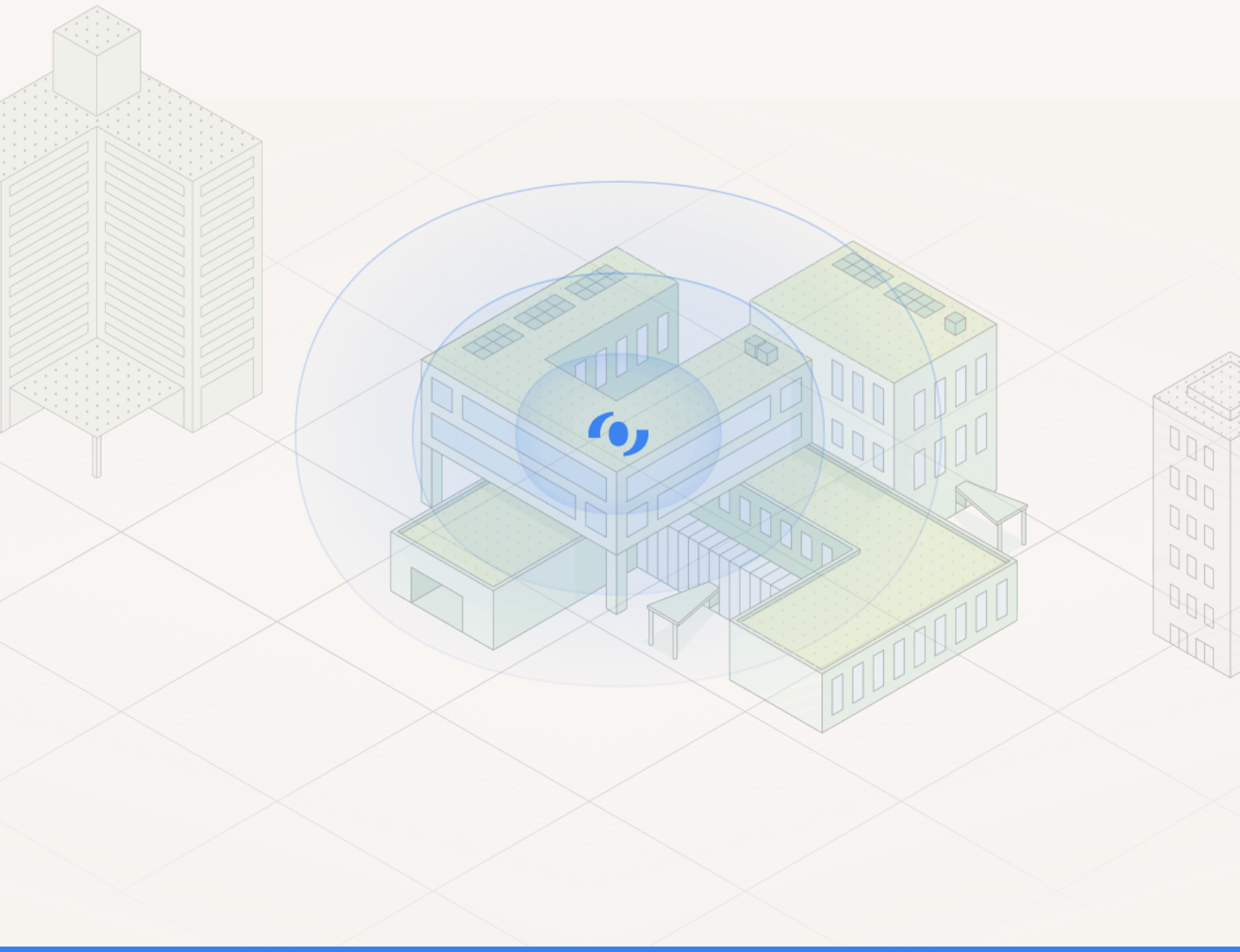
tector

Set Up Guide

A comprehensive guide to installing and using Tector sensors, gateways, and application.



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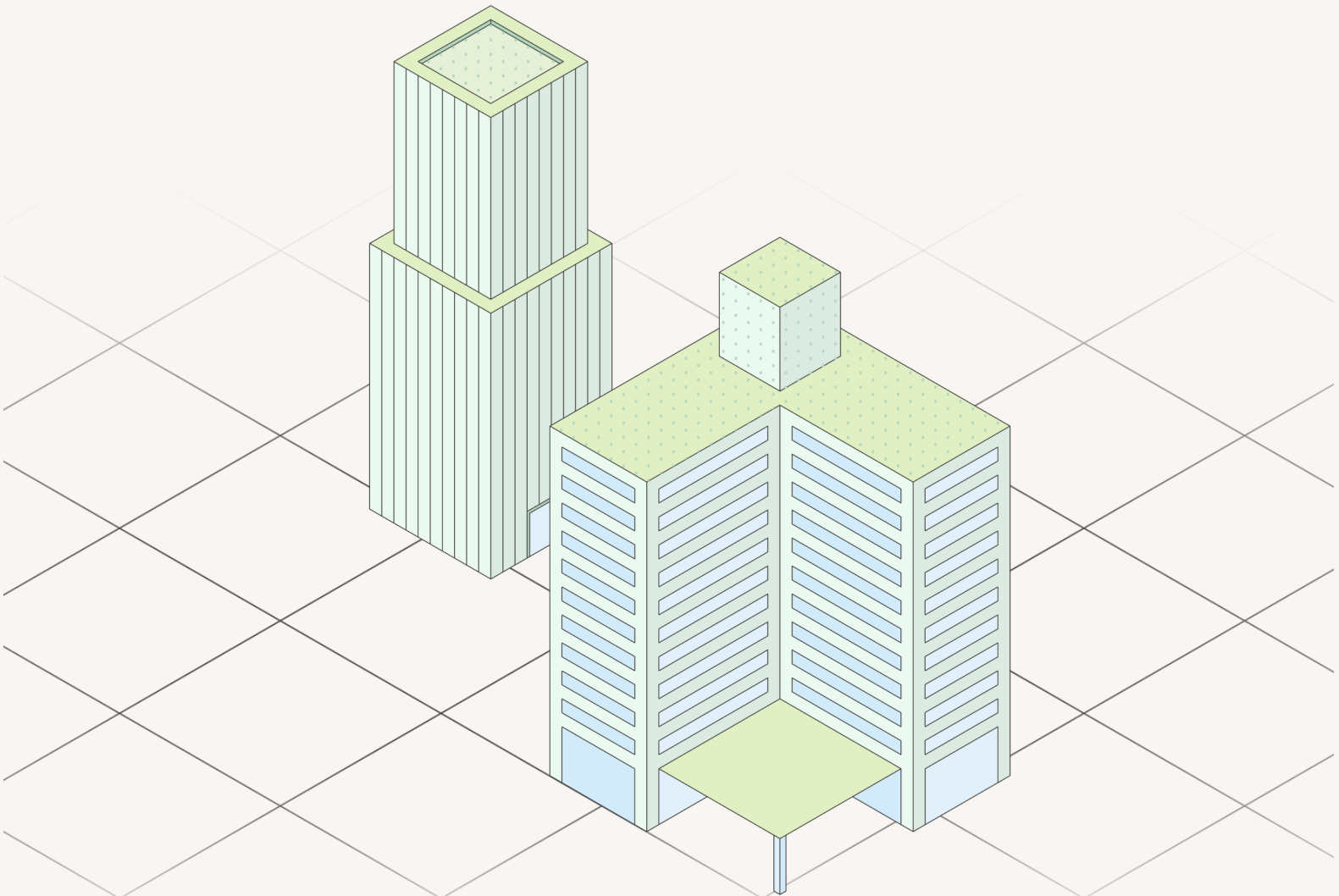
Prepare

Before going on site



Prepare

Login on computer and phone

It's important to login on both devices for easy registration on site with phone and managing the devices on the platform.

