# LIGHTING SOLUTIONS

# Blu2Light

## Operating Manual  LiNA Connect / LiNA Touch

**Programming the Blu2Light System**

Using LiNA Connect

**Operating the Blu2Light System**

Using LiNA Touch

# TABLE OF CONTENTS

# 1 GENERAL NOTES

Thank you for choosing the Vossloh-Schwabe Blu2Light system. Prior to using the product, please read this operating manual to familiarise yourself with the system's functions.

Any person tasked with system setup, commissioning, operation, maintenance and repair must be

- suitably qualified and
- closely observe the provisions of this operating manual.

## 1.1 Legal notice

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## 1.2 DOWNLOADING THE APP

Both apps are available as iOS and Android versions in the respective app stores.

<table>
<tr><td></td><td>LINA Touch</td><td>LINA Connect</td></tr>
</table>

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## 2 PREPERATION

Make sure that all your Blu2Light nodes are powered and that the QR codes of the nodes are ready, for example stuck on your floor plan!
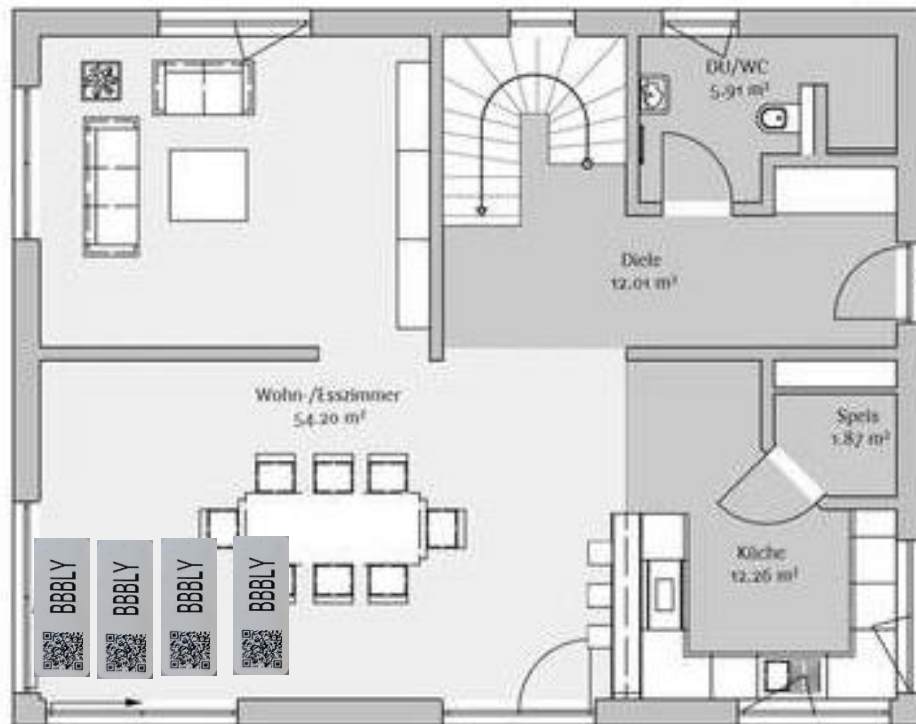


Figure 1

LIGHTING SOLUTIONS

## 3 HOW TO CREATE A SIMPLE SYSTEM

Open the LiNA Connect app and click on the (+) in the lower right corner to create a project, then name your project and create a system with the same procedure. Now scan the desired QR code by pressing the (+) again!
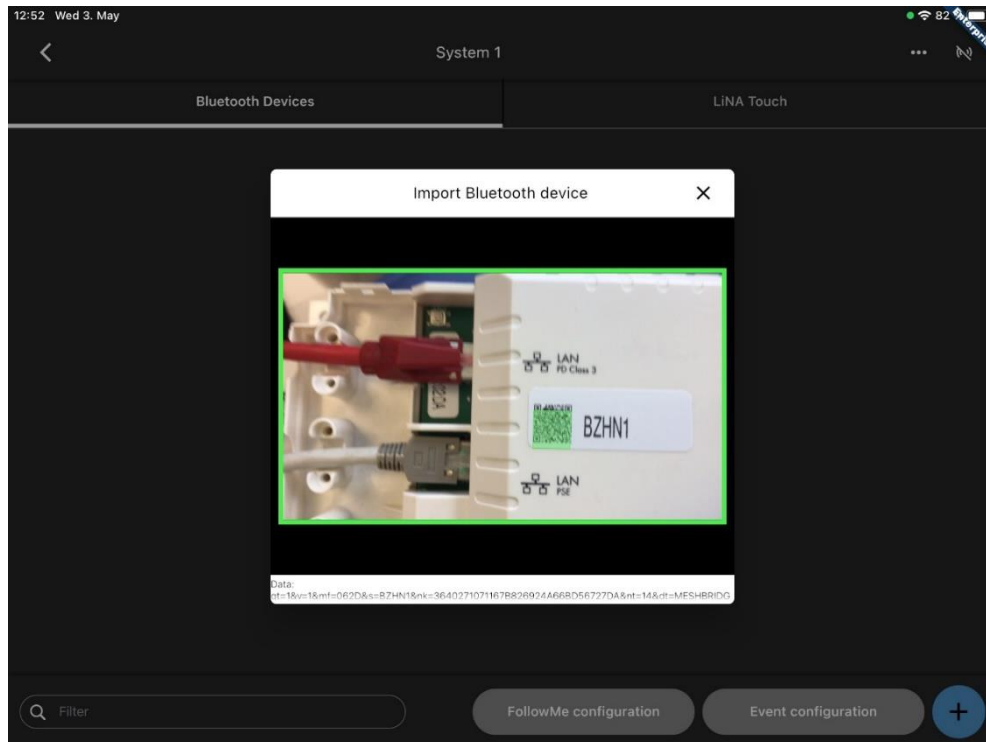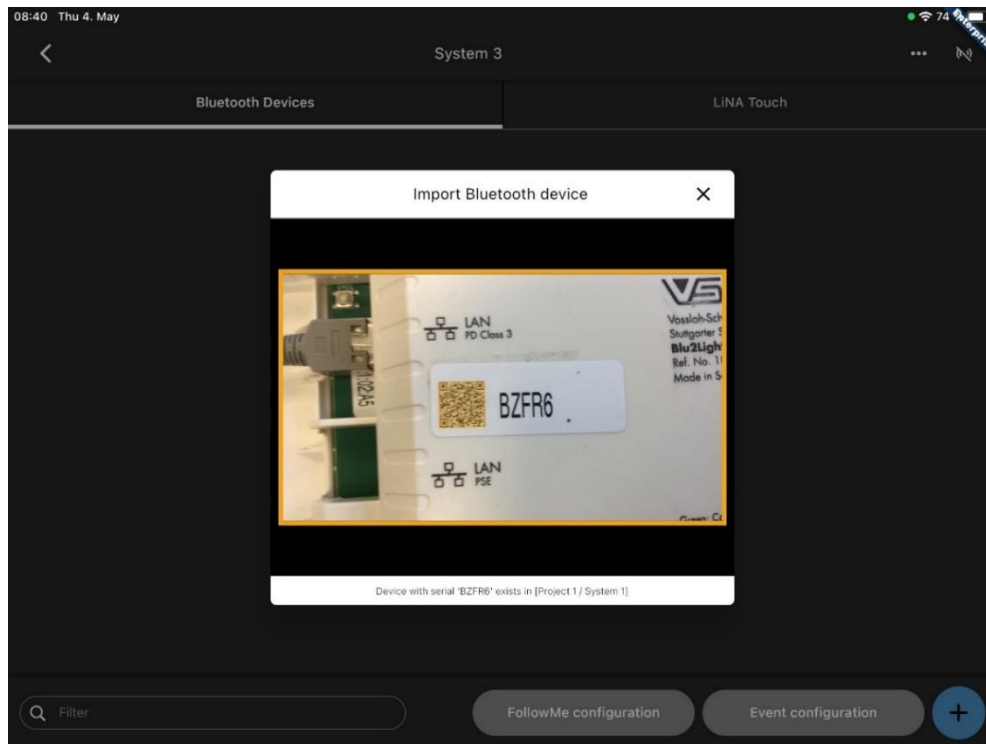
Green = everything is ok.



Figure 2

Figure 3
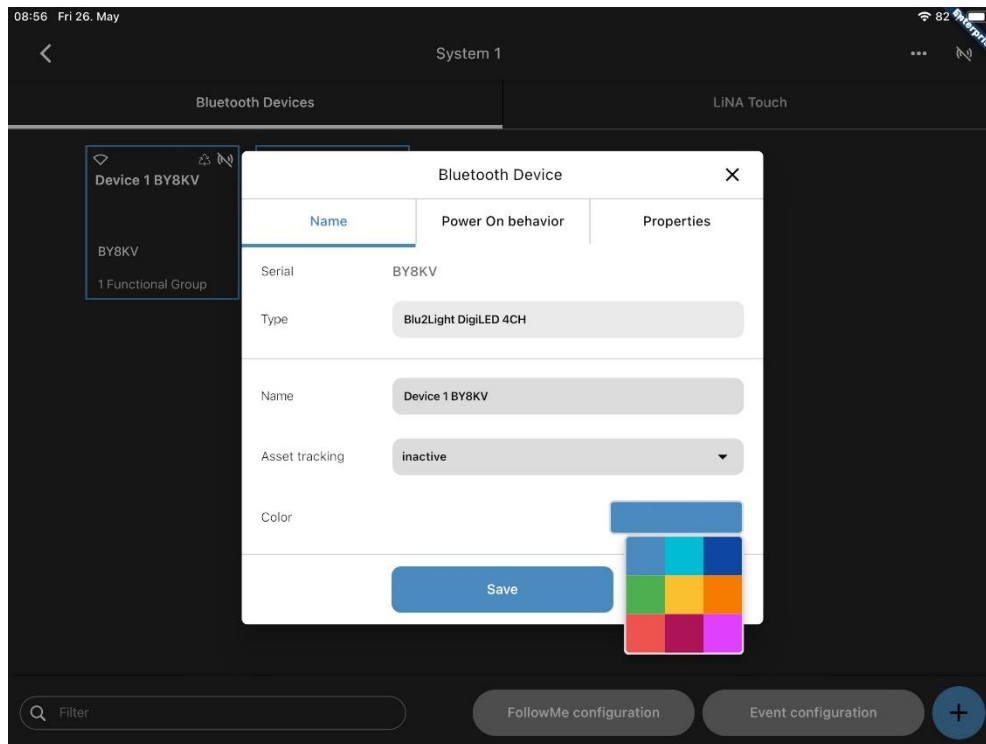
Orange = already used in another system

Figure 4

Except for a gateway, you have the options "Name", "Power On Behavior" and "Properties" furthermore you can choose the color for every node which it should be displayed in, this helps with the overview in big Projects and also looks fancy!
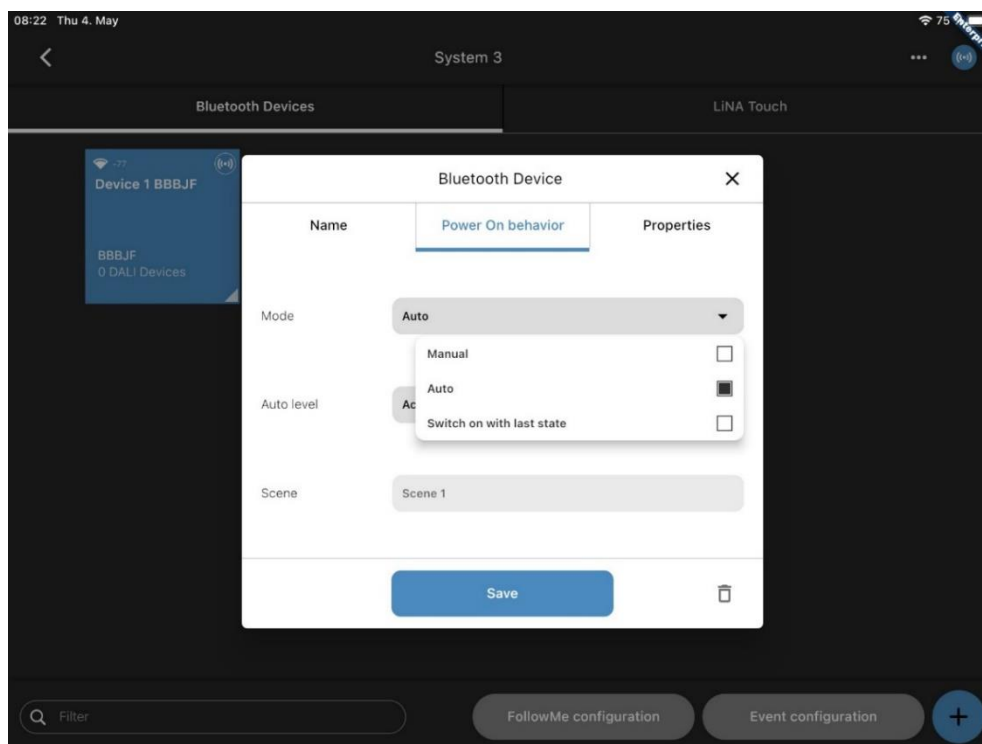
Figure 5

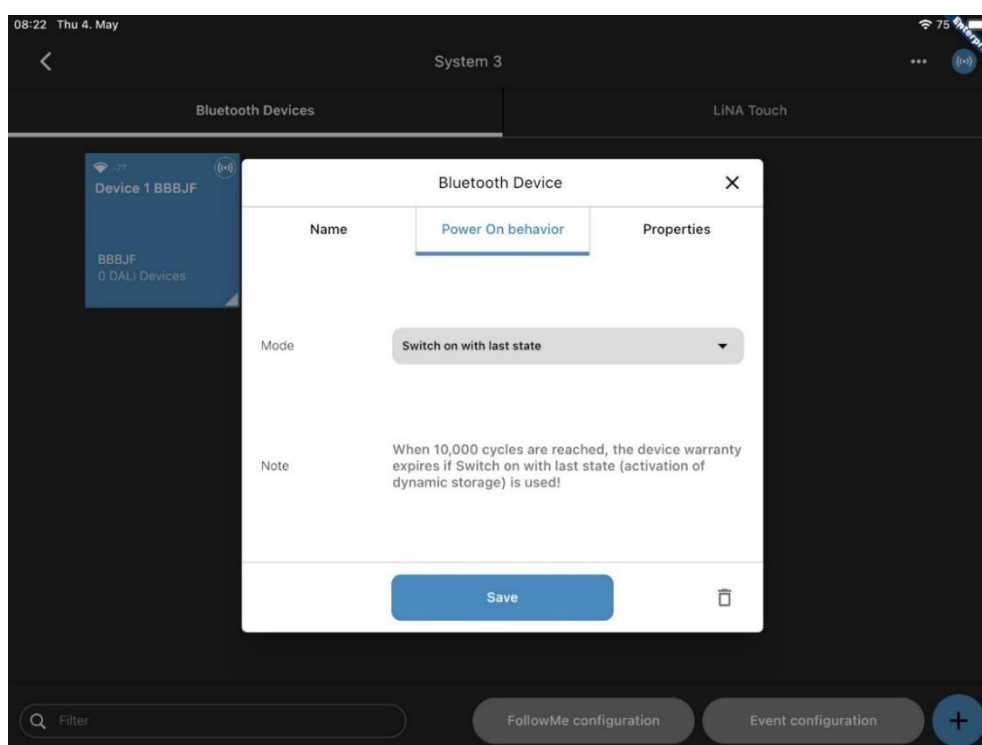Select "Switch on with last state" in the "Power On Behavior" tab.


Figure 6

Now the node uses the last state as Power On behavior after power was cut off
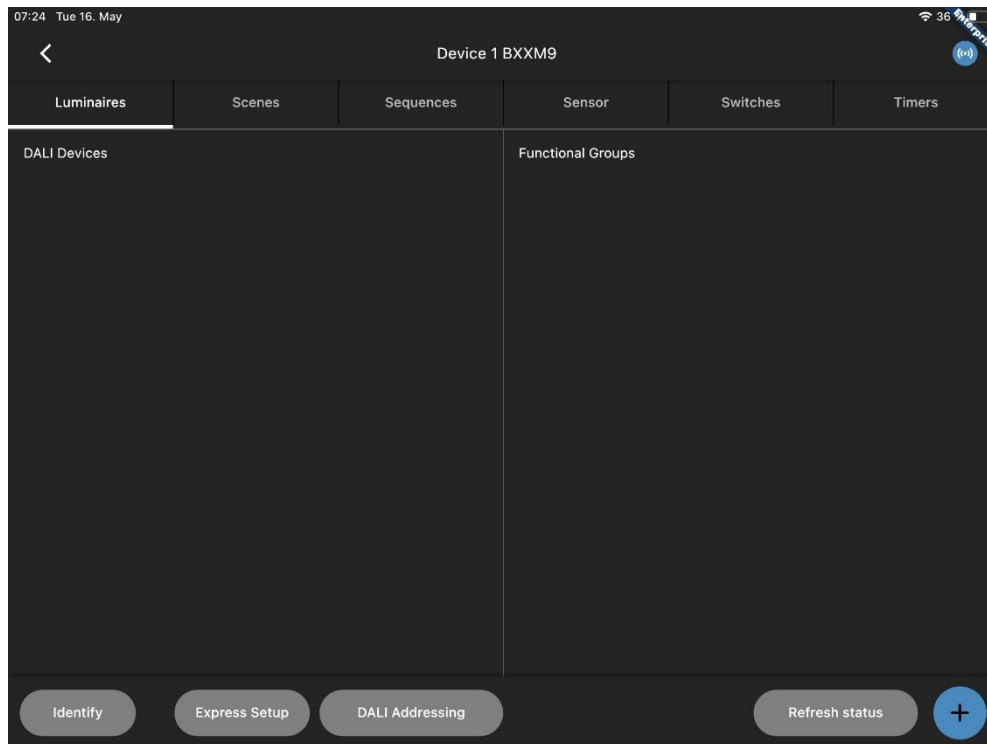(works only for 10.000 cycles).

