LoopiX App Application

Pilot software for LoopiX® automated devices

User's Manual

Version 2.0 – March 2024

To be used with LoopiX® devices only

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1 Overview

Workspace (Domain): A private domain for the LoopiX Cloud where all informational and analysis data is hosted. A single administrator manages the workspace.

Firmware: firmware built into the LoopiX® that enables it to operate. LoopiX® firmware can be updated via a USB connection to a computer.

SaaS: (Software as a Service), online software hosted on a cloud and available from a browser. SaaS software requires no downloading or installation before it can be used.

2 Prior Information

This user's manual is the propriety of Loop Dee Science World Wide. Any copy or reproduction without Loop Dee Science World Wide's prior approval is strictly prohibited. All users must read the manual prior using the LoopiX App, to ensure full understanding of the associated materials and processes.

This user's manual is intended solely for the LoopiX App application and not the LoopiX® device. The LoopiX® device user manual is available at the following link:

www.loopdeescience.com/downloads

3 Technical Support

Loop Dee Science provides customer support for all questions, technical issues, and services related to LoopiX Cloud software. For assistance, please contact our support team:

Adress: Support technique
Loop Dee Science
100 rue Philippe LIVRY-LEVEL – 14760 Bretteville sur Odon.

Phone : +33 231 730 791 (9:00 à 17:00 / Heure de Paris)

E-Mail : support@loopdeescience.com

4 General Introduction

LoopiX App is a control interface for data acquisition, and communication with LoopiX® devices. The LoopiX App application is intended for LoopiX® users and to be combined with the LoopDeetect detection kits range.

The main features of the LoopiX App are as follows:

- Communication and remote control of the devices via **Bluetooth,** with a smartphone or tablet to conduct molecular biology analyses.
- Analytical data obtention, storage and centralisation.
- Set up and programming LoopiX®devices.

The app is engineered to work only with LoopiX® devices.

LoopDeeScience World Wide will not be held responsible for any degradation of the materials supplied in case of wrongful use of the App. It is paramount to read this manual carefully prior using the LoopiX App.

The LoopiX app can be synchronized with the LoopiX Cloud SaaS software.

5 System Requirements

The LoopiX App needs to be set up on a smartphone or tablet with the following characteristics:

Device:
Androïd Version 5.0 or above
IOS version 12.0 or above
Bluetooth 5.0
Available storage space: 100 Mo minimum

LoopiX® Devices:

- AMLOS-ENS-43 or above
- Firmware 20240124_143000 or above

We strongly advise you to install updates as soon as they are available.

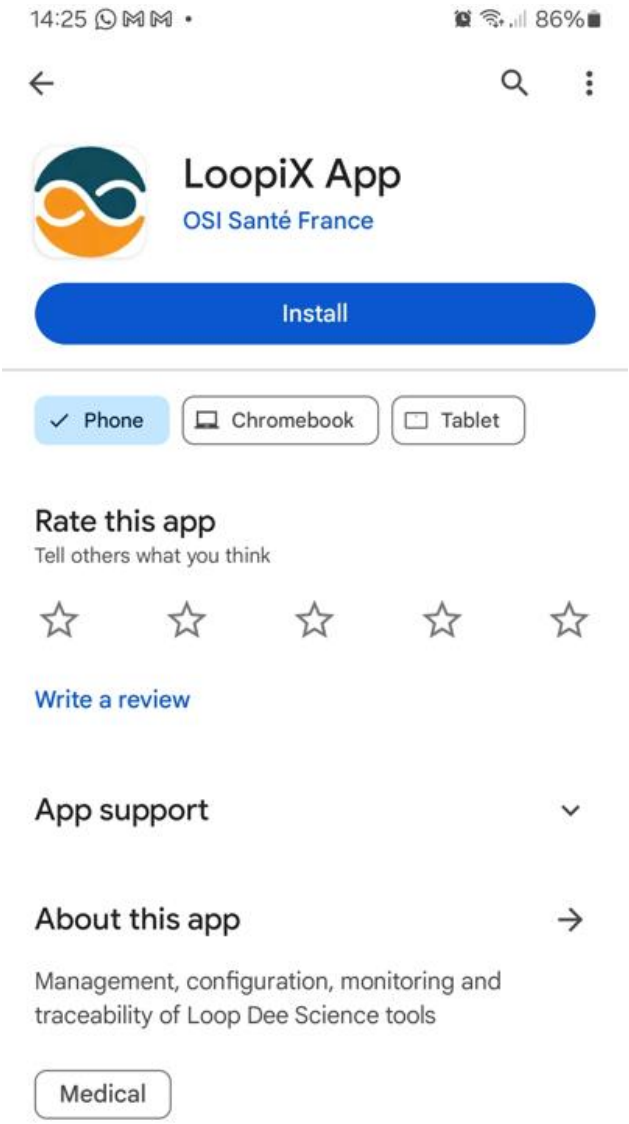
6 Application Set up

The App is available on the Google Play store as well as the Apple with the following links:

