TruBlu
Commissioning

Quick Start Guide

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Introduction

This guide will help you go through the commissioning of a Bluetooth mesh based lighting system:

- Prepare the project for on-site commissioning: set up lighting control and pre-commission each zone in your project using the TruBlu web app.
- Add lighting devices to each zone on-site and upload pre-commissioned configurations automatically using the TruBlu mobile app.
- Calibrate sensors.
- Test lighting control in the project.

TruBlu Commissioning

A set of software tools for the commissioning and management of commercial lighting installations. TruBlu Commissioning is based on qualified Bluetooth mesh technology. It consists of two apps: the TruBlu web application[1] and the TruBlu mobile app[2] (iOS only, available on the App store).

Two-stage Commissioning process

TruBlu Commissioning divides the commissioning process into 2 stages: Planning using the TruBlu web app and Implementation using the TruBlu mobile app (see Fig. 1).
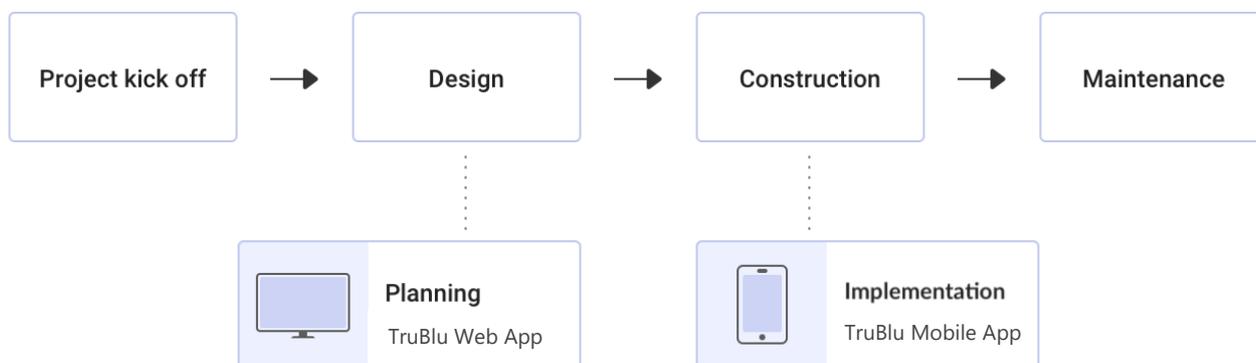

Fig.1 - Project stages

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[1] To start using the TruBlu web app, create an account. The app requires Chrome v. 70 and an internet connection.

[2] The TruBlu mobile app requires an iOS device with iOS 12+ and Bluetooth enabled, as well as an internet connection (WiFi or cellular).

To manage your lighting installations, TruBlu offers two applications:

1 - PLANNING STAGE: TRUBLU WEB APP	2 - IMPLEMENTATION STAGE: TRUBLU MOBILE APP
Prepare your commissioning plan off site, before anything is built on site, by mapping the individual zones on a floorplan and defining lighting control profiles. The TruBlu web app allows you to implement more advanced features like **zone linking,** or **scheduling**. → https://trublu.mcwonginc.net/#/access/login	Once the installation is in place, add the installed devices to the zones you set up earlier and automatically upload the configuration so they work in the way you defined during the planning stage. → McWong TruBlu™ on the App Store (apple.com)