Figure 7

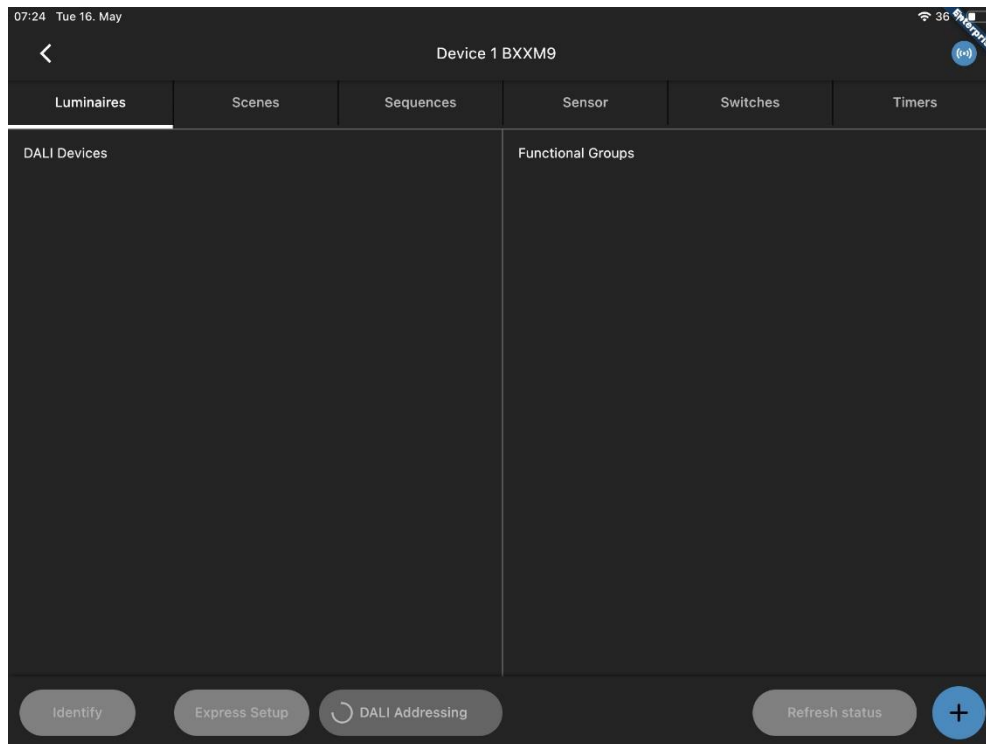Select a node and select "Express Setup" to start automatic setup.

Figure 8

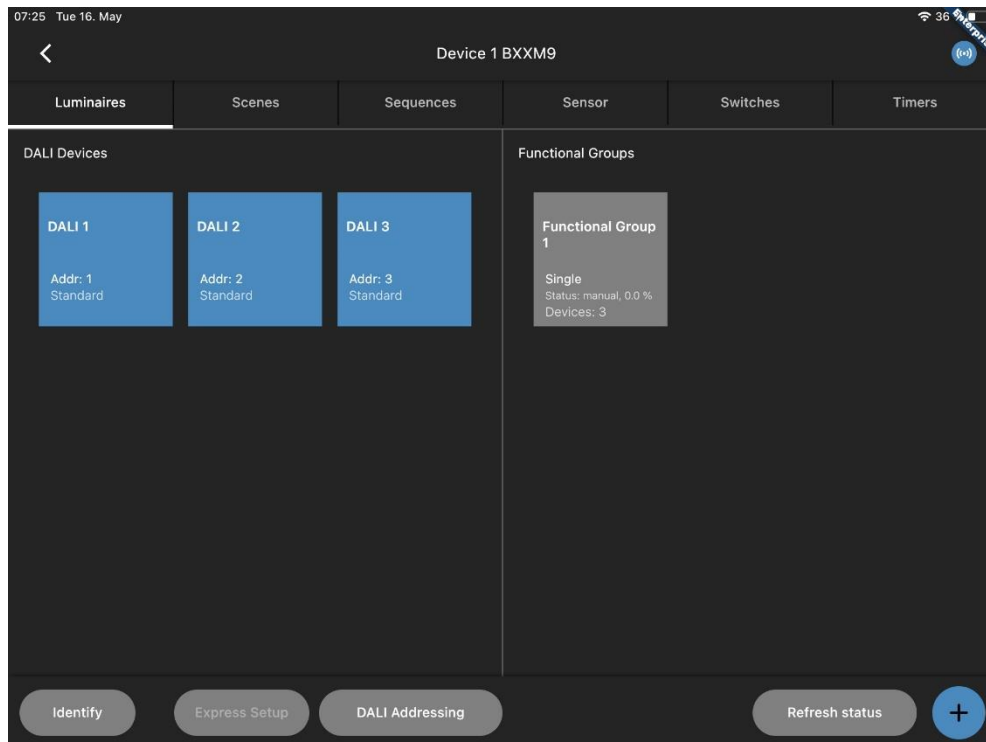A rotating circle at "DALI addressing" indicates an active DALI search.

Figure 9

If the DALI search is completed, all DALI devices should be displayed, and a functional group should have been created.
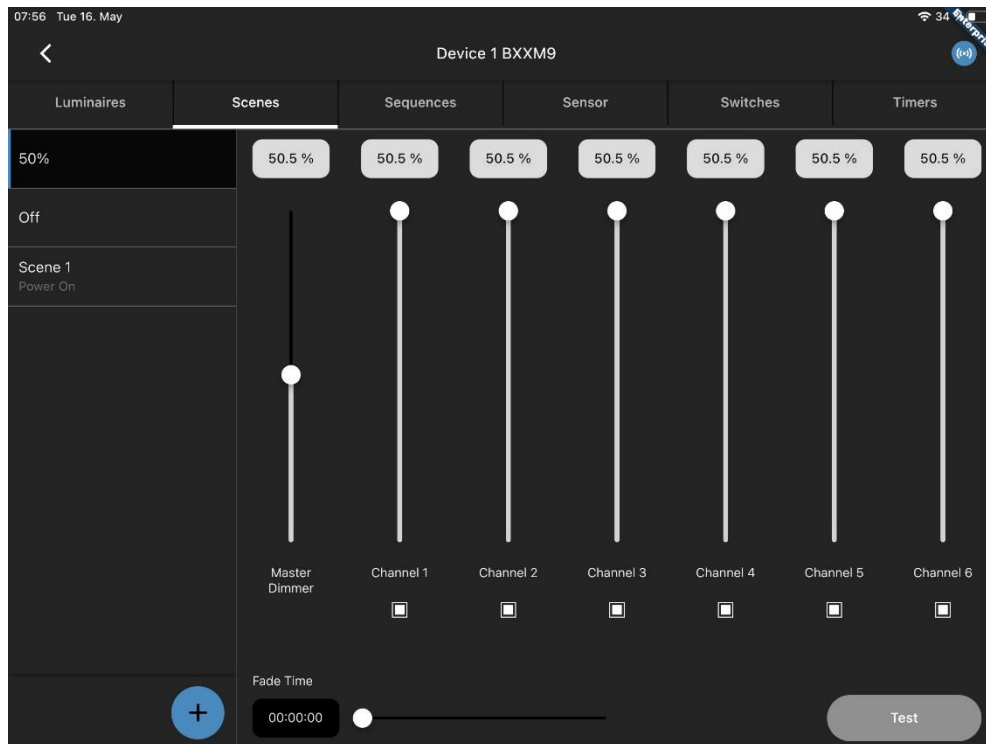
Figure 10

Now you can create scenes according to your wishes, "50%", "Off" and "On" are the most common ones.
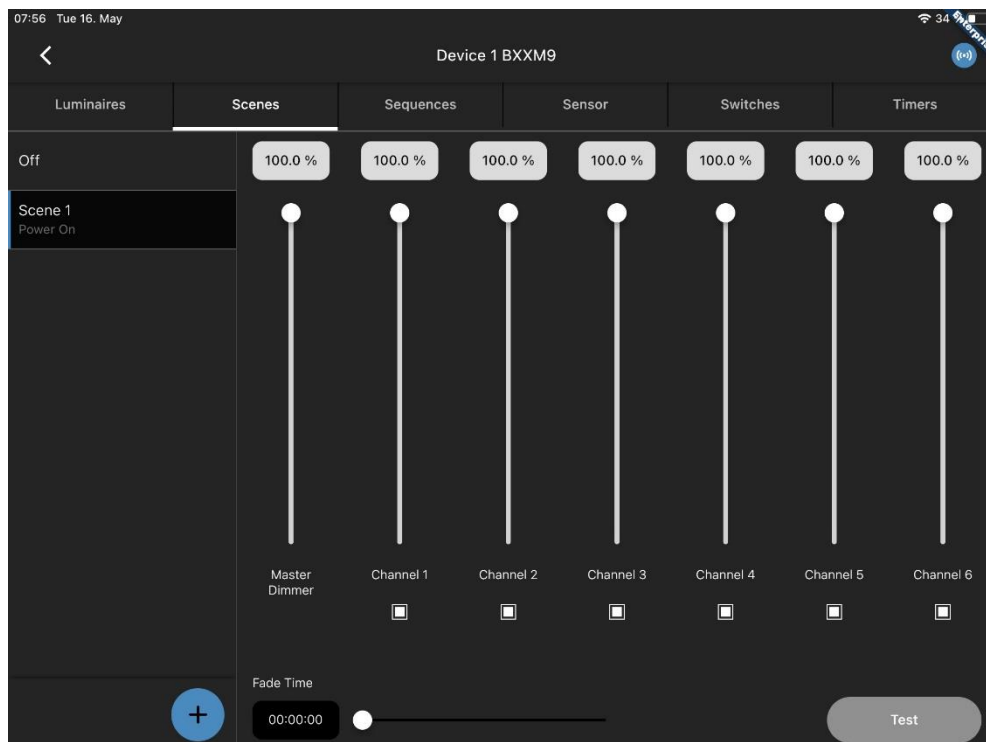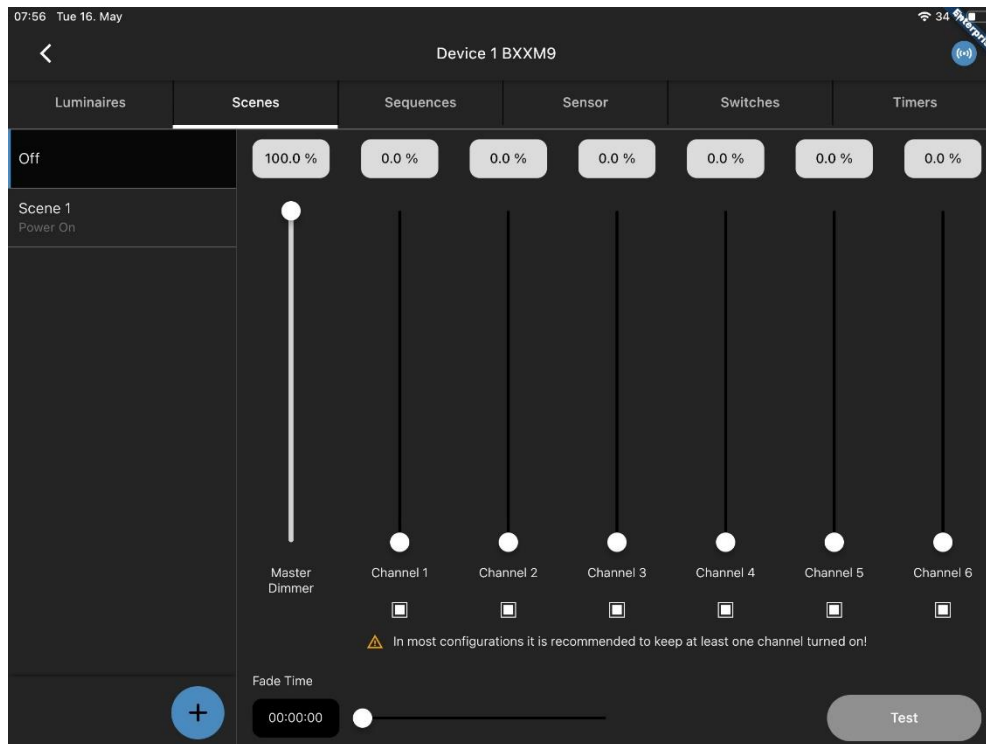


Figure 11

Figure 12

The master dimmer must always contain a value since it is accessed during a scene action.
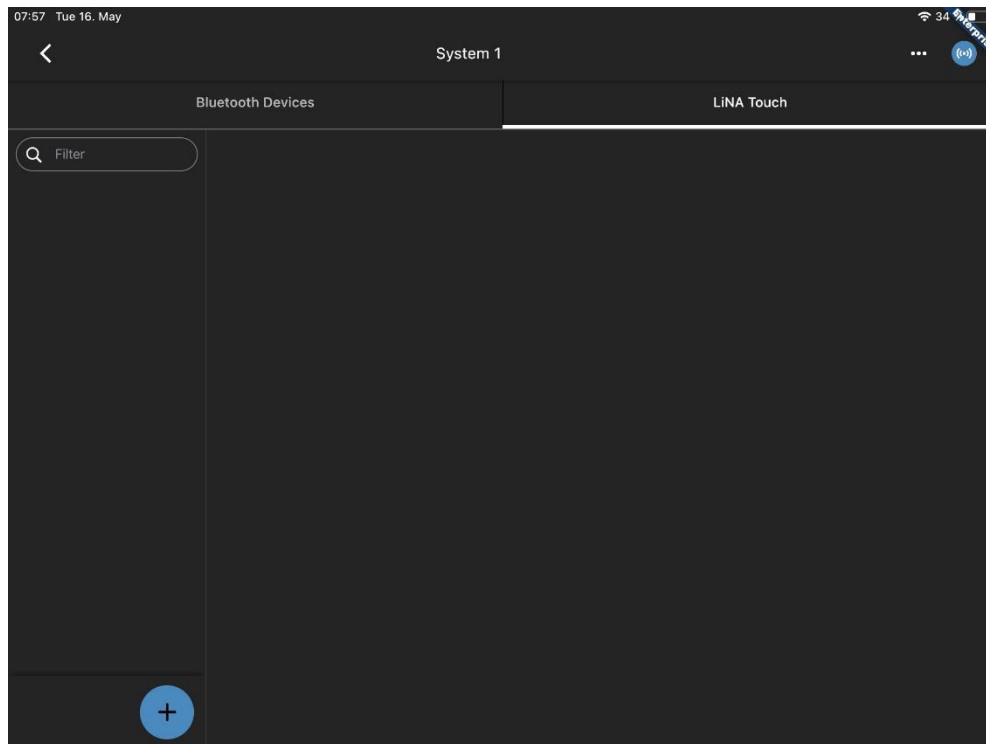
Figure 13

If all scenes are configured as desired, only thing left is to generate a user interface in the Touch App, for that, switch to the tab "LiNA Touch".
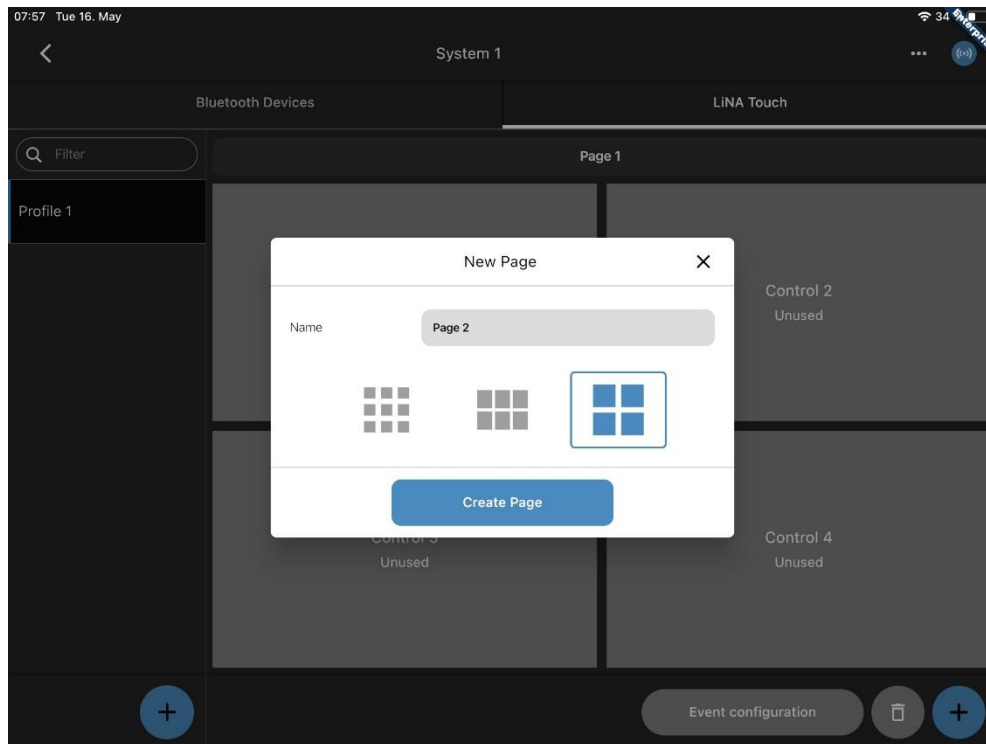
Figure 14