Google Play Store: https://play.google.com/store/apps/details?id=com.loopdeemobile

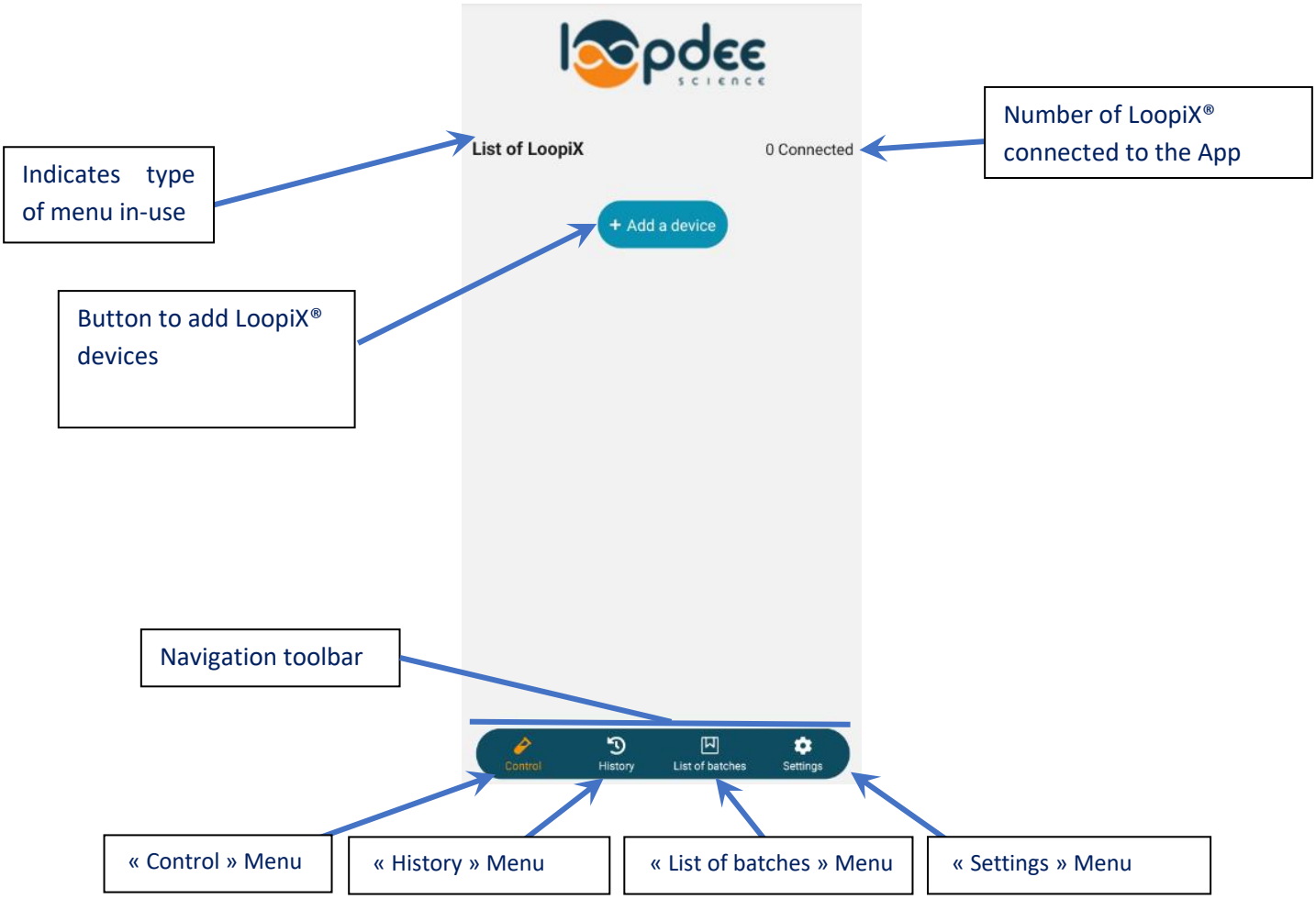
Apple store: https://apps.apple.com/app/loopix-appx/id1662922981

You may type “LoopiX App” in the search toolbar of the selected store and pick the “LoopiX App» application as below then set up the App on your device.