NOTE: Once you have commissioned the site, if you adjust the settings in the project using the web app (e.g. any of the profile settings), you will have to use the mobile app to transfer these changes into the devices on site.
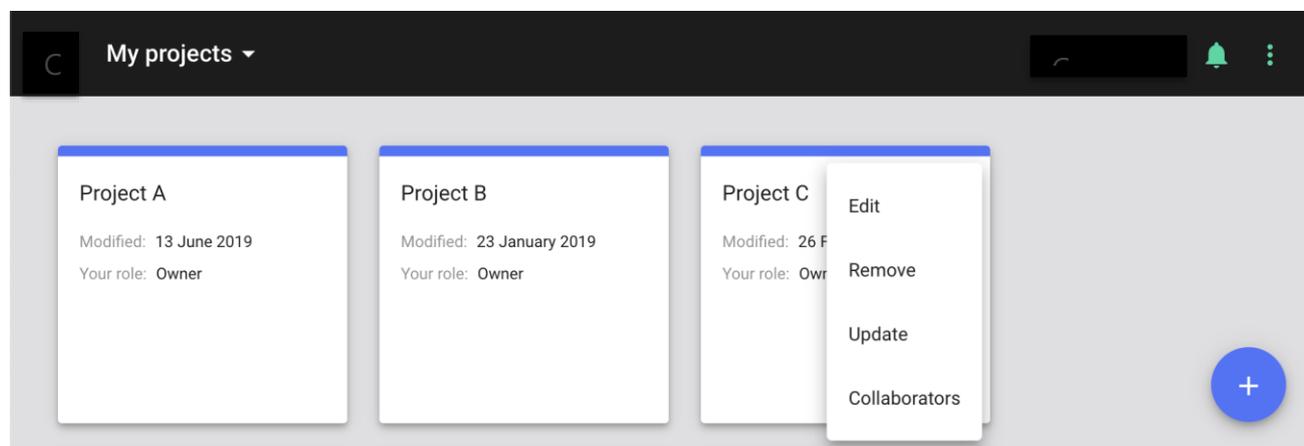
1 - PLANNING STAGE: TRUBLU WEB APP

BEFORE YOU START

Please make sure you've got everything you need:

- A TruBlu account (register via the TruBlu web app or TruBlu mobile app).
- A floor or a site plan (as a png or jpg image file).
- Determined lighting control behaviour for your project.
- If your project is going to have over 150 devices, follow the guidelines in [SN-213 Large lighting installations](#) application note.

STEP 1. Create a project

Projects represent the lighting project and may be as large as a whole building, multiple smaller buildings of a campus or as small as a single room. Each project is a single Bluetooth mesh network.

➔ Click the ⊕ button to Create a new project.

STEP 2. Add Collaborators

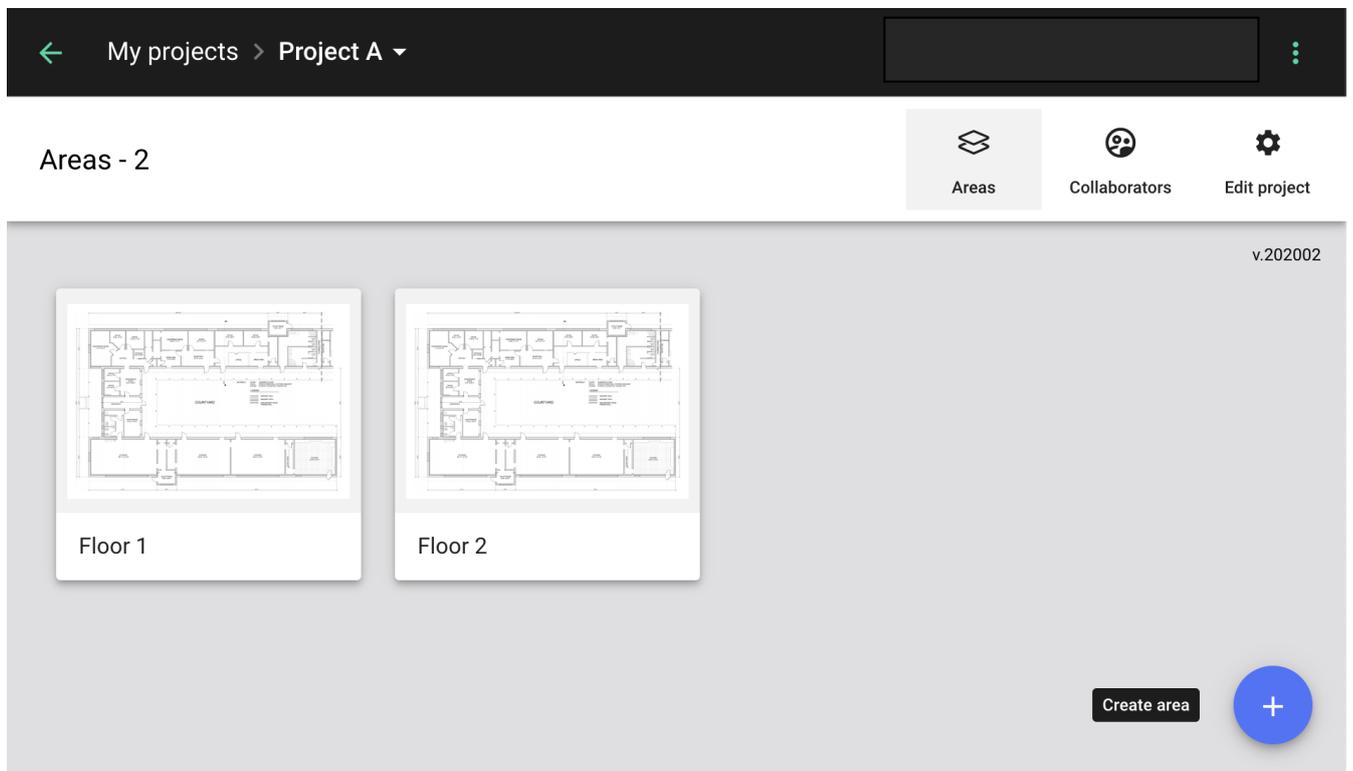To accelerate commissioning, you can share your project with others and let them participate in the process. They can be given the appropriate role of Owner, Manager, Installer or End User.