Here you can select an interface via the (+), depending on the scope of the desired functions. Unused touch panels will not be displayed in the LiNA Touch app, if more touch panels are needed, fields can always be added.
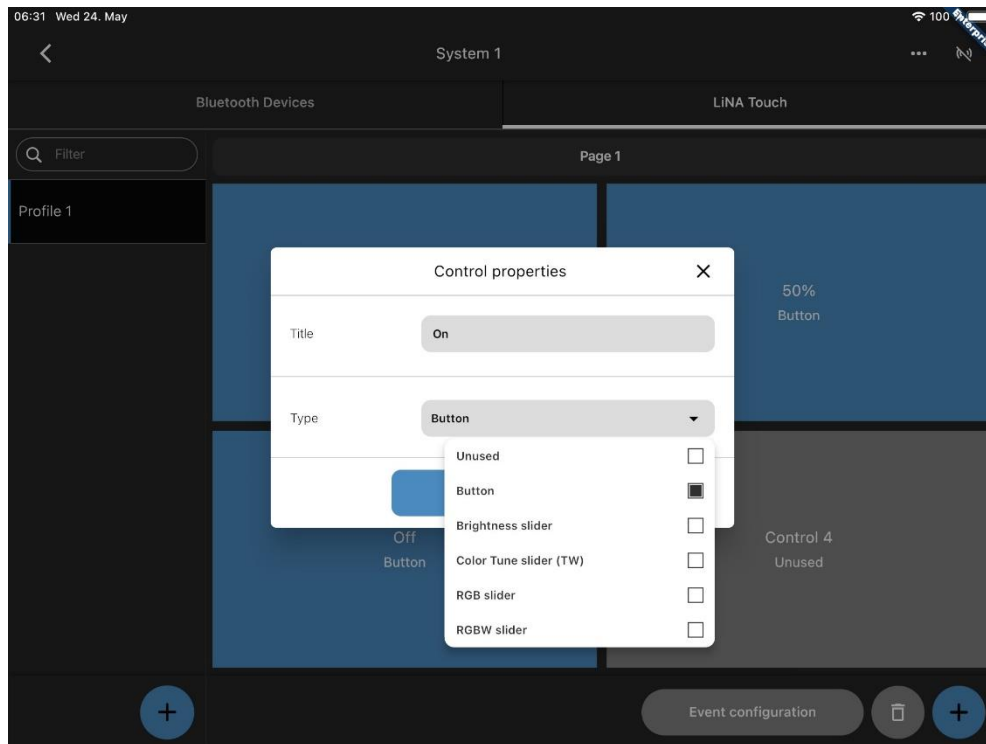
Figure 15

Each control panel must now be assigned a function that can later be used in the Touch App.
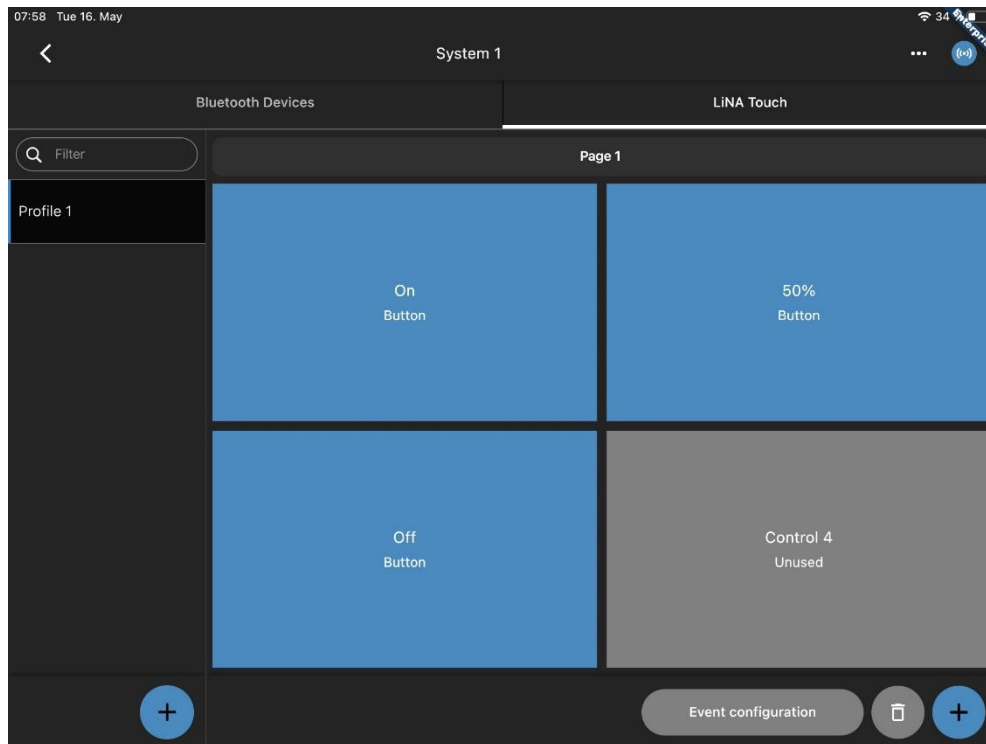
Figure 16

Once this is achieved, your user interface should look something like this.
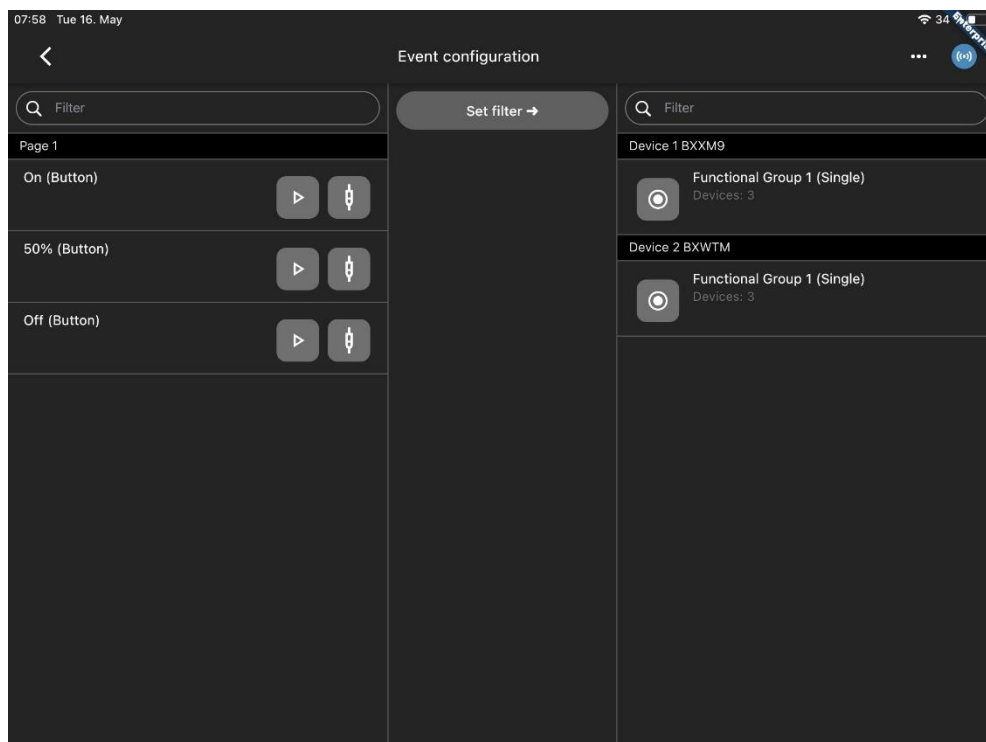


Figure 17

Now the control panels are assigned to the respective functional groups and (Figure 18) to the respective scenes via the event configuration using drag & drop.
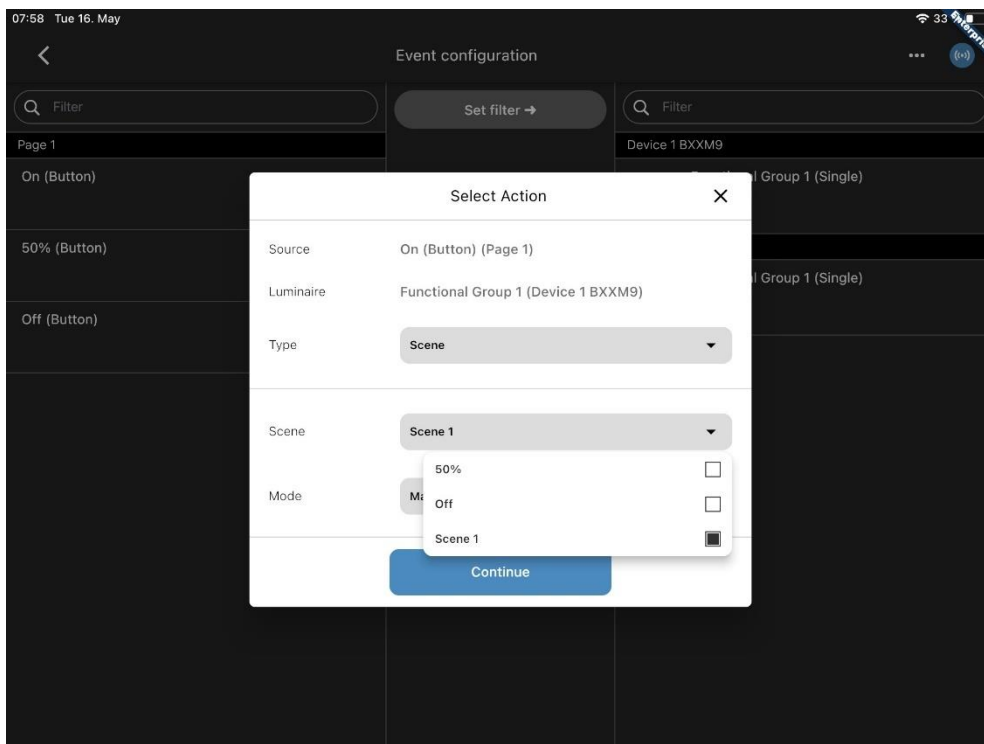
Figure 18
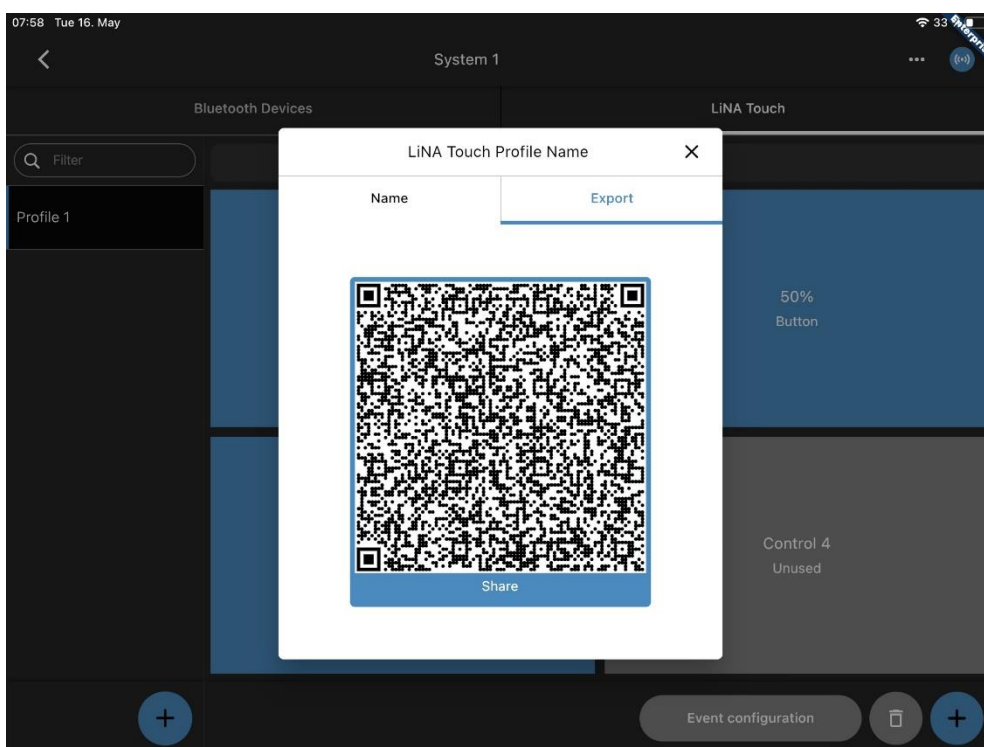


Figure 19

In the last step, press and hold the respective touch profile you want to export in the main window of the Connect app and select "Export". Now you are free to scan the generated QR code with another device using the LiNA Touch app or to export it in another way by pressing "Share".

To scan the QR code, press the QR code symbol in the upper right corner of the LiNA Touch App and scan the respective QR code.
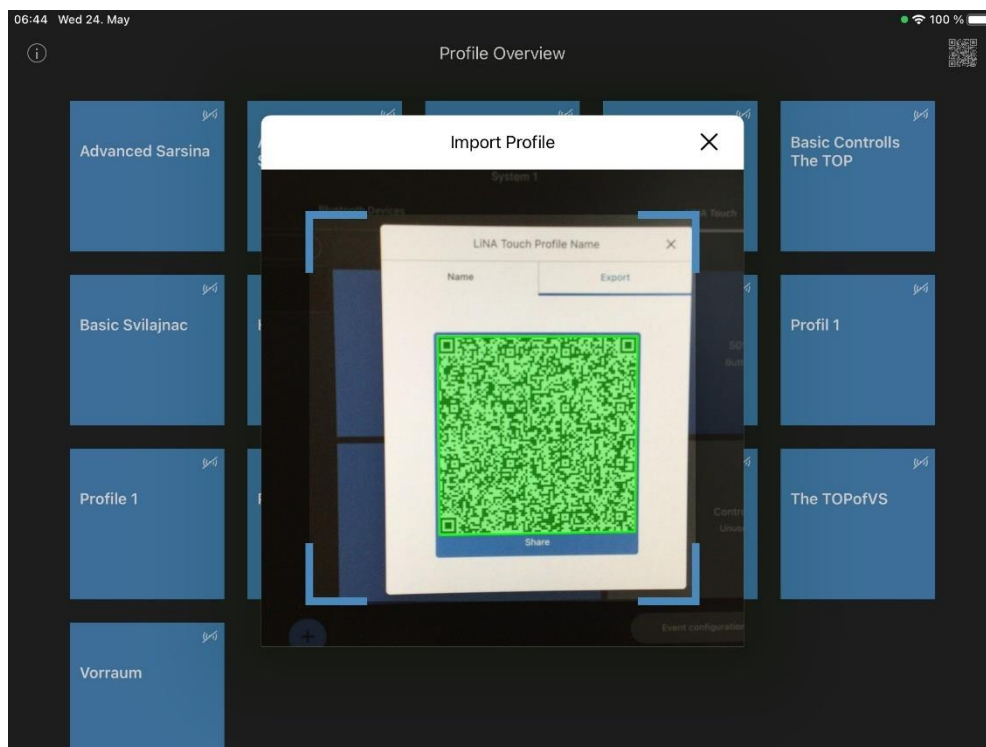


Figure 20
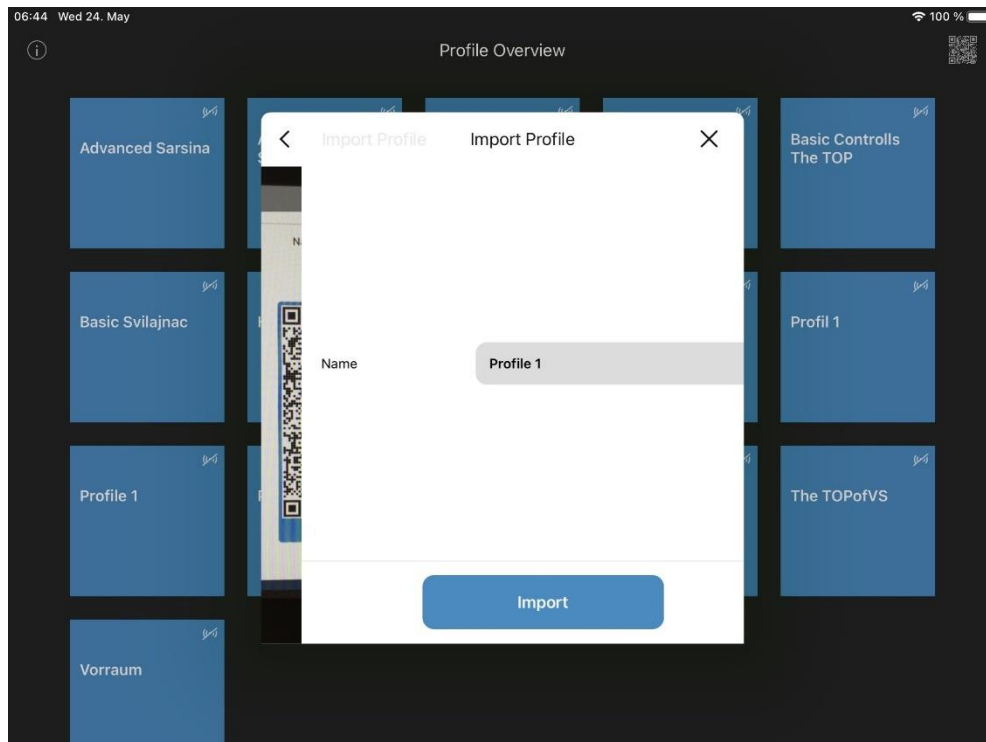
Figure 21

## Congratulations!

Your basic system is now fully operational and can be operated via the Touch App!

# 4   USING AN AUTOMATION

To set up an automation, return to the overview shown in Figure 9.
Now press and hold the control panel, Functional Group.
A window called "Setting/Parameters" appears, offering the following choices:

| Dimming speed | 0 |
|---|---|
| Active light level | 100.0 % |
| Time, active | 00:09:57 |
| Passive light level | 0.4 % |
| Time, passive | 00:00:10 |

Sets the dimming speed of the stored scene in a DALI value Fixed (0-254)

Here the light level for the "Active" state is selected.

Here you can define how long the "active level" is held.

Here the light level for the "passive" state is selected.

Here you define how long the "passive level" is held.

| Basic light level | 0.1 % |
|---|---|
| Time, basic | ∞ |
| Emergency Basic Level | ☐ 0.0 % |
| Semi auto mode | Off ▼ |

Here the light level for the "passive" state is selected.

Here you define how long the "basic level" is held.

By setting a check mark, you can select which light level is always kept, it is oriented to the basic Level.

Semi auto mode" is used if, for example, buttons are to be used in addition to "auto mode" to interrupt it. It can be activated and deactivated.

If the "Semi auto mode" is activated, a "return to auto" time must be set, this defines when automatic mode.

Return to Auto after      ∞

Return to State      Active ▾

Here you define the state to which the system should return as soon as it is in auto mode again.

once you have made all the settings, press "Save", now the configuration should have been applied to the active system.