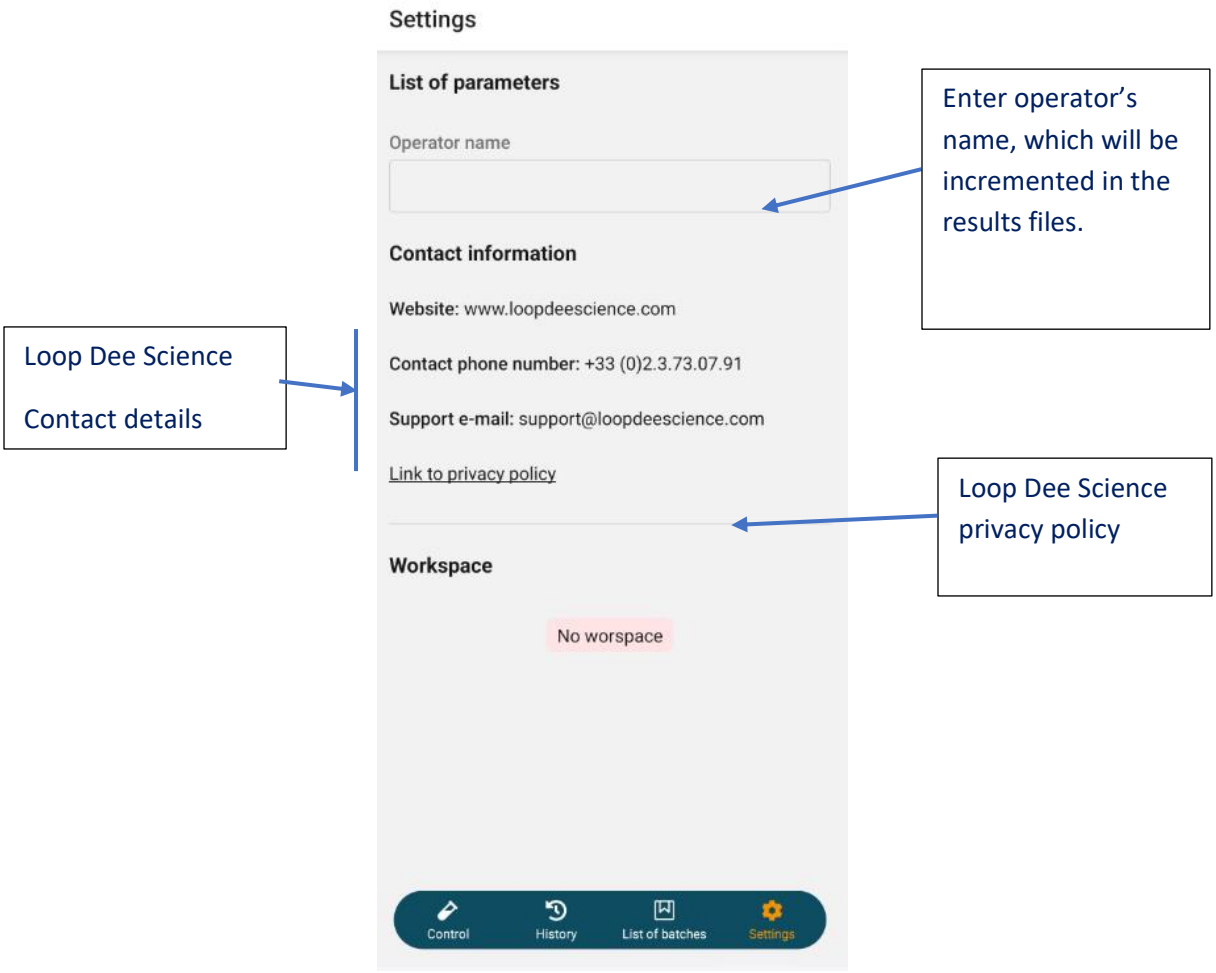
7 Home Page

The App always opens on the « **Control** » menu



8 Settings

The « **Settings** » menu is available from the navigation toolbar



8.1 Link LoopiX App to the workspace

Prerequisite: Have an existing LoopiX Cloud account. (Administrator or operator profile)

From the « Settings » menu click on No worspace.

A pop-up window appears, add your login information to the LoopiX Cloud workspace.

Once logged in, the workspace name will show in the upper right corner of the « Control » menu.

8.2 Synchronising results with the LoopiX Cloud software.

New results generated by the LoopiX App will show the LoopiX Cloud when the smartphone has an internet connection.

Results obtained before the LoopiX App connection to the LoopiX Cloud workspace are not automatically synchronized, to do so, you need to:

- Go to the « **History** » menu

- In the screen's upper right corner click on « **…** »
- Click on « **Synchronize history** »
- The full history will be available in the "History" menu in the LoopiX Cloud workspace.

