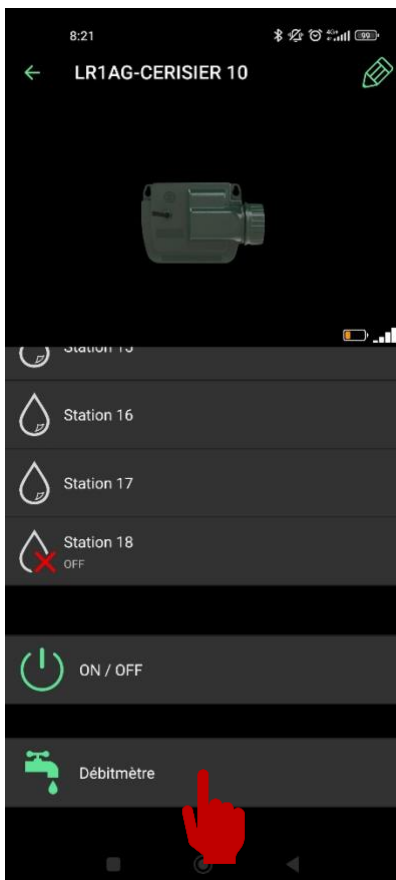
Félicitations, tout est prêt !



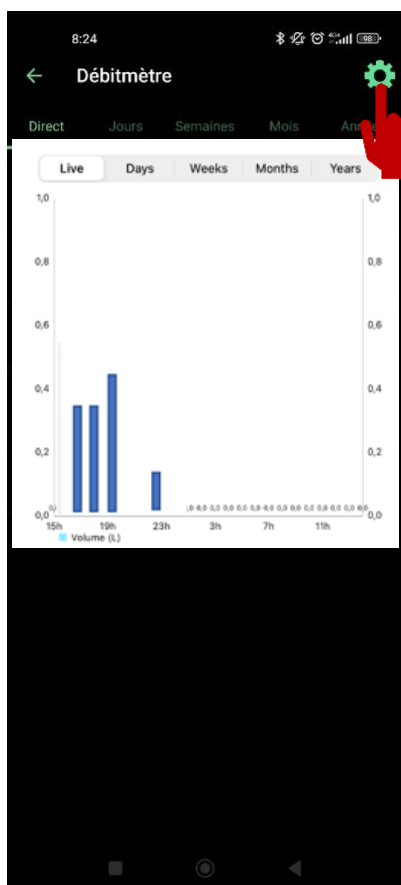
i There is no automatic verification for the wiring done.

Select "Great!", you can now access to your sensor settings.

1.2) Water consumption monitoring



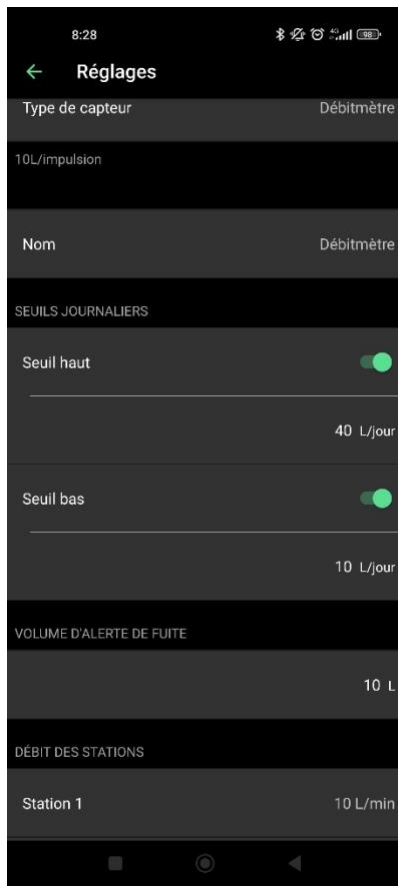
Select the new "Flow Meter" icon that now appears on your screen.



You can view the water consumption volume by checking the real-time data, by day, week, month or year.

Select "settings" to set your thresholds.

1.2) Setting up sensor thresholds.



i In the settings, you can define values for the high and low thresholds of your sensor. You can also activate the leak alert, station flow rates, and stabilization time.

HIGH THRESHOLD (Daily volume): The maximum water consumption (in liters) that you do not want to exceed within a 24-hour period. In case of exceeding the threshold, you will be immediately notified (by email and/or notification via smartphone and tablet).

LOW THRESHOLD (Daily volume): The minimum water consumption (in liters) that you must reach within a 24-hour period. In case the threshold is not reached, you will be notified the following day at 7 a.m. (by email and/or notification via smartphone and tablet).

LEAK ALERT VOLUME: The threshold for water volume outside the irrigation periods (in liters) for which you want to be alerted.

STATION FLOW RATES: For each station, enter the theoretical or actual flow rate. If you do not know this value, you can calculate it using the instantaneous value function.

HOW TO CALCULATE THE FLOW RATE OF YOUR STATION:

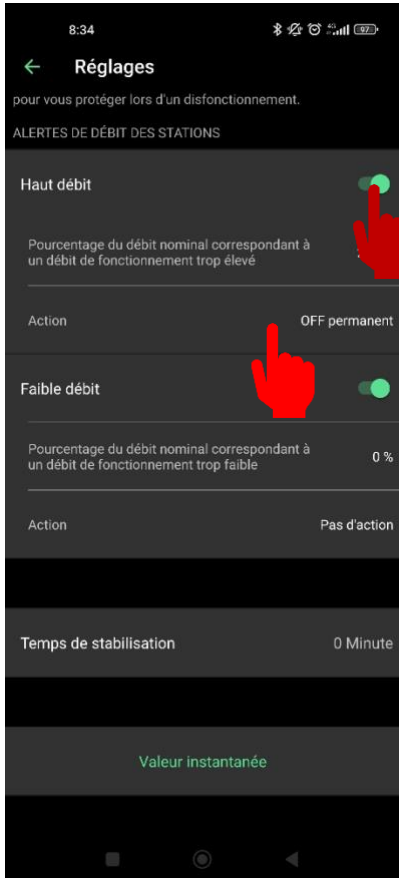
Step 1: Check the instantaneous value (Val.1).

Step 2: Manually activate the station of your choice for 5 minutes.

Step 3: After 5 minutes, when the irrigation is completed, check the instantaneous value (Val.2).

Step 4: Calculate your flow rate $(\text{Val.2} - \text{Val.1}) / 5 = \text{Flow rate in liters per minute}$.

Step 5: Enter this value in the "flow rate of stations" section.



i **HIGH FLOW:** Maximum percentage of flow rate for your stations that you do not want to exceed.

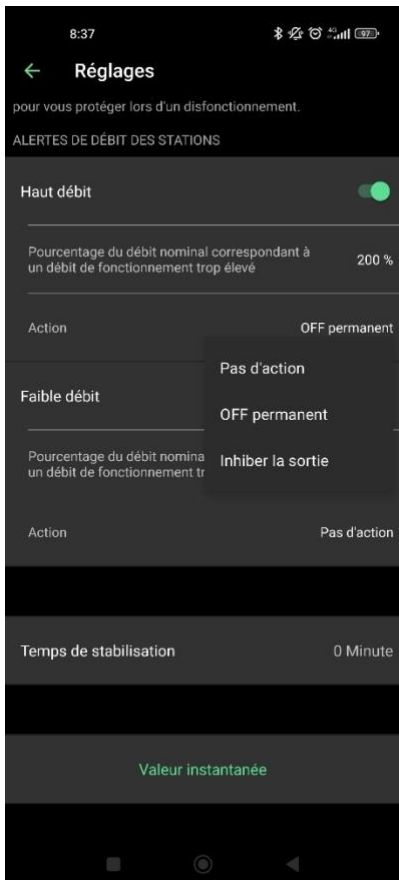
LOW FLOW: Minimum percentage of flow rate for your stations that you do not reach.

The alert for "High flow" or "Low flow" is sent immediately.

Activate the options for high and low flow.

Enter the percentage for high and low flow.

Set the desired action.



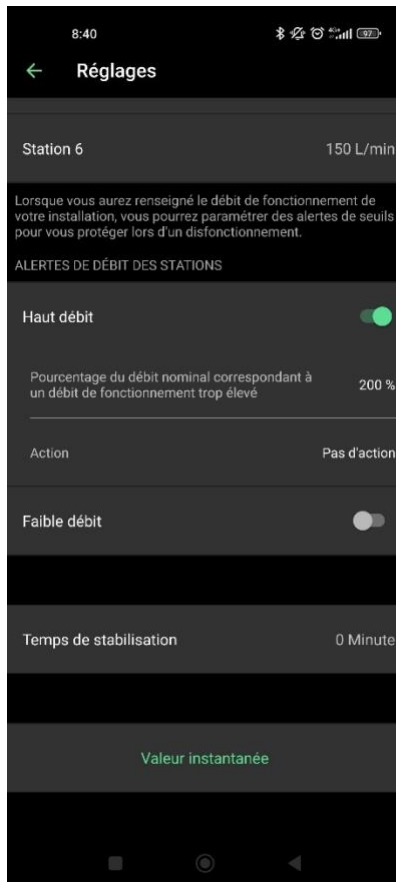
i For each station flow alert, you can define an action:

No action: Irrigation continues.

Permanent OFF: Irrigation will completely stop and require a manual "ON" command to resume (in the app for the relevant device). This will be applied to all stations.

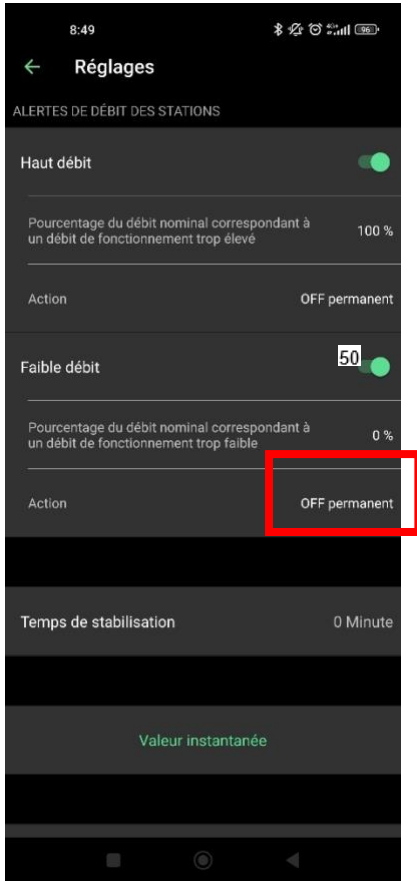
Inhibit output: Only the affected station will stop.