# 5 SETTING UP THE TUNABLE WHITE FUNCTION
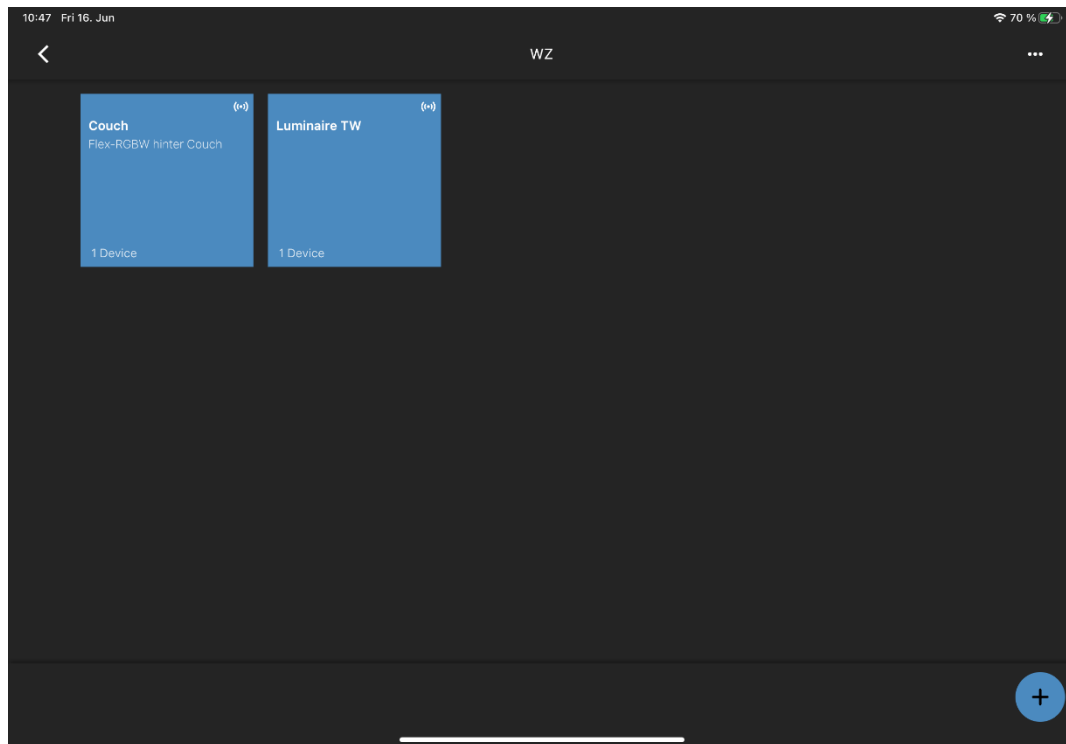


Figure 22

Add your node to the system and enter the configuration.
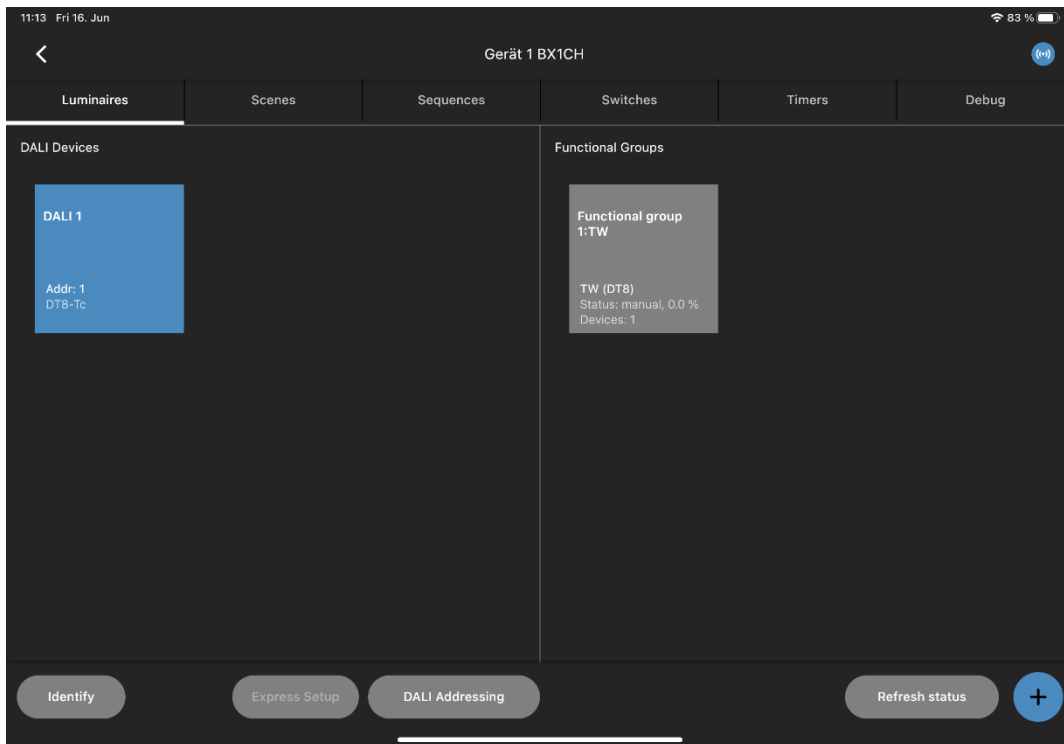
Figure 23

Now set it up as you did in the basic configuration.
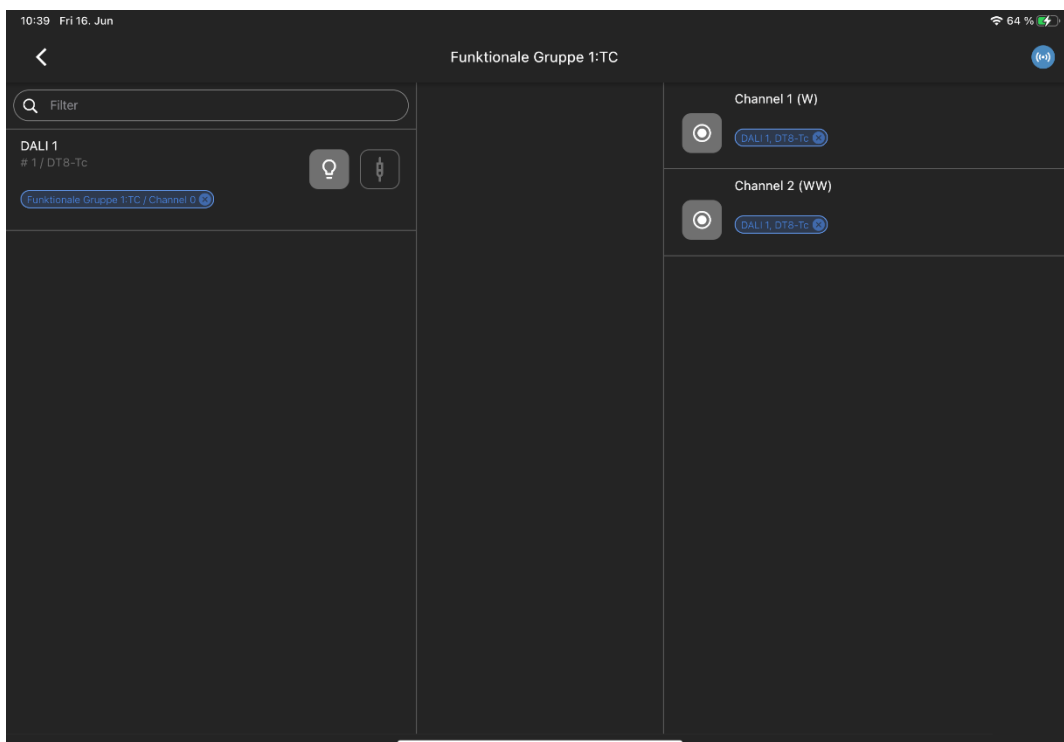


Figure 24

Connect the DALI device to the channels (W=white, WW=warm white) per drag and drop.
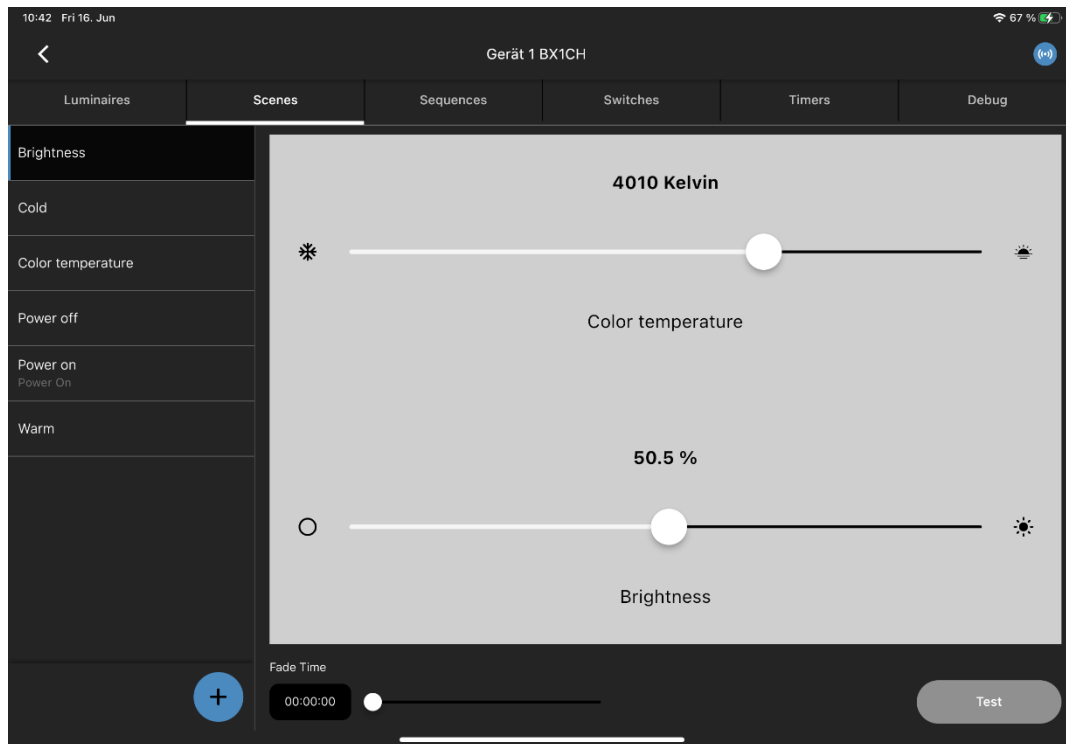
Figure 25

In the next step you can configure the scenes you need. And prepare your touch overlay as you did in the Figures 13 – 20.

For scanning in the Digi LED 4CH please refer to the 3. Step of the manual until you reach figure 7 of the manual.
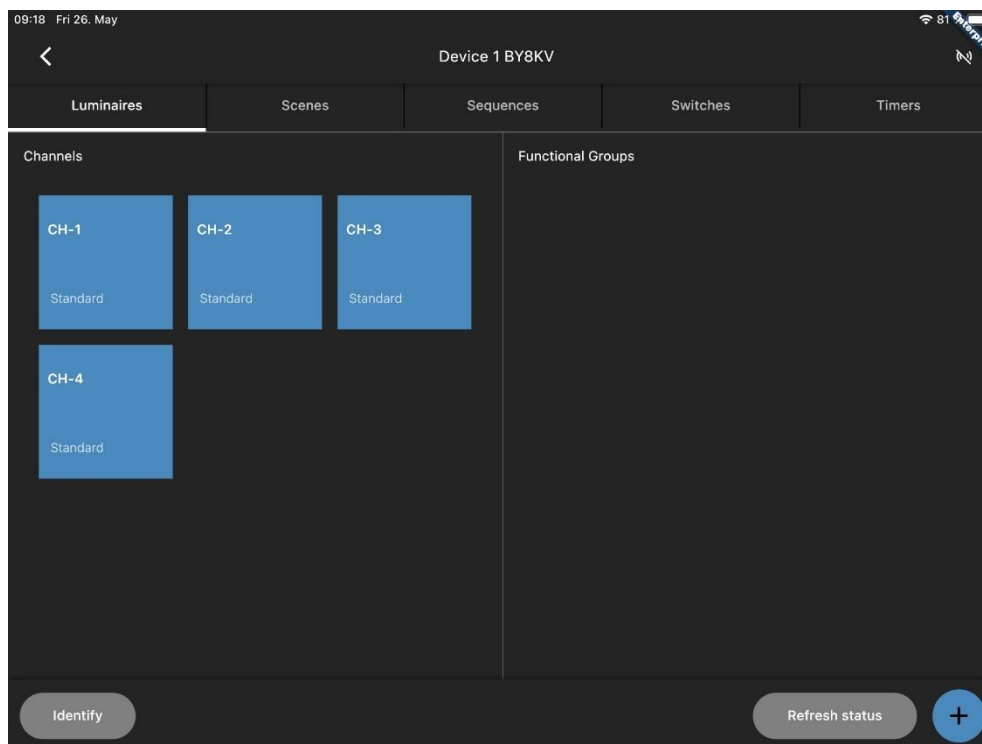


Figure 26

After that you will see that channel 1-4 have already been recognized by the LiNA Connect App.
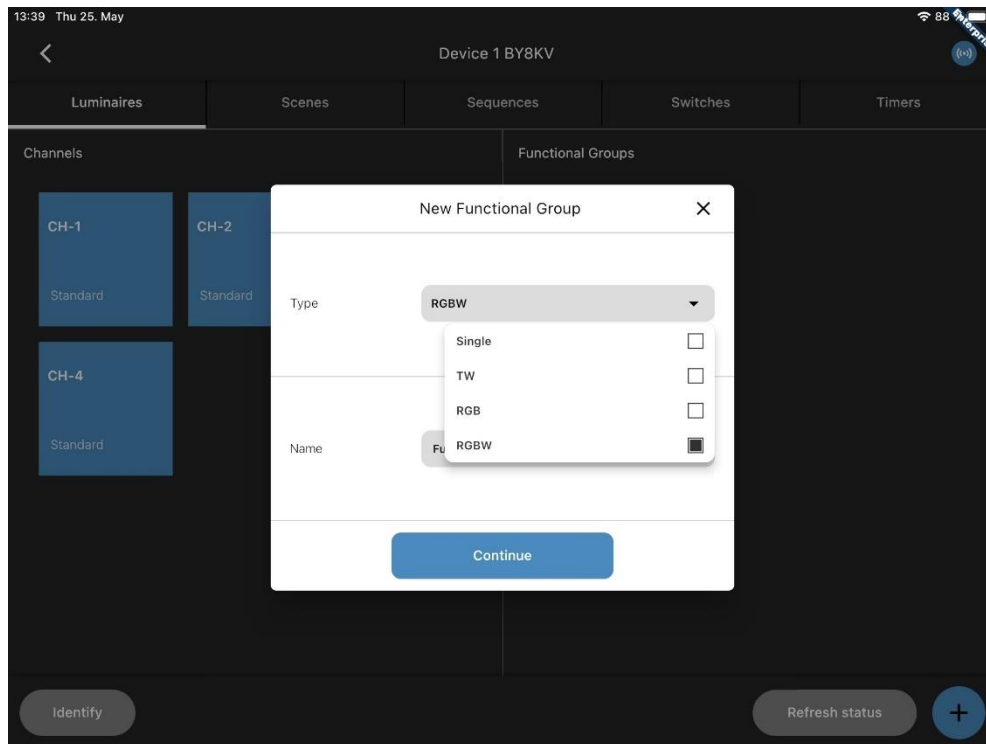
Figure 27

As you probably already have mentioned, you can't do an express setup here.
Therefore you must create a Functional Group all by yourself!
Here you must select, how many channels your modules have. In My case they are RGBW.
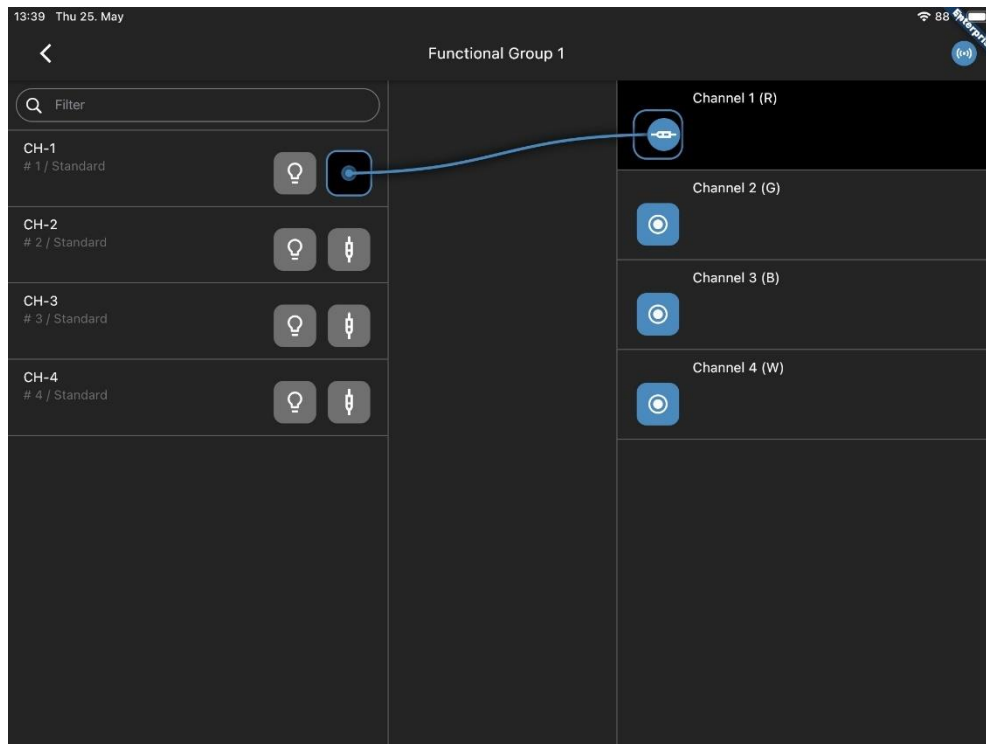
Figure 28

