MX3 App Guide (May 2023)

The MX3 App allows you to take measurements, automatically log data to user profiles and manage users within your organization.

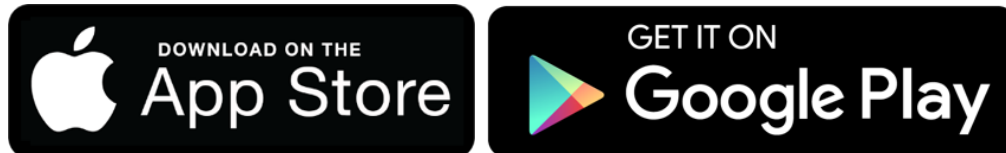This guide will walk you through how to use the MX3 App.

If your organization is **already using MX3 products**, please contact your MX3 administrator to request access. Do not create a new account.

For a video guide on using the MX3 App visit: https://mx3diagnostics.com/setup.

First-Time Setup

Download the MX3 App

To download the MX3 App, search for "MX3 Diagnostics" in the iOS App Store or Google Play Store or visit *https://mx3.app/* for a direct link.

Create an Account

> *Note: If your organization is **already using MX3 products**, please contact your MX3 administrator to request access. Do not create a new account.*

We recommend setting up your account using the MX3 Portal. You can find instructions on how to set up your account at https://mx3diagnostics.com/setup.

Alternatively, you can set up your account through the app.

Click "Create an Account" and follow the prompts to sign-up for an MX3 Account.
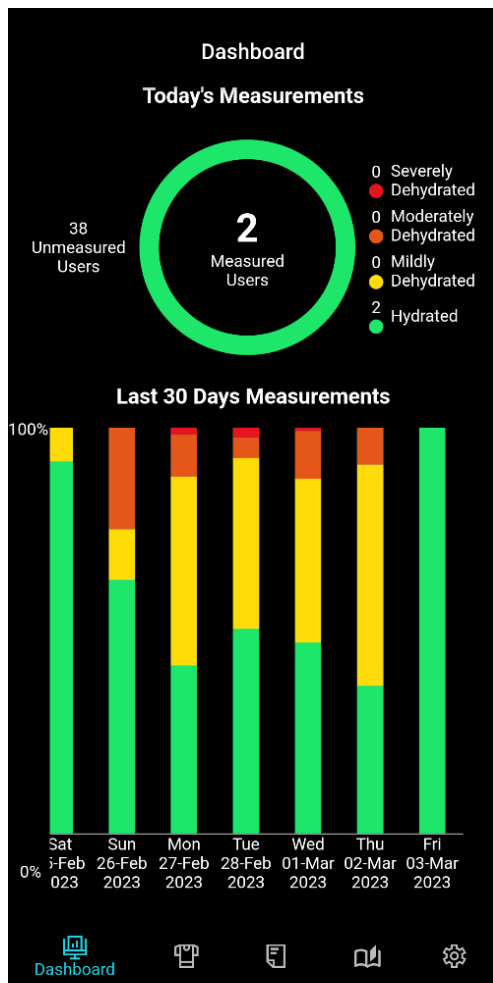
App Overview

Tabs in the MX3 portal are accessed using the buttons at the bottom of the screen.

The Dashboard

The **Dashboard** gives you a quick summary of the hydration status of your Organization.
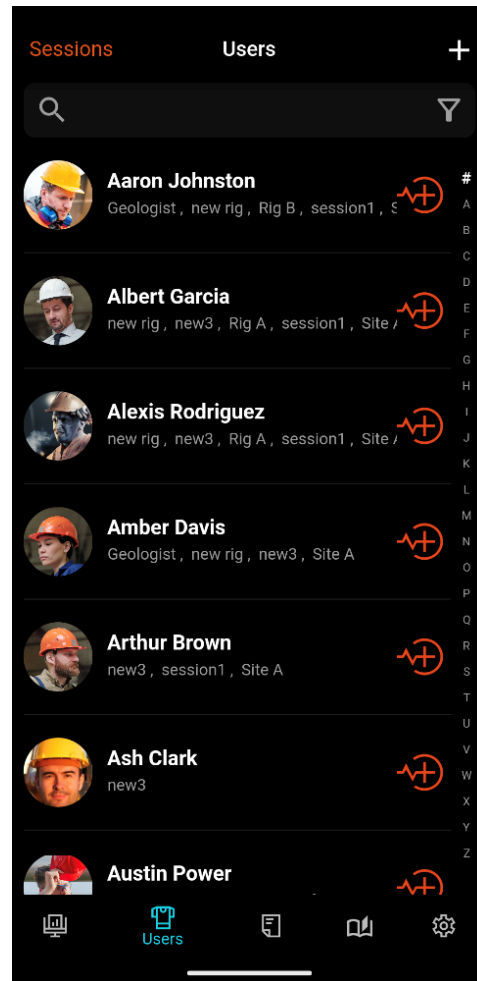
Data displayed on the dashboard can be customized by tapping on the ▽ icon.
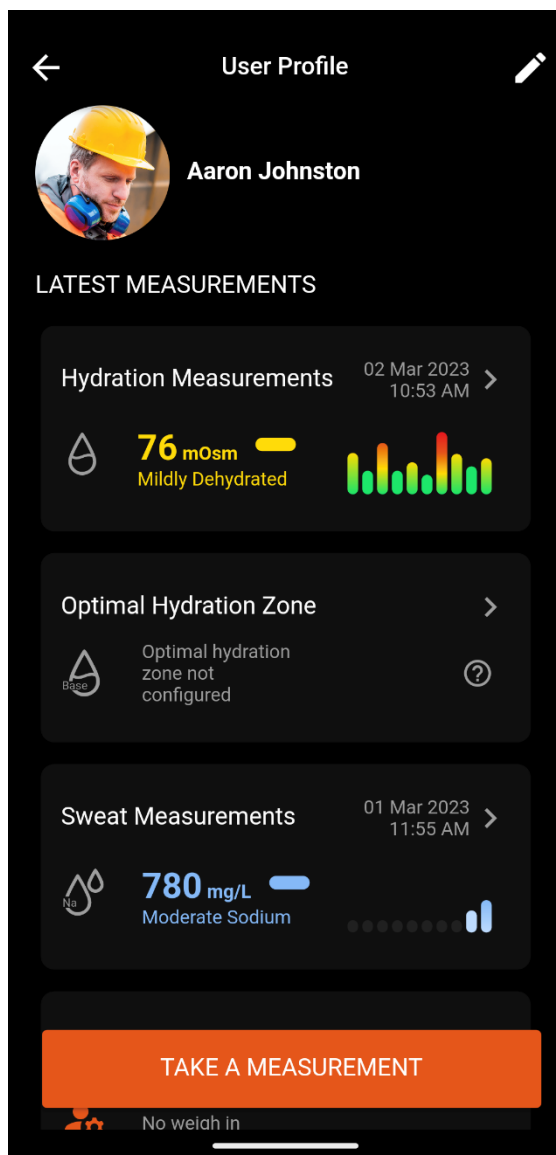
The Users Tab

The **Users Tab** is a list of users which are available to be measured.

To view a user's profile, tap on their name or photograph. To take a measurement, tap on the ⊕ icon next to the desired user. To create a new user account, tap on the + icon.
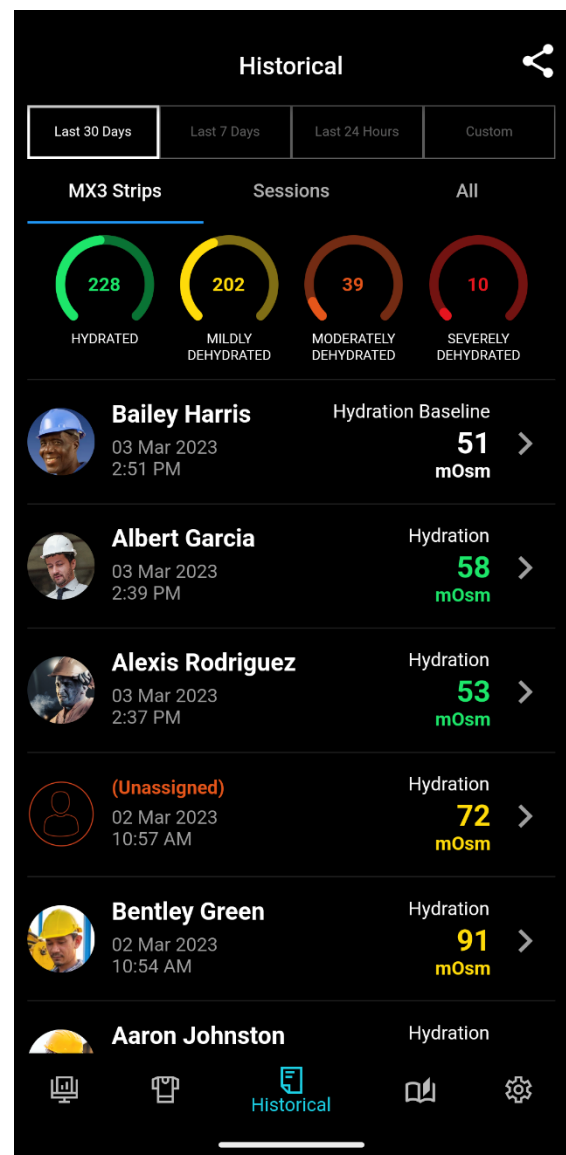
The User Profile

The **User Profile** displays historical data for a user and allows you to modify their account.

The Historical Tab

The **Historical Tab** lets you view and sort historical measurement data.

Data displayed on the Historical Tab can be customized by tapping on the ▽ icon.