This feature can be represented using the following example:



For this example, the nominal flow rate of station 6 is:

Station 6 : 150 L/min



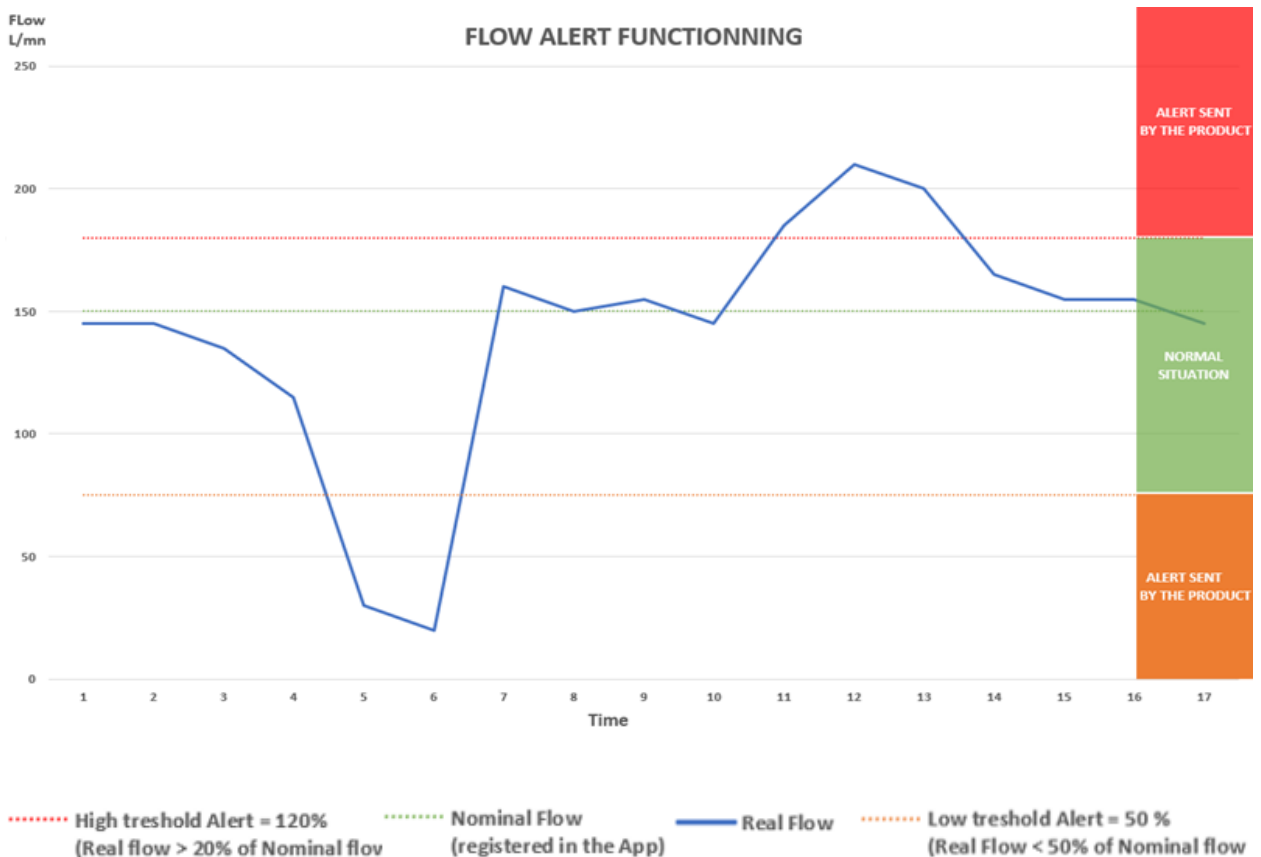
The percentage values for high and low flow rate are:

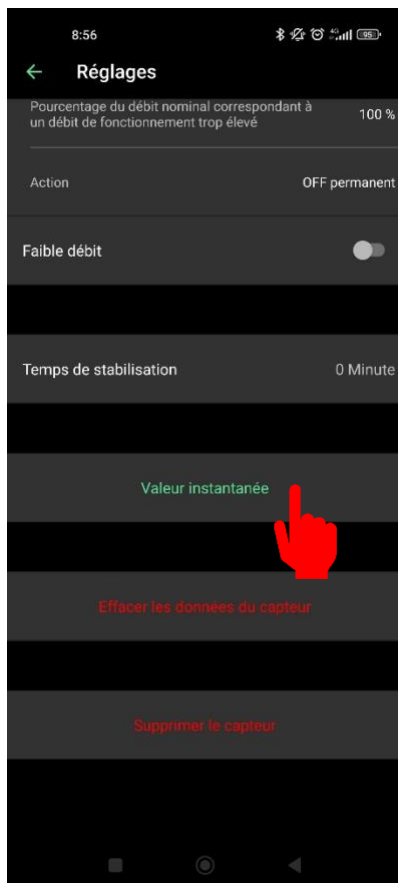
High flow rate: 100%

Low flow rate: 0%

For this example, the defined action is that if the high and low flow rate thresholds are reached, it will result in a permanent OFF.

EXAMPLE STATION 1 (NOMINAL FLOW RATE: 150 L/MIN)





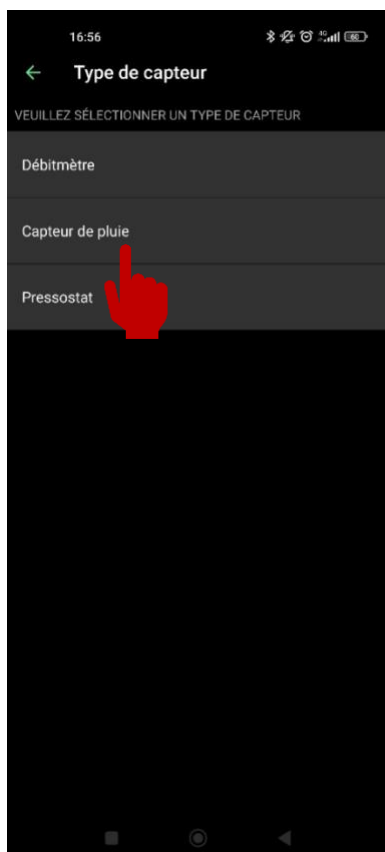
i **INSTANTANEOUS VALUE:** This option allows you to display the instantaneous value of water consumption in liters and is only available via Bluetooth.

This will also allow you to check the K-factor to ensure a good level of measurement. If the K-factor is not properly adjusted, please refer to step III.E.1.1 SENSOR CONFIGURATION.

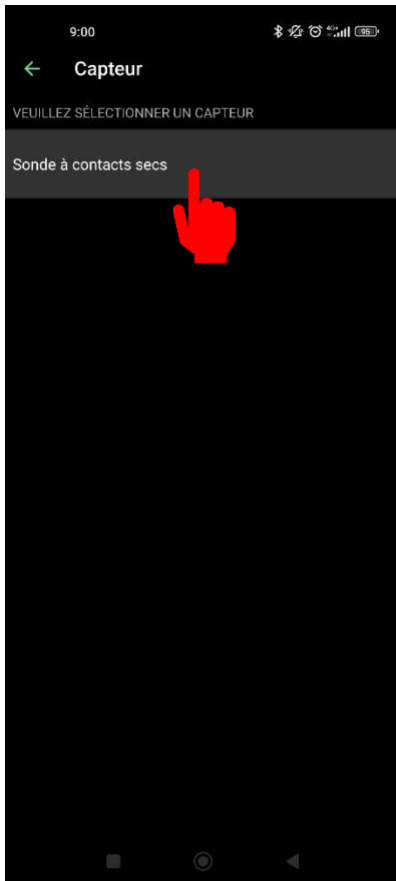
i You can also delete your sensor on this page using the "delete sensor" option if you want to remove it or replace it with another sensor. This will be the same procedure for the other sensors (rain sensor and pressure sensor).

2) RAIN SENSOR

2.1) Sensor settings



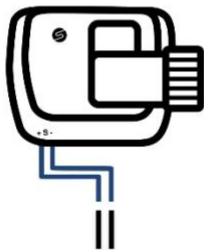
Select rain sensor (dry contact)



Select "Dry contact sensors". Only these types of sensors or equivalents can be connected to the device.



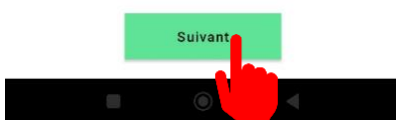
Connectez le capteur à l'entrée 1



Cut the blue cable of your device in the middle.

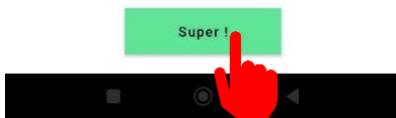
Connect the two strands of the blue cable according to the polarity of the rain sensor.

Select the "Next" option to proceed to the next step.





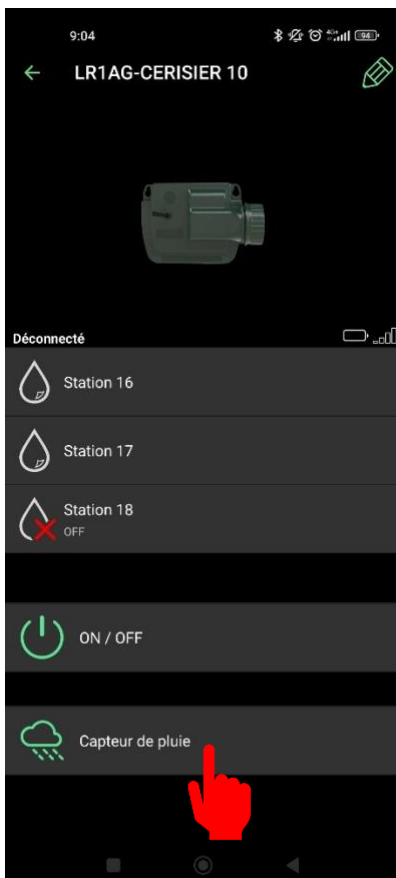
Félicitations, tout est prêt !



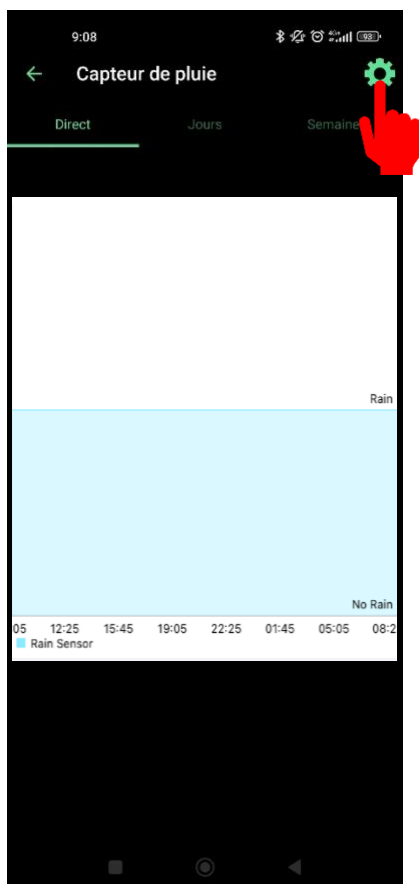
There is no automatic verification on the wiring done.

Select "Great!", you can now access the settings of your sensor.