➜   Open the project.

➜   Click the **Collaborators** tab and then click button to send invitations to all contributors who should be involved.
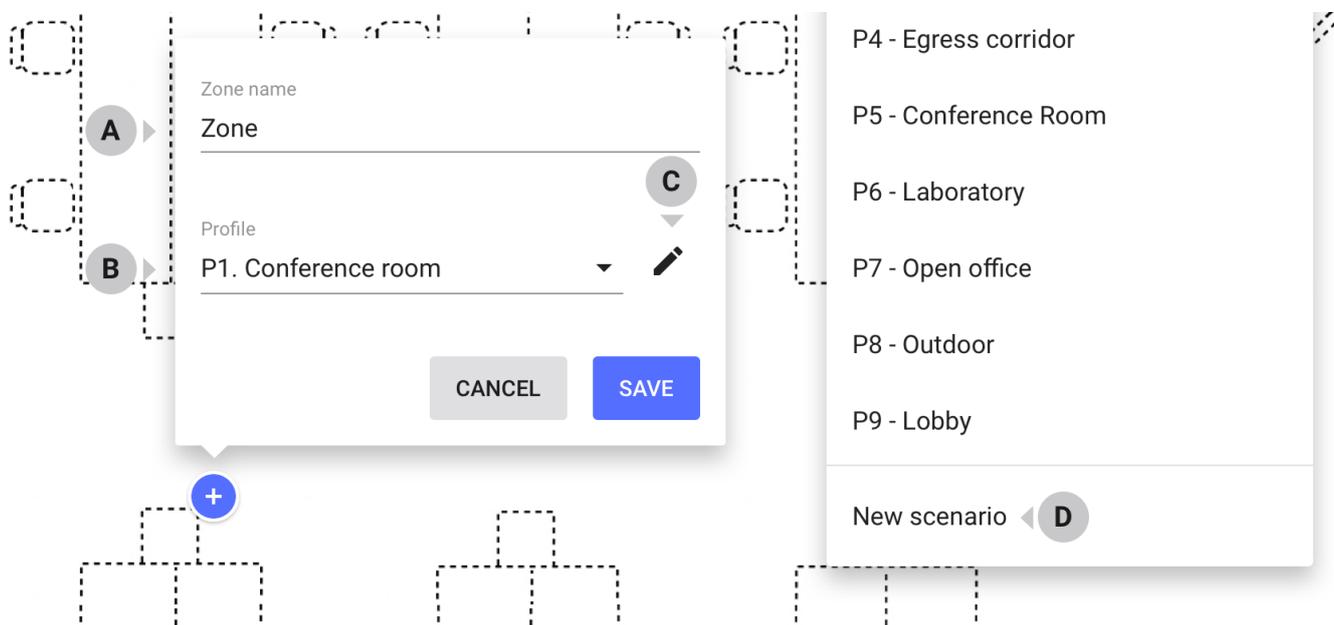
STEP 3. Create areas and upload floor plans

Projects are split into smaller areas for better clarity and easier navigation. Area may represent a single level of a building, a part of if or one of multiple smaller buildings of a campus. There can be more than one area in a project (e.g. each floor in a building is a separate area). Areas include a floor plan which helps the user to navigate through commissioning, monitoring and maintenance of a project.