← **User Profile** ✎

Aaron Johnston

LATEST MEASUREMENTS

Hydration Measurements — 02 Mar 2023 10:53 AM ›
76 mOsm
Mildly Dehydrated

Optimal Hydration Zone ›
Optimal hydration zone not configured ⊘

Sweat Measurements — 01 Mar 2023 11:55 AM ›
780 mg/L
Moderate Sodium

TAKE A MEASUREMENT

No weigh in

Historical ⌝

Last 30 Days | Last 7 Days | Last 24 Hours | Custom

MX3 Strips | Sessions | All

228 HYDRATED | **202** MILDLY DEHYDRATED | **39** MODERATELY DEHYDRATED | **10** SEVERELY DEHYDRATED

Bailey Harris — Hydration Baseline
03 Mar 2023 2:51 PM — **51** mOsm ›

Albert Garcia — Hydration
03 Mar 2023 2:39 PM — **58** mOsm ›

Alexis Rodriguez — Hydration
03 Mar 2023 2:37 PM — **53** mOsm ›

(Unassigned) — Hydration
02 Mar 2023 10:57 AM — **72** mOsm ›

Bentley Green — Hydration
02 Mar 2023 10:54 AM — **91** mOsm ›

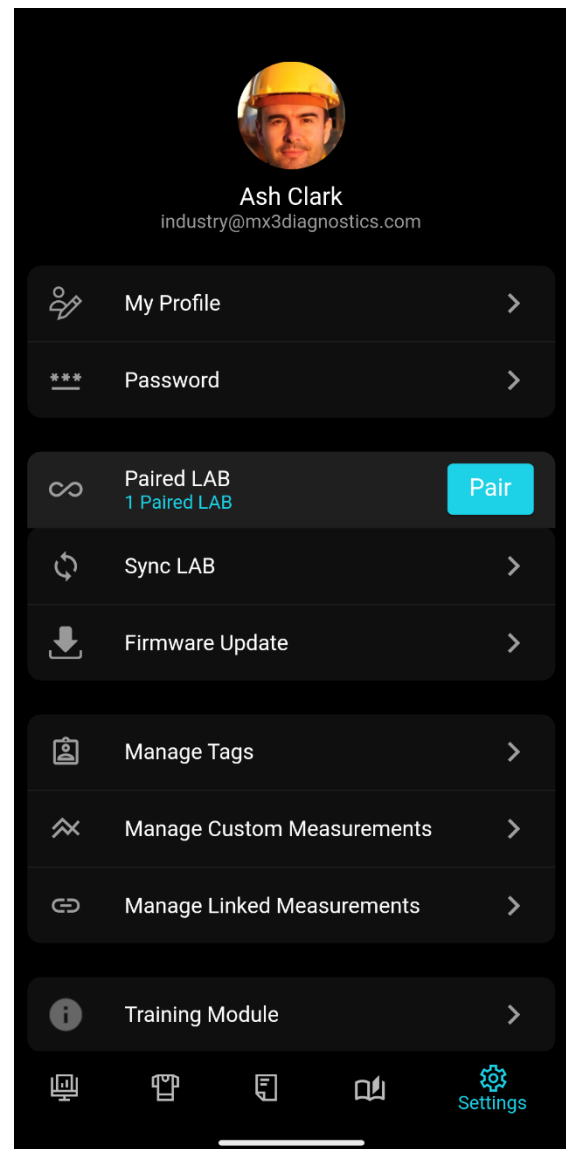**Aaron Johnston** — Hydration

Historical

The Discovery Tab

The **Discovery Tab** is where you can access articles from MX3 about hydration science and how to get the most out of MX3 products.
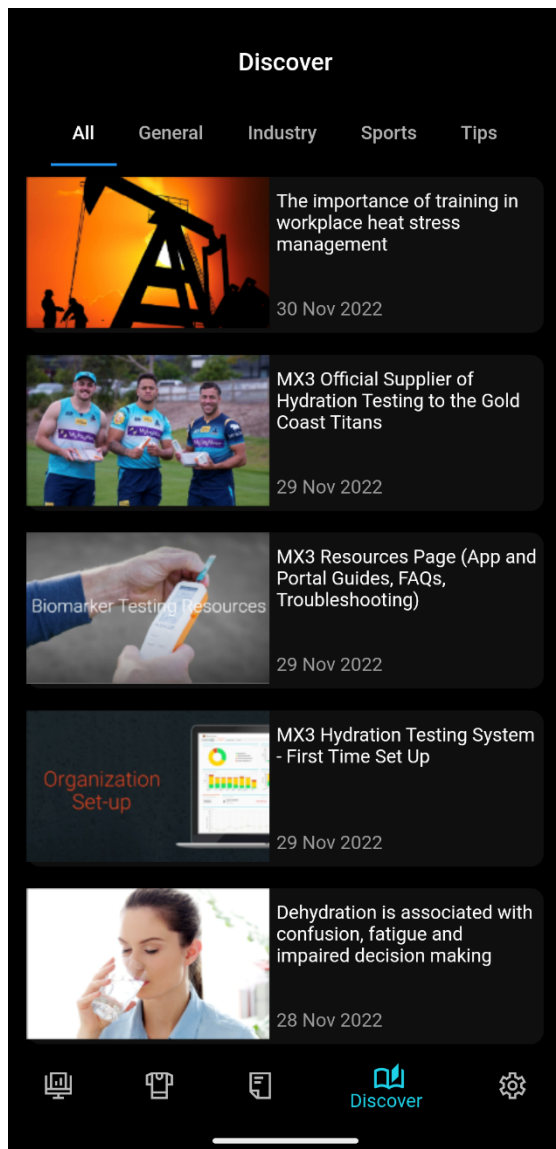
The Settings Tab

The **Settings tab** is where you edit your profile and password, modify your security and privacy settings, change the paired MX3 LAB, manage custom and linked measurements and update the MX3 LAB firmware.

Discover

All   General   Industry   Sports   Tips

The importance of training in workplace heat stress management

30 Nov 2022

MX3 Official Supplier of Hydration Testing to the Gold Coast Titans

29 Nov 2022

MX3 Resources Page (App and Portal Guides, FAQs, Troubleshooting)

29 Nov 2022

MX3 Hydration Testing System - First Time Set Up

Organization Set-up

29 Nov 2022

Dehydration is associated with confusion, fatigue and impaired decision making

28 Nov 2022

Discover

Ash Clark
industry@mx3diagnostics.com

| My Profile | > |
| Password | > |

Paired LAB 1 Paired LAB	Pair
Sync LAB	>
Firmware Update	>

Manage Tags	>
Manage Custom Measurements	>
Manage Linked Measurements	>

| Training Module | > |

Settings

Adding Users to Your Organization

Adding users to your organization is best managed through the MX3 Portal, which includes a suite of bulk upload and account management tools.

The MX3 Portal can be accessed at https://portal.mx3.app/ using your MX3 account details. For instructions on how to use the MX3 Portal to set up your organization see the [MX3 Portal User Guide.](#)

To add a User to your Organization:

1. On the **Users Tab** tap on the ✚ icon
2. Complete the New User Form.
   a. **Required**: A users first or last name
   b. **Optional**: Assign login-credentials
   c. **Optiona**l: Upgrade to an administrator account
   d. *Optional*: Assign user permissions
      (see **permissions** in the [MX3 Portal User Guide](#)for more information)
   e. **Optional**: Assign membership to Tags
      (see **Tags** in the [MX3 Portal User Guide](#)for more information)
3. Tap the 💾 icon in the top right to save.

For information about login-credentials, administrator accounts, permissions and Tags see the [MX3 Portal User Guide.](#)

User Tab
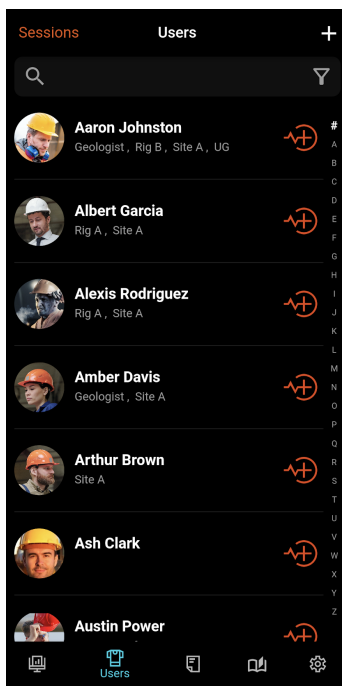
New User Form
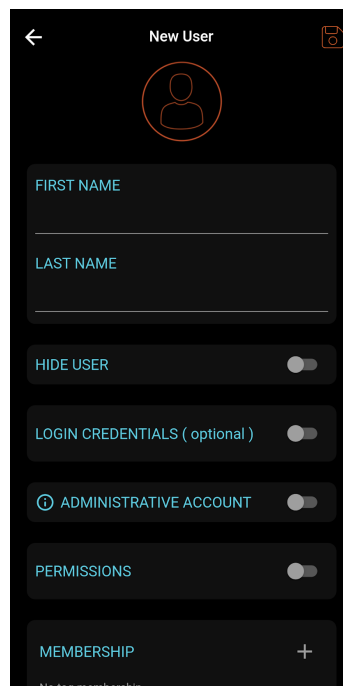
Viewing and Editing User Profiles

To view a user profile, tap on the name or image of the desired user on the **Users Tab**
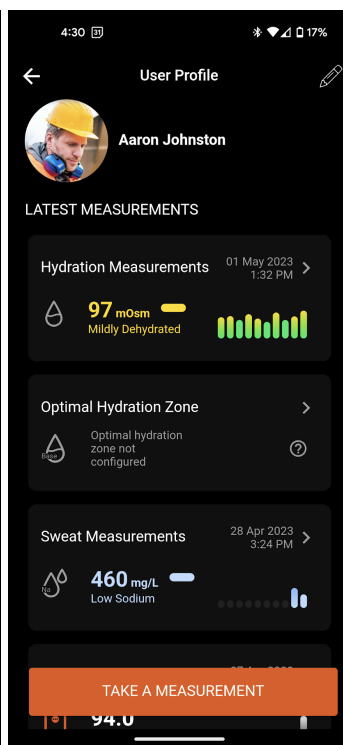
On the User Profile page, you can:

- Edit user information by tapping on the ✏ icon
- Initiate a measurement for that user by tapping **Take a Measurement**
- View a user's measurement history
- View and establish a user's "Optimal Hydration Zone"
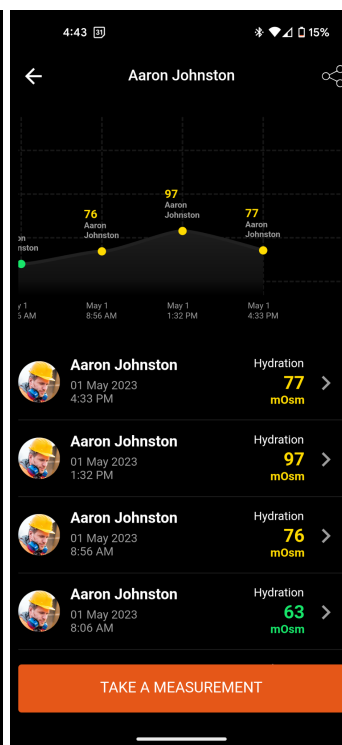 (See: **Baseline Measurements)**
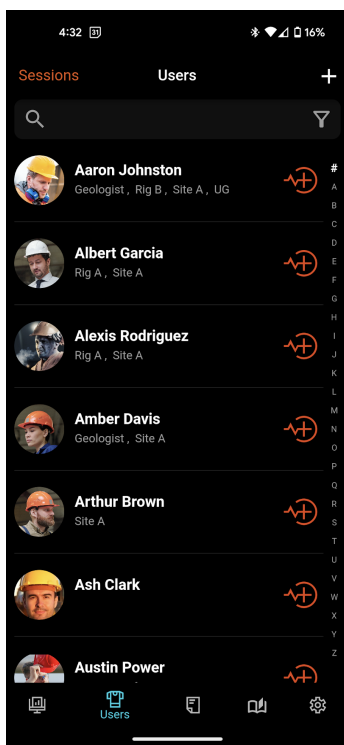
User Tab	User Profile	Measurement History

Training Modules

Appropriate measurement technique is essential for accurate measurements and reducing the number of error readings.

An instructional video detailing how to use the MX3 to conduct measurements can be found on our set-up page (https://mx3diagnostics.com/setup)

A training module, detailing how to conduct a hydration and sweat measurement can be found in the **Settings Tab** by tapping on "Training Module".
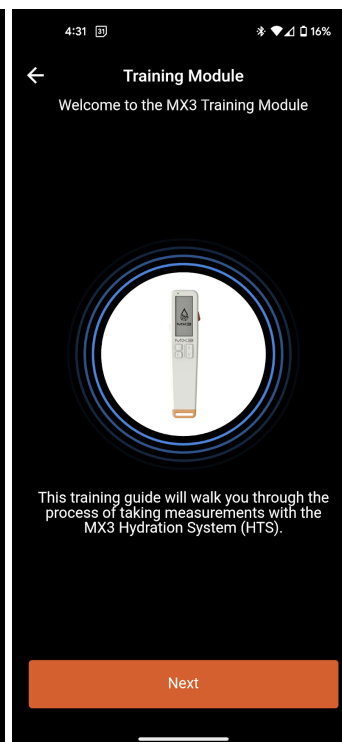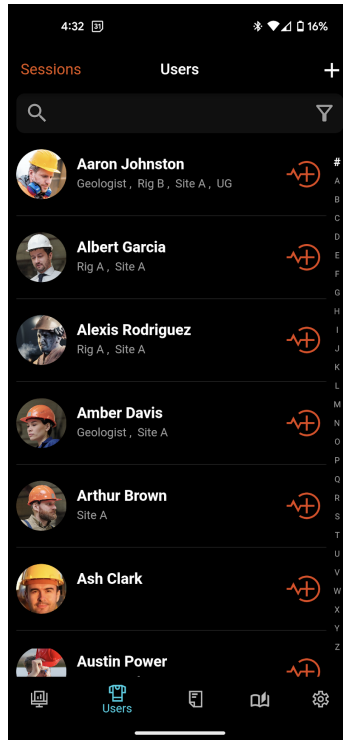
Settings Tab
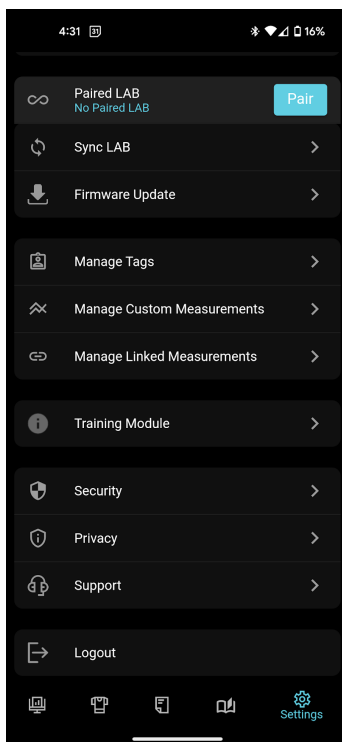
Training Modules
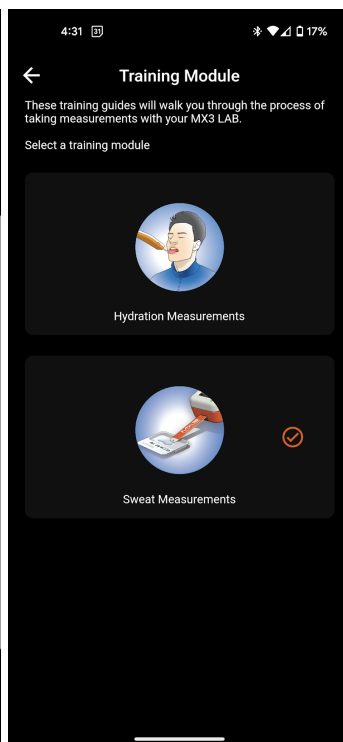
Hydration Training

Taking a Hydration Measurement

For a video demonstrating how to conduct MX3 Hydration Measurements, and various measurement tips see https://www.mx3diagnostics.com/setup

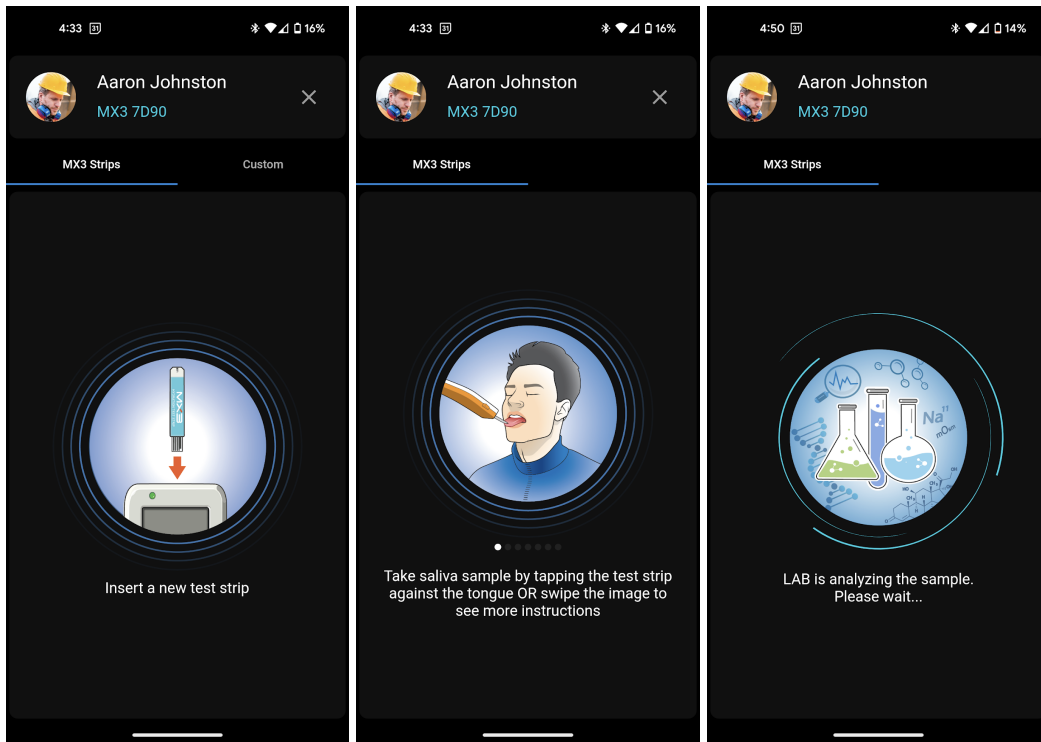1. On the **Users Tab** tap on the icon next to the desired user