2.2) Threshold configuration for the Sensor

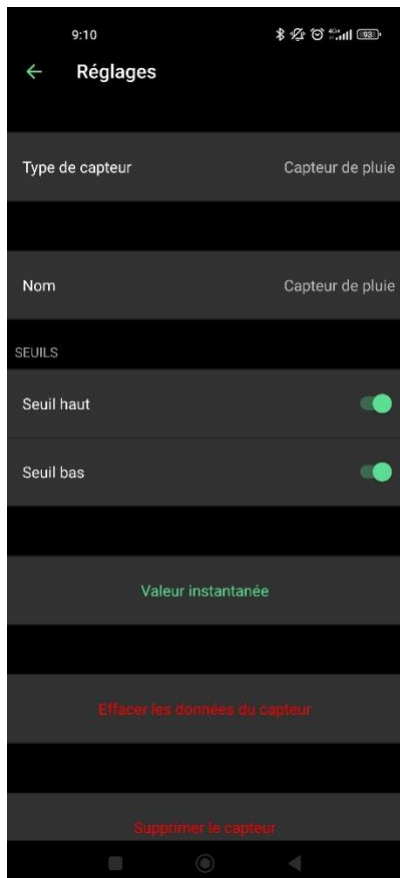


Select the new "Rain sensor" icon on your device which is now displayed on your screen.



i You can view the level of rainfall by checking the real-time data (last 24 hours), by day or by week.

Select "settings" to set your thresholds.



i The high threshold means that it is currently raining (the rain sensor is wet).

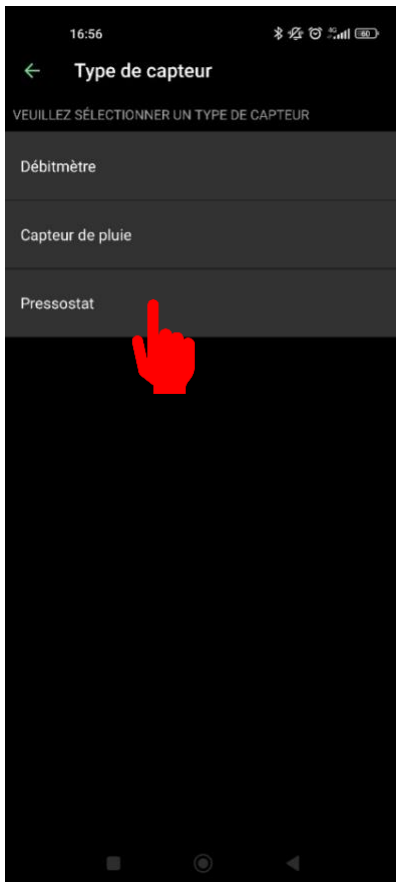
The low threshold means that the rain has stopped (the rain sensor is dry).

You can enable or disable the high and low thresholds.

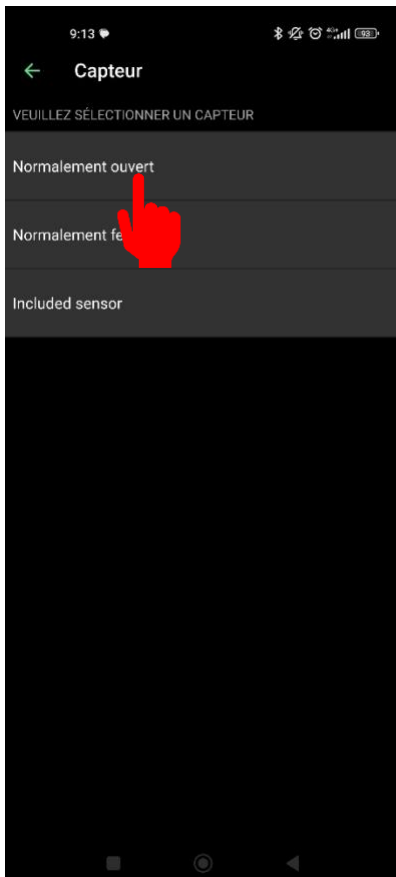
i **INSTANTANEOUS VALUE:** Select this option if you want to know if the rain sensor is dry (0) or wet (1).

3) PRESSURE SENSOR

3.1) Sensor configuration



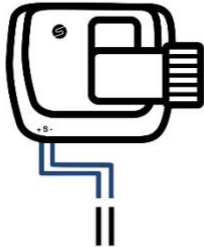
Select « Pressure switch »



Select "Normally open" (dry contact).



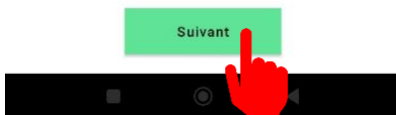
Connectez le capteur à l'entrée 1



i Cut the blue cable of your device in the middle.

Connect the two ends of the blue cable according to the polarities of the pressure sensor.

Select the "Next" option to proceed to the next step.

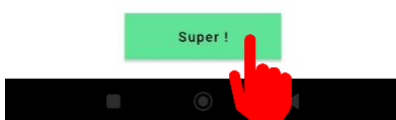


Félicitations, tout est prêt !



There is no automatic verification for the wiring you have performed.

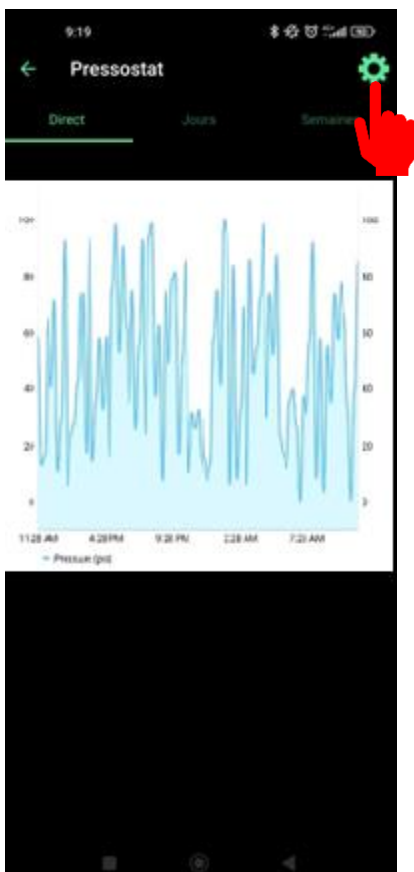
Select "Great!" and now you can access the settings for your sensor.



3.2) Setting up the settings of the sensor

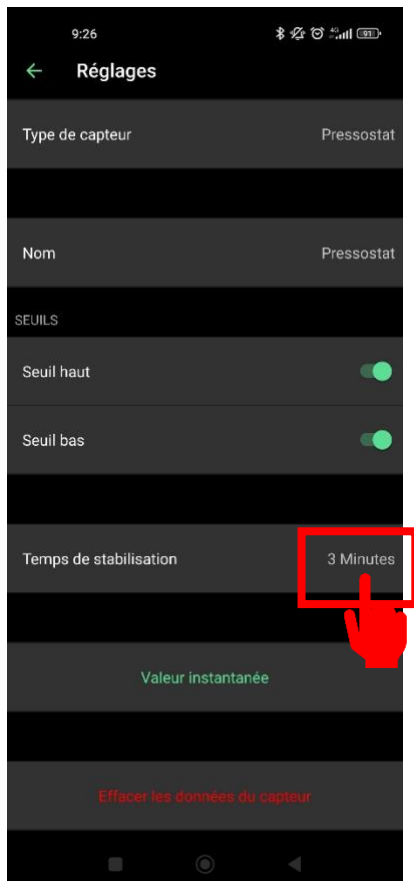


Select the new "Pressure Sensor" icon that is now displayed on your screen.



i You can check if the pressure of your device has been reached or not by monitoring the real-time data (last 24 hours), by day, or by week. If the value is equal to 1, it means that the recorded pressure has been reached. If the value is equal to 0, it means that the recorded pressure has not been reached.

Select "settings" to define your thresholds.



i If your pressure sensor is connected to the solenoid valve, you can activate the high and low thresholds. The stabilization time allows you to avoid measuring the pressure during this duration (3 minutes for this example).

i How to manually set up your pressure sensor:

- 1- The contact of the pressure sensor is normally closed.
- 2- Place the pressure sensor on the irrigation conduit.
- 3- Remove the cap of the pressure sensor.
- 4- Verify that the value is 0 by selecting the "instant value" function connected via Bluetooth on the app.
- 5- Activate the irrigation and verify that the value changes to 1.
- 6- To adjust it precisely, during irrigation, screw the pressure sensor until the value reaches 0.
- 7- Then, still during irrigation, slowly unscrew the pressure sensor until the value reaches 1 again.
- 8- Note that you can also use a multimeter instead of relying on the instant value.

V – PROGRAMMING AN LR-MS

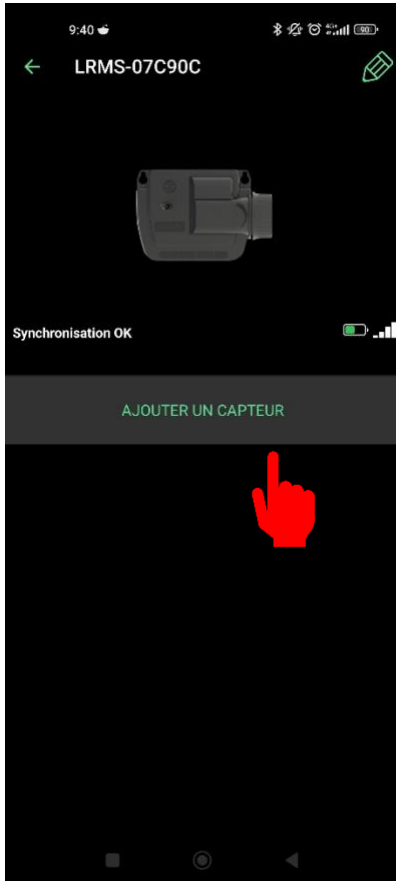
The LR-MS is a Bluetooth® / LoRa data acquisition module for various sensors that operates on a 9V battery. It allows you to monitor parameters such as temperature, humidity, flow rate, wind speed, rainfall, etc., depending on the installed sensor. This module needs to be paired with a LoRa gateway (such as LR-BST or LR-MB) to visualize the collected data on your MySOLEM user account (via the app or platform). You can set up actions on other modules based on the thresholds defined for your different sensors.

To pair your LR-MS, please follow the procedure outlined in Section II.A of this user manual.

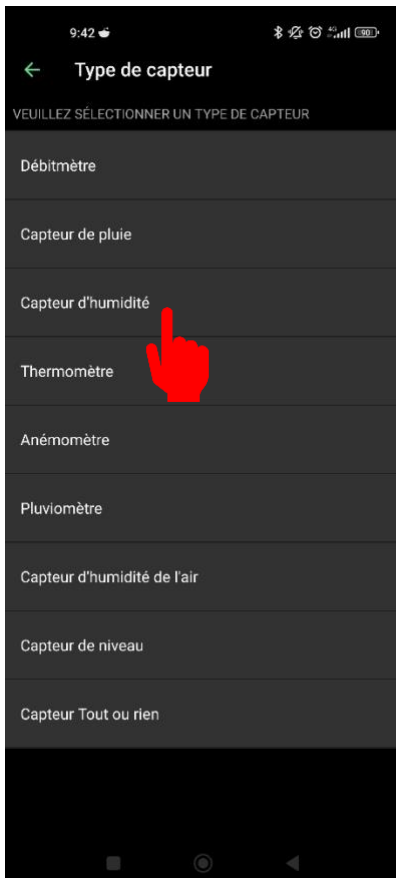
To associate your LR-MS with your LR-BST / LR-MB gateway, please follow the steps provided in Section II.B.



Select your LR-MS from the list of your products.