Login to the platform on this link: https://app.tector.com/

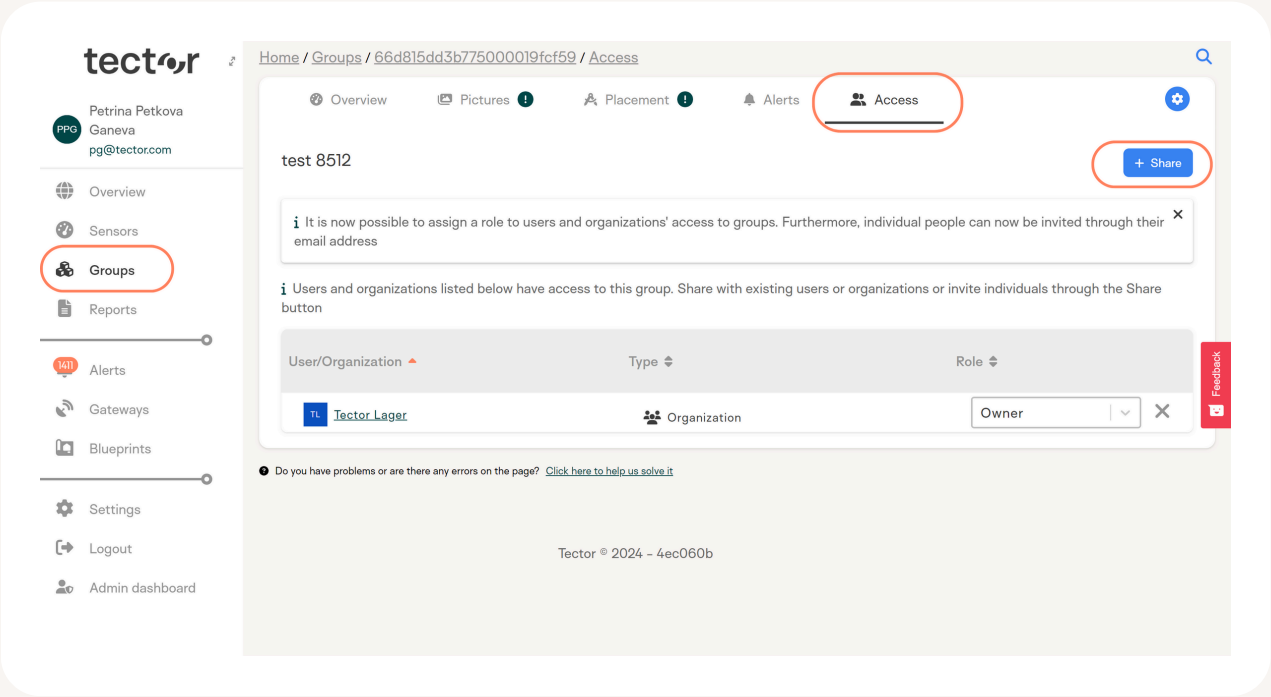
The buyer has received an email to create an account. If not, reach out to support@tector.com

The buyer will invite users to the platform - see next step. If you haven't received login information, reach out to the buyer.

Add users to a project group

On the app, go through the following steps:

- Go to **Groups**
- Select the specific **project you want to share**
- Go to the **Access** tab
- Click the **Share** button
- Fill out details and invite user



The invited person should now get an email to create an account.

Plug gateway into power and ethernet

Plug the gateway into power and find a location where the signal is not deflected and where the gateway will not be unplugged in the future.

Remember to install the antenna of the gateway that comes along in the box. The gateway can function just with the pre-installed SIM card, but if possible, plug ethernet cable into the gateway for a reliable backup connection.

Scan QR code for setup guide

In order to set up the gateway scan the QR code with your phone and follow the setup steps:

- Describe the location of the gateway
- Upload a photo of the gateway and its surroundings for future reference

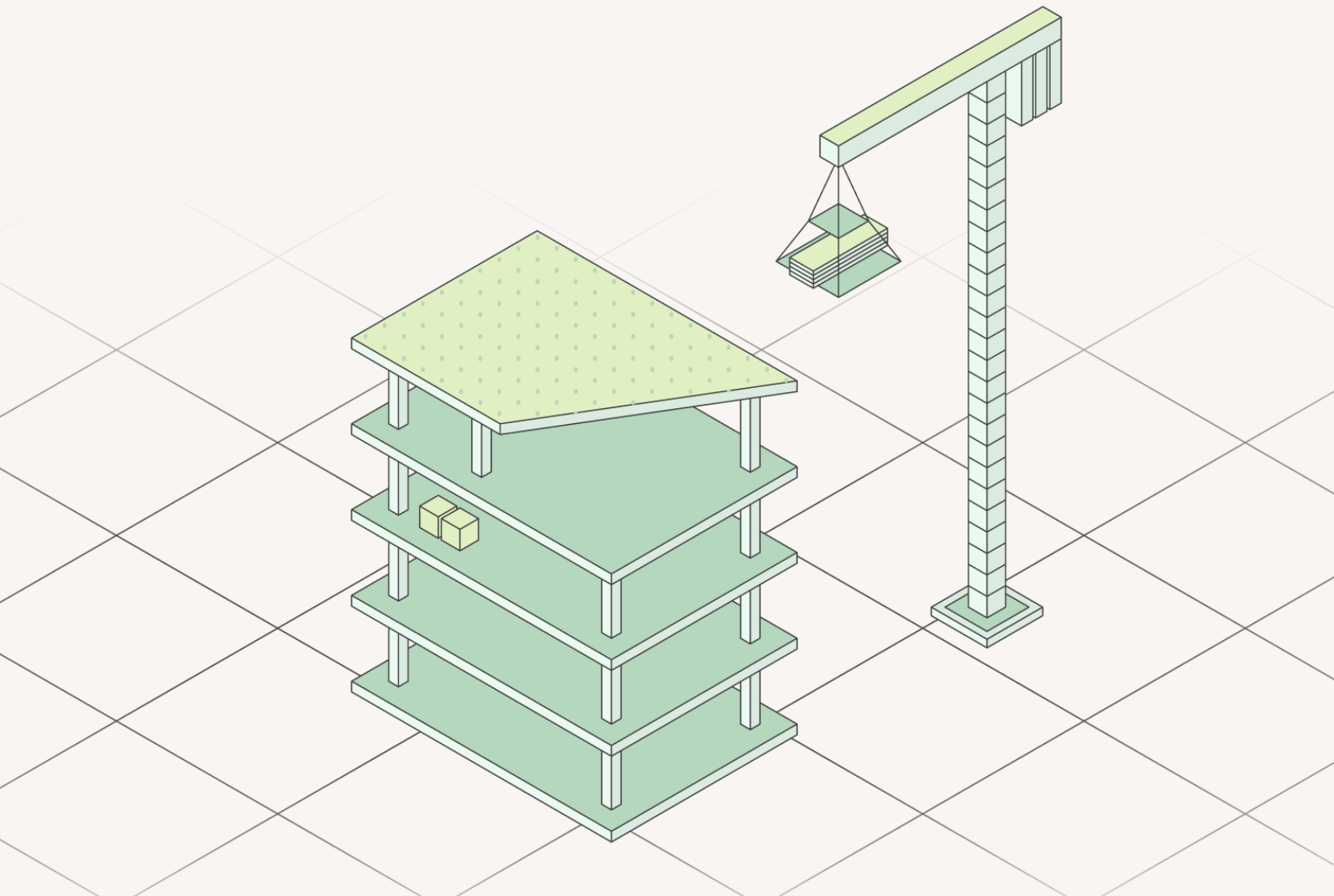
If your gateway isn't set up using the steps after reading the QR code, then you won't be receiving alerts if it goes offline.

Prepare plan for sensor locations

Note down the desired sensor placements on blueprints, physically or digitally. Have the blueprints ready for later, so that you can note down the ID (eg. woody9372) onto the blueprint as you go around the construction site to install the sensors.

Installation

While on site



Installation

Sensor for flat roof monitoring

Only for sensors that come pre-installed on a timber block.

The basic steps of installing are:

- Identify sensor location.
- Cut out a hole in the insulation slightly larger than the sensor.
- Register the sensor as described in page X.
- Put insulation above the sensor.

The sensor should be under the insulation, but above the bottom membrane.