2. If required, follow the prompts to turn on your MX3 LAB and pair with the MX3 App
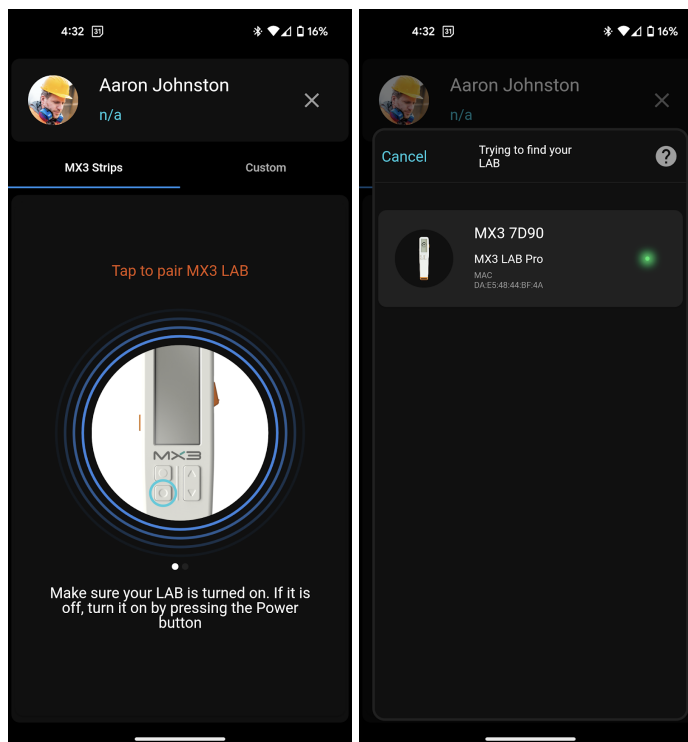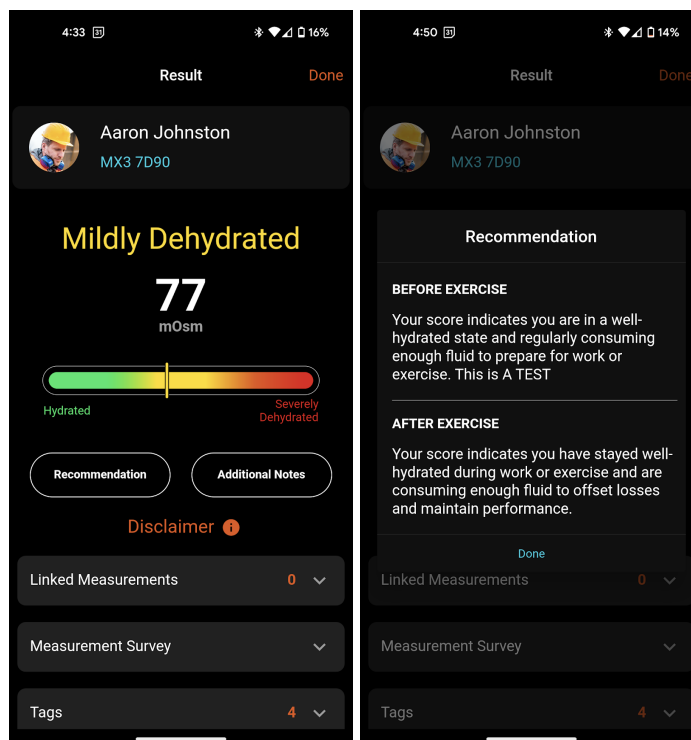
3. Follow the prompts on the MX3 LAB and in the App, instructing you to insert a Hydration Test Strip and collect a saliva sample.

4. Once enough saliva has been collected a tone will sound. Wait for the sample to be analyzed. **Do not remove the test strip**. A second tone will sound once analysis is complete.

5. The result will now be displayed along with a hydration assessment.

a. **Optional:** View a measurement recommendation by tapping **Recommendation.** You can customize the presented recommendation for your organization using the MX3 Portal.
See the *MX3 Portal User Guide* for more information.

b. **Optional:** Record a measurement note by tapping "**Additional Notes**"

c. **Optional:** Record a linked measurement (see: **Linked Measurements**) or complete a measurement survey (see **Measurement Surveys**).

6. Tap the **Done** in the top right to complete the measurement.

7. Eject the used Hydration Test Strip using the eject button on the right side of the MX3 LAB.

8. To power off the MX3 LAB, press and hold the power button until the LED indicator turns off.

Taking a sweat measurement

1. Follow the instructions on how to collect a sweat sample included with Sweat Test Kit.

① Remove Kit Contents

Patch   Alcohol Swab   Sweat Test Strips

Sample Tube   Syringe   Sample Tray

② Clean

Use the alcohol swab to clean the Inner forearm (do not apply elsewhere). If you have applied sunscreen or other products to your skin, first thoroughly rinse skin with water, dry with a clean towel and then clean with the alcohol swab.

③ Apply

Allow the site to fully dry. Remove the backing tape from the sweat patch and firmly apply to the cleaned site. Peel off the outer white border and press down to create a tight seal.

④ Exercise

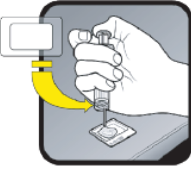Exercise for 60 minutes at high intensity. The patch should appear saturated with sweat.

⑤ Extract

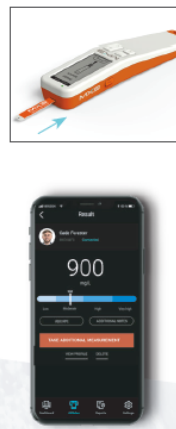Remove the Sweat Patch and place it inside the barrel of the Syringe.

Use the plunger to squeeze sweat from the patch into the Sample Tray. If there are any bubbles, allow the sample to settle for 30-60 seconds.

The sweat sample may also be collected into the Sample Tube, but should be measured within 24 hours. Pour the sample into the Tray before measurement.
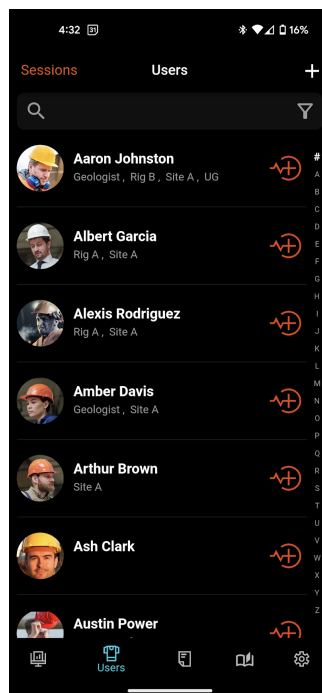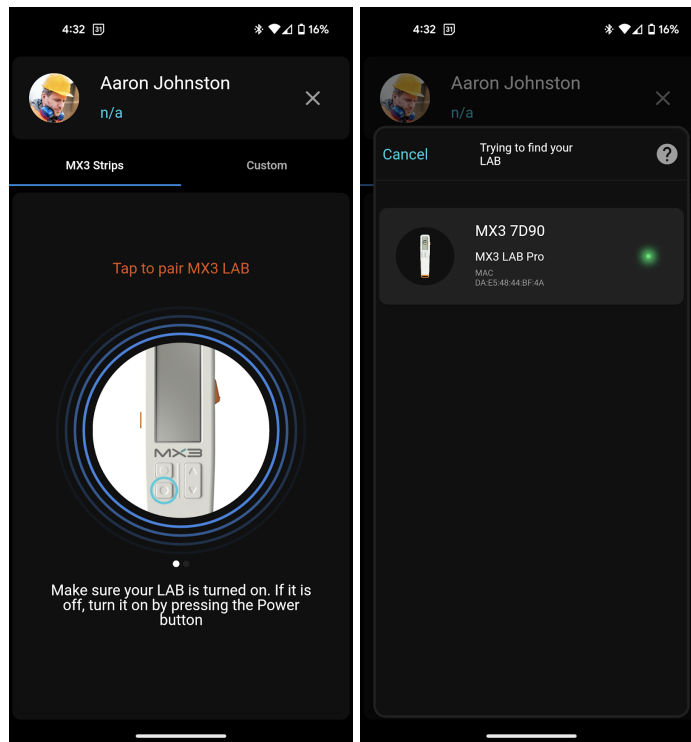
⑥ Measure

a. Insert a Sweat Test Strip into the MX3 LAB Pro.

b. In the MX3 app, start a measurement by tapping next to the desired user profile or tapping the "Take a Measurement" button.

c. At least three measurements of the same sweat sample are required to establish a sweat sodium value. After each measurement, remove and discard the used test strip and insert a new one. You may be prompted to made an additional measurement. It will take 3-5 test strips to complete the measurement
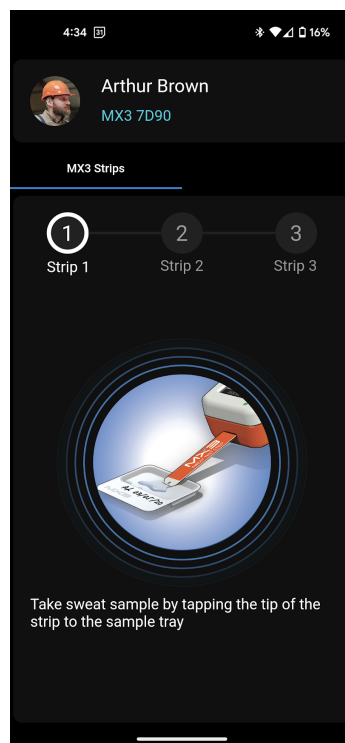
2. On the **Users Tab** tap on the ⊕ icon next to the desired user

3. If required, follow the prompts to pair with your MX3 LAB

4. Insert a sweat test strip.

5. Follow the prompts in the MX3 LAB and in the App. At least three measurements are required to establish a sweat sodium measurement.