1) Humidity sensor



i Your LR-MS is a data acquisition product and is available in two versions: 1 or 4 inputs.

LR-MS 1 input: You can choose which sensor you want to connect to your device (humidity sensor, anemometer, flow meter, rain gauge, rain sensor, etc.).

! The LR-MS 1 input is not compatible with the temperature sensor.

LR-MS 4 inputs: One input is dedicated to the temperature sensor (PT100), and the other three inputs are free, allowing you to connect sensors such as humidity sensor, anemometer, flow meter, rain gauge, rain sensor, etc.

For example, we will connect 4 sensors: humidity, anemometer, rain gauge, and temperature sensor.

Select "Add a sensor"

Select the humidity sensor



Select the type of humidity sensor you wish to install.

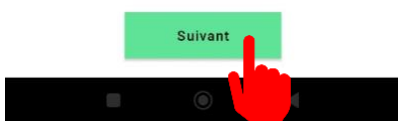


Connectez le capteur à l'entrée 1



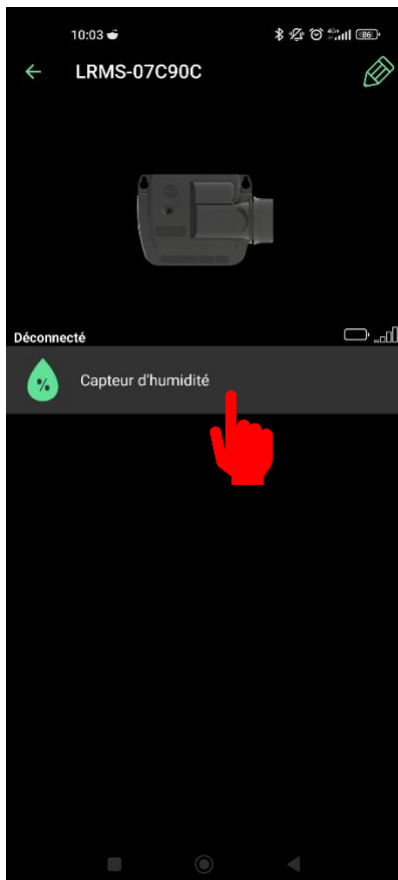
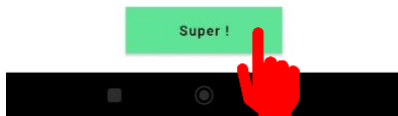
Follow the wiring diagram for the EC5-SOIL humidity sensor displayed on your screen, and then press "Next".

The wiring diagram depends on the type of sensor you have selected.





Félicitations, tout est prêt !

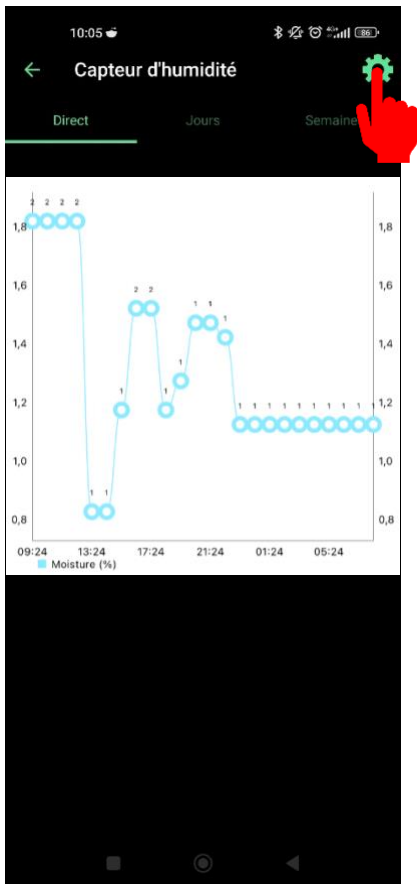


i There is no automatic verification of the wiring performed.

Select "Great!" to proceed and access the settings of your sensor.

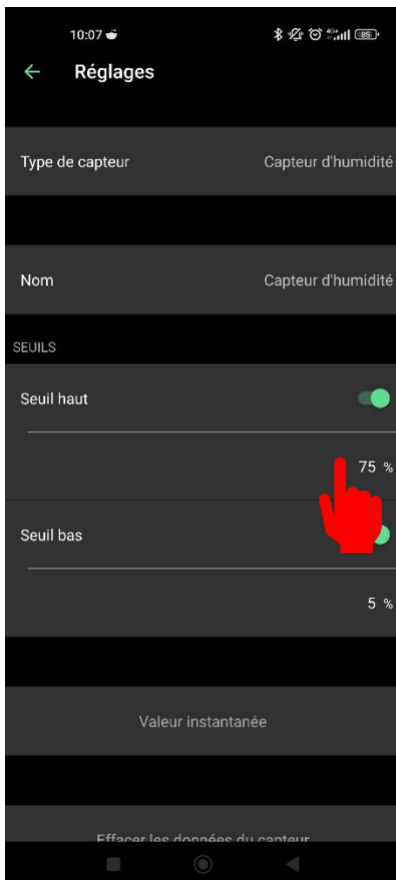
Now you can see the logo of the humidity sensor connected to your module.

Select it.



You can view the humidity level by checking the real-time data (last 24 hours), by day, or by week.

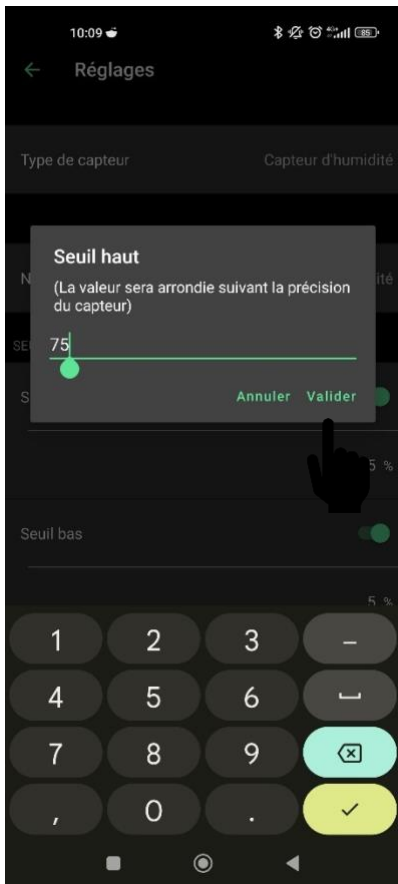
Select "Settings" to define your thresholds.



i In the settings, you can define the high and low thresholds for which you want to receive an alert.

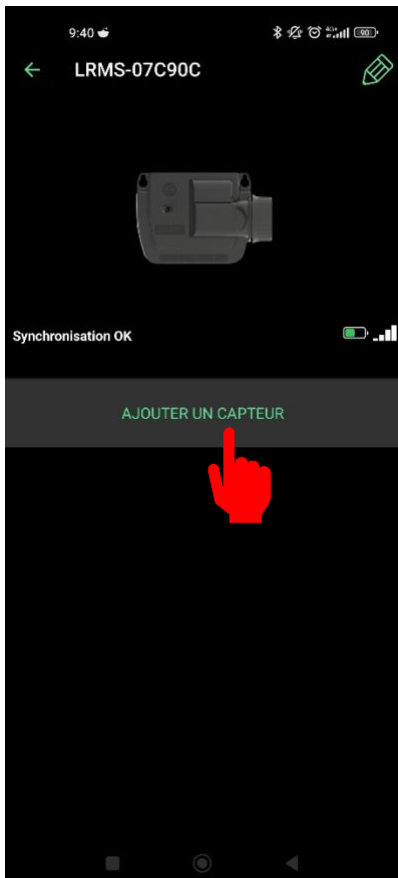
You can link an action to your module in case a threshold is exceeded, only on the MySOLEM.com platform.

Select the desired value in the percentage section to set it.

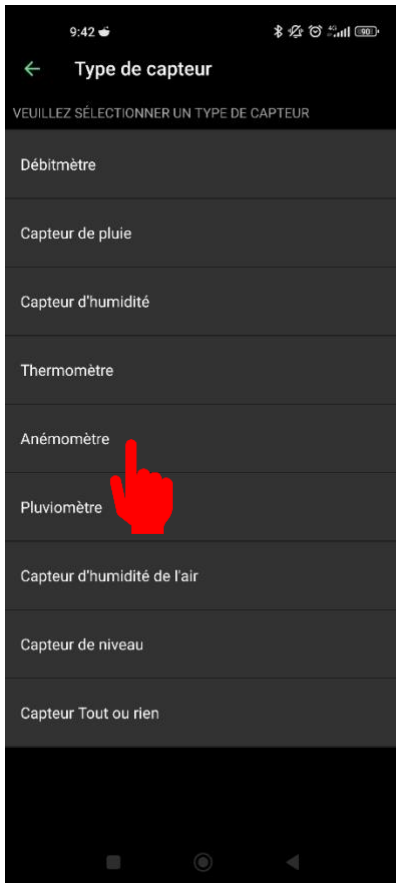


Change the value and validate

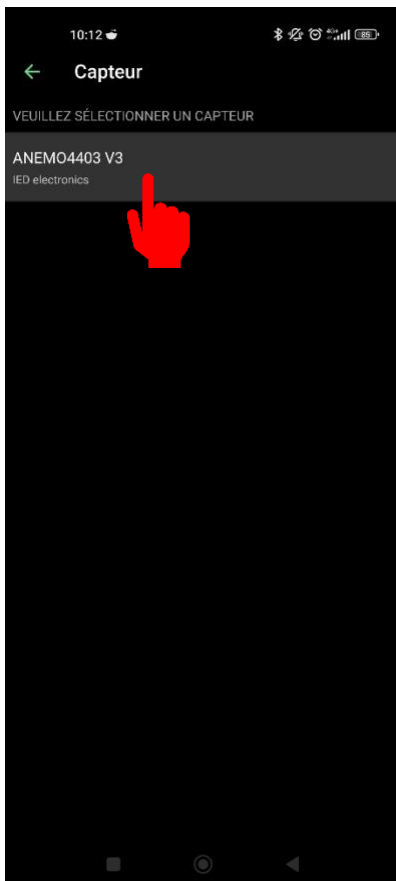
2) Anemomètre



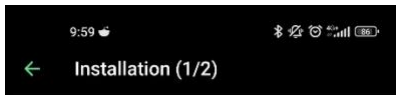
Select « Add a sensor ».



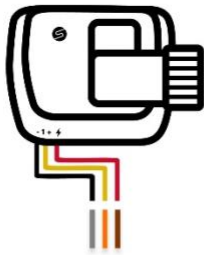
Select the anemometer.



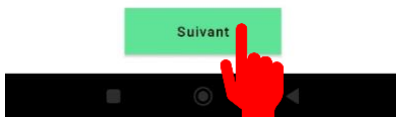
Select the anemometer type.



Connectez le capteur à l'entrée 1



Follow the wiring diagram displayed on your screen and press "Next".

