

Blu2Light



Operating Manual *LiNA Connect / LiNA*

LiNA
Connect

Programming the Blu2Light System

Using LiNA Connect

LiNA
Touch

Operating the Blu2Light System

Using LiNA Touch

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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

Trademarks

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1.2 DOWNLOADING THE APP

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

	LINA Touch	LINA Connect
		
		

2 PREPARATION

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!

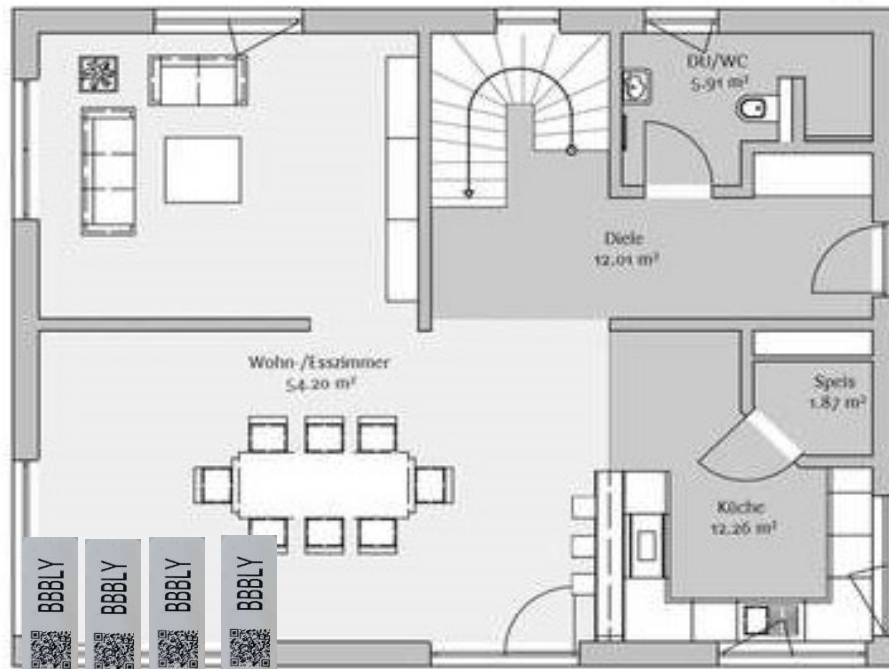


Figure 1

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.