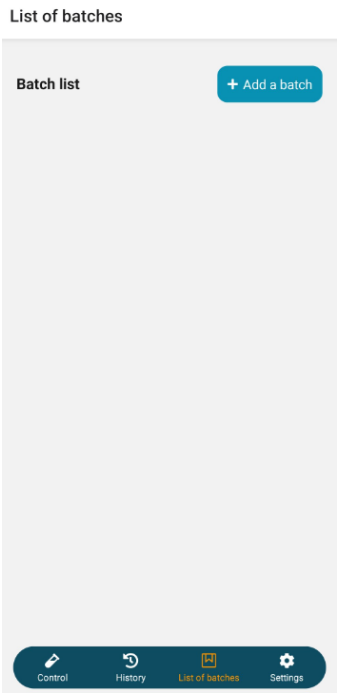
9 Kits batch management

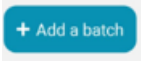
9.1 Register a new batch

Prerequisite:

- The device must have an internet connection.
- The App must have access to the device's camera

a. From the navigation toolbar, go to the « **List of batches** » menu

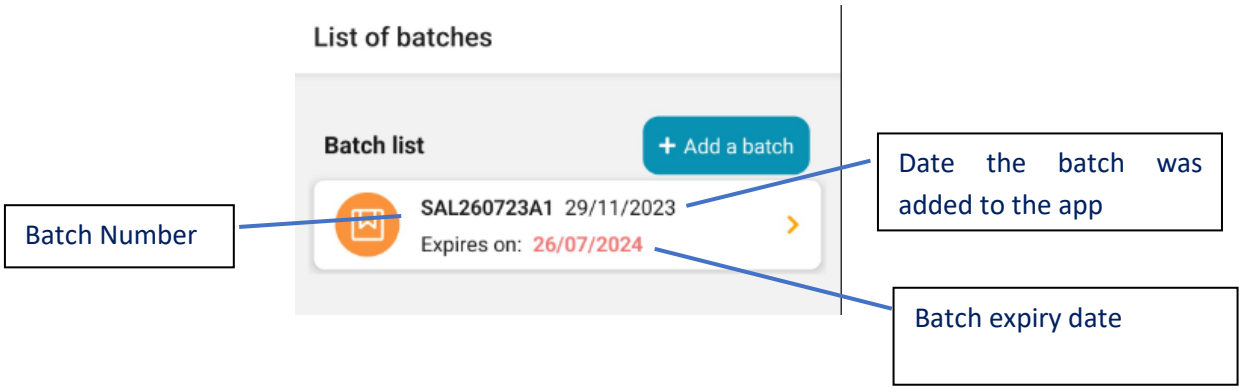


b. Click on « 

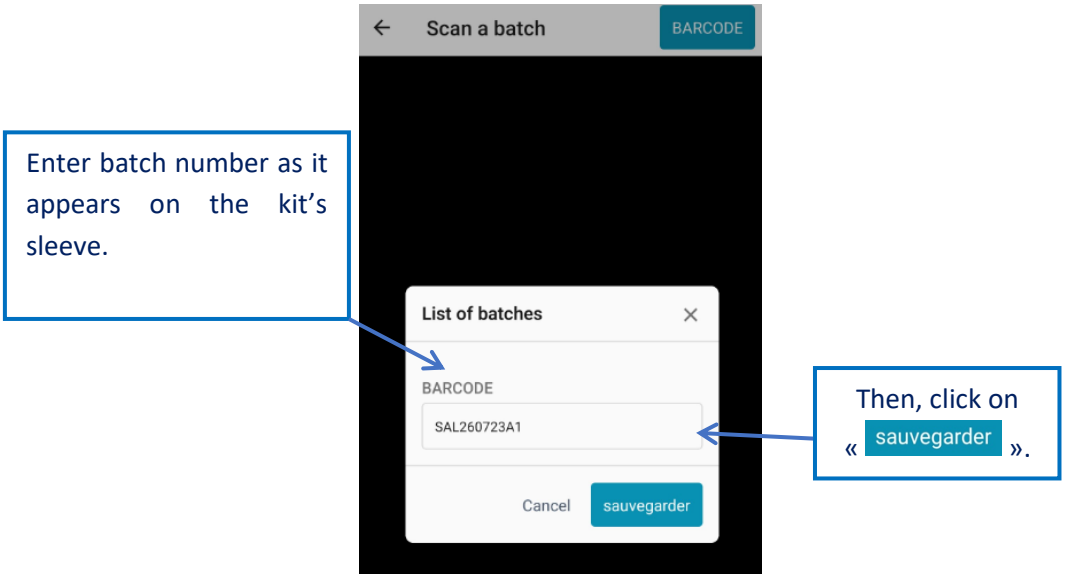
».

NB: The device camera must be accessible with the App.

c. Scan the barcode on the label of the reaction tube bag
d. After a few seconds, the batch is saved and automatically displayed in the list of batches as below:



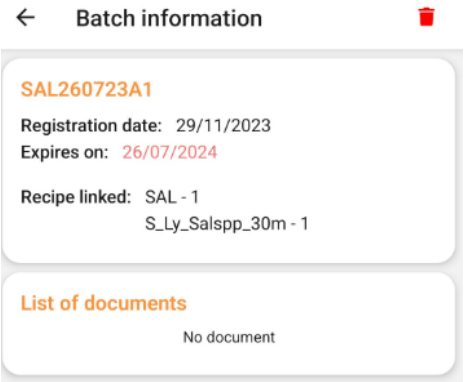
e. You can add a batch manually by clicking on « BARCODE »:



The batch is automatically saved and will appear in the batch list.