6. The result will now be displayed on the MX3 App. You can add a note to the measurement
   a. **Optional:** You may record a measurement note, a linked measurement (see: Linked Measurements) or complete a measurement survey (see Measurement Surveys).
   b. **Optional:** You may customize the presented sweat guidance for your organization using the MX3 Portal. See the *Portal User Guide* for more information.
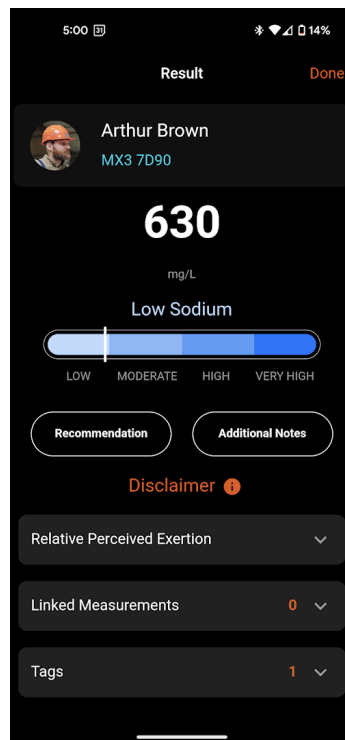
Measurement Sessions

Measurement Sessions are a way to streamline the measurement of a group of users who are routinely measured and quickly identify users who have not yet been measured.

Session groups are defined by Tags. For more information about Tags, see the *MX3 Portal User Guide.* Session groups are active for 24 hours, after which they are archived.

To create a Measurement Session:

1. On **Users Tab** tap **Sessions** to access the sessions page.
    There are 4 different ways to create a session:

    a. Tap on the ⊕ icon next to **All** to start a session for users in your organization.

    b. Tap on the ⊕ icon next to the desired tag to start a session for users with that tag.

    c. Tap on the **+** icon in the top right to start a session for a combination of tags. Select the desired tags and tap **Done.**

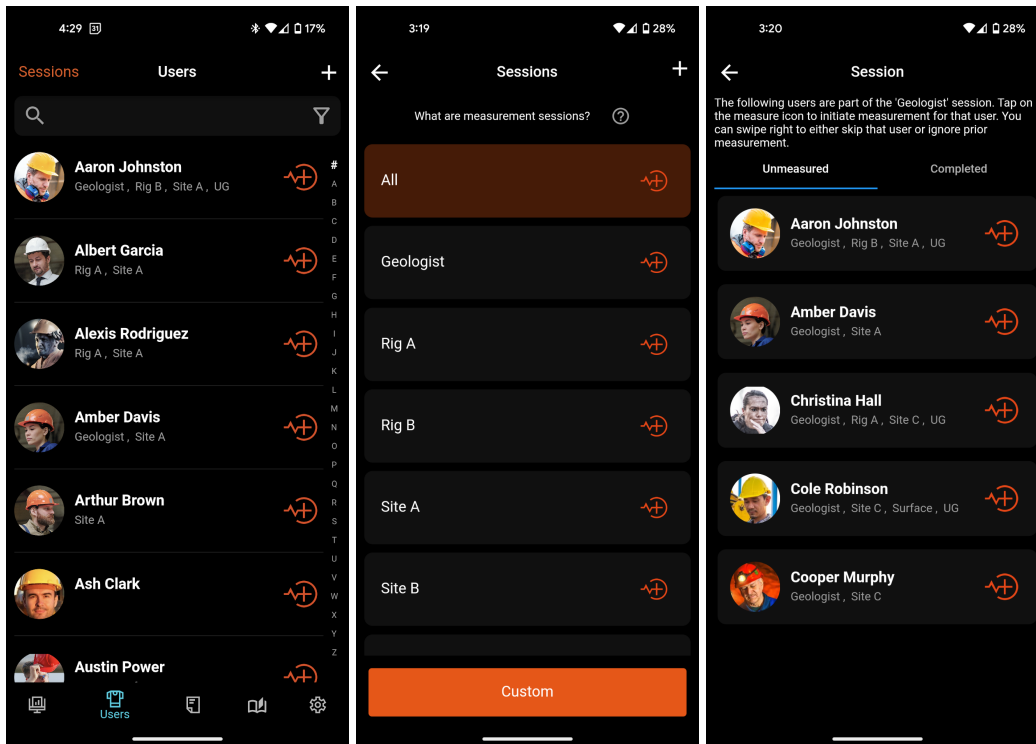   d. Tap on the **Custom** button and select the desired users.

2. The Measurement Session will automatically start once created

Note: Only one session for the same Tag or Combination of Tags may be active at the same time. If you try to initiate a session with the same Tag(s) you will be prompted to archive the currently active session.

Users Tab   ***Sessions Page***   ***Active Session***

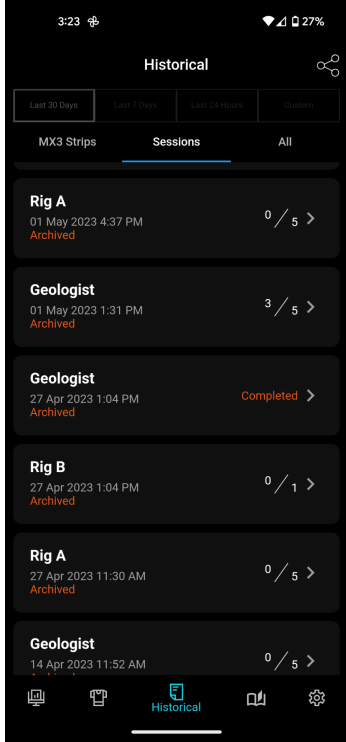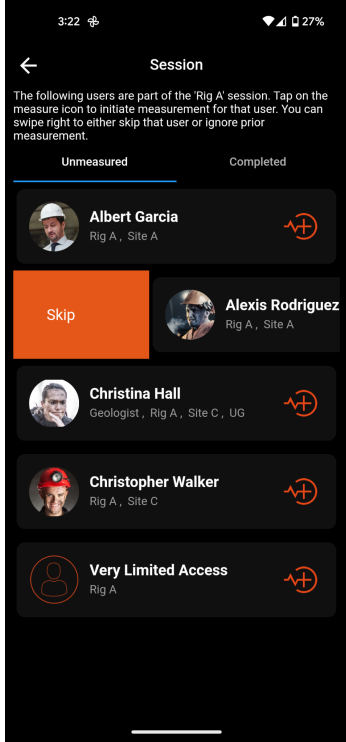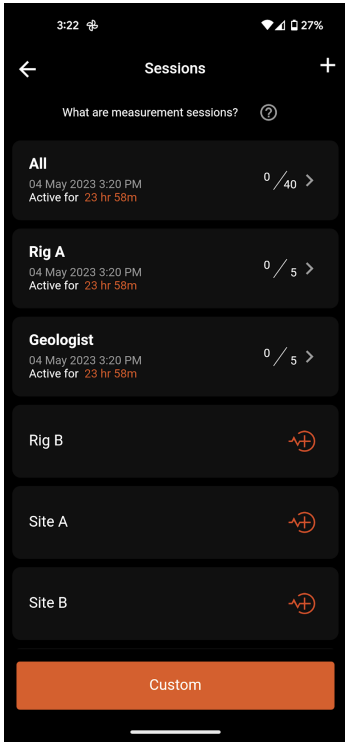To use a Measurement Session

1. On **Users Tab** tap **Sessions** to access the sessions page.
2. **Tap** the desired session.
3. Tap on the   icon next to the desired user to initiate a measurement. Complete the measurement (See: **Taking a MX3 Hydration Measurement**).
4. Tap **Done** in the top right to return to the Session List.
5. **Optional:** To skip a user you, swipe right on their name from the list of unmeasured users
6. **Option:** To re-measure a user, swipe right on their name from the list of completed users.
7. Continue measuring users until all users have been measured.

Session data, including archived Sessions, can be viewed in the **Historical Tab**

*Sessions Page*   *Skip User*   *Historical Tab*

← **Sessions** +

What are measurement sessions? � ⊘

All
04 May 2023 3:20 PM
Active for 23 hr 58m
⁰/₄₀ ›

Rig A
04 May 2023 3:20 PM
Active for 23 hr 58m
⁰/₅ ›

Geologist
04 May 2023 3:20 PM
Active for 23 hr 58m
⁰/₅ ›

Rig B

Site A

Site B

Custom

← **Session**

The following users are part of the 'Rig A' session. Tap on the measure icon to initiate measurement for that user. You can swipe right to either skip that user or ignore prior measurement.

Unmeasured   Completed

Albert Garcia
Rig A , Site A

Skip   **Alexis Rodriguez**
Rig A , Site A

Christina Hall
Geologist , Rig A , Site C , UG

Christopher Walker
Rig A , Site C

Very Limited Access
Rig A

Historical ⌁

Last 30 Days | Last 7 Days | Last 24 Hours | Custom

MX3 Strips   **Sessions**   All

Rig A
01 May 2023 4:37 PM
Archived
⁰/₅ ›

Geologist
01 May 2023 1:31 PM
Archived
³/₅ ›

Geologist
27 Apr 2023 1:04 PM
Archived
Completed ›

Rig B
27 Apr 2023 1:04 PM
Archived
⁰/₁ ›

Rig A
27 Apr 2023 11:30 AM
Archived
⁰/₅ ›

Geologist
14 Apr 2023 11:52 AM
⁰/₅ ›

📊   👕   📱Historical   📖   ⚙

Custom Measurements

Custom Measurements are a way for values other than MX3 measurements to be stored in the MX3 App and MX3 Portal and affiliated with a user profile.

Custom Measurements are independent of any other measurement and can be recorded at any time. Any parameter which can be stored as a positive numerical value can be recorded as a Custom Measurement.