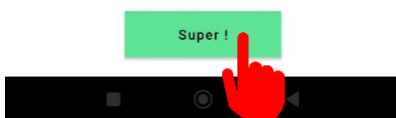


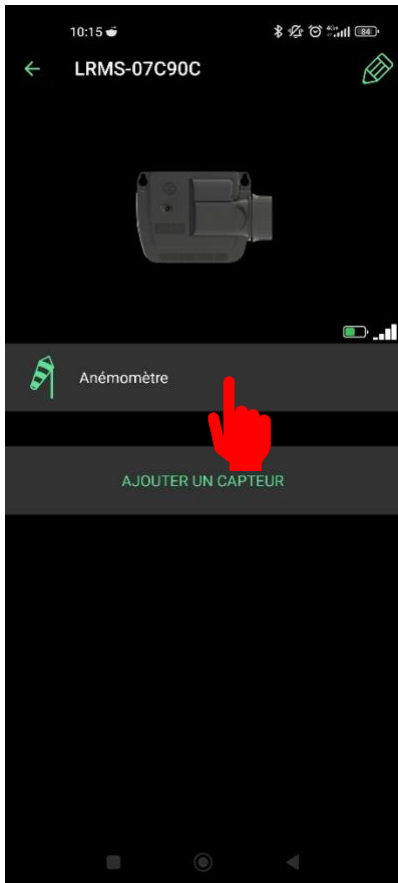
Félicitations, tout est prêt !



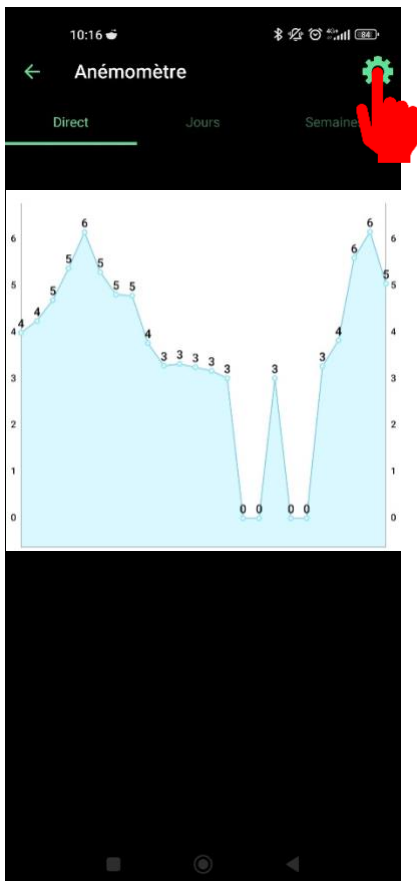
i There is no automatic verification of the wiring done.

Select "Great!" to proceed to the settings of your sensor.



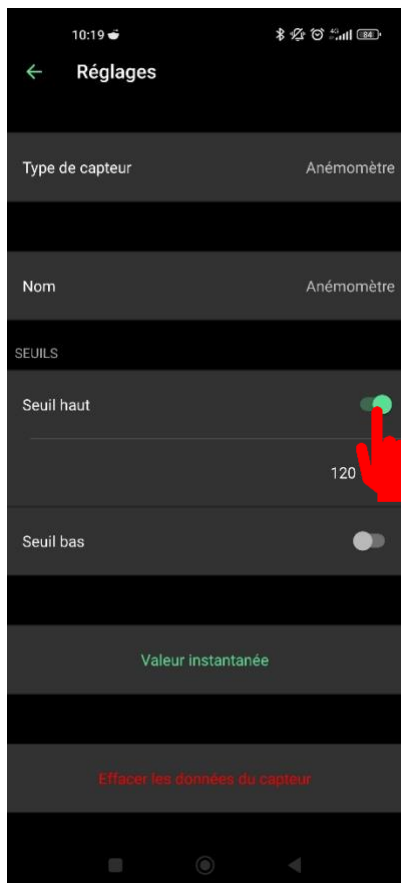


Select "Anemometer" from the list of available sensors.



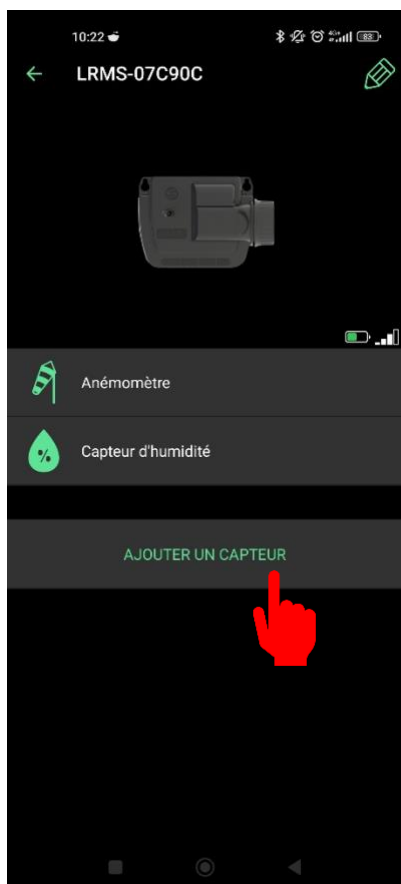
i On this screen, you can view the data from your anemometer sensor on a graph.

Select "Settings".

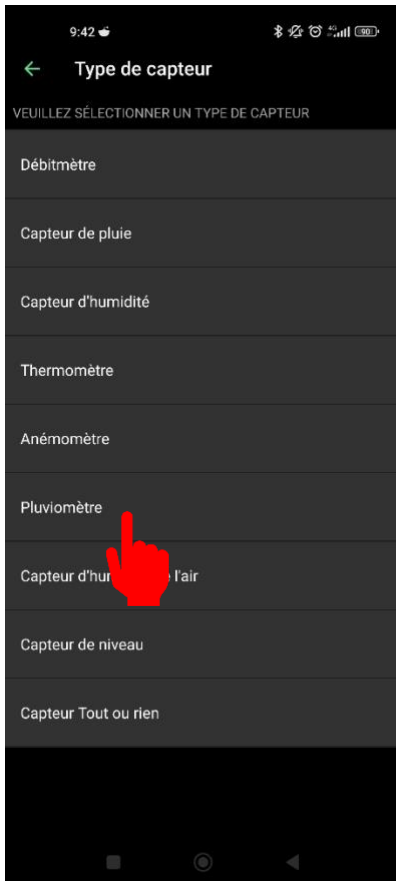


Select the high and low thresholds in order to define their values in km/h.

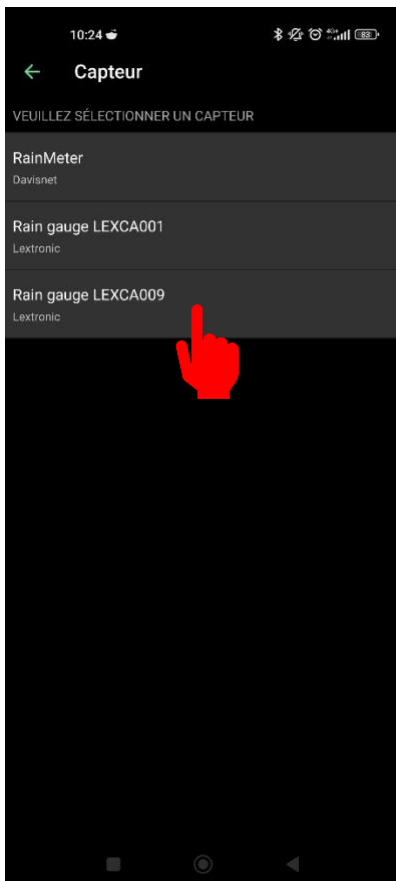
3) Pluviomètre



Select « Add a sensor ».



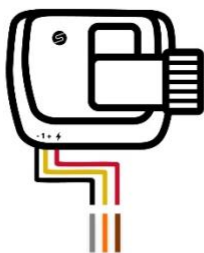
Select the rain gauge.



Select the type of sensor you have.

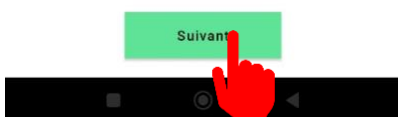


Connectez le capteur à l'entrée 1



Follow the wiring diagram for the RAIN GAUGE LEXCA009 rain gauge sensor displayed on your screen, and then press "Next".

The wiring diagram may vary depending on the type of sensor you have selected.

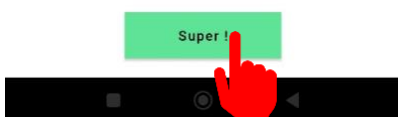


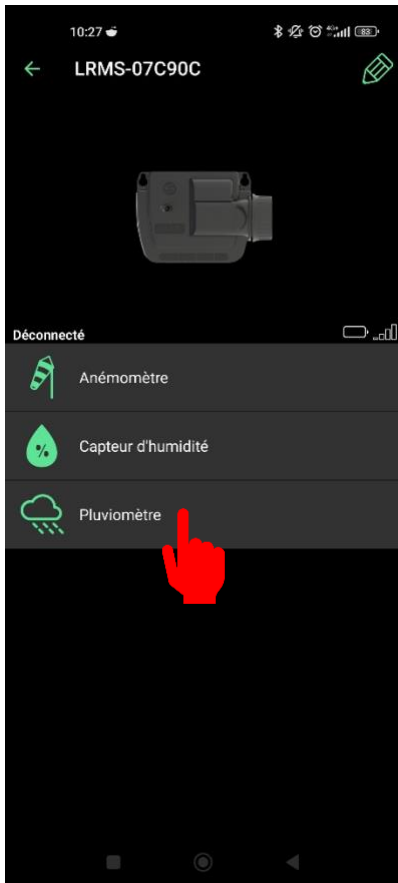
Félicitations, tout est prêt !



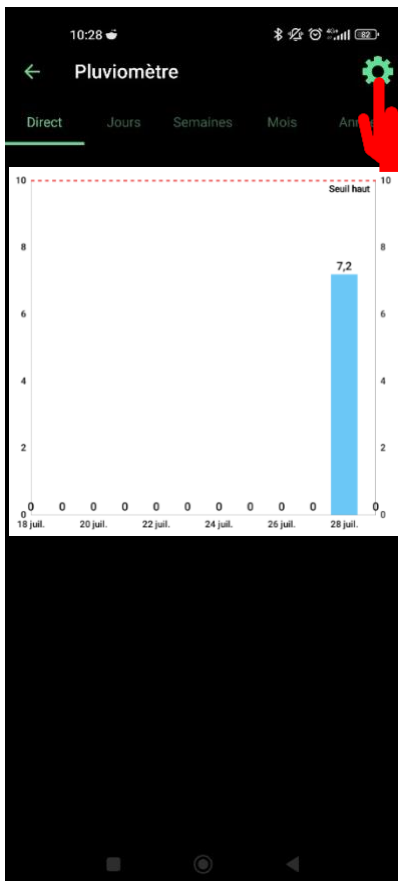
i There is no automatic verification of the wiring you have done.

Select "Great!" to proceed to the settings of your sensor.