In the next step you must connect every channel of the DigiLED (R, G, B, W) to every channel of the Functional Group (also applicable for other systems).
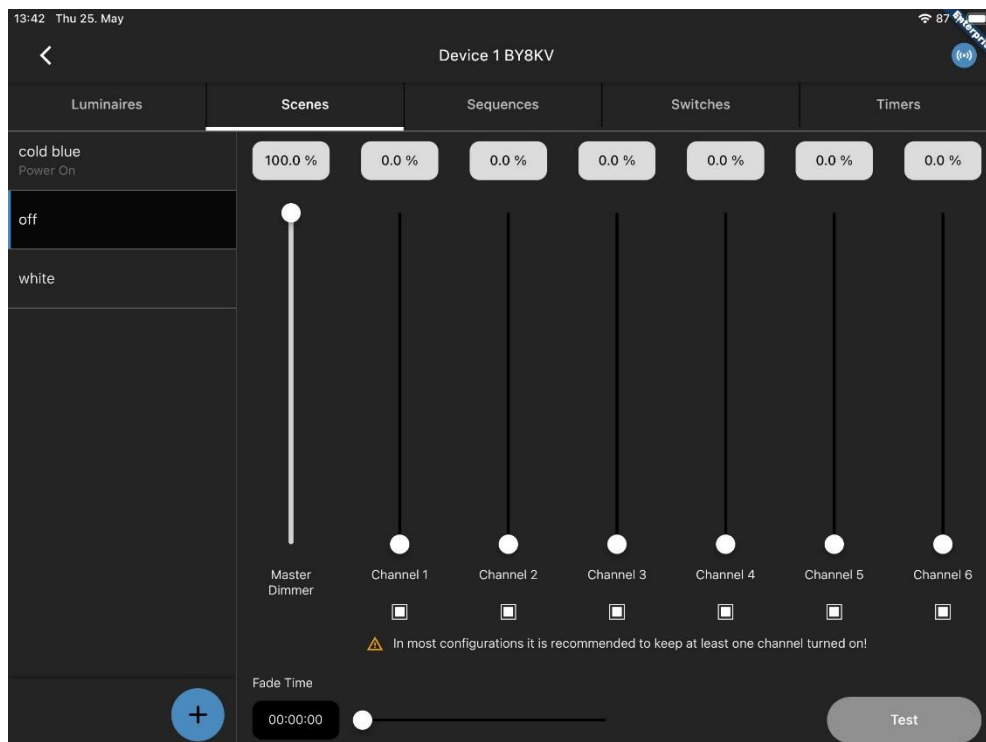


Figure 29

Now we configure our scenes as we did for a simple configuration (Figure 10-12). For the DigiLED you have the option to either use the channel overview or change the type of the scene and use

RGBW directly, this could make the selection of colours easier. Which should look something like this:
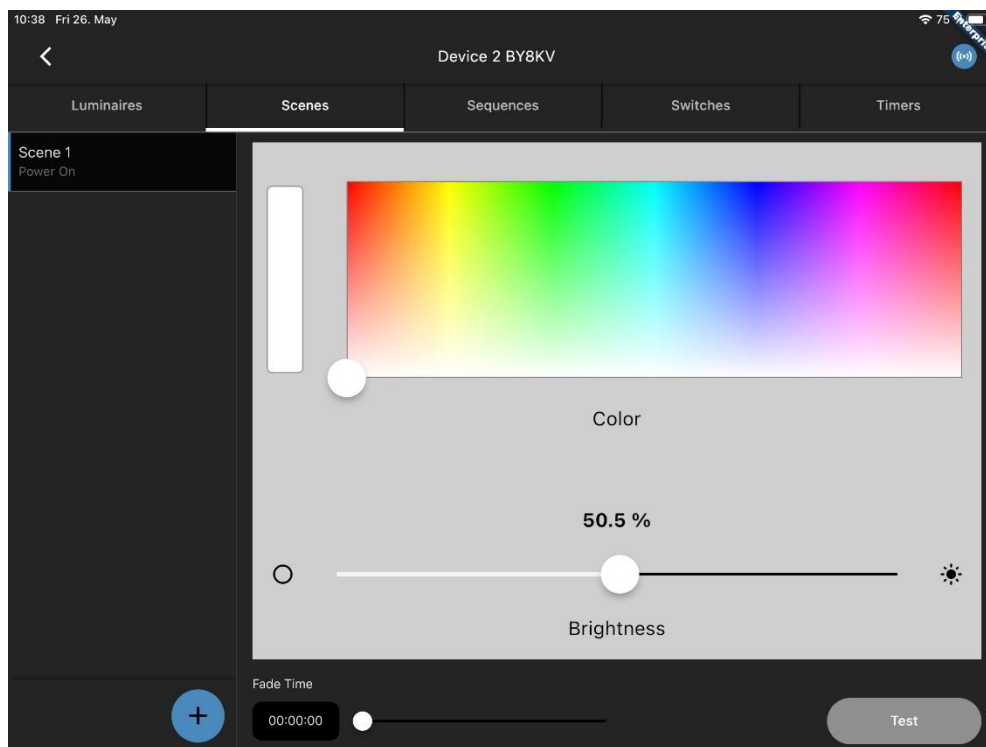


Figure 30

If you configured every scene you like, go back to Figure 16 and onward to move on.

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Go to the tab „ Sensor "
to see the possible settings.

Activate the sensor by using
this switch.

If using a normal gateway or
one in bridge mode, you
must activate "send always to
mesh" to track or forward
sensor Information.



**Device 1 BXXM9**

| Sequences | Sensor | Switches | Timers | Debug |

Sensor settings

Activate sensor

Send always to mesh or automatic     automatic (currently off)

With the light level slider, you
can try out how bright, the
light regulation will be.

Using a lux meter, you can
adjust the setpoint lux value
in-between 0-9999 digits.

Send always to mesh or automatic     automatic (currently off)

Light level     50.5 %

Manual sensor value     100

The actual sensor value
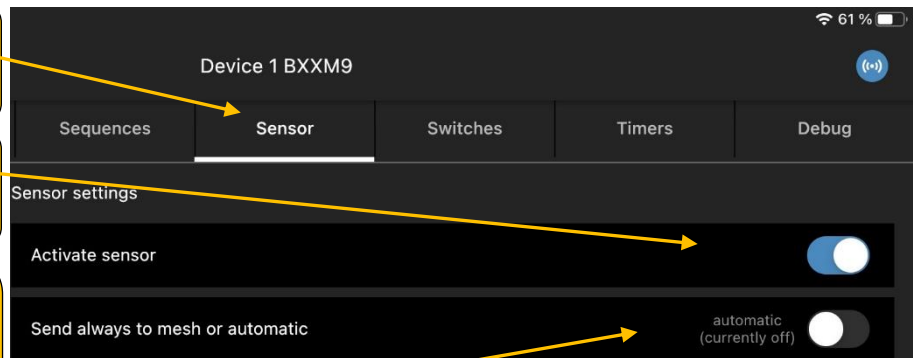shows the automatic
measured senor value.

The "reference sensor
value" shows what is used
for the Light regulation
(automatic filled, if using the
automation and no manual
value)

Stop

Actual sensor value     90

Reference sensor value     100     0.4 %

    Active state    Passive state

Light regulation reference group     **Functional Group 1**

Event configuration

When finished configurating either press the upper start for manual regulation or the lower one for automatic.

**Sensor settings**

Activate sensor

Send always to mesh or automatic

automatic (currently off)

Before you can start the light regulation you have to connect a functional group!

| Light level | 50.5 % |
| --- | --- |

| Manual sensor value | 0 | Start |
| --- | --- | --- |

| Actual sensor value | 89 | Start |
| --- | --- | --- |

| Reference sensor value | - | - |
| --- | --- | --- |
| | Active state | Passive state |

Event configuration

If clicking on event configuration, you can add the light regulation to the Functional groups in your system.

9:39 Tue 30. May                                                            58 %

Event configuration

Device 1 BXXM9

Brightness

1 Entry

Set filter ➜

Filter

Device 1 BXXM9

Functional Group 1 (Single)
Devices: 3

1 Entry

## 8 HOW TO USE MOTION DETECTION



Figure 31

Go to the tab "Sensor" and switch on motion detection, if using a normal gateway or one in Bridge mode, you must activate "send always to mesh" to track or forward Sensor Information.
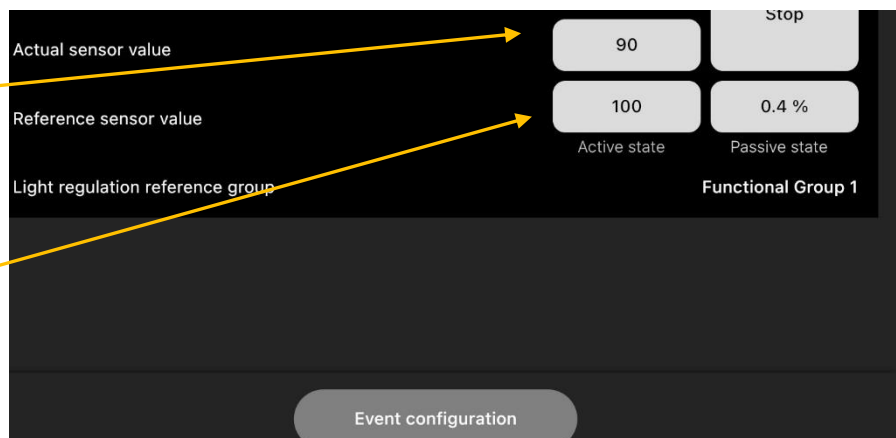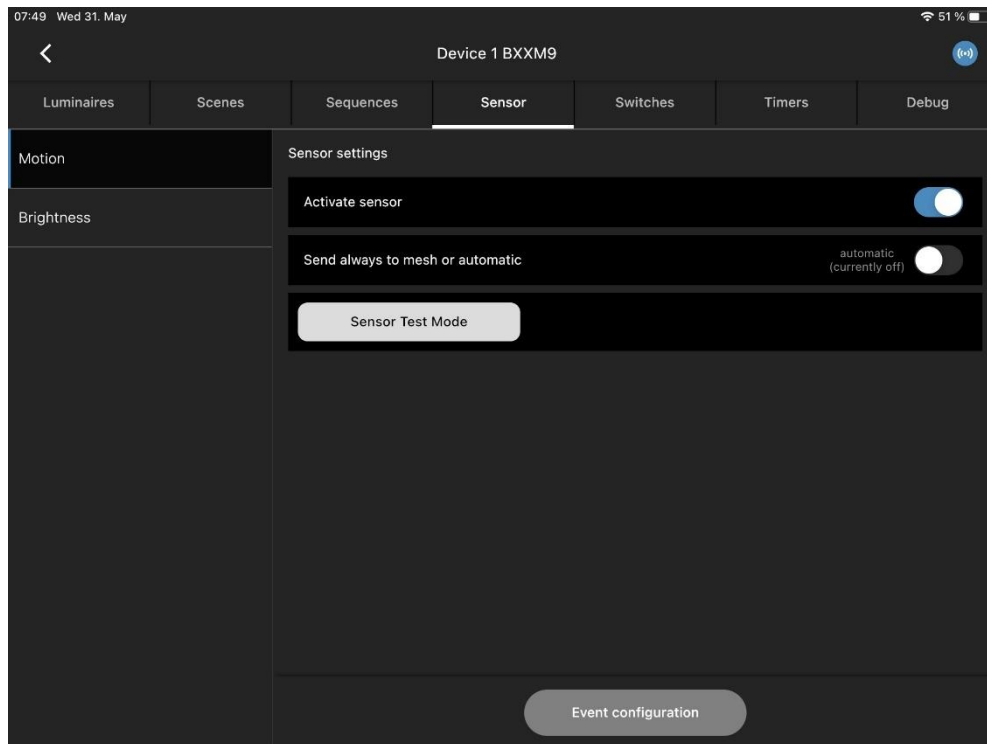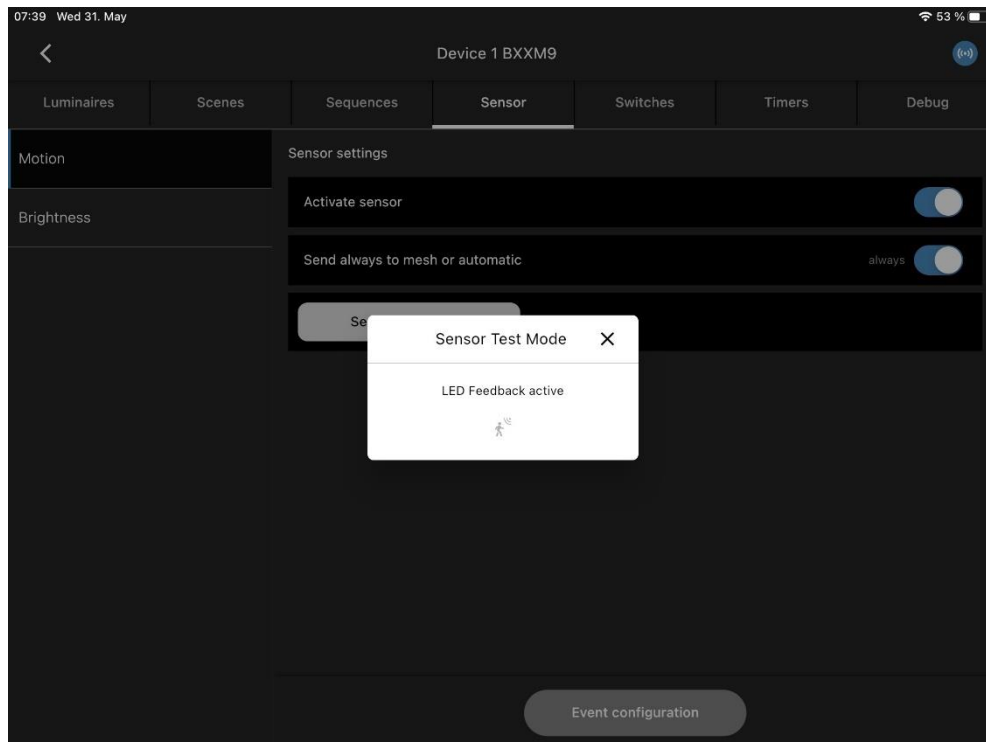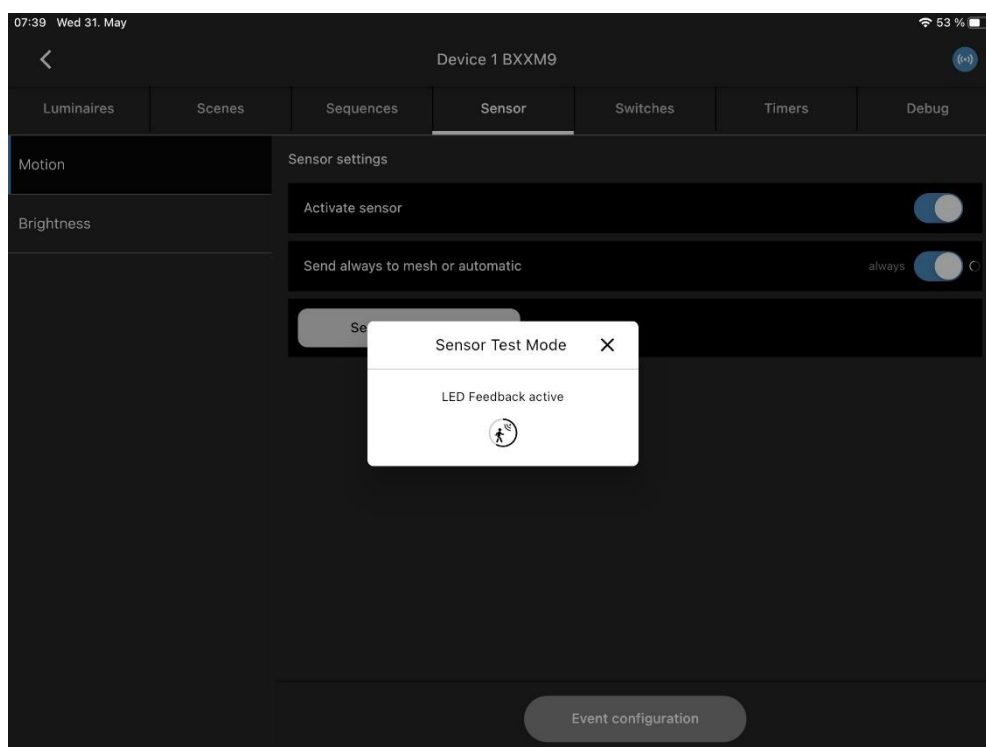
Figure 32



Figure 33

With the "Sensor Test Mode" you can try out your sensor before installing. While active, the sensor indication LED blinks when detecting movement and the circle in "Figure 29" gets filled, it resets every time movement is detected.
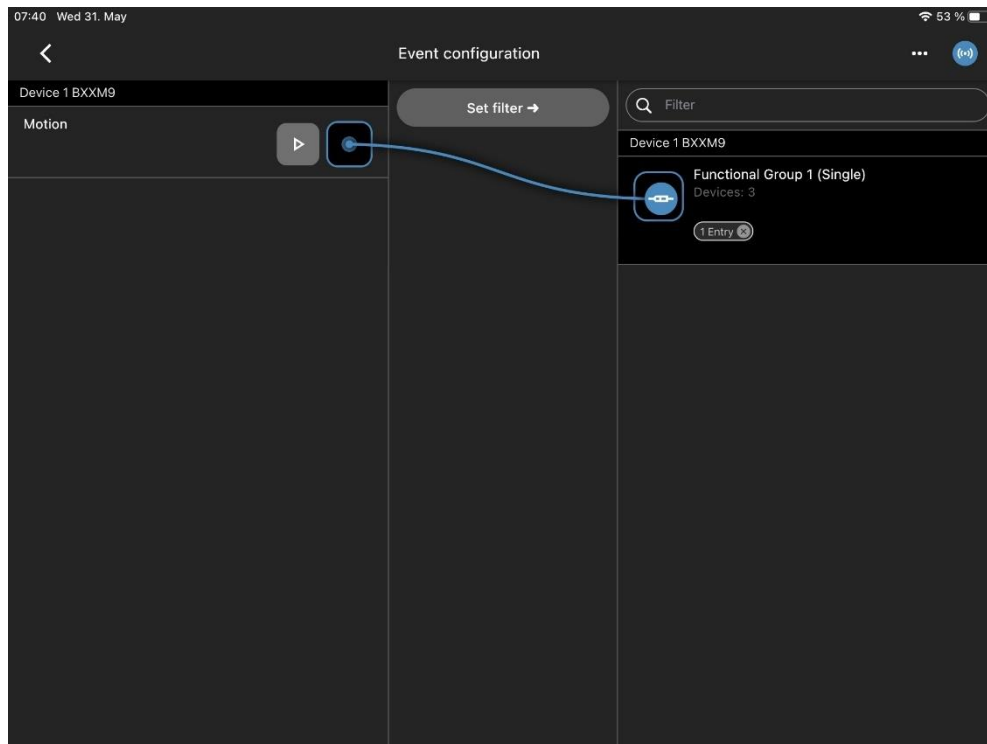
Figure 34