9.2 Erase a batch

a. In the « **List of batches** » menu click on the batch you want to delete. The following page appears:



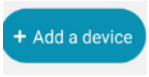
b. Click on « » to delete the batch. The deleted batch will no longer appear in the « **List of batches** » menu and will no longer be available in the "**Control**" menu.

10 Connecting the LoopiX® device to the application ®

Prerequisite:

- LoopiX® devices must be plugged in and in range.
- « Bluetooth » or « Serial » (with an adaptor) must be on.
- You must authorize the App to use Bluetooth and to access the location.

10.1 Connecting one to several LoopiX® to the application

a. From the **Control** menu click on sur « 

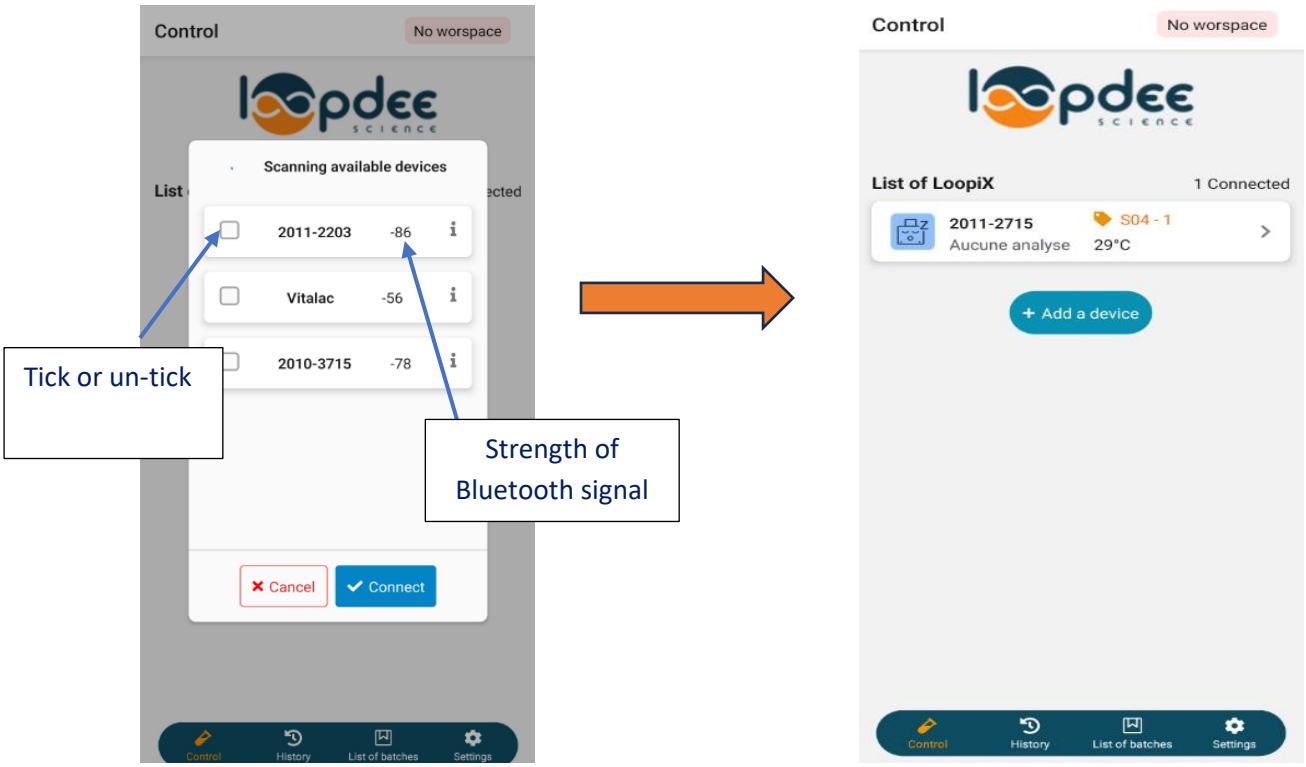
». A pop-up will show the list of available LoopiX.

b. Pick the ones you need.

c. Click on «

».
LoopiX® devices are visible in the « **Control** » menu.

NB: If a LoopiX® is already connected with other devices on Bluetooth, it will no longer be detectable by others.



10.2 Loging a LoopiX® out of the application

A LoopiX® may disconnect itself from the device in the following cases:

- Deliberate log-out
- App completely turned off
- Device out of the LoopiX® range
- Device turned off
- Bluetooth or location turned off.