There should be no drainage, pipes or similar in the insulation directly above the sensor.

The sensor should never be exposed directly to rain and should be covered immediately.

It should be placed on the membrane.

Sensor for monitoring directly on timber

The basic steps of installing are:

- Identify sensor location
- Mount the accompanying screws into the eyes of the sensor
- Register the sensor as described in page 14

However, customisations are common depending on the different measurement needs of your project.

Orientation

If the sensor will be exposed to rain, place the sensor upside down with the measuring pins closest to the ground.

Else, place the measuring pins with the fibres.

Insulated pins

You want to insulate the pins, when you want to measure the wood moisture content at a specific depth or want to avoid high spikes in moisture readings caused by rain and water on the surface of the timber. Without insulated pins, the sensor will measure the wood moisture content, where the moisture is the highest between the two pins.

Extensions

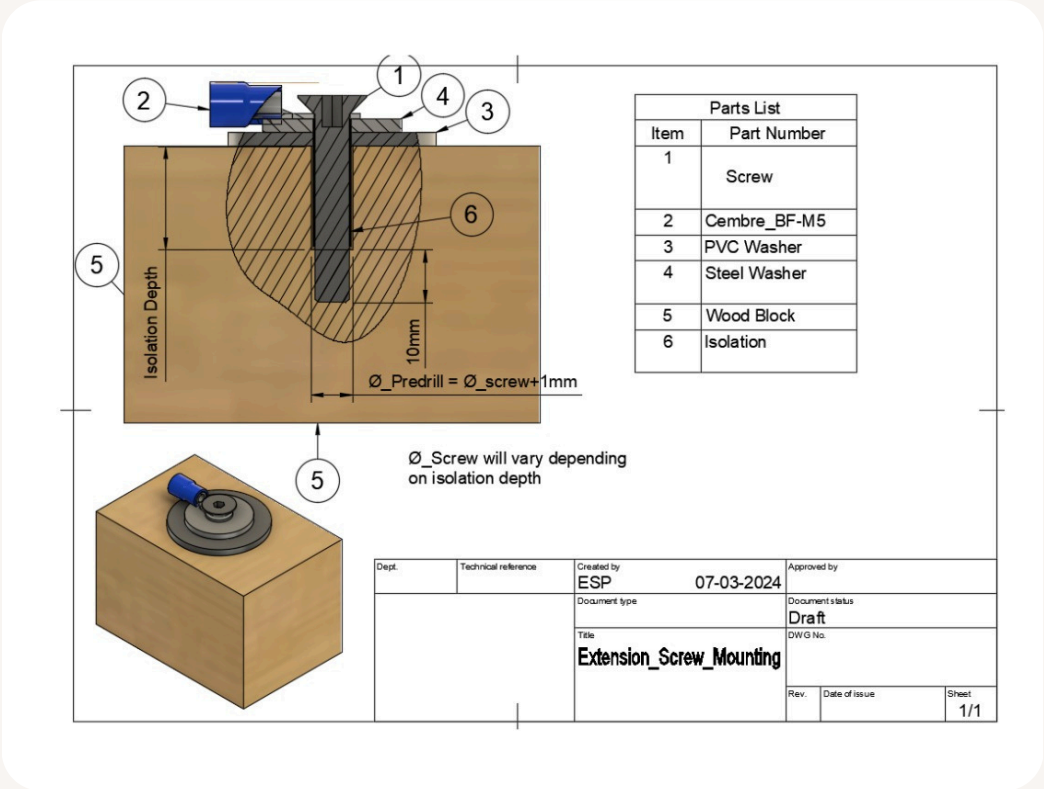
If you have pins that have a diameter wider than the eyes of the sensor (typically wider than Ø4mm), then an extension is needed. This will be pre-installed on the sensor before shipment.

Using extensions can also help obtain measurements in areas, where there isn't space for the sensor or if you wish to replace the sensor after the battery has been used.

Sensors with extensions and insulated pins

When you are using insulated pins, then predrill a hole with following specifications:

- 1mm thicker diameter than the diameter of the screw
- 10mm shorter than the length of the screw



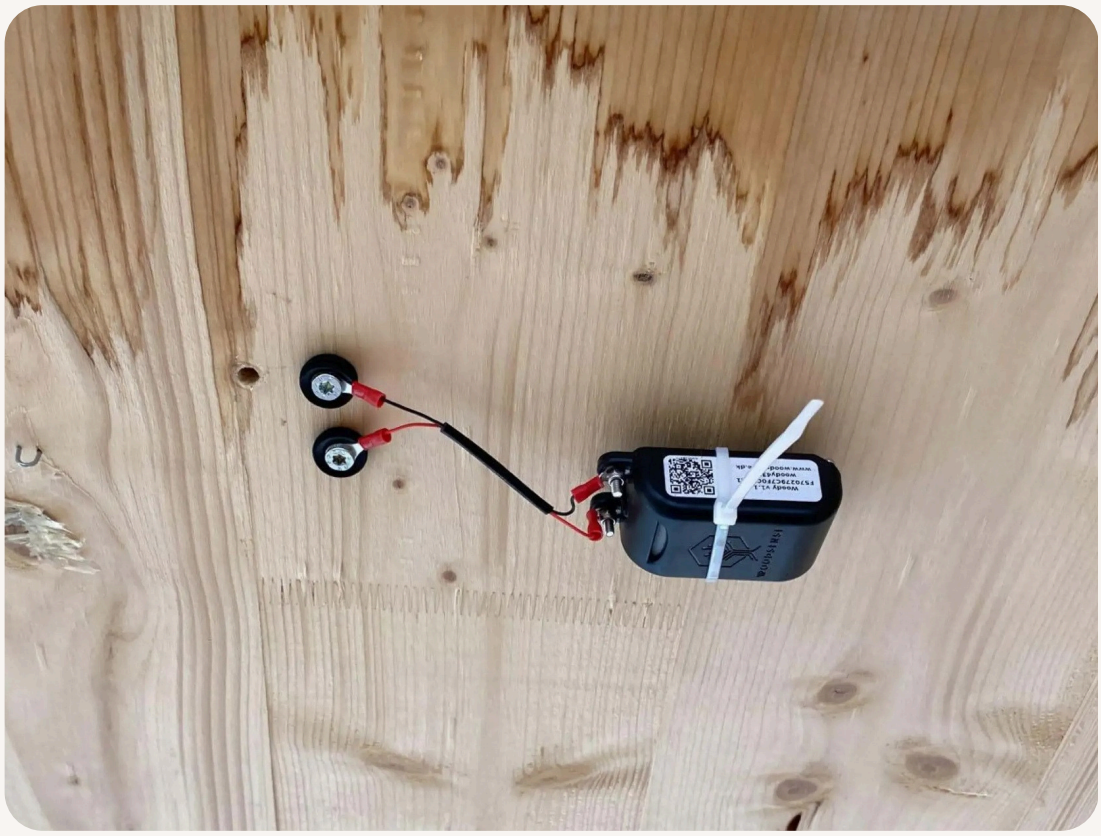
If you have insulated pins AND an extension, it's important to remember the accompanying washers in between the extension and the timber to prevent surface readings.

The correct order of installation, as shown in the illustration above, is to place the PVC washer closest to the wood, then the metal washer, then the eye of the extension and finally the screw at the very top.