The only thing left to do is to couple the "Motion" function to the "Functional Group" you want it, in the event configuration of the sensor.
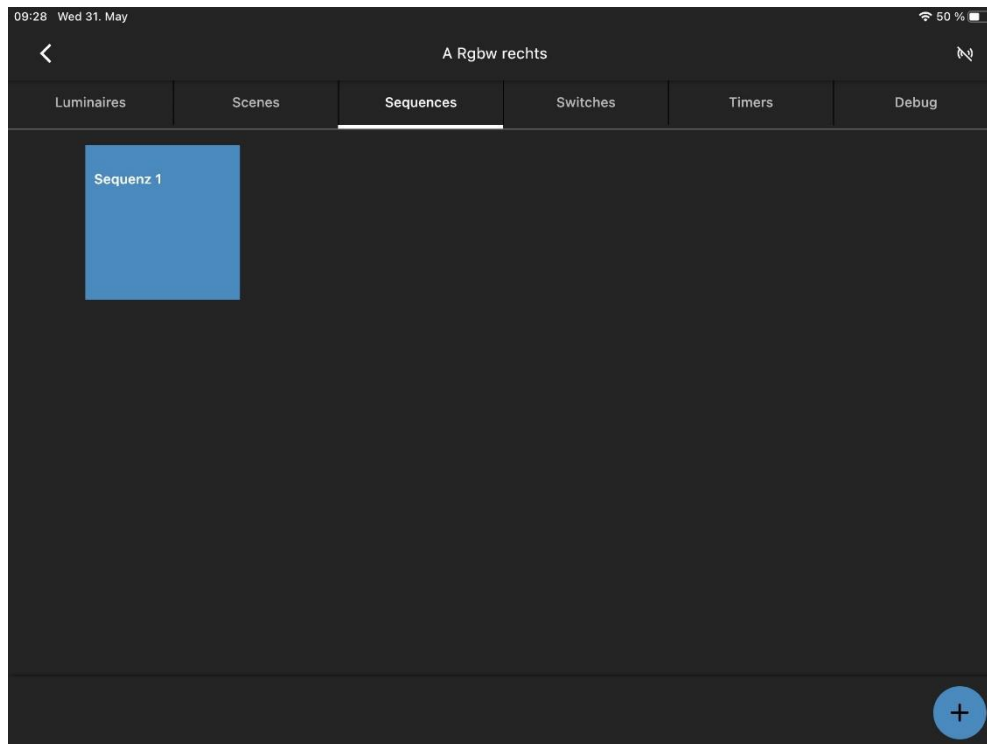
Figure 35

Go to the Tab „Sequences" press the (+) on the lower right corner and name your sequence as you wish.

Figure 36

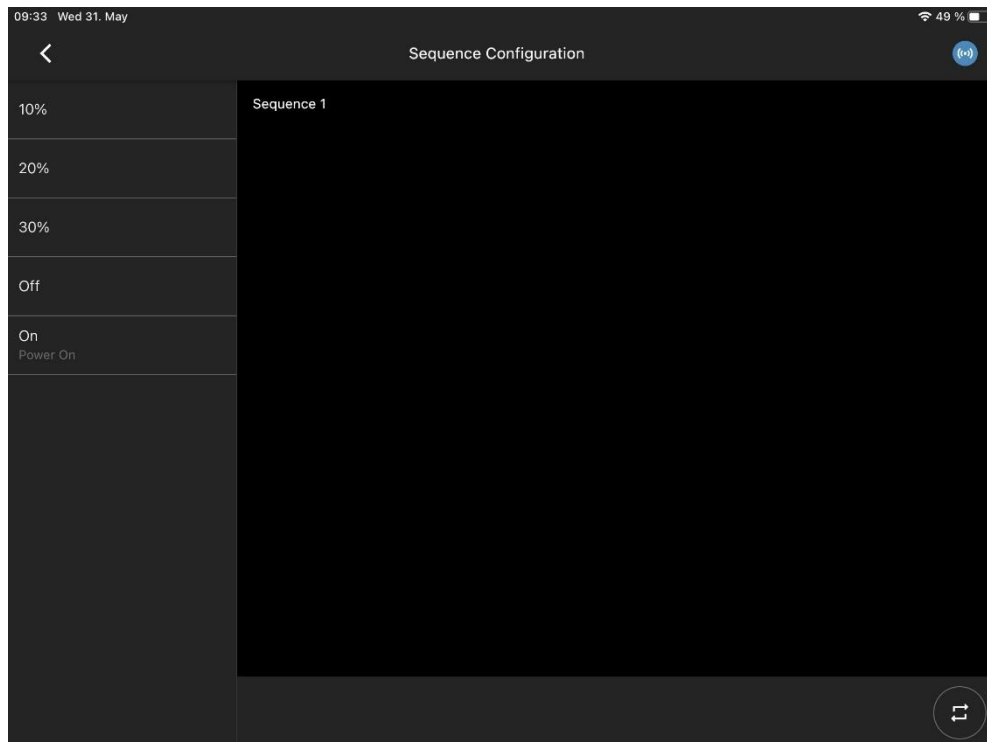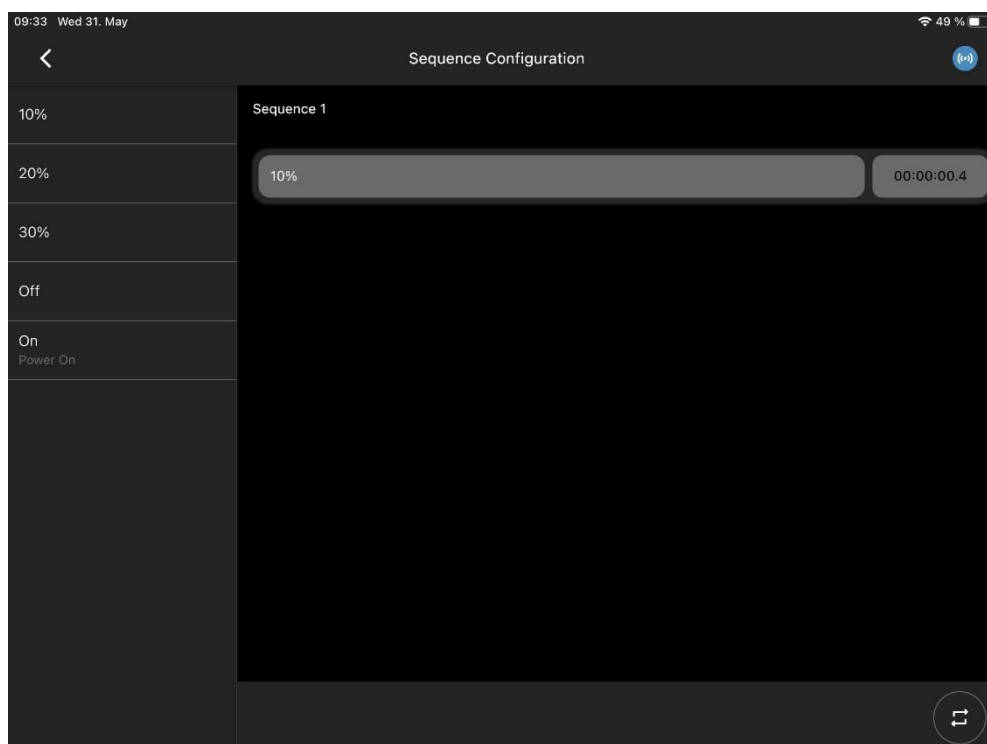On the left side you can see all scenes you created before.



Figure 37

You can simply add each scene by drag and drop.
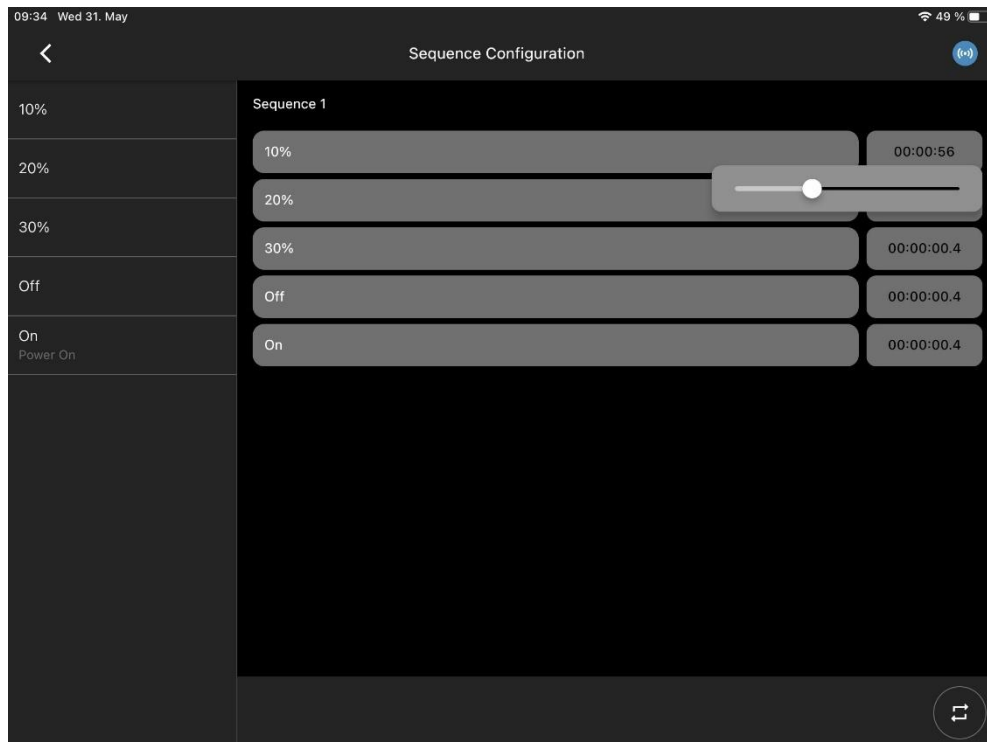
Figure 38

If you added every Scene you need/want, you can configure how long every scene will be used until the next will come up.
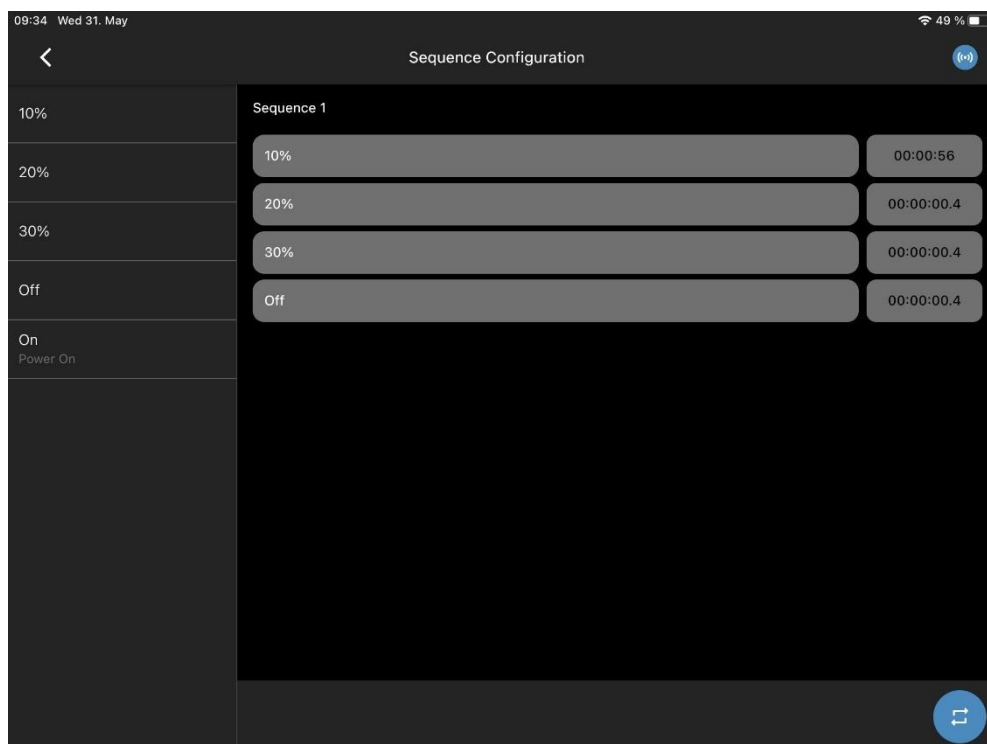


Figure 39

By clicking on the ⇄ the sequence will be in a loop forever.
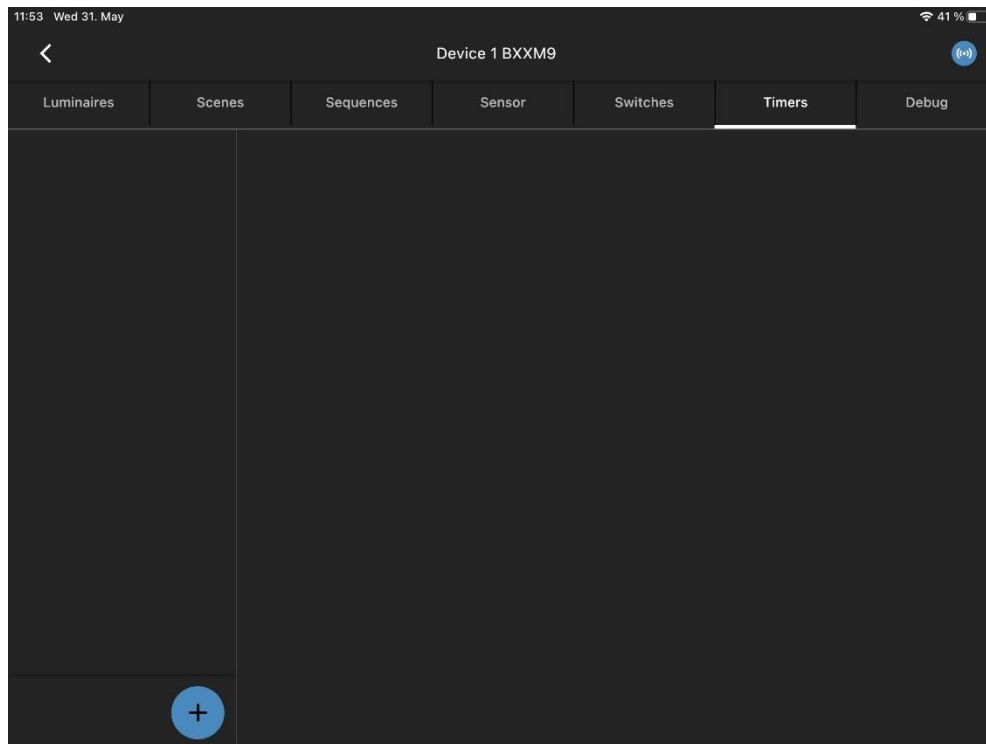
Figure 40

Go to the tab „Timers" and add one by clicking on the (+) in the left lower corner.
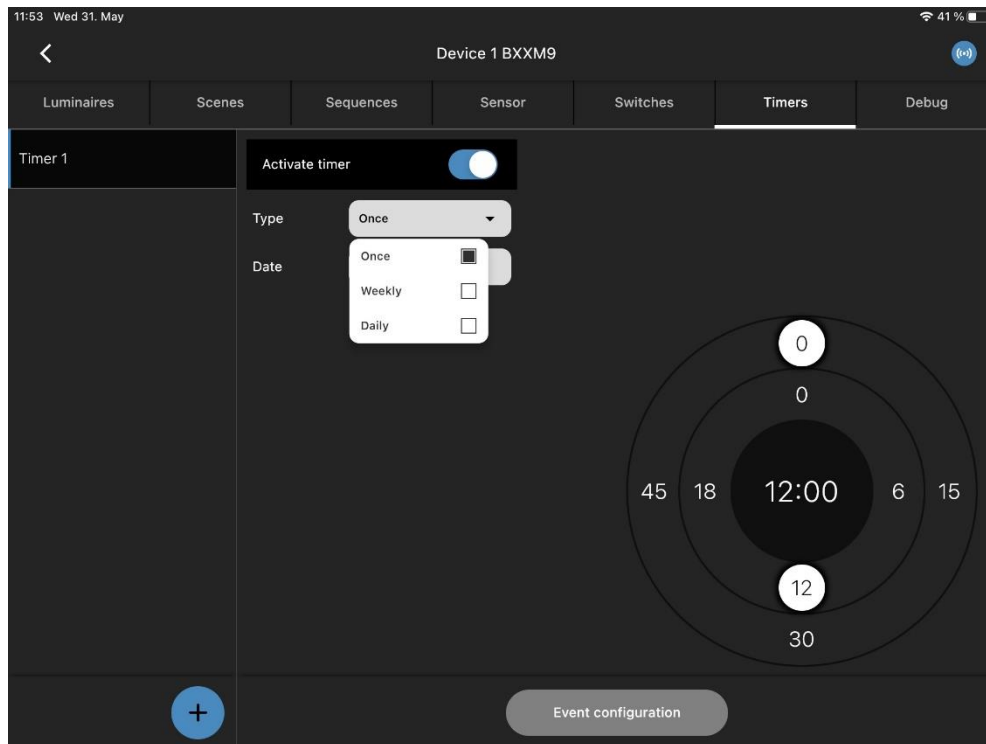
Figure 41