➜ Click the [+] button to add a new Area. You may upload a floor plan (optional, jpg or png files) to help users easier locate zones during commissioning.

HINT: Find out more about user roles in the *TruBlu Commissioning User Manual* which can be found in the website

STEP 4. Add lighting zones and define control profiles

Zone name

Zone

Profile

P1. Conference room

CANCEL   SAVE

A

B

C

P4 - Egress corridor

P5 - Conference Room

P6 - Laboratory

P7 - Open office

P8 - Outdoor

P9 - Lobby

New scenario   D

A zone is a group of devices which operate in the same way, as defined by the lighting control profile. A zone doesn't have to be a physical space (e.g. a room), as a room may contain one or more zones (e.g. multiple daylight harvesting zones). More than one zone can be added to the same plan.
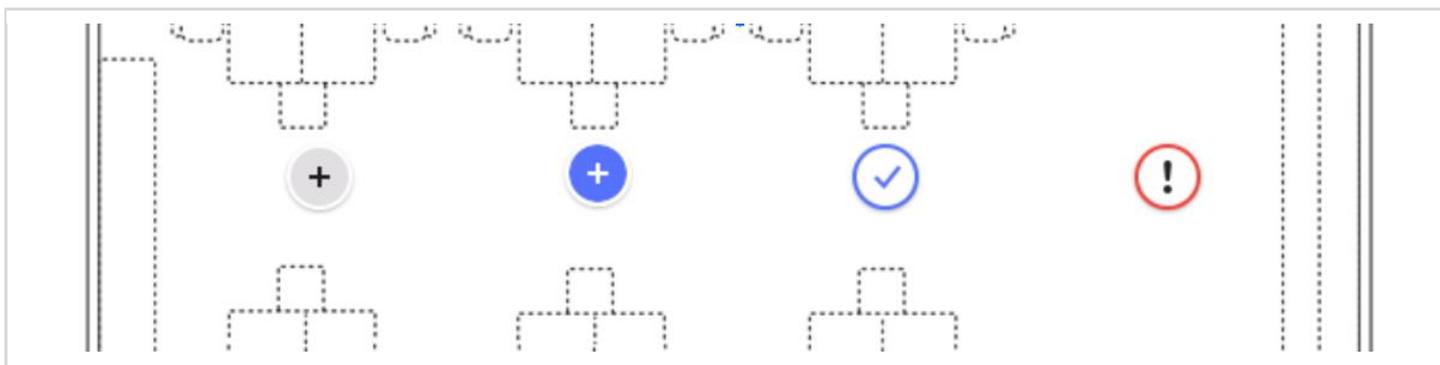
➜ **Click the floor plan** where you want to add a zone. You can later move them.

➜ Enter the zone name. Each change is saved automatically.

➜ Select **Control profile.**

A control profile is a set of lighting behaviour settings. Currently we allow you to select from 7 predefined control profiles. You must select one for the zone to function. You can use one profile in multiple zones across the projects.

➜ **(optional) Customize a profile.** Each profile can be customized for the needs of your project.

➔ **(optional) Create a new profile**. Expand the list of profiles (**B**) and select "New profile" from the Profiles dropdown. A new profile panel will open.

HINT: Find read more about lighting control scenarios in the *TruBlu Commissioning User Manual* and *SN-211 TruBlu lighting control* which can be found in the website

When you create a zone, it is marked on the plan with a circle indicator. There are 4 different zone indicators that reflect the status of the zone:

DRAFT: the zone is created, but it does not have an assigned profile. Select a profile for the zone.

READY TO BE COMMISSIONED: the zone has been assigned a profile, but no devices have been added yet. Send someone to site to commission the zone.

COMMISSIONED: devices in the zone have been successfully commissioned using the TruBlu mobile app.