The LoopiX® will not be impacted if a device turns off as it will keep processing in autonomy.

In the event of an unwanted log out make sure to reconnect the LoopiX®, without pressing the front panel button as it will make it change mode.

11 Meaning of LoopiX® state logos on the application

Logo	Mode	Signification
	Standby mode	The LoopiX® device is on standby, ready to run an analysis
	In operation	An analysis is underway, at the amplification stage
	In operation	An analysis is underway, at the thermal lysis extraction stage
	Pending	The LoopiX® device is awaiting an intervention to complete the analysis
	Outcome	The analysis is complete, with a negative result.
	Outcome	The analysis is complete, with a positive result.
	Error	The standby period has been exceeded, the LoopiX® device is in error. You need to restart the current analysis.
	out of order	The LoopiX® has broken down, contact Loop Dee Science support team.

12 Perform an analysis with a LoopiX®

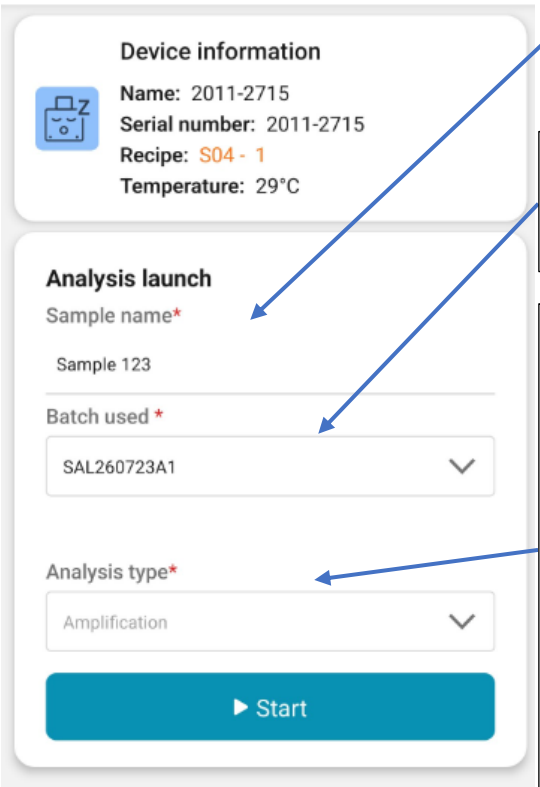
Prerequisite:

- Have at least one kit batch saved in the application (cf. chap. 9.1)
- Have at least one LoopiX® in stand-by connected to the App (cf. chap. b)

a. Conduct testing according to the corresponding LoopDeetect kit protocol.

b. From the « **Control** » menu, pick the LoopiX® that will conduct the analysis:

c. Add in the following information:



Determine a name for the sample (no special characters)

Pick the batch number according to the reaction bag (Previously added in the App (cf. chap. 9.1)

<u>To be determined according to the protocol of the in-use kit</u>

1. **Lysis then Amplification:** The LoopiX® extracts the sample with thermal lysis and then amplifies the target
2. **Amplification:** The LoopiX® amplifies the target directly

d. Press « ▶ Start » to begin the analysis.

NB: The App sends analysis parameters according to the sample type (Extracted / Non-Extracted) and the kit's batch number. This step may take a few seconds.

e. The beginning of the analysis is shown by the LoopiX® changing state

NB: If needed you can stop an undergoing analysis by pressing ■ Stop .

Caution, you can't undo this step

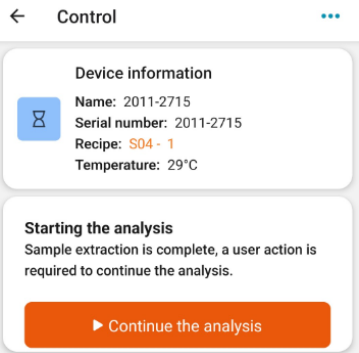
12.1 Case of an analysis with lysis and amplification:

a. ***The LoopiX® performs an extraction of the sample by thermal lysis:***

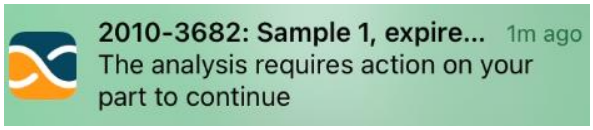
LoopiX App	LoopiX® status LED
	Flashing red LED

b. ***At the end of lysis, the LoopiX® is automatically on standby mode:***

The following page displays:



You will also be notified on the app of the timeline of a needed intervention to continue the analysis:



LoopiX App	LoopiX® status LED
	Flashing blue LED

c. ***Conduct protocol according to the corresponding LoopDeetect kit and place the reaction tube inside of the LoopiX®***

d. ***Click on « Continue the analysis »***

e. ***The LoopiX® amplifies the target:***

LoopiX App	LoopiX® status LED
	Flashing yellow LED

f. ***Then, le LoopiX® will show results with LED light:***

LoopiX App	LoopiX® status LED
Positive results: Negative results: The result is automatically added to the App history.	Continuous red LED Continuous green LED