When installing the pins, remember to ensure that:

- The head of the screw has contact with the metal plate in the eyes of the sensor or with the metal washers
- The pins are not measuring across panels of timber in, for example, LVL

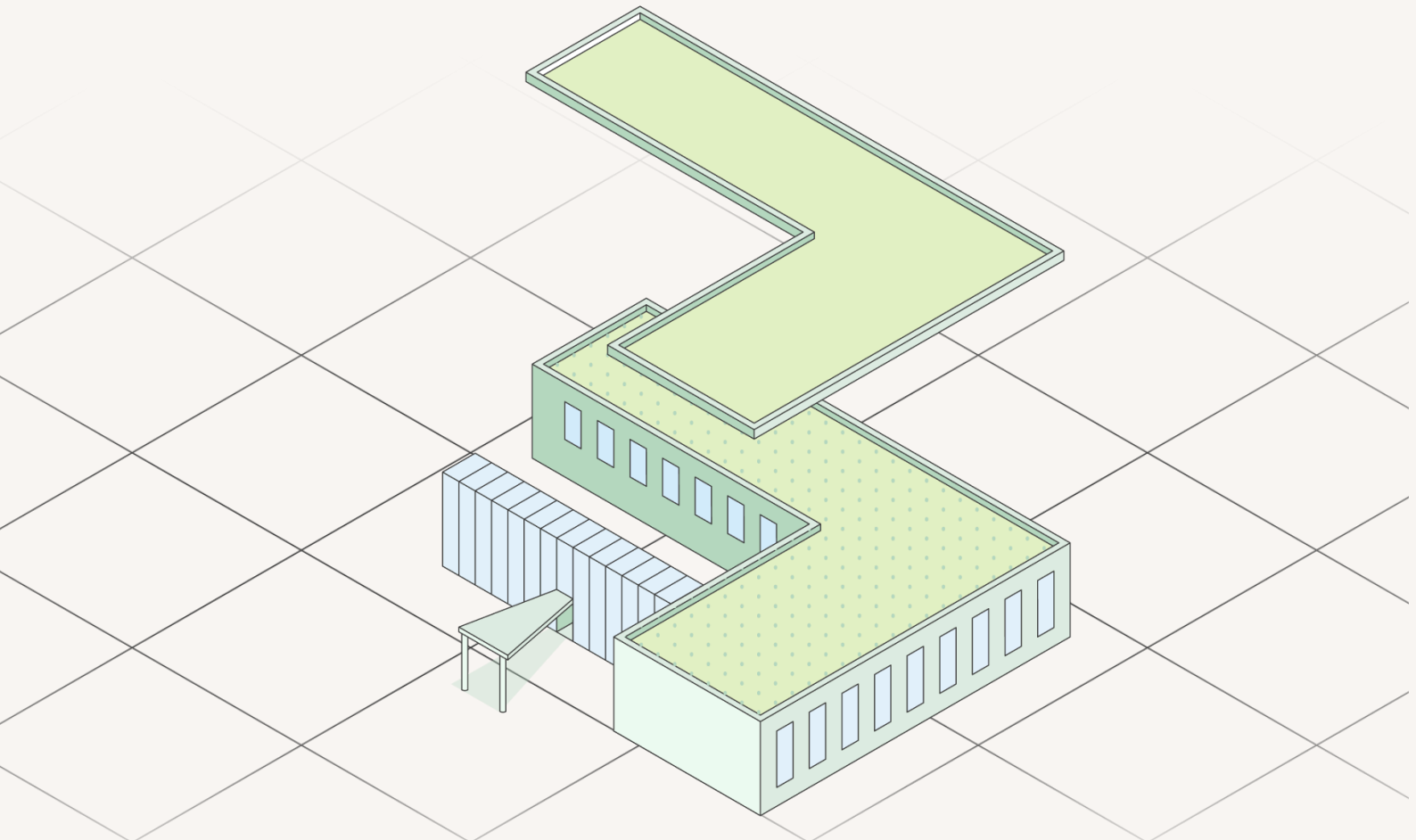
Furthermore, when installing a sensor with extensions, we recommend mounting the sensor with a nylon wire screw mount cable tie, so that the sensor will stay in place.



This can be useful if the extension is measuring in a CLT roof element from below or if the sensor casing needs to be attached to a column, while the wood moisture reading is elsewhere.

Register

While on site



Register

Same steps for all kinds of sensors

Scan the QR code with the phone's camera and follow setup instructions:

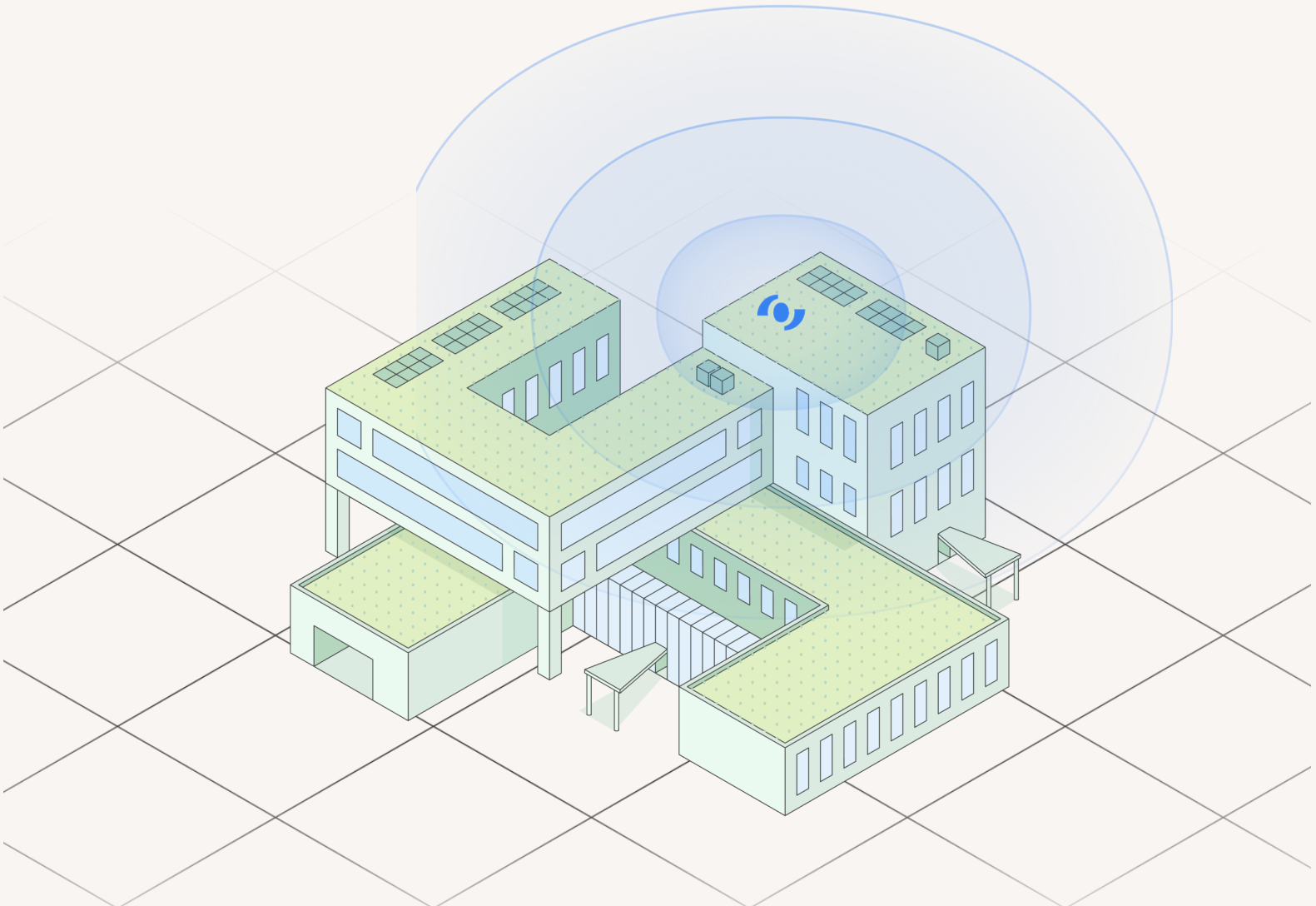
- Fill out location details
- Upload 2 photos. One from up close and one from +2 m away
- Fill out **Placement** and **Climate** tags or copy from previously installed sensors
- Add additional notes if necessary

Note down the sensor's placement and ID on a physical blueprint, so that you can attach the right sensors to the right place on the digital blueprint in the platform on your computer afterwards.

Repeat until all sensors are registered.