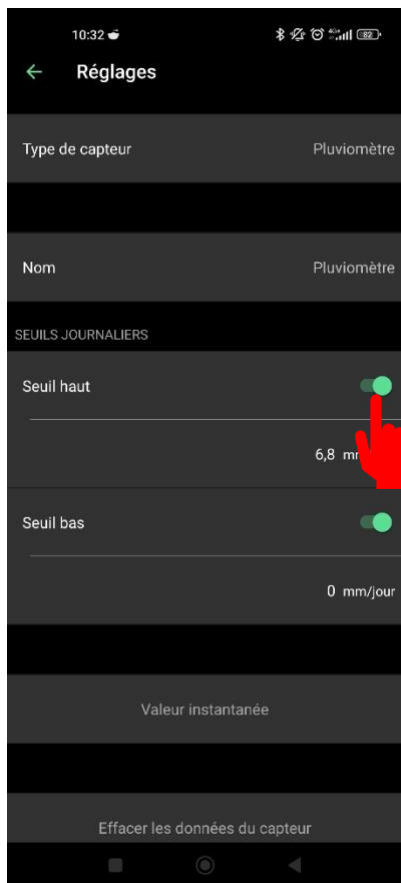


Select the rain gauge from the list of your connected sensors.



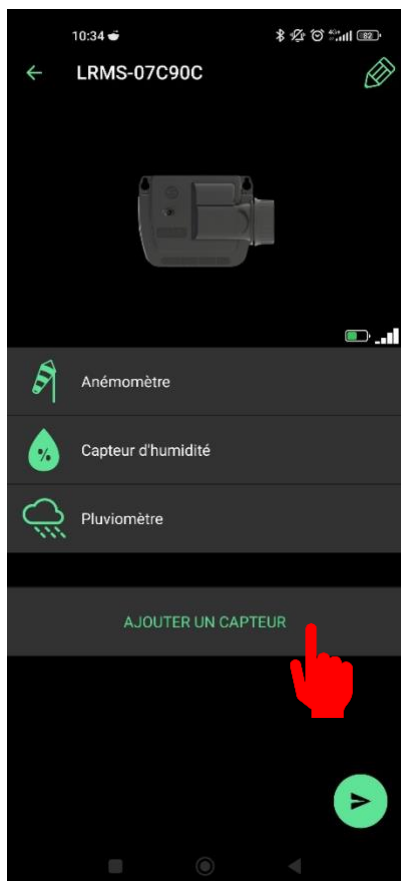
On this screen, you can view the data from your rain gauge in a graph.

Select "Settings".

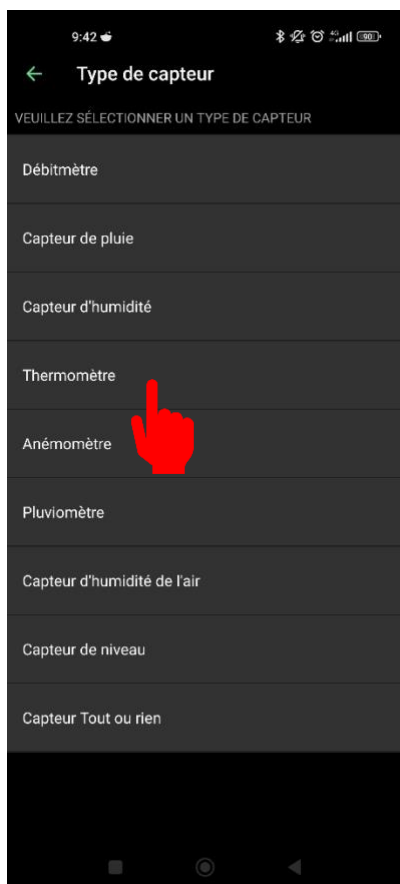


Select the high and low thresholds and set their value in mm/day.

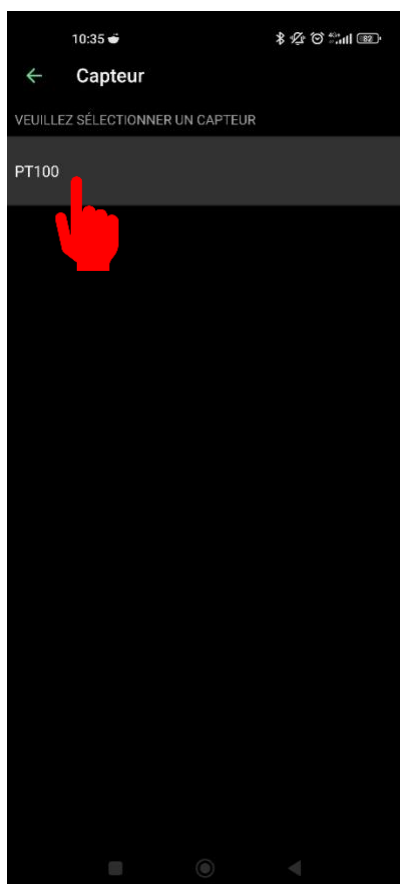
4) Thermometer



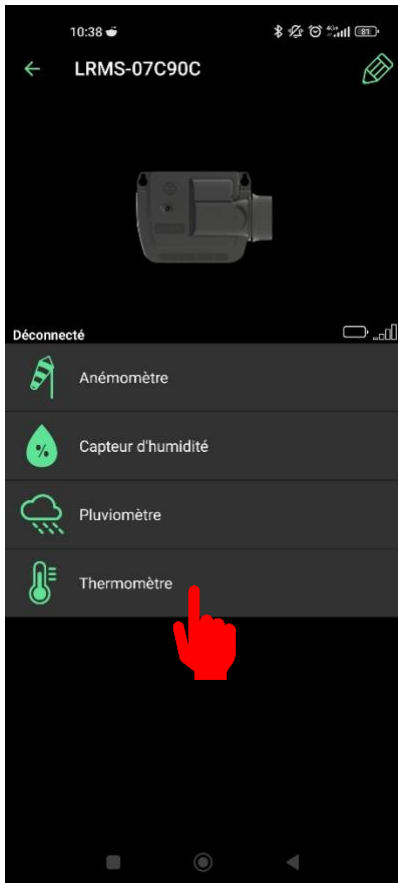
Select « Add a sensor ».



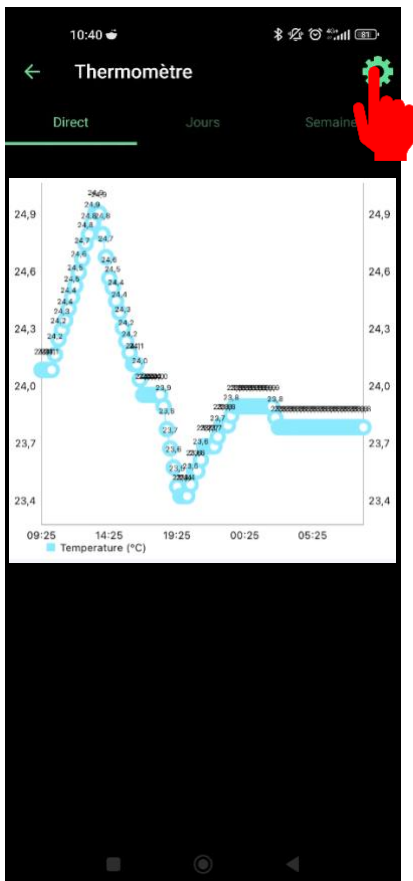
Select the Thermometer.



Select the type of your thermometer.

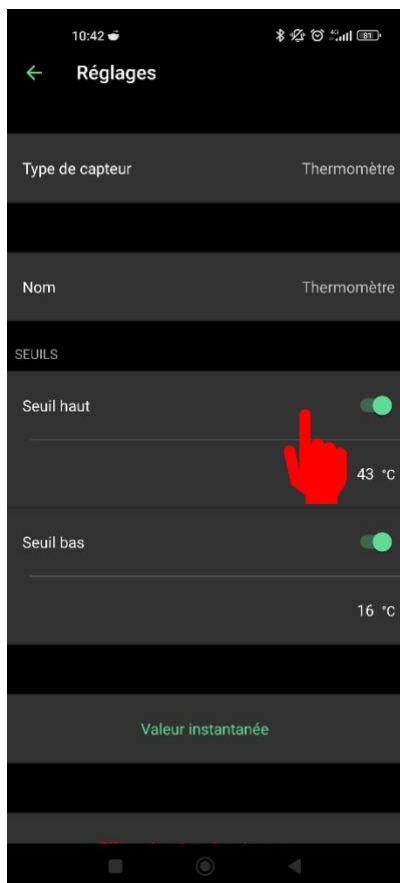


Select your thermometer from the lists of your connected sensors.



On this screen, you can view the data from your thermometer in a graph.

Select "Settings."



Select the high and low thresholds and then define their value in degrees Celsius (°C).

VI – PROGRAMMING AN LR-PR

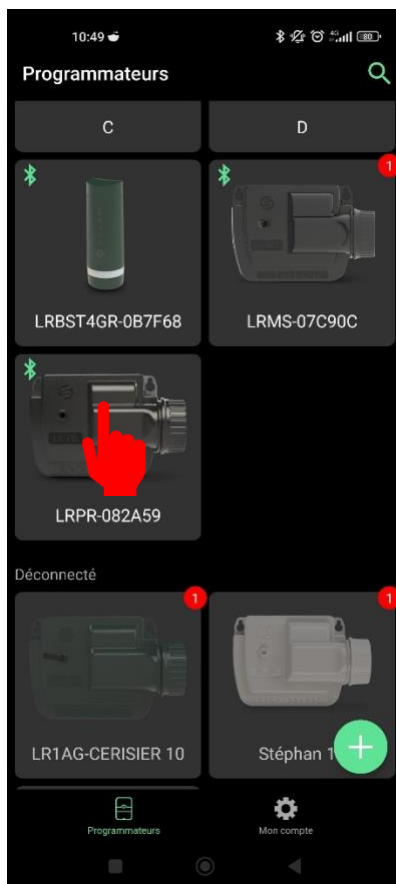
The LR-PR is a battery-powered probe module used for reading and monitoring the pressure of your irrigation system. With the pre-wired pressure sensor, the LR-PR will keep the pressure under control and alert you if the thresholds are exceeded. The thresholds can be set through the mobile application or the MySOLEM platform. The LR-PR transmits data via LoRa connection to an LR-BST / LR-MB gateway.

To associate your LR-PR, please follow the procedure in section II.A of this user manual.

To associate your LR-PR with your LR-BST / LR-MB gateway, please follow the procedure in section II.B of this user manual.

You don't need to worry about wiring your pressure sensor, as it is pre-wired to the module.

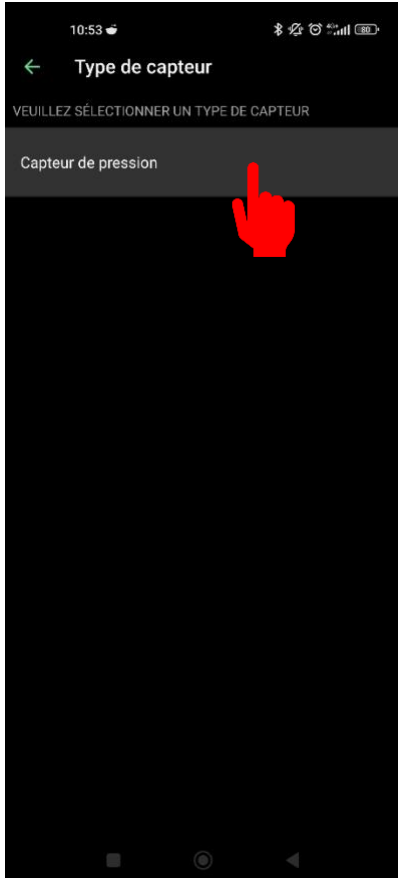
5.1) Configure the pressure sensor of your LR-PR



Select your LR-PR from your other products.