Now you have a couple of settings to choose from, "once, weekly, daily", with different sub menus.
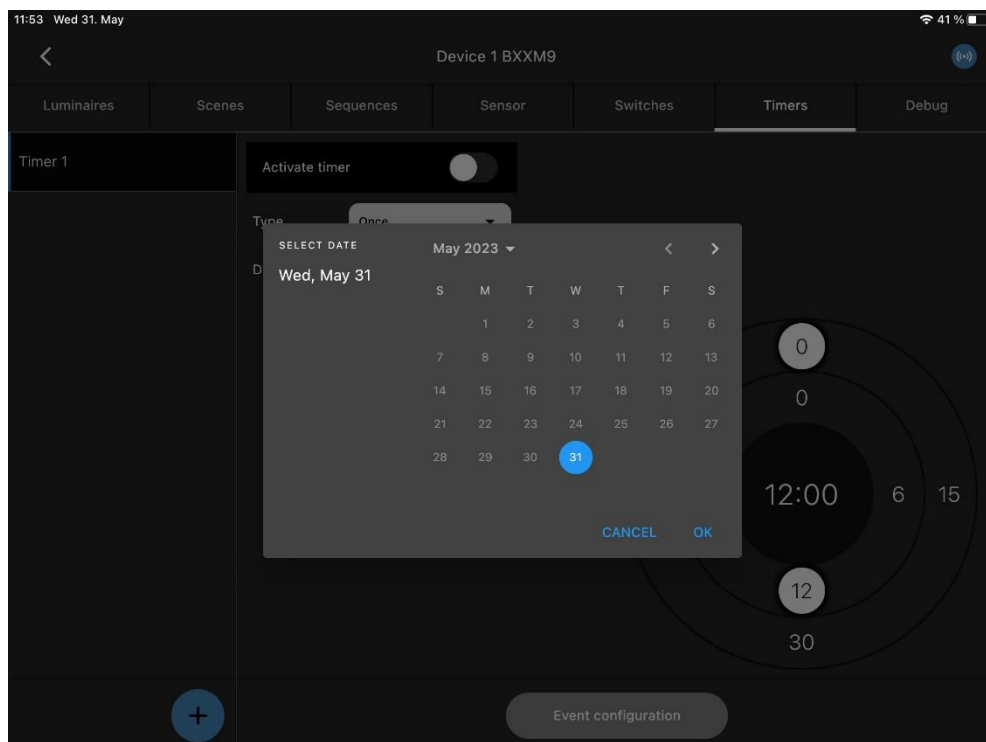


Figure 42

For **once**, you can select a date and time when it should work.
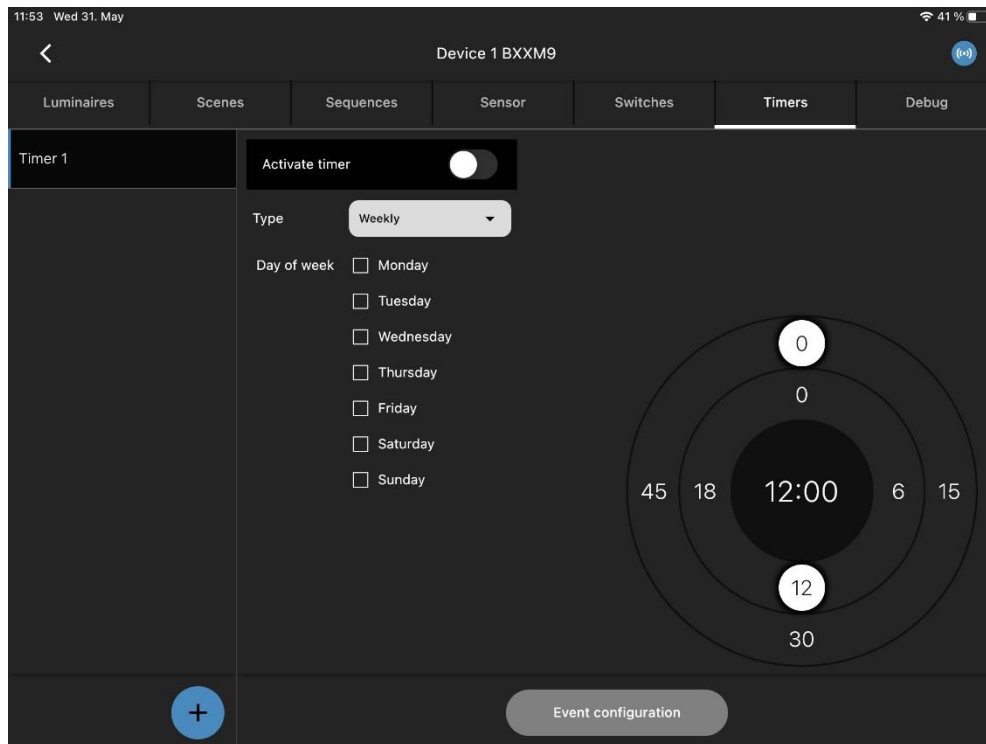
Figure 43

For **weekly,** you can select between days and time.
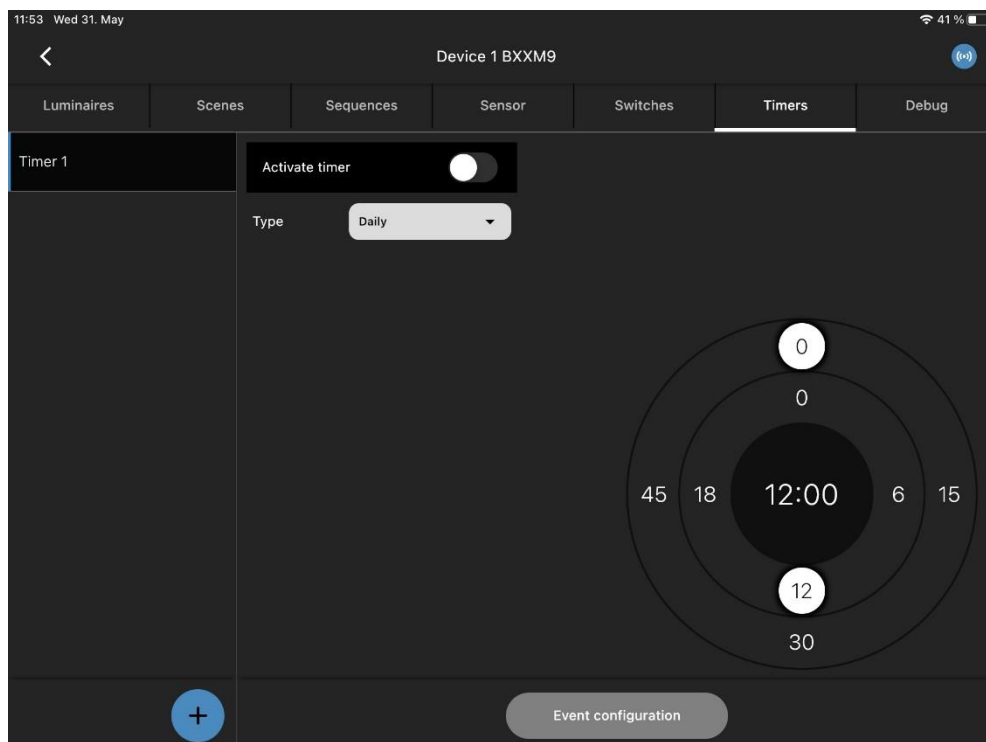


Figure 44

For **daily,** you can select only time for a daily use.
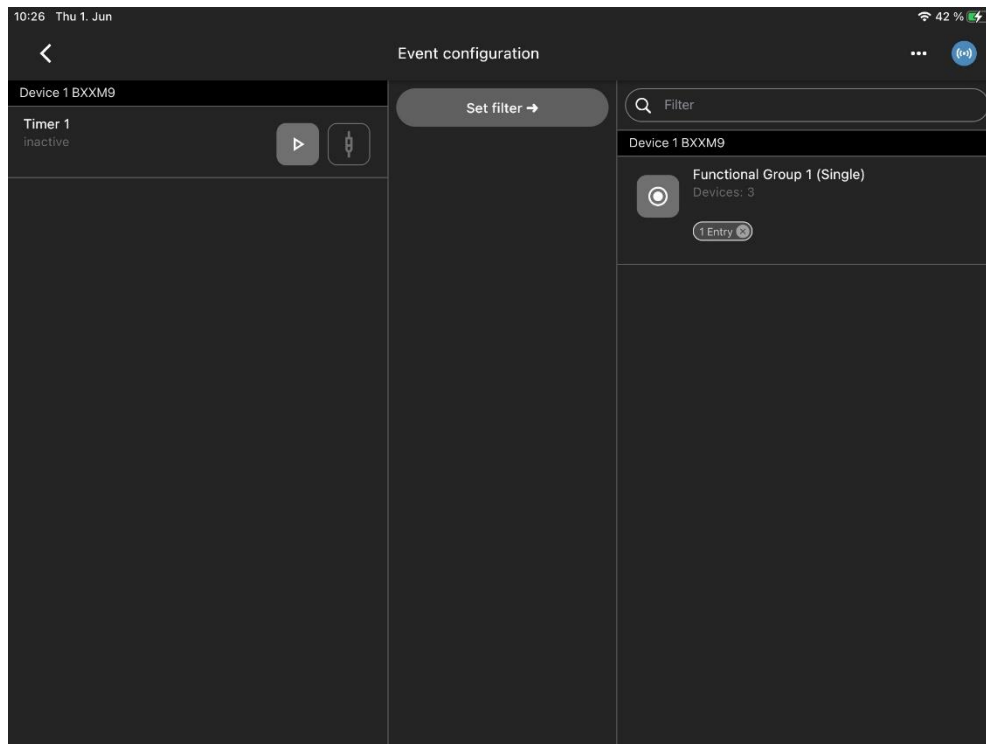
Figure 45

After setting and selecting the Timer the only thing left is to connect the timer to the Functional Group in the event configuration.
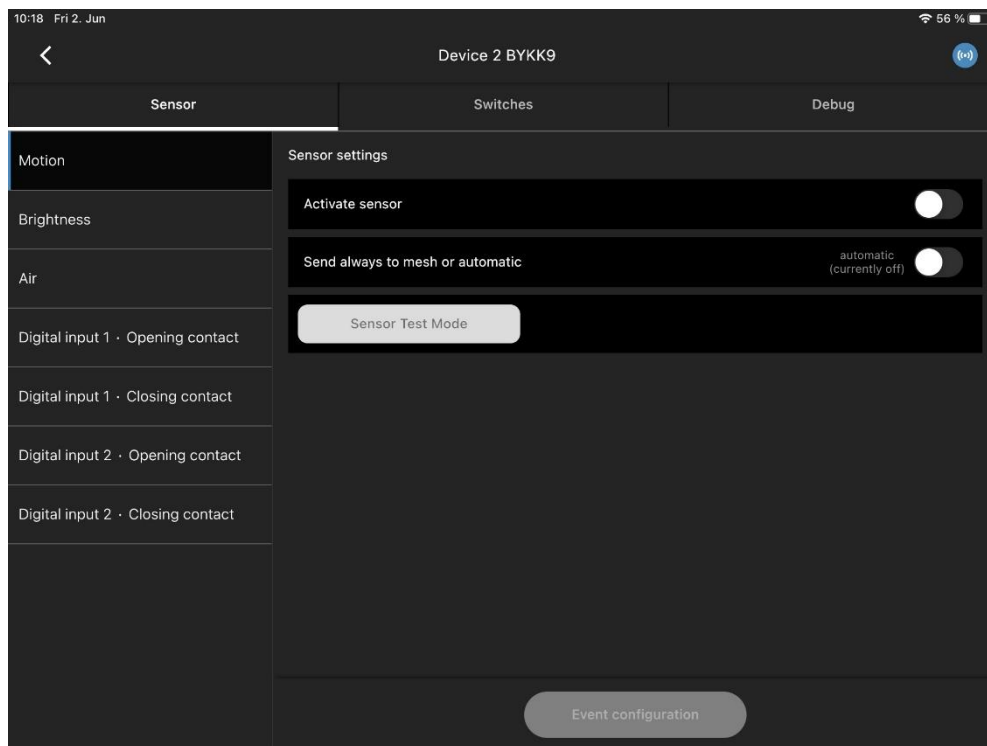
Figure 46

Our air sensor has the options to be used as a motion or brightness sensor which can be configured same, as described in chapter 6 and 7.
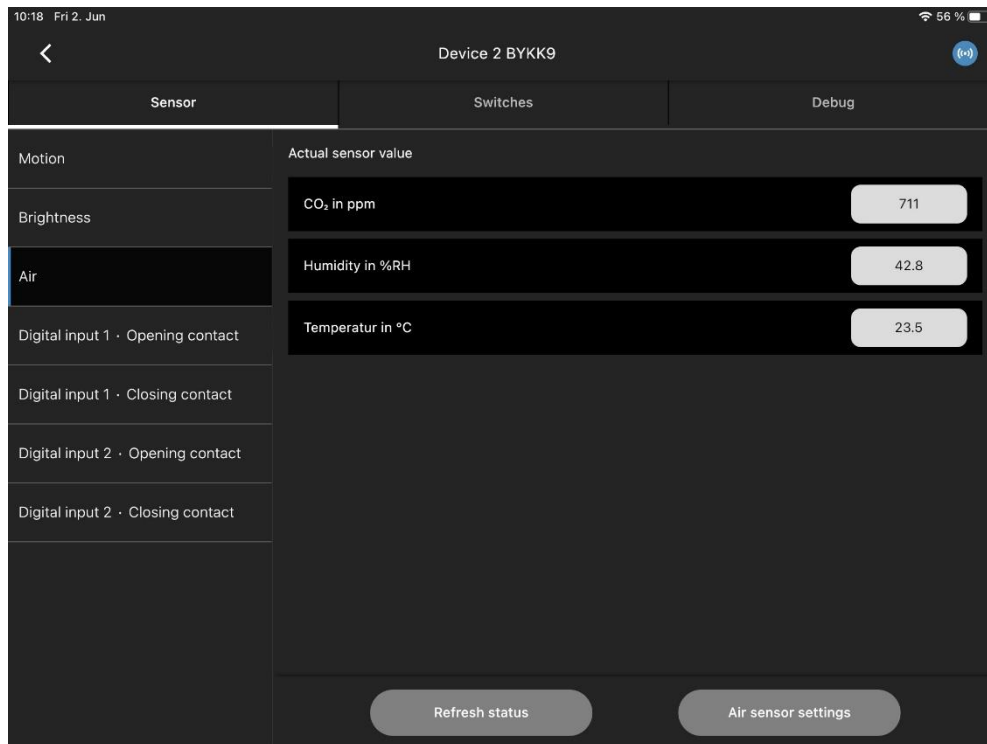
Figure 47

In the Tab „Air" you can see the values of $CO_2$, humidity in %RH and temperature in °C



Figure 48

Figure 49

For the $CO_2$ Level, temperature and Humidity, there is an option to change the threshold as well as the refreshing interval of all of those. Underneath you have the option to switch on and off the air quality indicator and define the orange and red threshold, the LED is turned on in default.
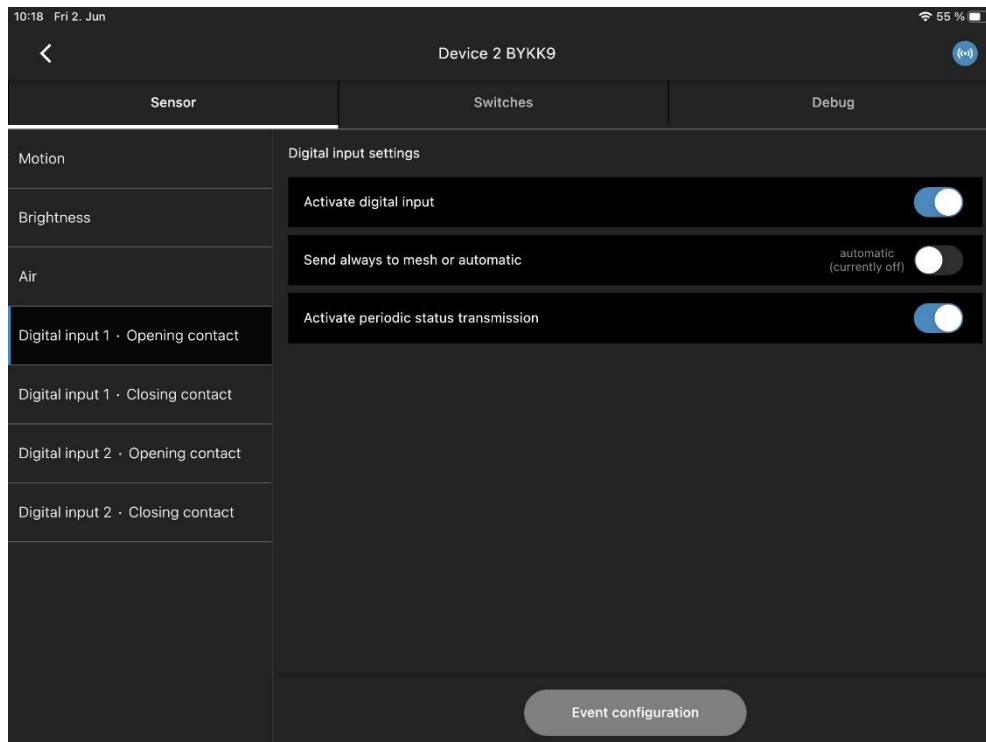
Figure 50