Examples of a Custom Measurement include: Weight (Kilograms), Sleep (Hours), or Time since last drink (Hours)

To set up a Custom Measurement:
1. On the **Settings Tab** tap Manage Custom Measurements
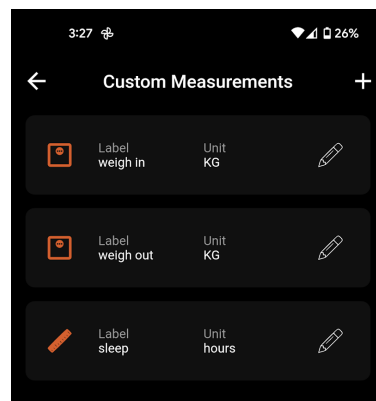
2. Tap on the ✚ icon
3. **Optional:** Tap on the icon to modify the icon
4. Type the name of the Custom Measurement in the "Label" field (e.g., Sleep)
5. Type the unit of the Custom Measurement in the "Unit" field (e.g., Hours)
6. Tap **Done** in the top Right to save the Custom Measurement
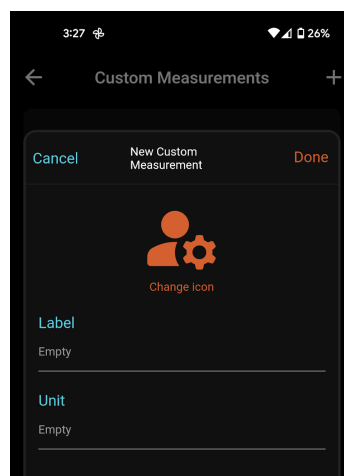
To record a Custom Measurement:

1. On the **Users Tab** tap the icon next to the desired user.
2. Tap **Custom**
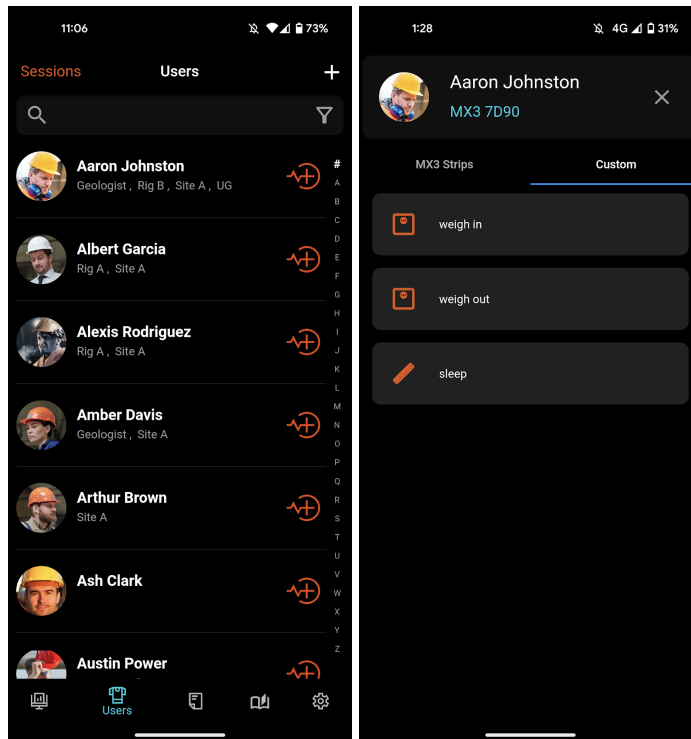
3. Tap the desired Custom Measurement and type in the measurement result
4. Tap the **Save** button to complete the measurement.
5. You can view Custom Measurement data on the **Historical Tab** in the **All Tab** or the **User Profile** page.
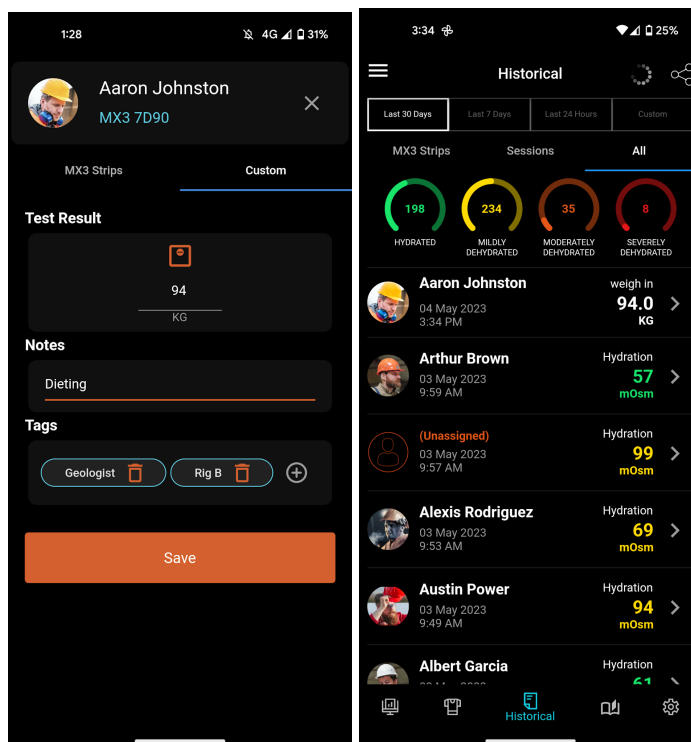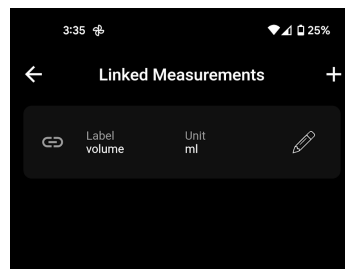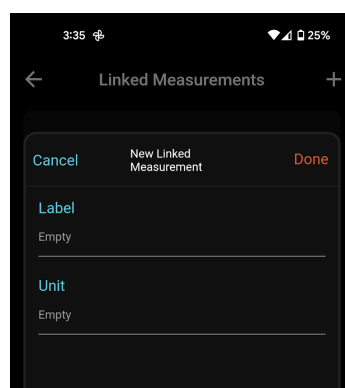
Linked Measurements

Linked Measurements are a way for additional data to be recorded alongside MX3 Hydration Measurements.

Linked Measurements are paired with a hydration measurement result and can only be recorded alongside hydration measurements. Any parameter which can be stored as a positive numerical value can be recorded as a Linked Measurement.

Examples of a Linked Measurement include: Body Mass Loss (kilograms), Fluid Consumed (mL), or Perceived Exertion (relative units)

To set up a Linked Measurement:
1. On the Settings Tab tap Manage Linked Measurements

2. Tap on the + icon
3. Type the name of the Linked Measurement in the "Label" field (e.g., BML)
4. Type the unit of the Linked Measurement in the "Unit" field (e.g., KG)
5. Tap Done in the top Right to save the Custom Measurement

To record a Linked Measurement

1. Conduct a MX3 Hydration Measurement
2. On the measurement result page tap **Linked Measurements**
3. Tap ✛ and select the desired Linked Measurement
4. Type in the linked measurement result

You can view Linked Measurement data on a measurement record accessed through the **Historical Tab** or a **User Profile** page.
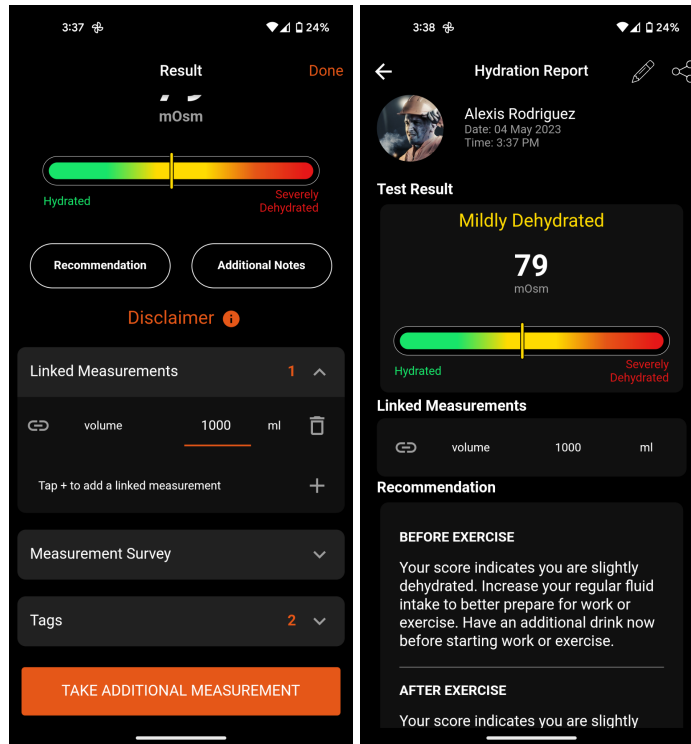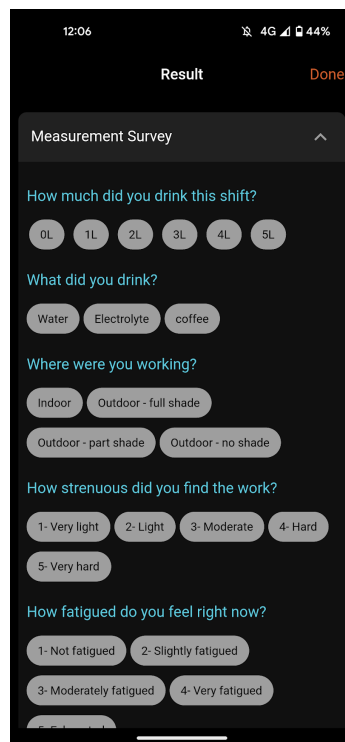
Measurement Surveys

Measurement Surveys are like Linked Measurements but offer additional flexibility in the type of data that can be recorded.

When a Measurement Survey is active for an organization, users are presented with a list of questions after a Hydration Measurement.