Finalise

Post-installation



Finalise

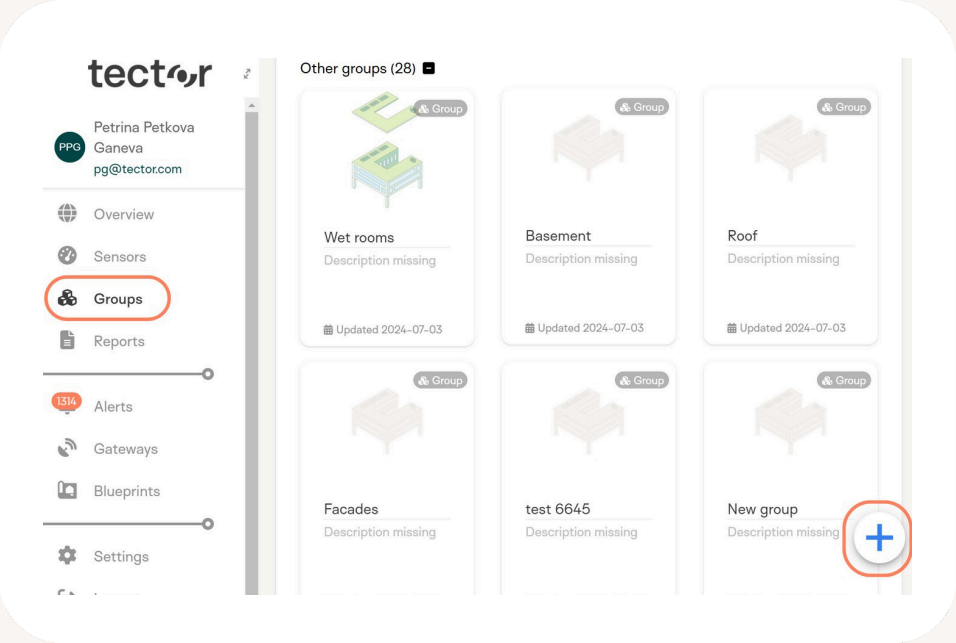
Create groups

When your order is finalised and sent, all sensors will be placed in one project group. For better overview and in order to compare sensor readings more efficiently, we recommend you divide the sensors into different groups. You can choose your own structure. For example, you can divide groups into different buildings, or different floors or areas such as Facades, Roof, Basement, Wet Rooms. It can be beneficial to divide the groups based on the blueprints you want to upload.

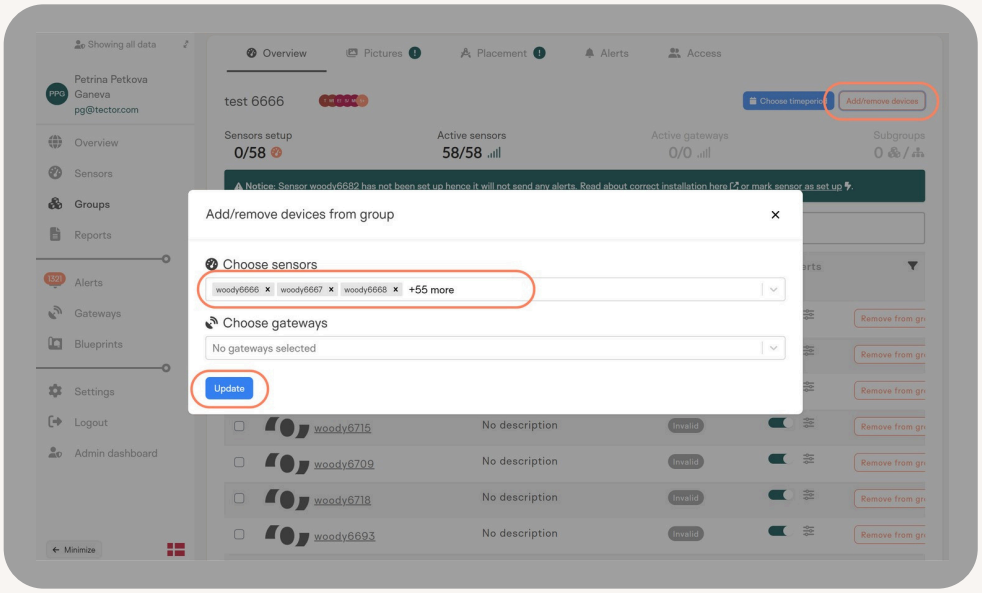
To create a group use one of the following methods.

Option 1:

- Go to **Groups** in the sidebar
- Press the + icon to create a group

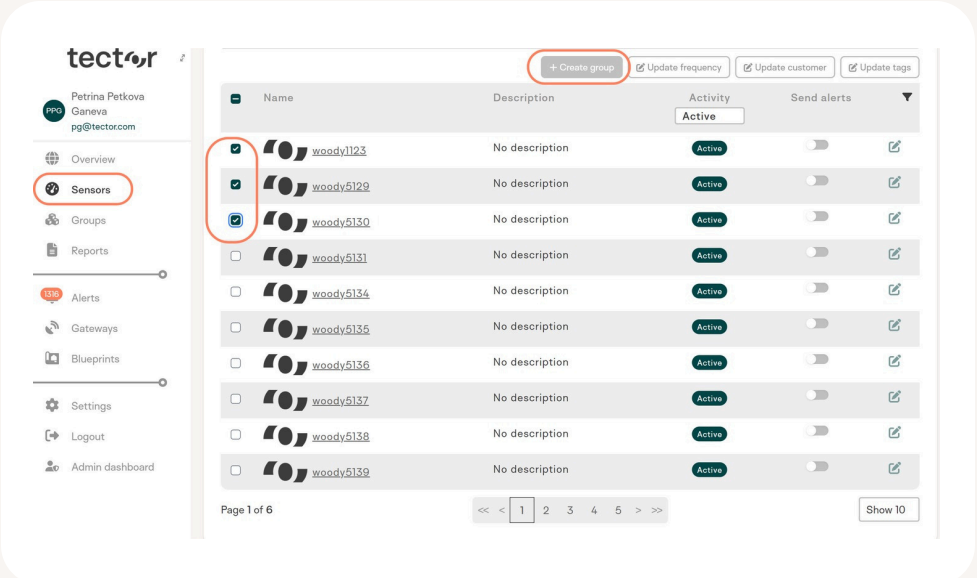


- Fill out details and confirm
- Press the **Add/remove devices** button in the top right corner
- Fill out sensor IDs you want to add and press **Update**



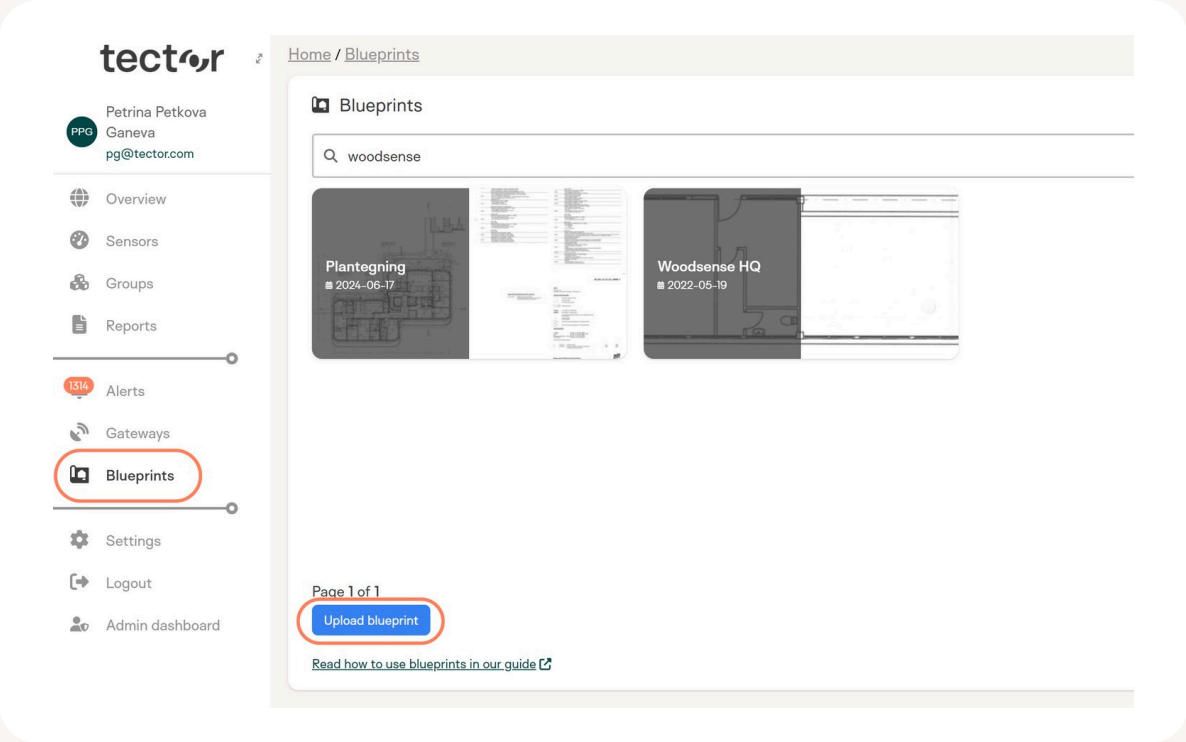
Option 2:

- Go to **Sensors** in the sidebar
- Check the checkboxes of the desired sensors in the list view
- Press the **Create group** button



Upload blueprint and attach sensors

The blueprint itself must consist of a single image file that can be selected from the user's computer/mobile and must be of the jpg, png, bmp, or heic file format. If the blueprint is uploaded as a pdf, the blueprint must appear on the first page of the file.



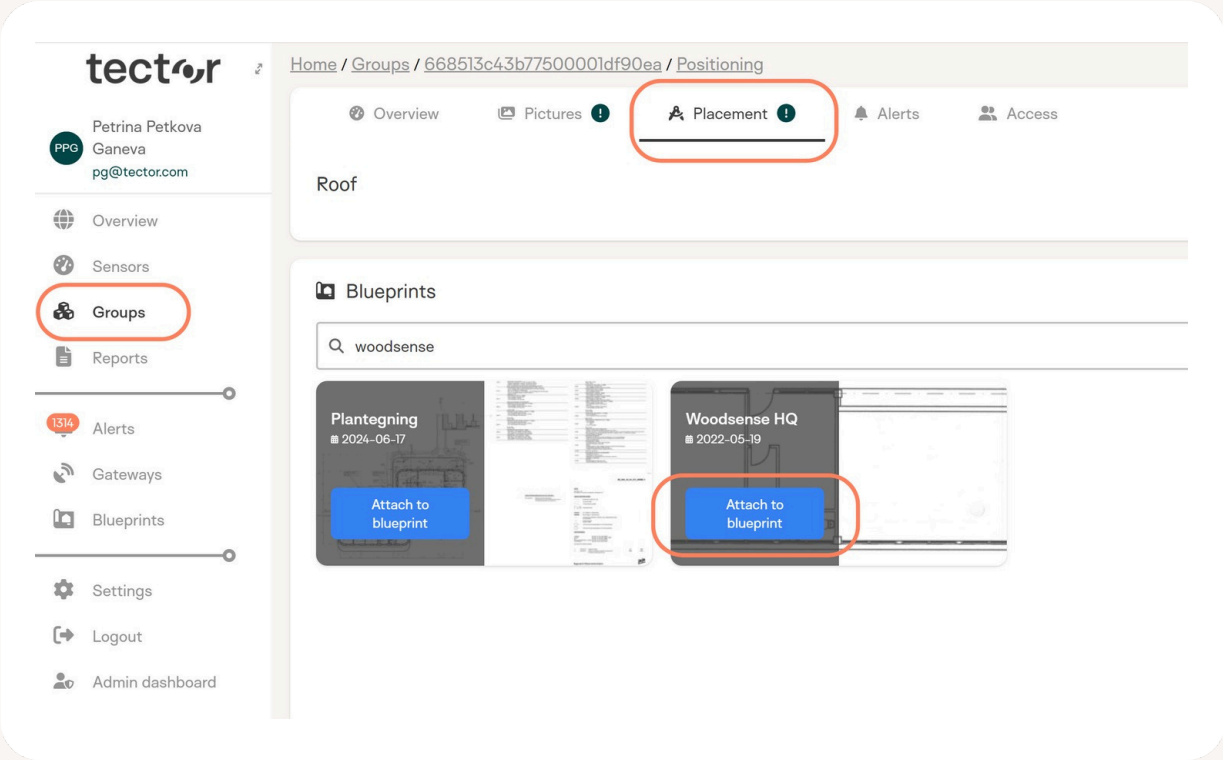
- Go to **Blueprints** in the sidebar
- Press **Upload blueprint**
- Fill out details and description and press **Upload blueprint**

To add sensors to the blueprint, you have 2 options:

- Option 1: Attach the blueprint to a group and add sensors from there.
- Option 2: Add sensors directly to the blueprint under the Blueprints page.

We recommend Option 1:

1. Go to **Groups** in the sidebar
2. Click the desired group
3. Go to the **Placement** tab
4. Find the uploaded blueprint and press **Attach to blueprint.** Multiple blueprints can be attached to the same group.

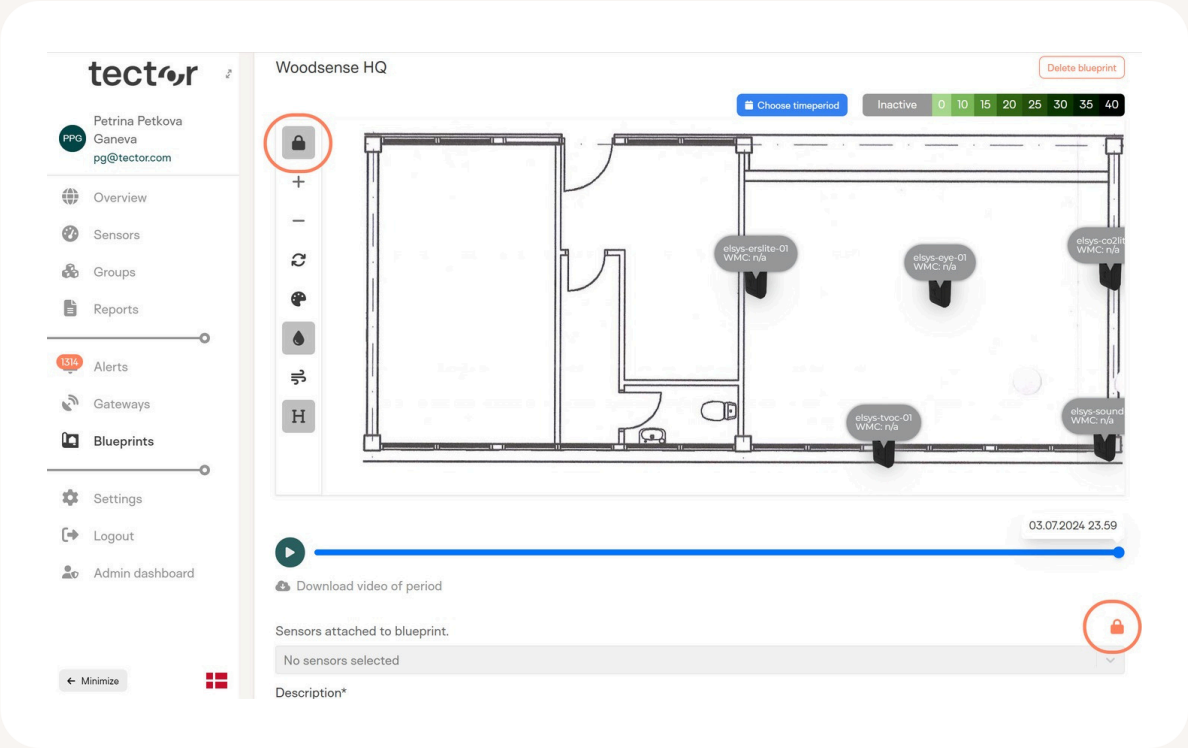


5. Unlock the **Sensors attached** field by pressing the **lock icon** right above the field. This enables you to add or remove sensors.