12.2 Case of an analysis with amplification:

g. ***The LoopiX® amplifies the target:***

LoopiX App	LoopiX® status LED
	Flashing yellow LED

a. ***Then, le LoopiX® will show results with LED light:***

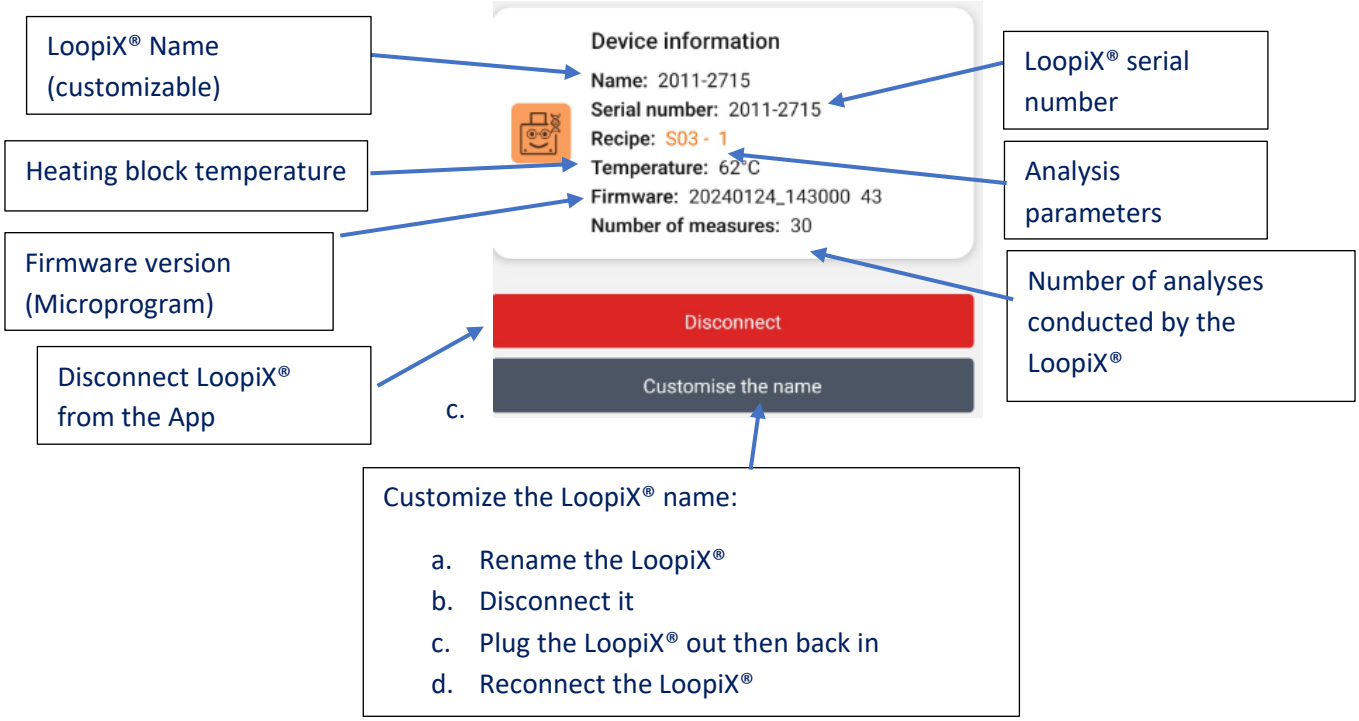
LoopiX App	LoopiX® status LED
Positive results: Negative results: The result is automatically added to the App history.	Red LED Green LED

13 LoopiX® running parameters

Prerequisite: The LoopiX® must be already connected to the App.

a. From the « **Control** » menu, select the corresponding LoopiX®.

b. Click on « ••• » in the upper right corner:

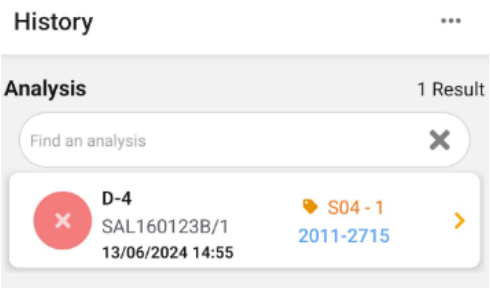


c.

14 History

To access the history menu, click on « **History** » in the navigation toolbar.