WARNING: this indicator appears when the zone has been commissioned but has some issues, e.g. requires reconfiguration when settings were changed in the web or mobile app but have not yet been transferred to the devices, daylight control has not been calibrated, etc.

DONE. Your planning is complete and your project is ready for on site commissioning!

You should now have a plan with defined zones and profiles. Now that you have completed the planning stage you can progress to the Implementation Stage.

Remember: You can always come back and change the zone position, name or profile, add or delete zones, or change the floor plan images.

HINT: The TruBlu web app allows you to implement more advanced features like **zone linking,** or **scheduling**. Find out more in the *TruBlu Commissioning User Manual* as well as *SN-201: Application Note: Scheduling* which can be found in the website or request the documents from your TruBlu business development team contact.

2 - IMPLEMENTATION STAGE: TRUBLU MOBILE APP

BEFORE YOU START

Please make sure you've got everything you need:

- Your installation is ready for commissioning: all required devices are running qualified Bluetooth mesh, are properly installed and powered on.

- You have installed the TruBlu mobile app on your iOS device. You have a TruBlu Commissioning account and access to the project in the TruBlu Commissioning apps.

- When you are on site, you have internet access (WiFi or cellular) and Bluetooth enabled on your mobile device.

- (optional) Light meter if any of the zones use daylight harvesting.

- (optional) EnOcean Bluetooth switches mounted in the zones that you will commission.

  HINT: Installation of an EnOcean Bluetooth switch requires a QR code which is usually printed on or inside the switch, or on its packaging. Make sure to keep this QR code in a safe place as it may be necessary if you wish to reconfigure your installation at a later date.
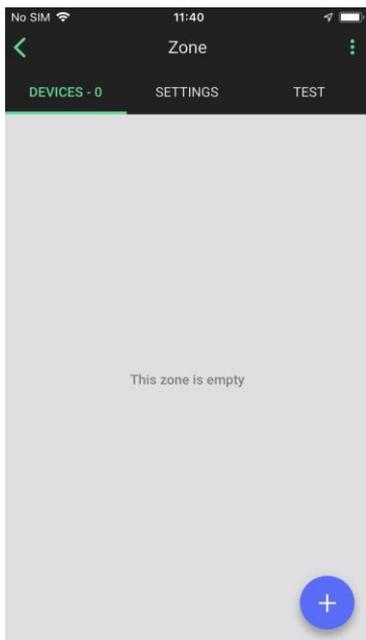
STEP 1. Go on-site to the place where your devices are physically installed

The project you created earlier in the TruBlu web app will be accessible on your TruBlu mobile iOS app. Make sure that the devices in the zone you wish to commission are powered on. You need to be within range (approximately 150 feet or 15m) of a device to commission it.
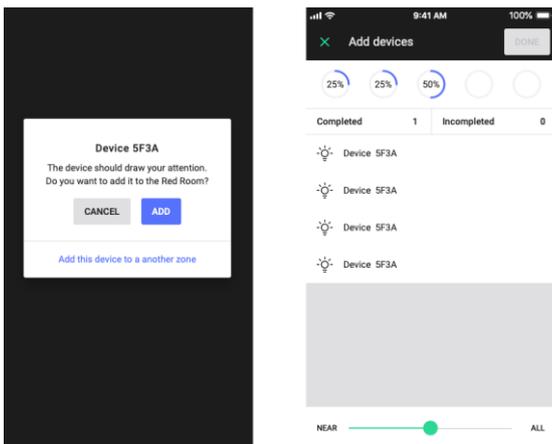
STEP 2. Open the TruBlu mobile app

➔ Open the TruBlu mobile app on your iOS device. Select: project → area → and the zone that represents your current location.
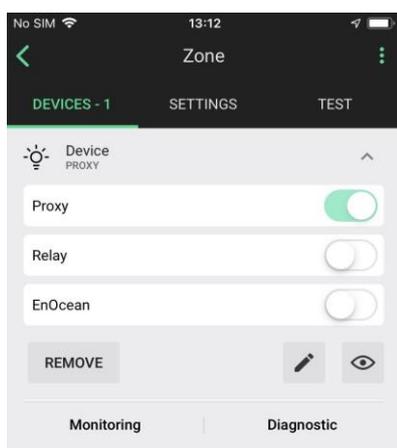
STEP 3. Add devices

➔ Press ⊕ at the bottom of the screen to add devices.