6. Unlock the blueprint by pressing the **lock icon** in the blueprint field. This enables you to:

- Add sensors onto the blueprint,
- move sensors around or
- remove them.

7. Drag and drop the sensor icons from the list below the blueprint onto the desired location on the blueprint.



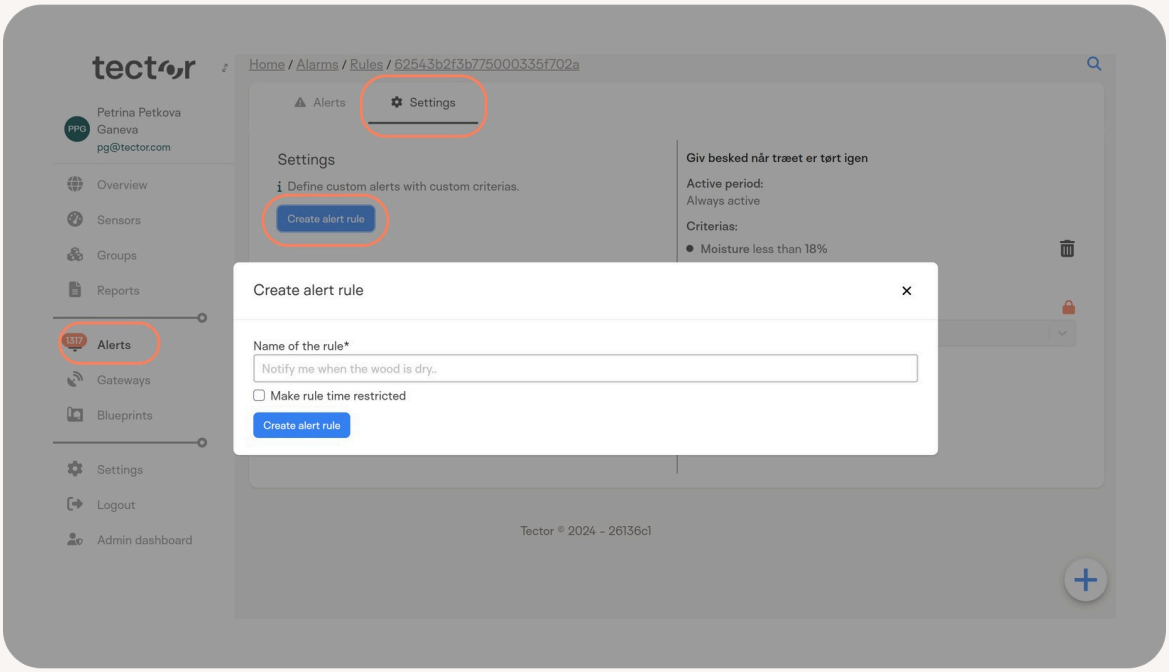
Set up custom alerts

Tector alert "rules" are enabled by default, but the alerts are disabled until the sensors are set up correctly. Therefore, make sure you have completed the registration process described on page 14 to get the most out of the alert system.

To set up additional custom alerts:

- Go to **Alerts** in the sidebar
- Go to the **Settings** tab
- Press **Create alert rule**
- Fill out details and confirm

- Click on the created alert rule and press on the **Add criteria** button on the right.
- Fill out details and confirm

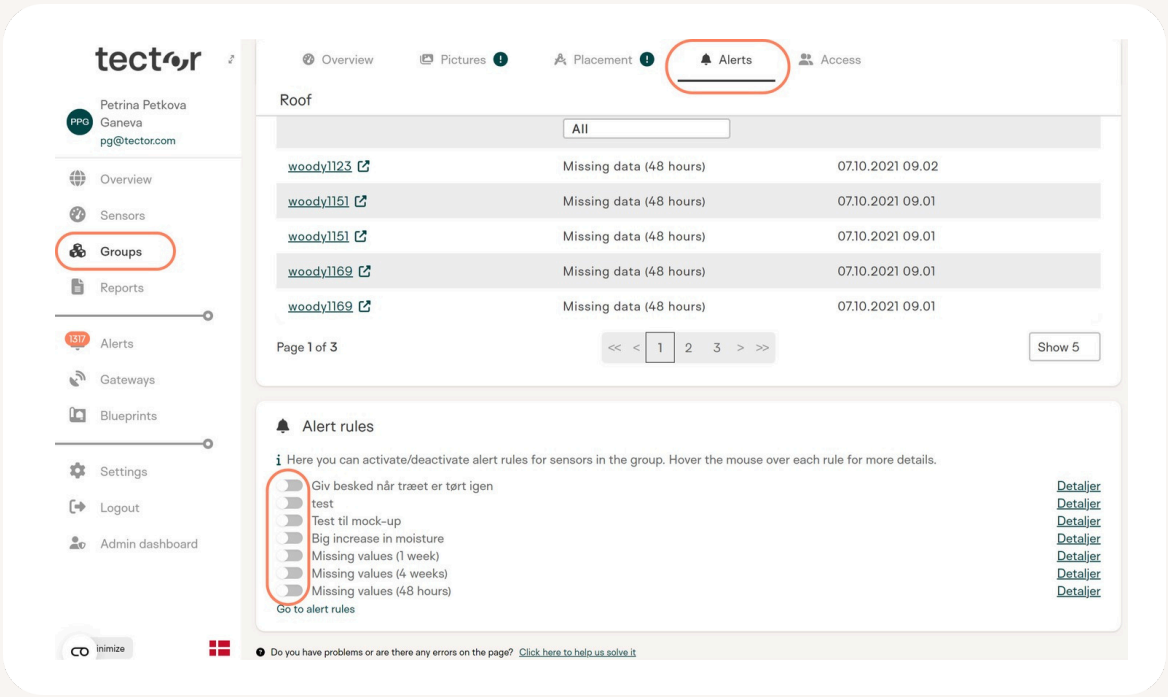


Now you have 3 options to add the created alert rule to specific sensors.

For adding many alert rules, **we recommend option 1.**

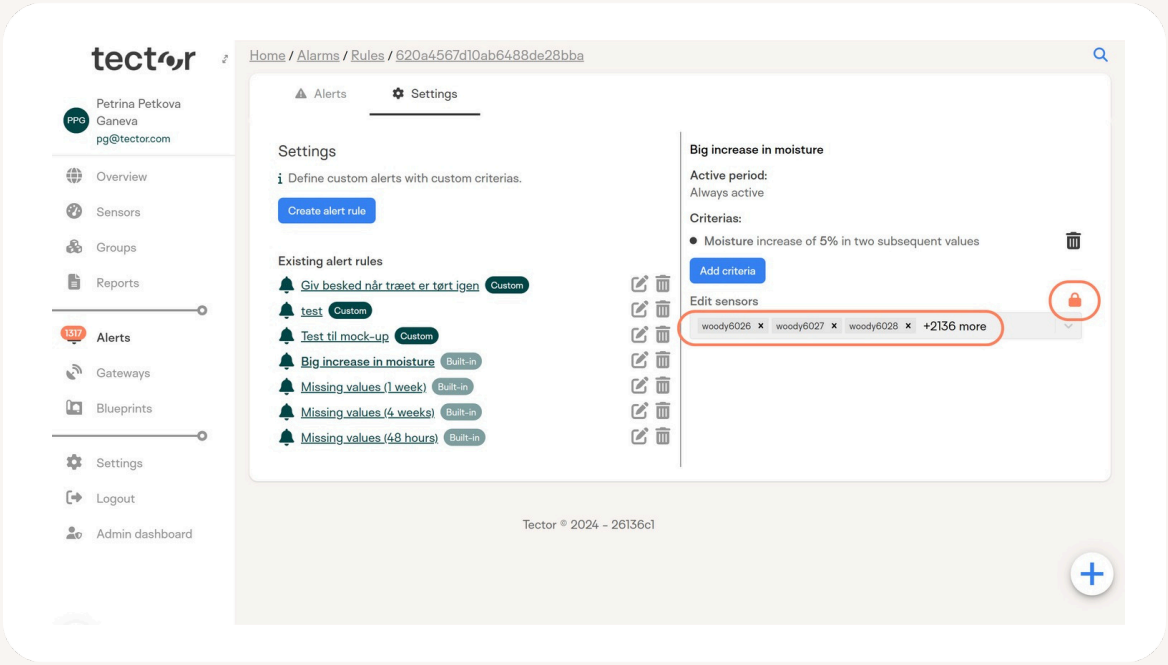
Option 1: Add alert rule to chosen sensors on the group page.