For switching on and of air conditioning, we have 2 digital inputs where we can detect openings and closings of a window. This function can only be used in an cloud solution, as well as the usage of the air sensor values ($CO_2$, humidity etc.)
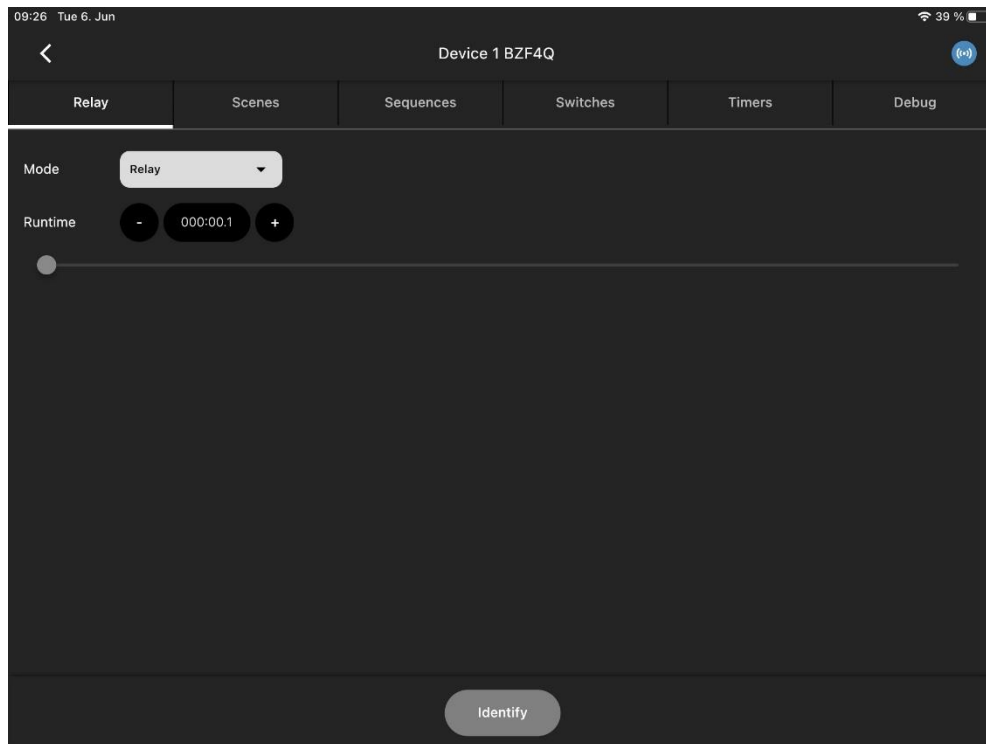
Figure 51

Start scanning in your node and go into the settings as in "Figure 2". Now you can either use the relay mode or the blinds mode by changing the wiring on the relay itself and set the mode to the function you need. **Have in mind that this is only a relay, meaning that all scenes you configure over 0% are on state "on"!**
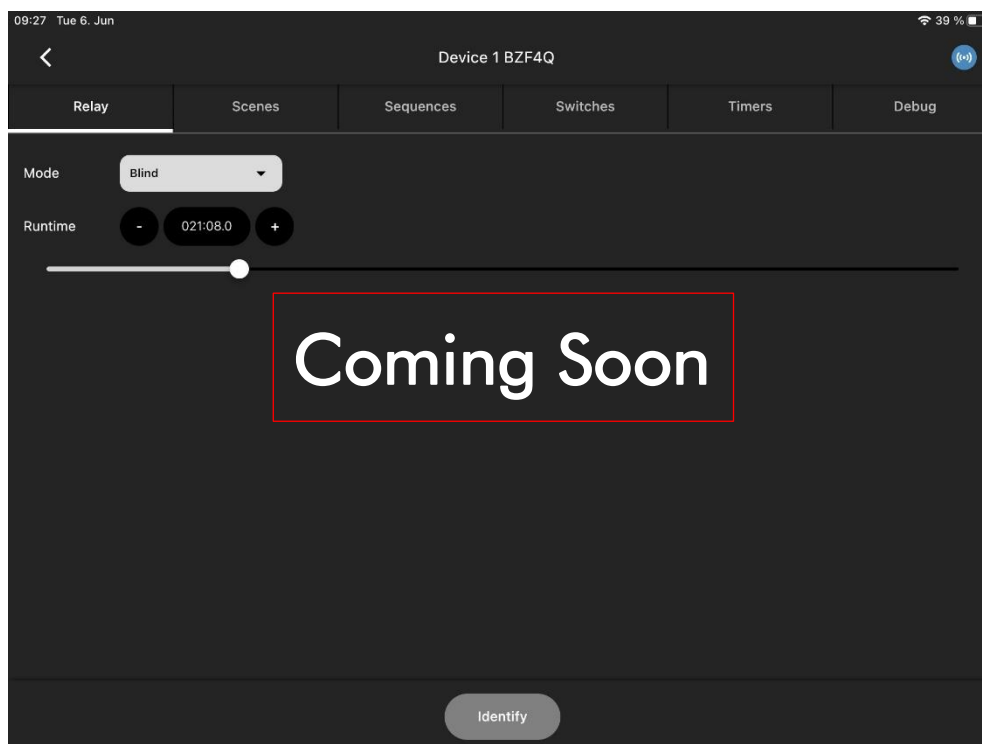
Figure 52

By running down your blinds the relay will stop a time in which your blinds are reaching the end of the rail. Also you can manually change the time with a slider.
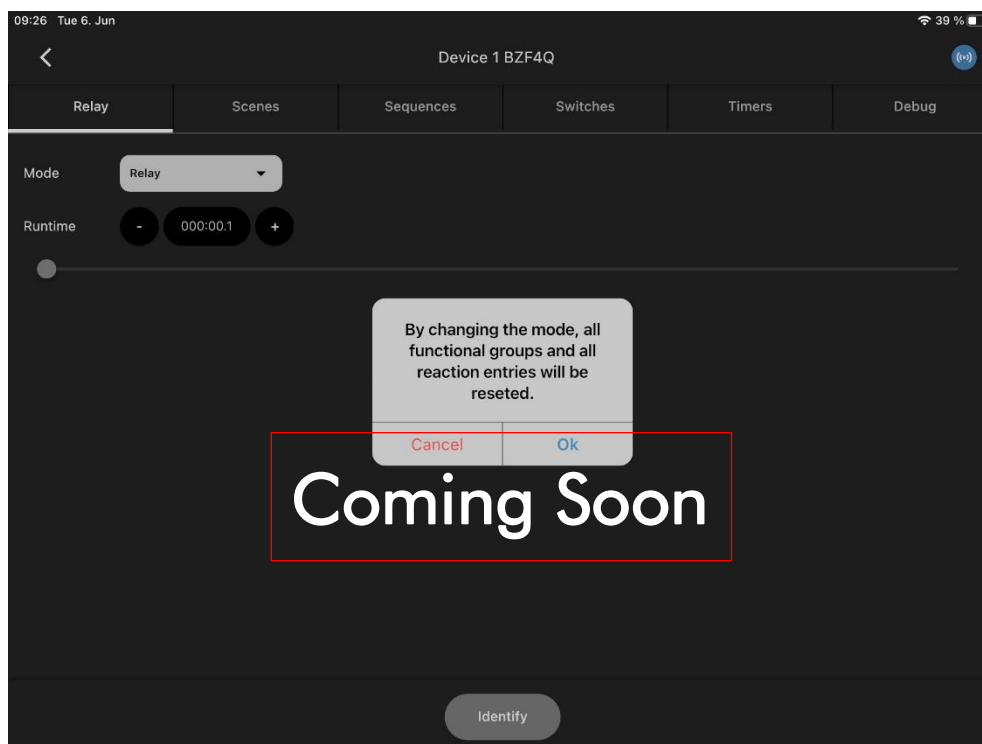

Figure 53

Please have in mind that by changing the mode, you reset all the functional groups connected to your relay!
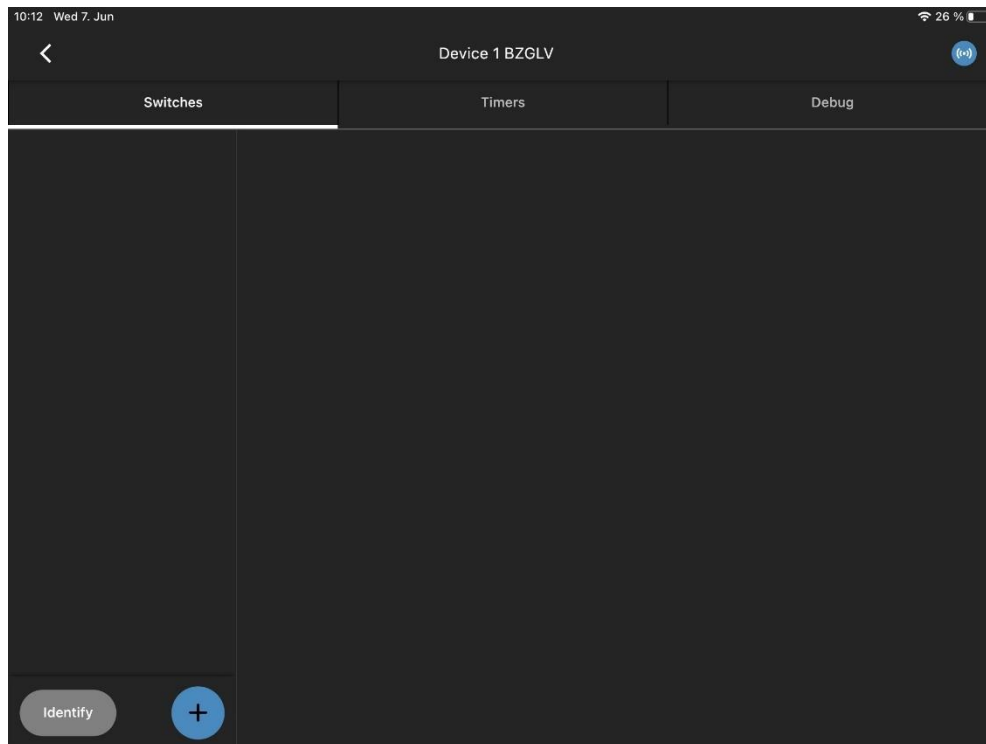
Figure 54

By scanning in the PB4 and clicking on the Node you will notice that you have the Option to add another En Ocean Switch. This is meant to make integration easier for you!
You can also add Timers and if activated, look up the Debug option.

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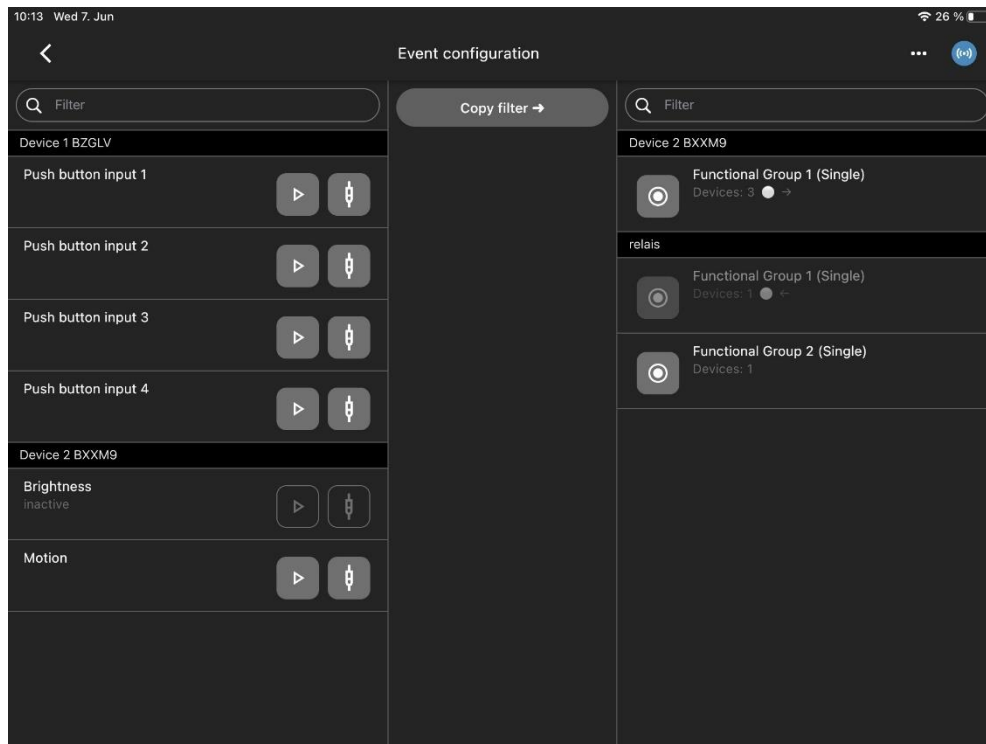
Figure 55

If you don't need the options in "Figure 50" you can simply open your Event configuration. There you will now see the inputs of your Connect PB4.
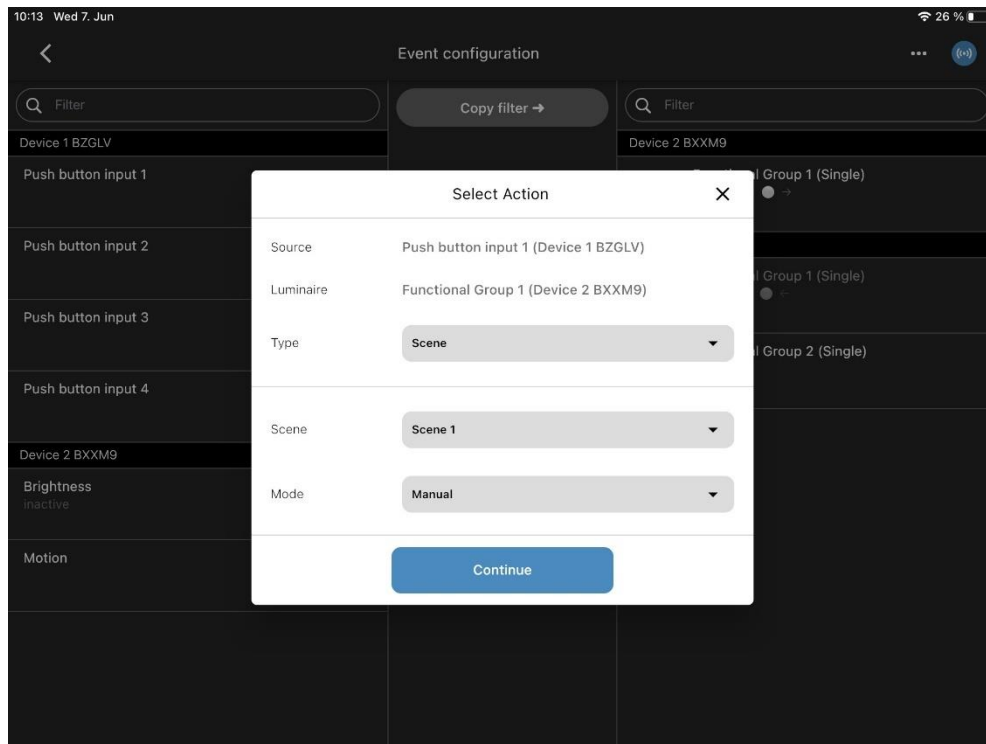
Figure 56

By connecting the nodes to the functional group, you want, you now can decide what action should be triggered by pressing the switches, connected to the output according to the scenes you configured in "Figure 10" to "Figure 12".

## 14 INCLUDING AN BLU2LIGHT REPEATER

For better connection between the nodes, you can use a repeater, this repeater can only be used to strengthen the mesh and is simply scanned in.

# 15 DO'S AND DON'TS

## 15.1 DO'S

- Always use the latest provided app and firmware

- Read the documentation carefully.

- Always create a backup after configuration

- In buildings in construction, make sure you have a propper and uninterrupted mains supply.

- Steps to configure a system:

  1. Make a plan.

  2. Document the needed functions.

  3. Scan all QR codes

  4. Make firmware update.

  5. Create all FGs.

  6. Assign channels to FGs

  7. Configure power on values.

  8. Connect functions.

  9. Make backup

  10. Import backup to Server.

- Set up light regulation reference with no (ideal) or minimal external light.
- If you have a technical request, include:

  1. Backup file

  2. Exported network overview.

  3. Description of the system

  4. Description of the issue as detailed as possible

- Use "Follow Me" function wherever possible.

- Always delete a system if it was transferred via backup to another tablet.

- Make a DALI bus power calculation for every DALI bus.

- Place nodes with GPS receivers with open view to the sky

- Blu2Light is designed to be always ON. To turn OFF the light, create a scene with luminance 0%.

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## 15.2 DON'TS

• Do not configure all color values to zero for a scene.

• Do not add functional groups to a light regulation on a node that has no own FG and no physical driver connected.

• Do not use long RTA  (return to auto) times.

• Do not locate two or more light sensors feeding each a light regulation to close together. If they see the light from a different area this will cause unstable regulation when the other group changes their level.

• Do not change the room setup below the sensor when light regulation is active without reconfiguring the reference value (or expect changes in the reached target level)

• Never turn off the power during a firmware update.

• Never turn off the power directly after configuration changes. **Wait at least 1 minute**.

• Do not use any unknown power supply

• Don't use weak radio connection between two nodes.

•Never connect too much load on the DALI line.

• Don't Save nodes. Having too less nodes in a system decreases radio stability and reduces the possibility to configure the system for changed behaviors.

• Never use two tablets for configuration in parallel or alternating on one system

• Using the LiNA Connect App on a finished configuration which already has a LiNA Touch interface is not recommended and can cause malfunctioning of the Touch system while programming on the Connect App in parallel.

• Do not Connect two (or more) Blu2Light controllers on one DALI line (therefore we have the Power Splitter, 187280).

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- Each functional group has its own state

    - Manual

    - Auto

    - Sequence

- The "Auto" state has a sequence of steps, based on the configuration not all of them might be reached

    - Active

    - Passive

    - Basic

    - Off

- Only the auto states "Active" and "Passive" can be used for light regulation

- Movement only reacts in state "Auto"

- A sequence can end with a scene call either in active, manual mode or trigger another sequence