➔ A list of devices will appear. Selecting one will force it to identify itself by flashing. If this is the right device for the zone, select 'Add'. If not, move on to the next device.

➔ Move the **slider** to the left to manage the number of displayed devices. This will narrow the list to the nearest devices only (by signal strength).

➔ You can add devices to zones other than the one you are currently commissioning. Select **Add this device to another zone** and then choose the desired zone from the floor plan.

STEP 4. (optional) Add an EnOcean Bluetooth switch

You can control the lights in a zone via an EnOcean Bluetooth switch by setting up one of the devices in the zone to act as an EnOcean adapter

→ From the DEVICES tab, select one of the devices already added to the zone to be the EnOcean adapter (we recommend choosing the nearest one).

→ Expand the device attributes and switch the **EnOcean** toggle to the right.

→ The mobile device camera will be switched on automatically. Use it to scan the QR code included with the EnOcean switch.

After enabling the EnOcean switch - test it. It will now control the zone.

Left rocker is used for manual control and dimming:

● Short press down - OFF

● Short press up - AUTO/ON

● Long press down - Dim Down

● Long press up - Dim Up

Right rocker is used to trigger scenes and control color temperature (if available), scenes must be configured:

● Short press down - Scene B (if configured)

● Short press up - Scene A (if configured)

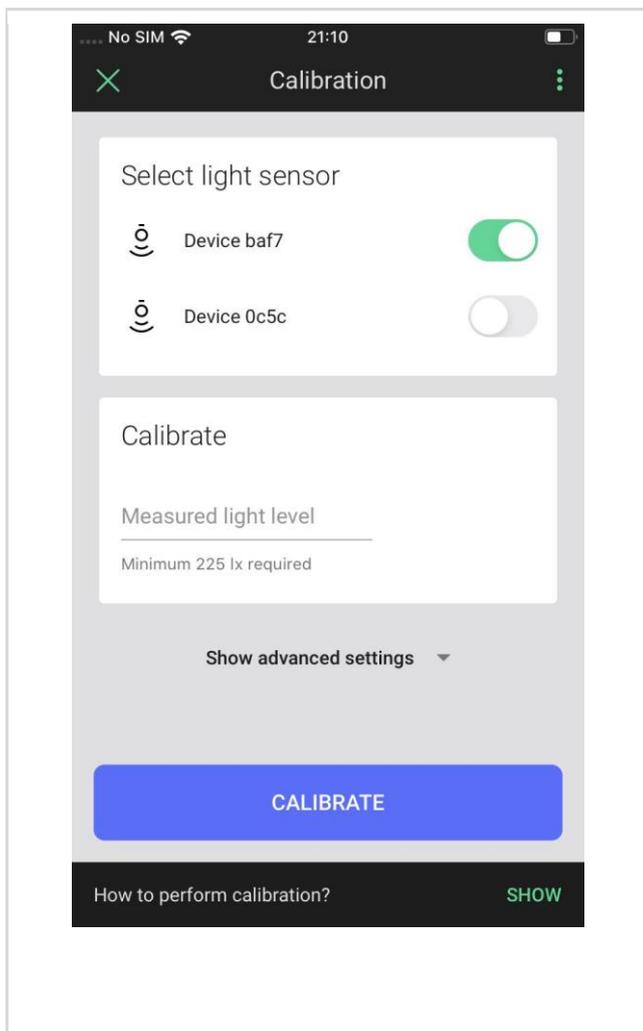|	- Long press down - Warmer (if available) - Long press up - Colder (if available)

HINT: For more information on EnOcean switch settings (*SN-203: Application note EnOcean switch*).
Read more about how to set up scenes to be activated via the EnOcean switch in our *TruBlu Commissioning User Manual.* See also Mesh Network Settings (*SN-202: Application note Network Settings*) for best practices.

STEP 5. (optional) **Calibrate light sensors**

For zones utilizing the "**Daylight Harvesting**" and **"Photocell"** scenarios, you **must perform sensor and controller calibration** for each zone. Not doing so will result in erratic lighting control performance.