- Go to **Groups** in the sidebar
- Click the desired group
- Go to **Alerts** tab
- Scroll down and toggle the chosen alerts on to all sensors in the group at once



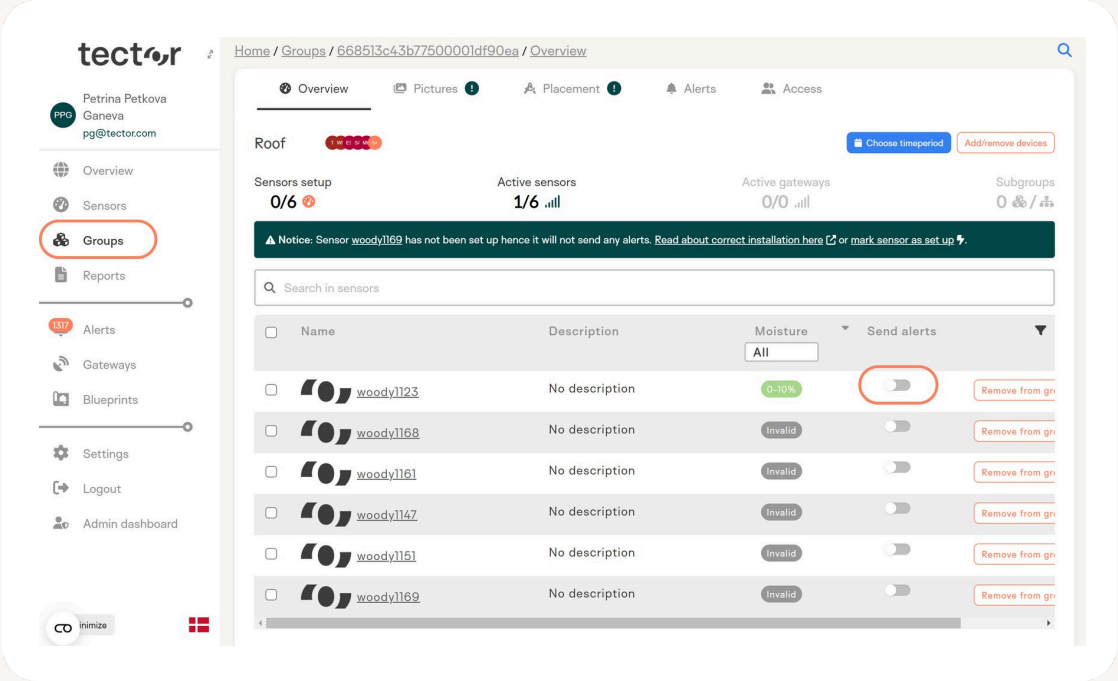
Option 2: Add alert to chosen sensors on the alert page.

- Press the lock icon to unlock it
- Add sensors from the drop-down menu



Option 3: Add alert to chosen sensors in the list view.

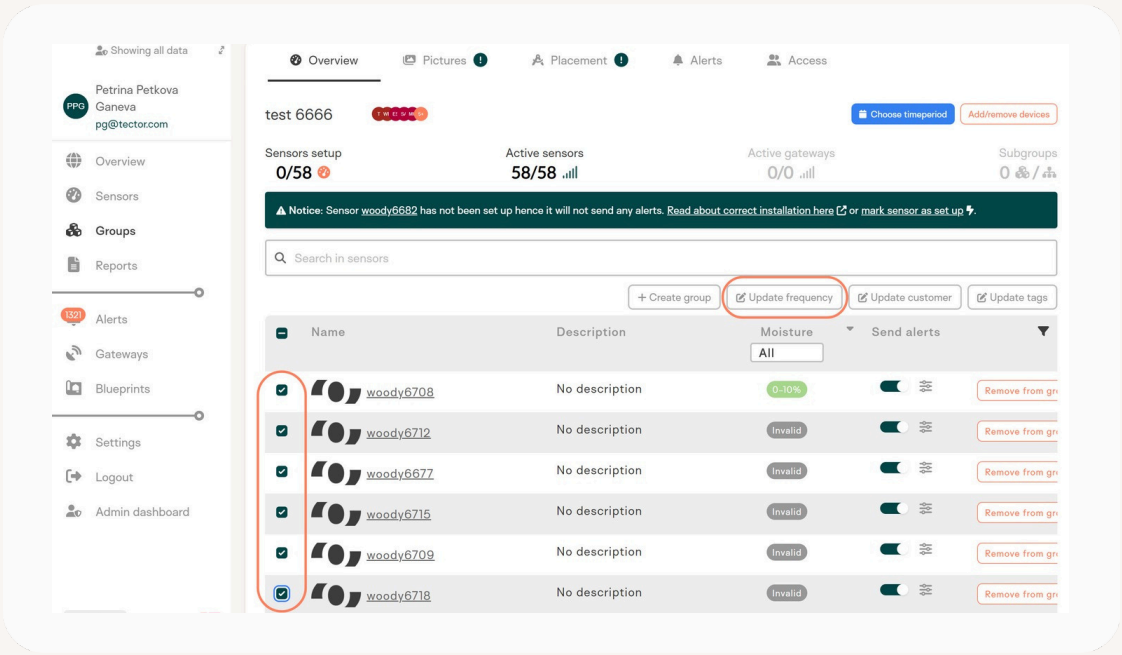
- Go to **Groups** or **Sensors** in the sidebar
- Click the desired group (If on **Sensors**, skip this step).
- Toggle the **Send alert** switch on.
- Press the filter icon to choose the desired custom alerts for the sensor.



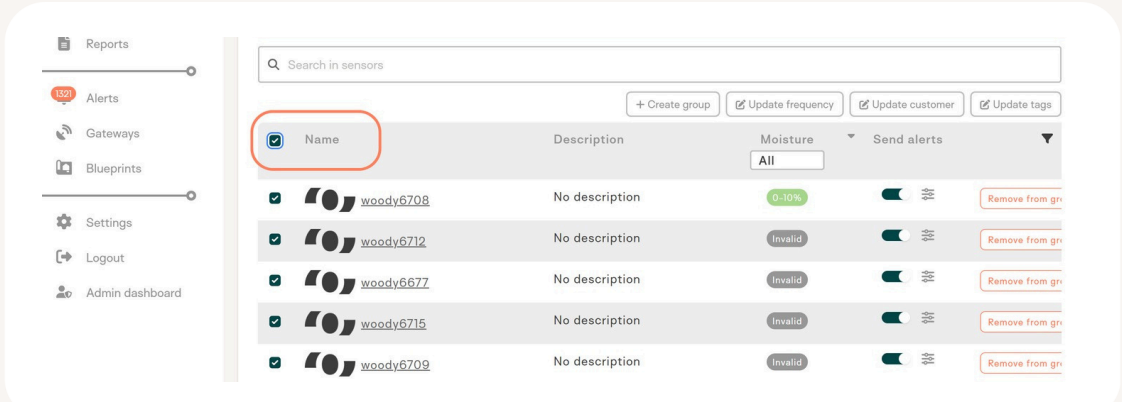
Refine

Bulk update tag or transmission frequency.

- Go to **Groups** in the sidebar
- Check the checkboxes of the desired sensors
- Press the **Update frequency/Update tags** button that appears
- Fill out details and confirm



Tip: Press the **Show 10** dropdown field underneath the list to choose the number of sensors shown on the page. Press the checkbox in the top-left corner to select all rows in the table including the ones on the other pages in order to make bulk edits.



Other tips

- Go to **Groups** in the sidebar and select your project group
- Press the **Column** icon in the right of the header of the table
- Check the **All** checkbox

From there you can quickly see how your sensors are registered and get a good overview.

In the table you can press the description field to quickly edit it.