Responses to a Measurement Survey are paired with a hydration measurement result and can be viewed in the MX3 App and MX3 Portal

Survey questions can be one of the following types
- Text field – e.g. "Where are you currently located?"
- Number – e.g. "How much did you drink this shift in mL?"
- Options (select one) – e.g. "How fatigued do you feel right now?"
- Multi-select choices (select all that apply) – e.g. "Are you experiencing any of the following symptoms?"

Measurement Surveys are set up using the MX3 Portal.

For more information about setting up Measurement Surveys, see the *Portal User Guide.*

Editing/Deleting Measurements

To edit/reassign a measurement:

1. Go to the Historical Tab

2. Tap ❯ next to the desired measurement to open the detailed record.

3. Tap on the ✏ icon

4. Modify the measurement as desired. To reassign a measurement, tap the ✏ next to the user's name and select the desired user.
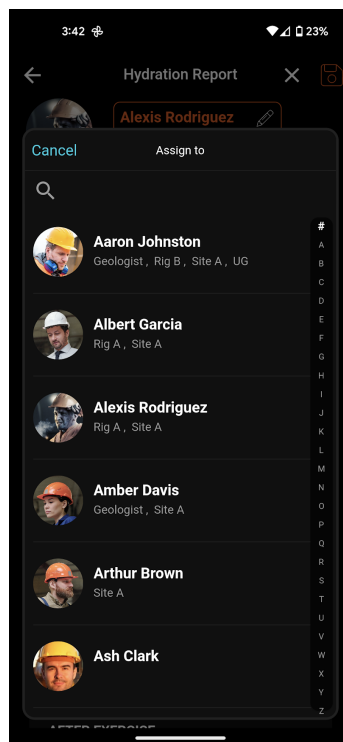
5. Tap on the 💾 icon.

To delete a measurement:

1. Go to the **Historical Tab**

2. Tap ❯ next to the desired measurement to open the detailed record.

3. Scroll to the bottom of the measurement record and tap **Delete this measurement**
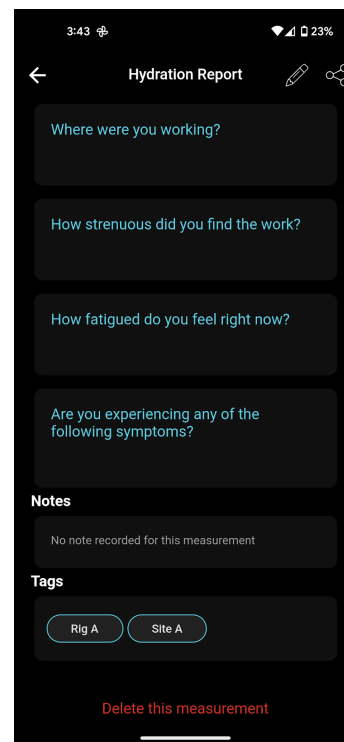
4. Tap **Yes**
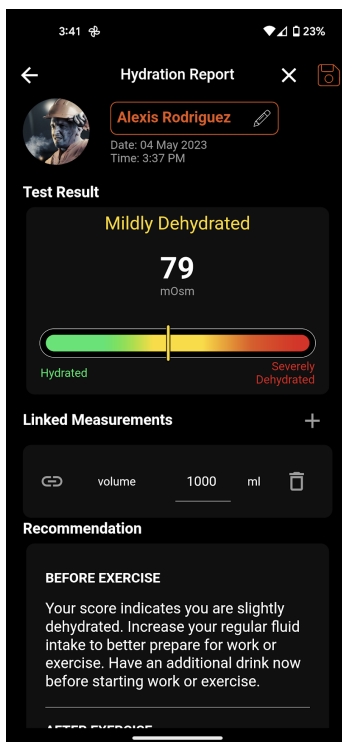
Edit Measurement   **Reassign Measurement**   **Delete Measurement**

Syncing Local Mode Data

The MX3 LAB may also be used in LOCAL mode to take measurements without the MX3 App.

To take a measurement in LOCAL mode, turn on the MX3 LAB, scroll to highlight **LOCAL**, press **Select** and follow the process for taking a hydration measurement. The reading and hydration assessment will be displayed on the screen.

LOCAL mode measurements are stored on the MX3 LAB and can be later assigned to a specific user using the MX3 App or MX3 Portal. To assist with assigning LOCAL measurements we suggest you use the recording template located at the end of this document.

To sync stored LOCAL mode measurements with the MX3 App

1. Go the **Settings Tab**
2. If necessary, pair your MX3 LAB with the MX3 App by pressing the **Pair** button and following the prompts .
3. Tap **Sync LAB**
4. If local measurement data is present you will be presented with the number of measurements. Select **Sync.**
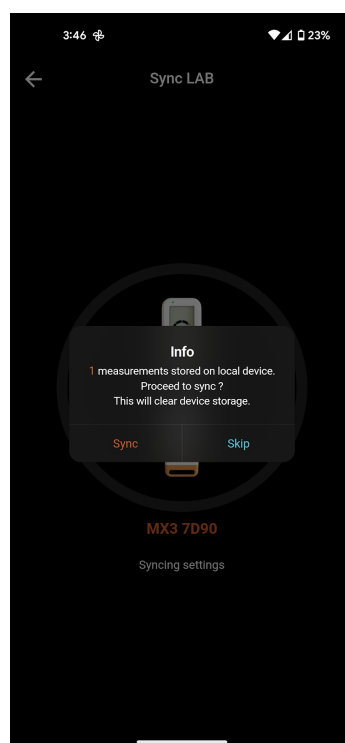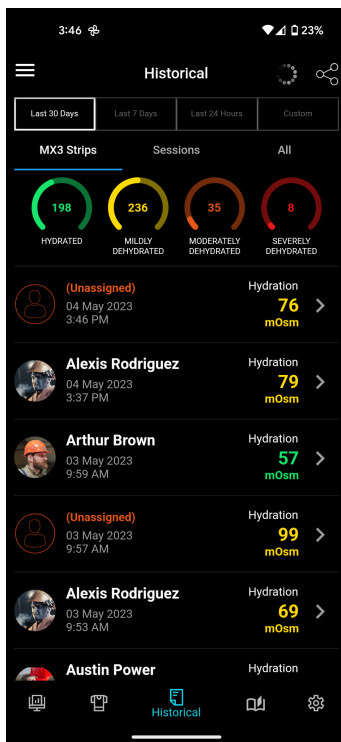
To assign LOCAL mode measurements with the MX3 App

Synced measurements will appear in the **Historical** tab as (**Unassigned**).

To assign a measurement:

1. Go to the **Historical Tab**

5. Tap 〉 next to the desired measurement to open the detailed record.

2. Tap on the ✏ icon

3. Tap on **"Assign to User** ✏ **"**

4. Select the desired user

6. Tap on the 💾 icon
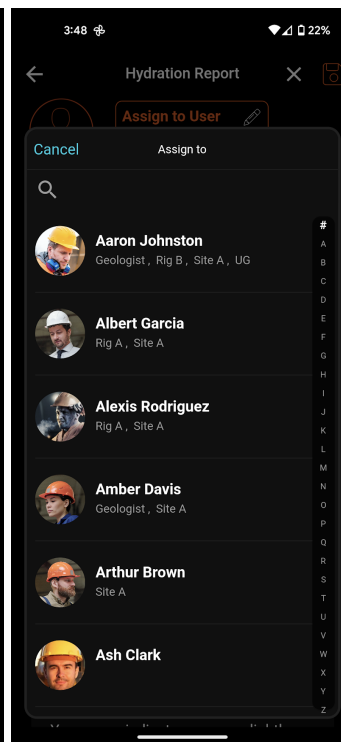
Historical Tab	Edit Measurement	Assign User
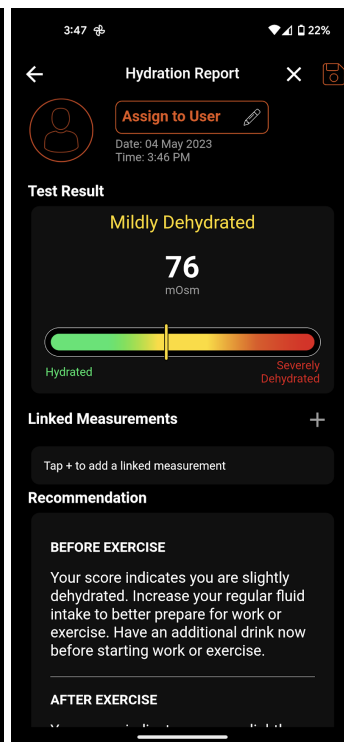
Re-assign multiple measurements at once (Bulk-Reassign)

Multiple measurements may be re-assigned at a time using the Bulk Re-assign tool.

To bulk re-assign measurements
1. Go to the **Historical Tab**
2. Tap ☰Tap in the top left, then tap **Bulk re-assign**
3. Select the measurements you would like to reassign and tap the 👤 icon
4. Select the user you would like to assign the measurement to
5. Repeat this process until all desired measurement have been re-assigned
6. Tap on the 💾 icon

Historical Page Menu   **Bulk Reassign**   **Assign User**
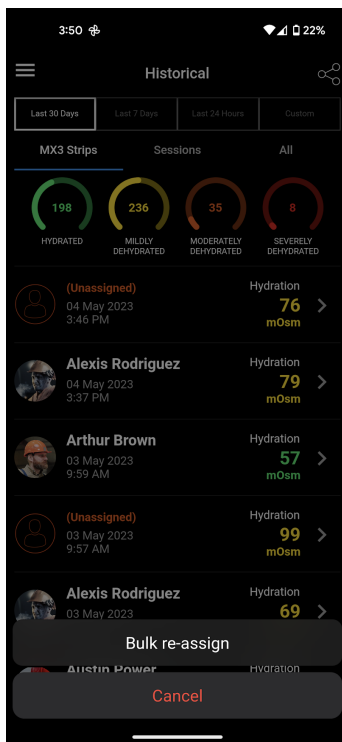
Baseline Measurements and the OHZ

Baseline measurements are measurements conducted on a user in a well hydrated state.