You will need a light meter to perform calibration.

HINT: You can easily check the scenario selected for a zone in the TruBlu mobile app by selecting project → area → zone → settings.
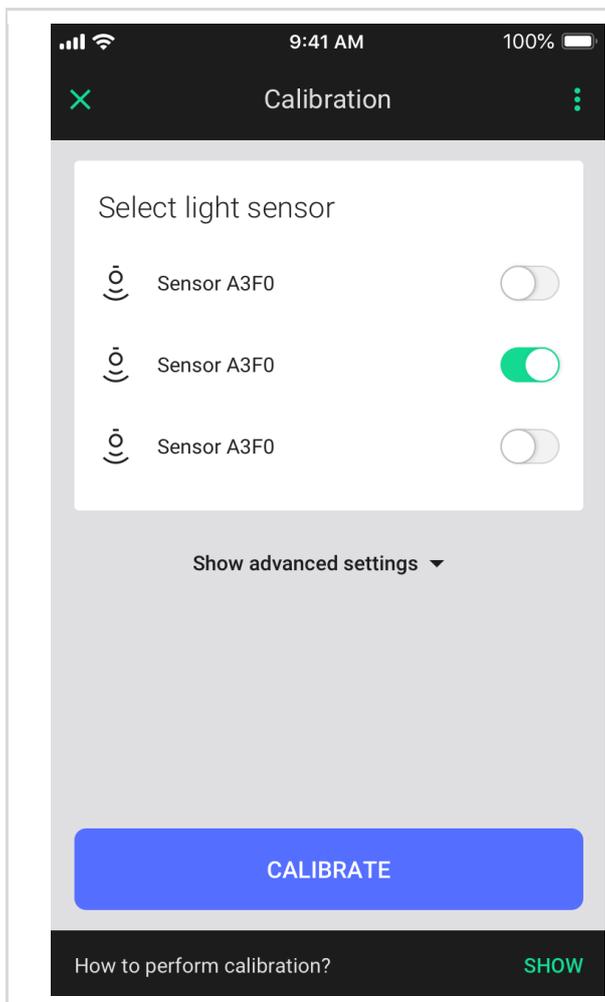
Daylight harvesting calibration:

➜ Open the zone **SETTINGS**

➜ Select **CALIBRATE**

➜ Place a light meter on a surface where you want to maintain the desired light level.

➜ Enter the value from the light meter into the **Measured light value** field.

➜ Press **CALIBRATE button**

HINT: Make sure to have daylight level above the required minimum (it's displayed below the measured light level input field). If it's impossible, adjust the light level in the advanced settings below.

Read more information about Daylight harvesting in the *SN-209 Daylight harvesting application note* available on our website.

	9:41 AM	100%
✕	Calibration	⋮

Select light sensor

⊙ Sensor A3F0 ⚪

⊙ Sensor A3F0 🟢

⊙ Sensor A3F0 ⚪

Show advanced settings ▼

CALIBRATE
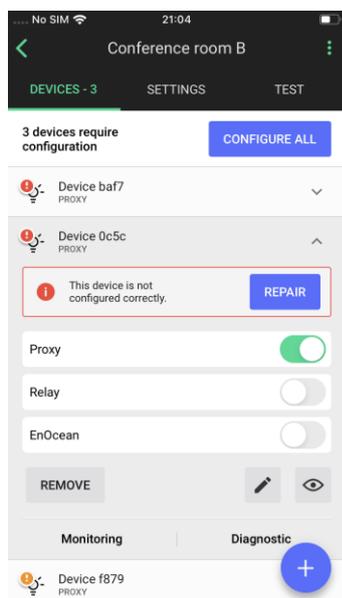
How to perform calibration?　　　SHOW

Photocell calibration:

➔ Open the zone **SETTINGS**

➔ Select **CALIBRATE**

➔ Select the light sensor (switch the toggle next to the light sensor to the right).

➔ Confirm by pressing **CALIBRATE** button. Calibration of the light sensor will start immediately.