Select « Add a Sensor »



Select « pressure sensor ».

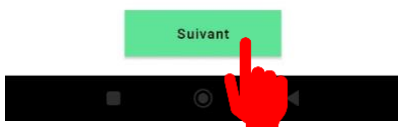


Select the type of pressure sensor.



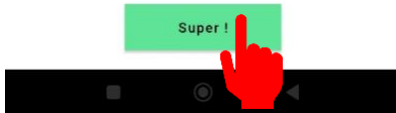
Connectez le capteur à l'entrée 1

Follow the wiring diagram and select « Next ».





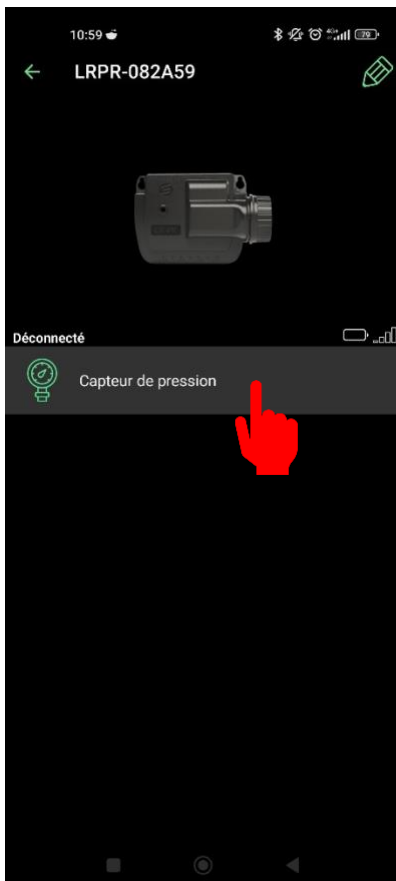
Félicitations, tout est prêt !



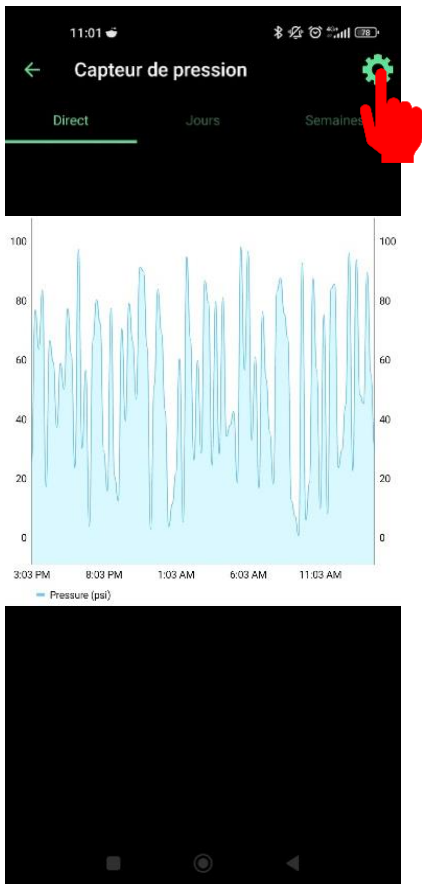
i There is no automatic verification of the wiring done.

Select "Great!" to access the settings of your sensor.

5.2) View the data



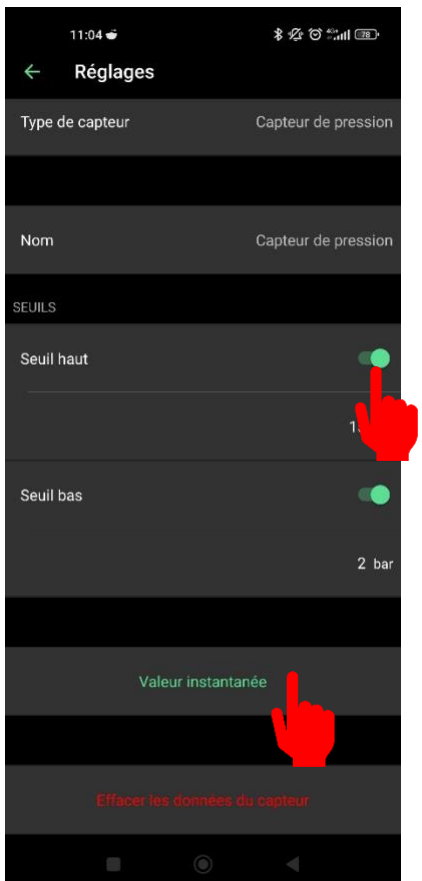
Select « Pressure sensor ».



On this screen, you can view the data from your pressure sensor in a graph.

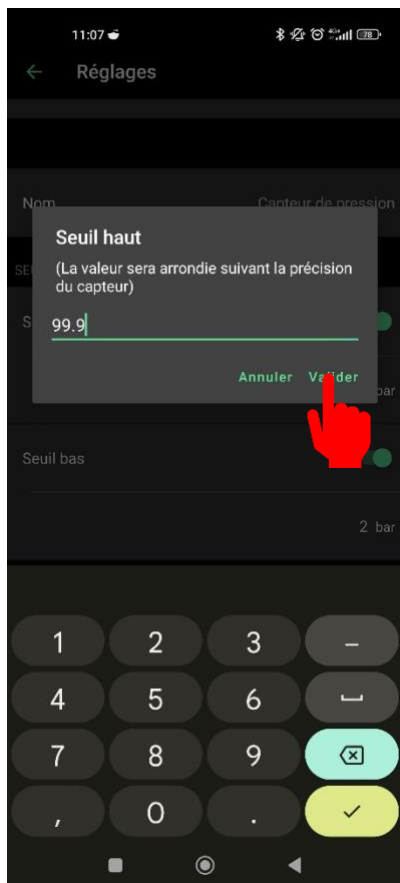
Select "Settings".

5.3) Threshold settings



Select the high and low thresholds and then set their values in bars.

You can also view the instantaneous value of your pressure sensor.



Change the value and validate.

VII – PROGRAMMING AN LR-PM

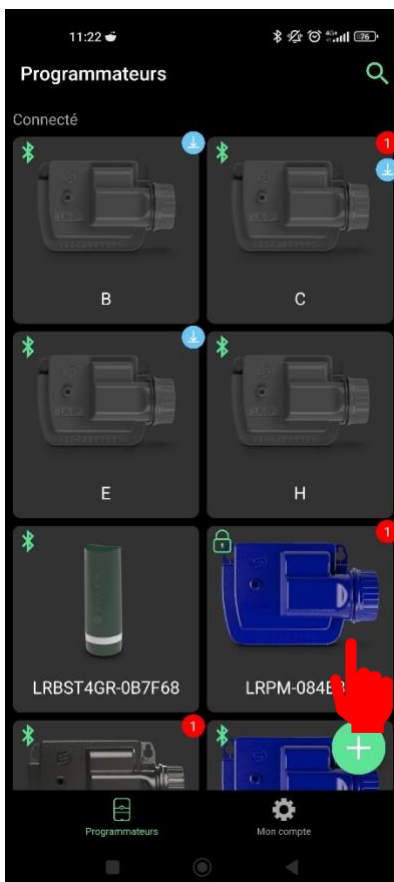
The LR-PM is a Bluetooth/LoRa module powered by a 9V battery. It has a battery life of approximately one year (depending on the programming). It is designed to automatically control the opening and closing of a main valve or pump (via a pump relay) based on the programming of the associated LR-AG module on the same water network. This module can also be connected to a flow meter to monitor the water flow rate of the system, even when multiple stations are operating simultaneously. It transmits water consumption information remotely through the connection to an LR-BST/LR-MB gateway and can send alerts in case of insufficient or excessive water flow.

This product only functions within a cluster of LR-AG modules, which needs to be created beforehand on the MySOLEM platform (see Part VI of the MySOLEM User Manual).

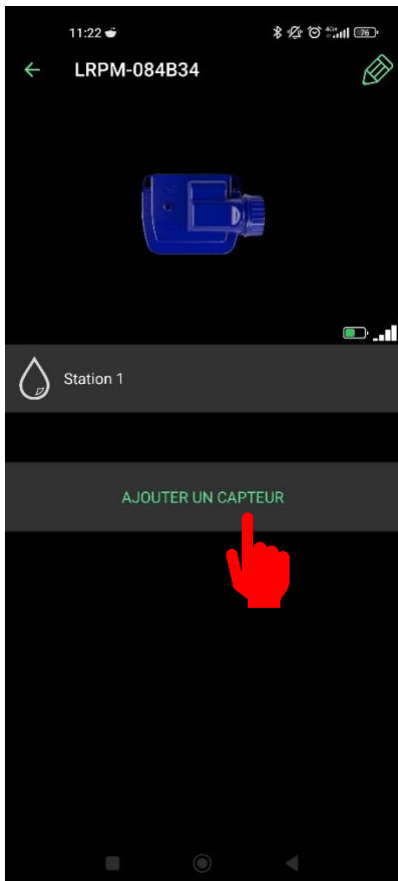
To associate your LR-PM, please follow the procedure outlined in Part II.A of this user manual.

To associate your LR-PM with your LR-BST/LR-MB gateway, please follow the procedure in Part II.B.

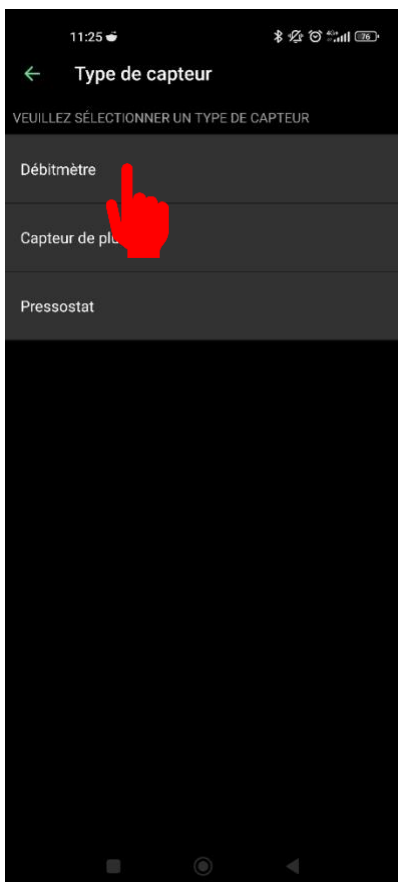
6.1) Configure the flow meter on the LR-PM



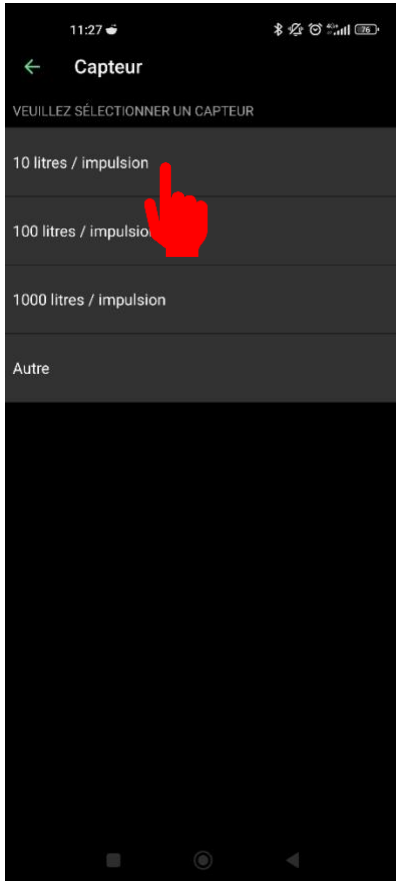
Select your LR-PM from the list of your modules.