An example protocol for collecting baseline measurements can be found below. If following our suggested hydration protocol is not feasible, a trainer or supervisor may choose instead to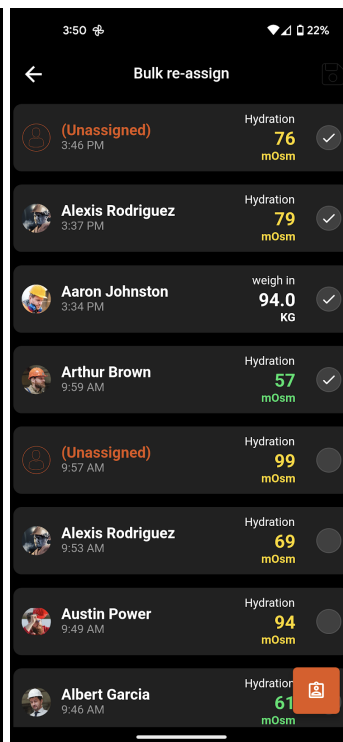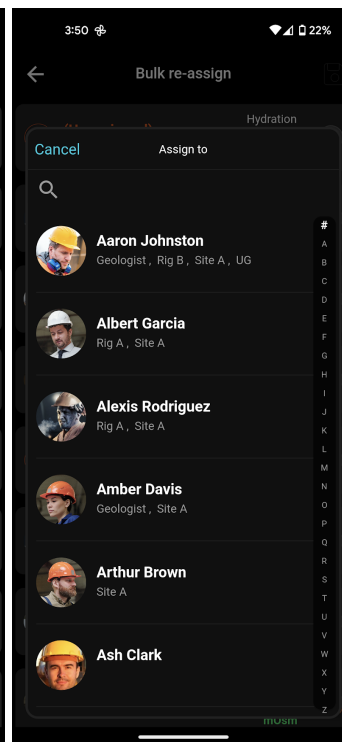 define readings as baseline measures when they feel water consumption has been adequate to achieve a fully hydrated state.

Once 6 measurements have been conducted, the MX3 App will calculate a user's optimal hydration zone (OHZ), a range corresponding to when they are fully hydrated. If you conduct more than 6 baseline measurements, only the most recent 6 will be used to determine a user's OHZ and baseline.

A user's OHZ is also displayed on the results bar after taking a hydration measurement. Baseline values are also used to customize hydration status threshold values.

To conduct a baseline measurement:
1. Go to the **Users Tab**
2. Tap the name of the desired user to open their **User Profile**
3. Tap on the **>** next to **Optimal Hydration Zone**
4. Tap **Take Baseline Measurement**
5. Follow the prompts to conduct a hydration measurement.

User Profile
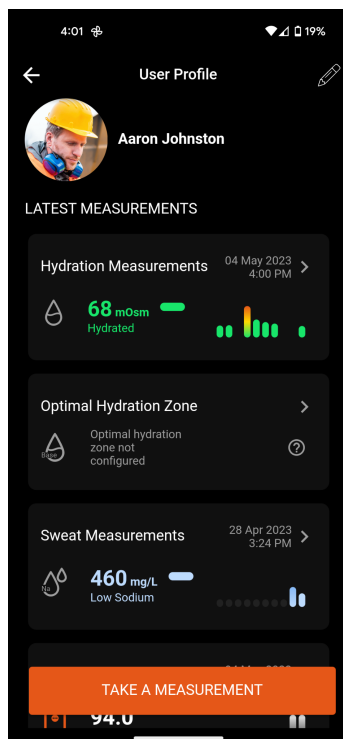
Baseline Page

Result with OHZ
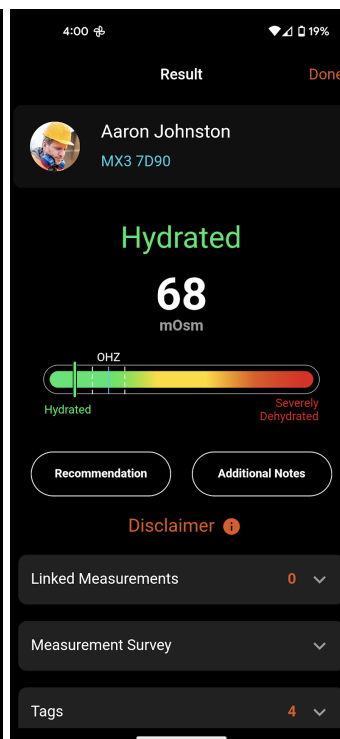
Example Baseline Protocol

Day 1

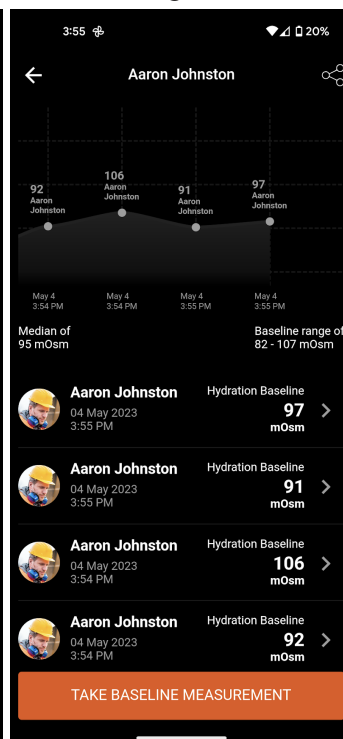- Consume 1 standard glass of water (250 ml) every hour from 9/10am to 5/6pm in addition to any water typically consumed during or after work/exercise.
- Limit alcohol consumption (1 standard drink) to avoid alcohol related dehydration affecting baseline readings.

Day 2

- Consume 1 standard glass of water (250 ml) every 45 mins from 9/10am to 5/6pm in addition to any water typically consumed during or after work/exercise
- We recommend conducting baseline measures on days where exercise is light to minimize exercise related dehydration increasing baseline readings
- We recommend not to consume any alcohol to avoid alcohol-related dehydration effects.
- Avoid eating or drinking 15 minutes before taking a baseline measurement.
- Take 3 baseline readings at 12pm and 3 baseline readings at 5/6pm.

Updating the MX3 LAB Firmware

For a video demonstrating how to conduct a firmware update see
[*https://www.mx3diagnostics.com/fw-update*](https://www.mx3diagnostics.com/fw-update)

To update your MX3 LAB to the latest Firmware Version:

1. Go to the **Settings Tab**
2. Tap **Firmware Update**
3. Tap **Next**
4. Turn on your MX3 LAB and select App Mode
5. Tap the MX3 LAB you would like to update
6. Tap **Next**
7. Wait for the update to complete. Your MX3 LAB will automatically reboot once it has finished updating.
   <u>Do not turn off the LAB until it has rebooted.</u>
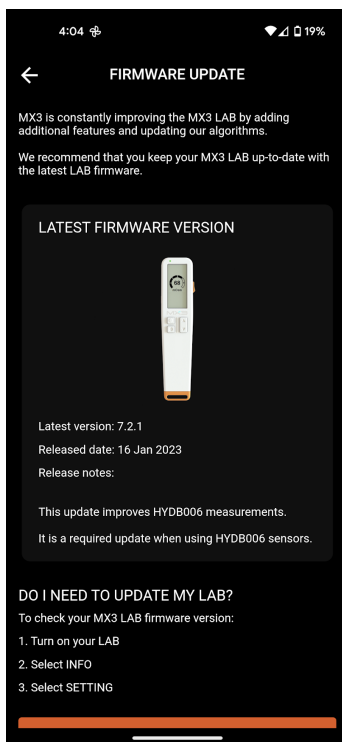
FW Update	**Update (in progress)**	**Update (Complete)**

LOCAL Mode Recording Template

Operator: _____   Page ____ of ____

MX3 LAB ID: _____
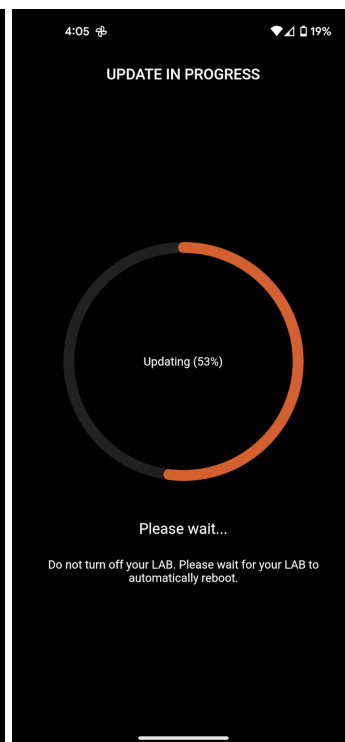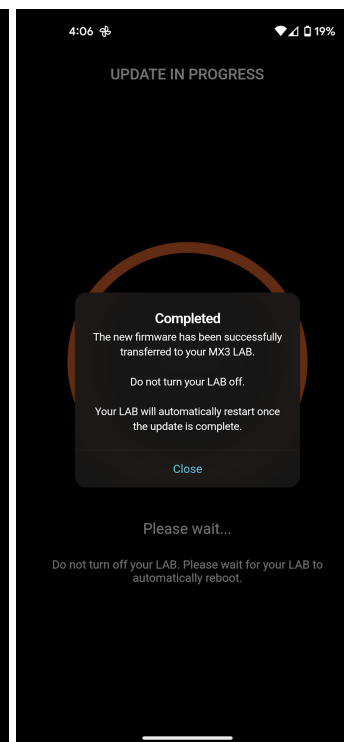
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