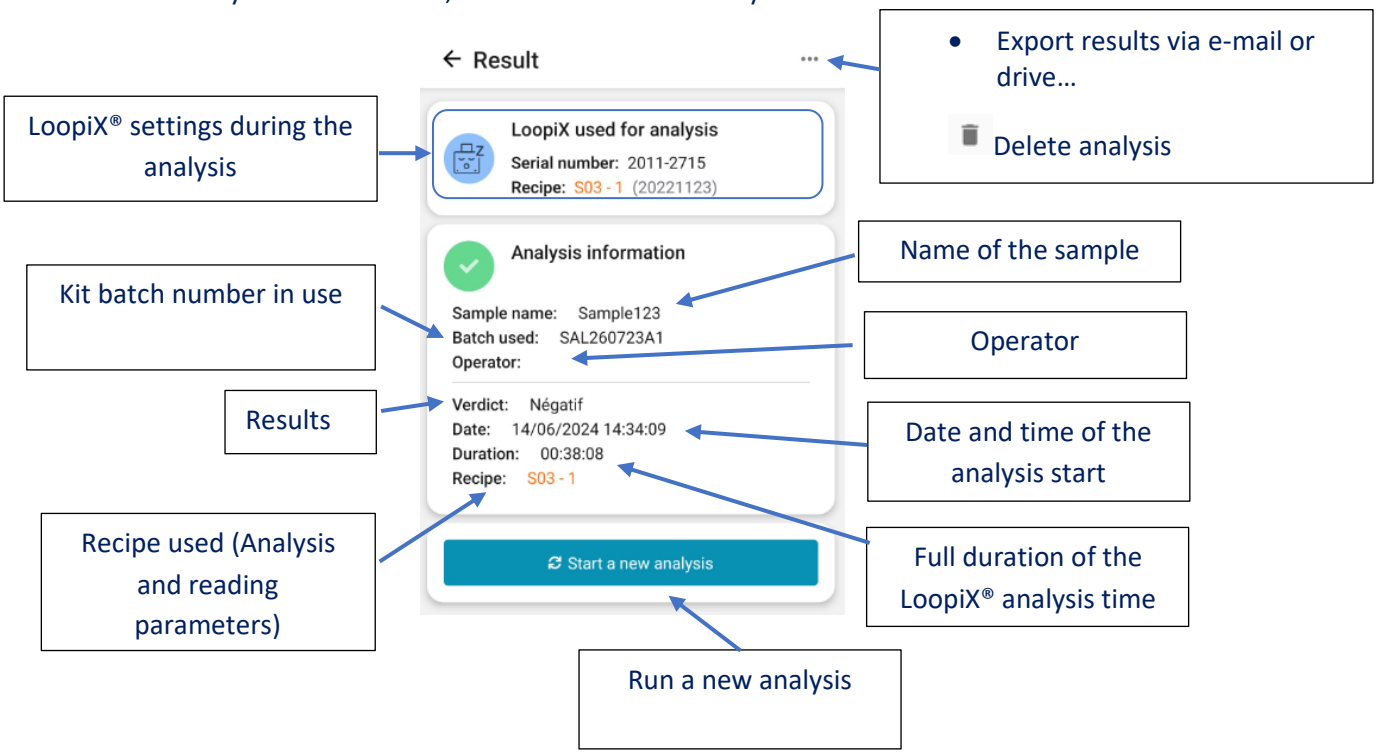
In the « **History** » menu, previous analysis results appear in chronological order from most recent to latest.



Results are automatically incremented when a LoopiX® in verdict mode connects to the application. The App automatically retrieves results from the last LoopiX® analysis when it connects back to the App.

14.1 Analysis results page

To access an analysis in more detail, click on the desired analysis information box:



NB: Data generated by the LoopiX® software are stored on a secure server owned by Loop Dee Science. The data remains the sole property of the user/company. Under no circumstances will Loop Dee Science or any other intermediary will use the data generated by the software without the user's consent.

14.2 Deleting history

- From the « **History** » menu, Click on « **…** » in the upper right corner
- Cliquer sur « **Delete history** »

The history of results stored in the phone will disappear, this action will not delete results stored in the LoopiX Cloud workspace.

15 Troubleshooting

The App won't install on your device	• The device does not have the required settings. • The device does not have sufficient storage space.
The LoopiX® doesn't appear during the Bluetooth search	• The device does not have the required settings. • Bluetooth isn't turned on the phone or tablet. • The application does not have the required approvals. • The phone or tablet is out of the LoopiX® range. • The LoopiX® isn't plugged in. • The LoopiX® doesn't have the basic setup requirements. • Other devices have Bluetooth turned on preventing the LoopiX detection.
No batch can be added	• The device does not have an internet connection. • The App settings don't authorize access to the device's camera.
Results cannot be shared	• The device does not have an internet connection. • The issuing application (mail/drive application, etc.) is not configured nor functional.

16 Document history / Versions follow-up

Revision	Date	Feedback
1.0	Feb-23	Initial public review
2.0	March-24	Revision