Select « Add a sensor ».



Select the flowmeter.



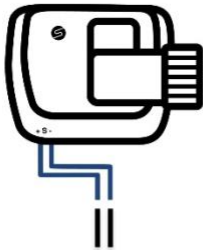
Select the K factor to configure your flow meter.



The K factor is provided by the manufacturer of the flow meter.



Connectez le capteur à l'entrée 1



Cut the blue cable of your device in the middle.

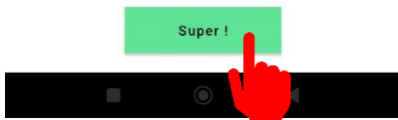
Connect the two ends of the blue cable according to the polarities of the flow meter.

Select the "Next" option to proceed to the next step.





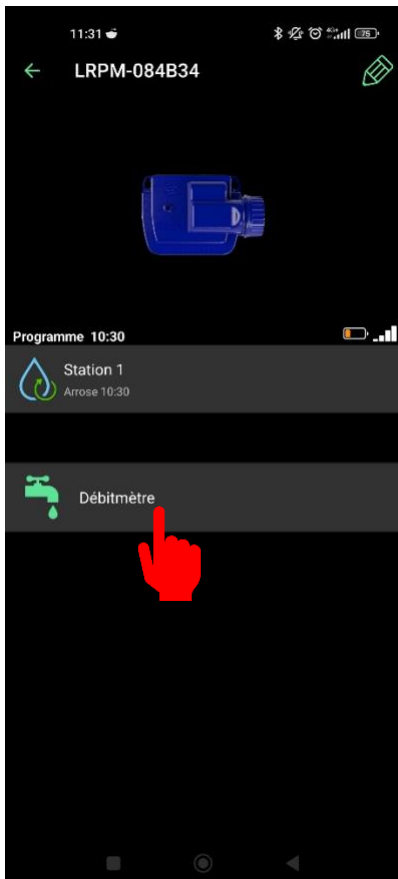
Félicitations, tout est prêt !



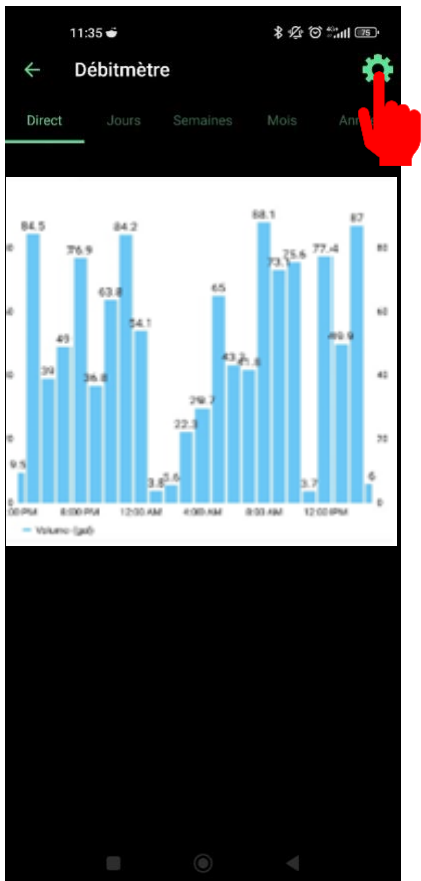
There is no automatic verification of the wiring done.

Select "Great!" to access the settings of your sensor.

6.2) View water consumption



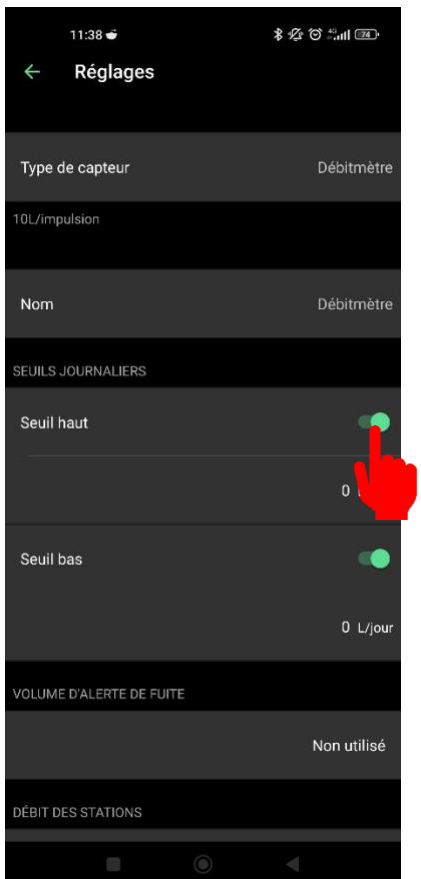
Select the new icon for the flow meter that appears on your device.



You can view the water consumption volume by checking the data in real-time (last 24 hours), by day, week, month, or year.

Select "Settings" to define the thresholds.

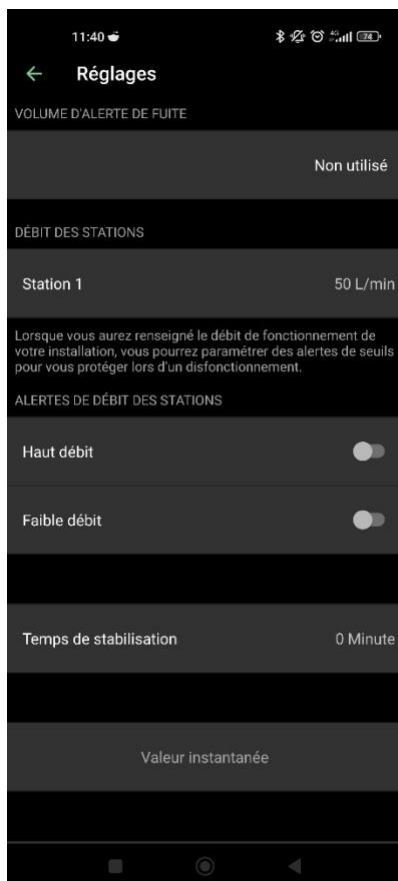
6.3) Threshold settings



i In the settings, you can define the values for the high and low thresholds. You can also enable alerts for leaks, station flow rate, and stabilization time.

HIGH THRESHOLD (Daily Volume): This is the maximum water consumption you do not want to exceed within 24 hours. If this limit is exceeded, you will be immediately notified via email and/or smartphone and tablet notifications.

LOW THRESHOLD (Daily Volume): This is the minimum water consumption you want to achieve within 24 hours. If this target is not reached, you will be notified the following day at 7 a.m. via email and/or smartphone and tablet notifications.



LEAK ALERT VOLUME: This is the threshold for the water volume outside the irrigation period for which you want to be alerted.

STATION FLOW RATE: For each station, you can enter the theoretical or actual flow rate.

If you don't know this value, you can calculate it using the instant value function.

INSTANT VALUE: This option displays the immediate value of water consumption and is only available via Bluetooth. This allows you to check the K factor to ensure accurate measurement. If the K factor is not properly adjusted, please refer to section SENSOR CONFIGURATION for instructions on how to adjust it.

HOW TO CALCULATE THE FLOW RATE OF YOUR STATION:

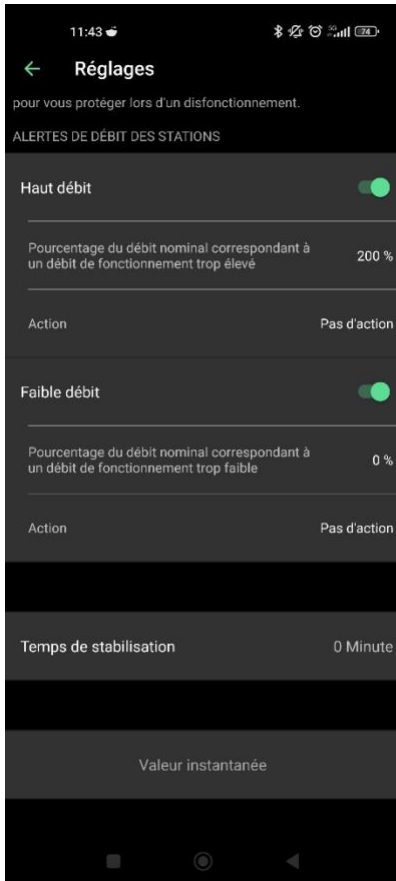
Step 1: Record an instant value (Val.1).

Step 2: Activate manual control on the desired station and let it run for 5 minutes.

Step 3: After 5 minutes, when irrigation is stopped, record another instant value (Val.2).

Step 4: Calculate the flow rate: $(Val.2 - Val.1) / 5 = \text{Flow rate in Liters per minute.}$

Step 5: Enter this value for the respective station.



i **HIGH FLOW:** Maximum percentage of station flow rate that you do not want to exceed.

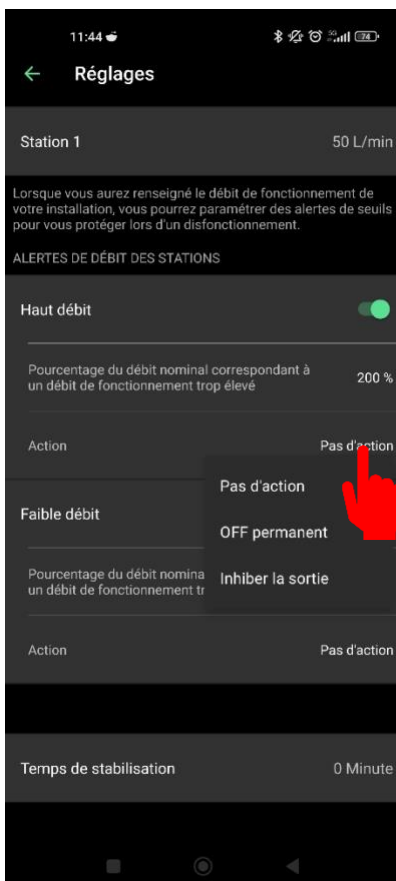
LOW FLOW: Minimum percentage of station flow rate that you do not reach.

Flow rate alerts for high and low flow will be sent immediately.

Enable high and low flow options.

Enter the nominal percentage for high and low flow rate.

Define the associated actions.



i For each station flow alert, you can define an action.

No action: Irrigation continues as usual.

Permanent OFF: Irrigation will completely stop and require a manual "ON" command to start again (in the app for the respective module). This will be applied to all stations.

Inhibit output: Only the specific station will stop irrigation.



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Connected Irrigation Made Simple

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