➔ If you have issues with the accuracy of light sensor you may use the calibrate section in the advanced settings
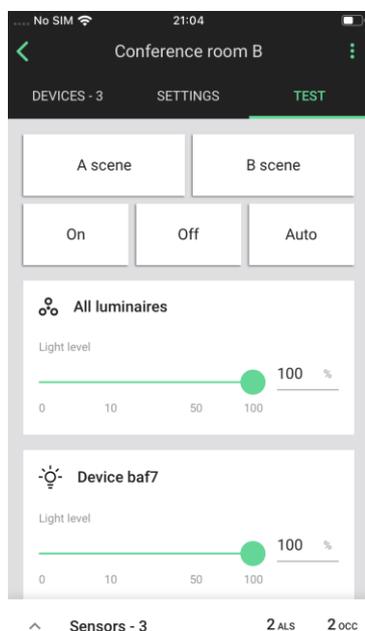
STEP 6. Test your zone!

To be sure that everything works correctly, perform the following steps:

➜ Open DEVICES tab in the selected zone

➜ Check if any of the devices have error or warning indicators on the list of devices and follow the instructions or refer to the User manual.

HINT: If the warning icon appears due to the lack of configuration select the zone and press the **CONFIGURE ALL** button. The devices added to the zone should be automatically configured one-by-one.

➜ Press the EnOcean switch and check if the behaviour of the lights in the zone is correct.

➜ Open the TEST tab in the selected zone and choose the test that you wish to run. The luminaries should react to the test actions appropriately

For more information on the TEST tab, see the *TruBlu Commissioning User Manual* available on our website.
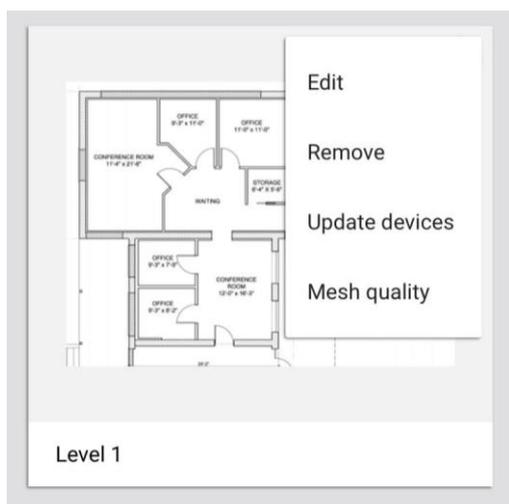
DONE. Your zone is now commissioned!

The lighting devices in your zones will behave according to the predefined profiles.

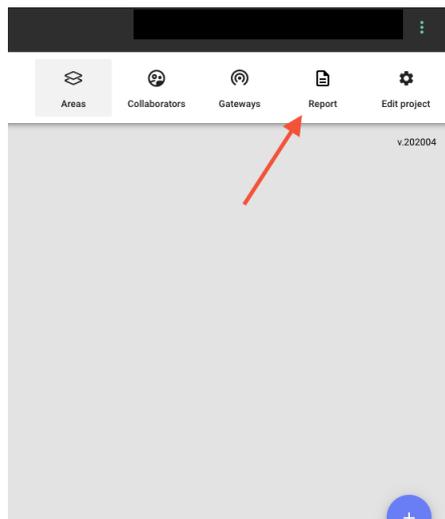# 3 - QUICK CHECK BEFORE YOU FINISH

Check the zone status

➔ The commissioned zone and all zones in the project should have the blue check indicator displayed on the plan

➔ The warning icon indicates that there are some issues in the zone. Enter the zone, read the errors, follow the instructions or read the *TruBlu Commissioning User Manual*.

Check mesh network connection quality

➔ In the areas list press the ⋮ context menu and select **MESH QUALITY**

➔ Press the **START TEST** button.

➔ Check the results of the test. If there are any red circles next to the zone's names, please follow the guidelines from the *SN-202: Application note Network Settings* available on our website

Download commissioning report

➔ Select the project for which you want to download the report.

➔ Tap **Report** button.

➔ Confirm by pressing **DOWNLOAD** button.

➔ The report is downloaded in pdf format and includes key details of the current state of the project.

For more information on the report see the *TruBlu Commissioning User Manual* available on our website

DONE. Your project is now commissioned!

The implementation phase is now complete.

Contact Information

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