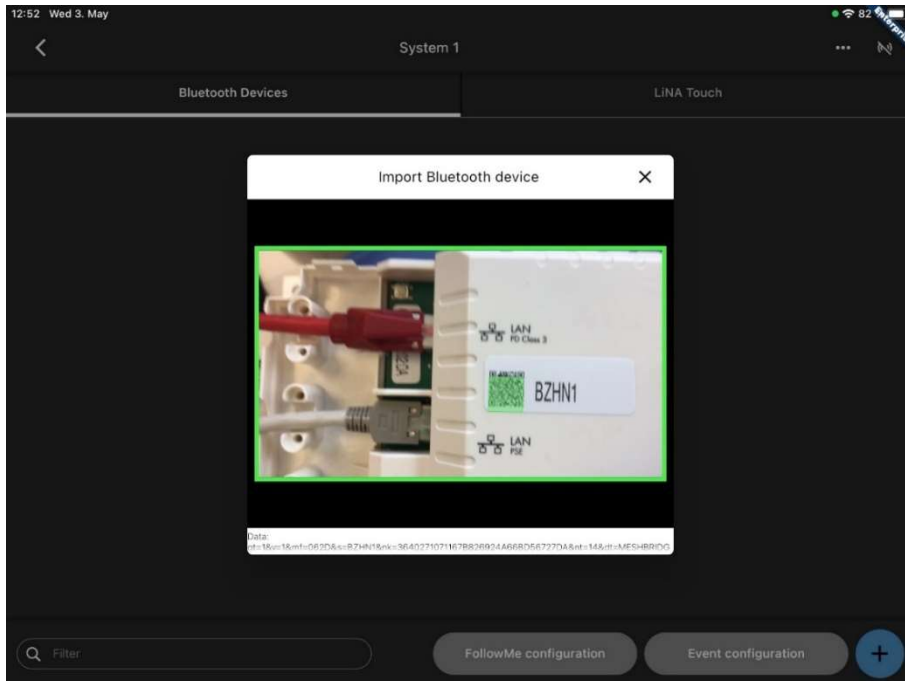


Figure 2

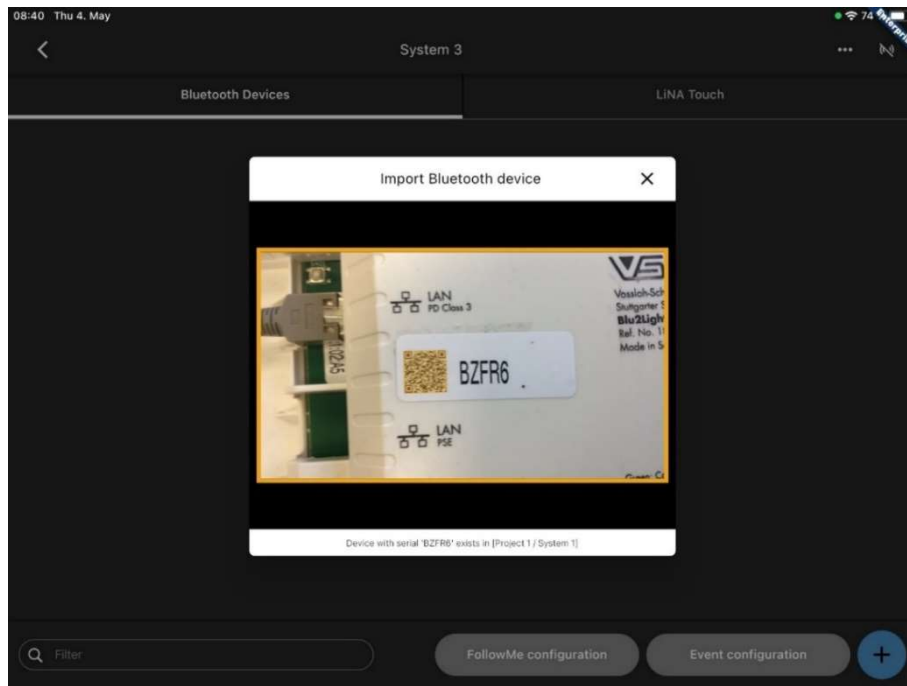


Figure 3

Orange = already used in another system

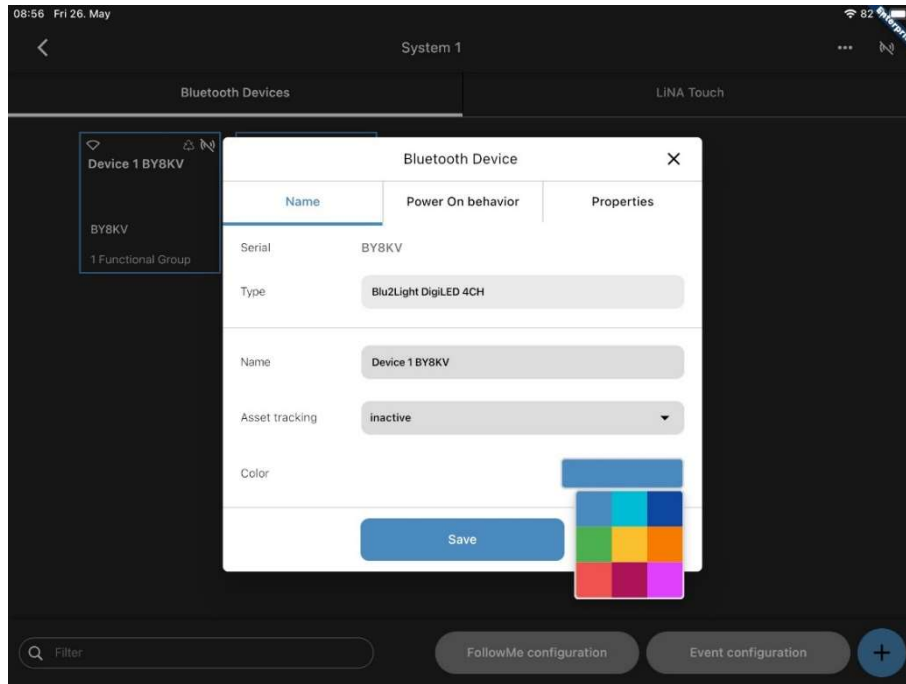


Figure 4

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!

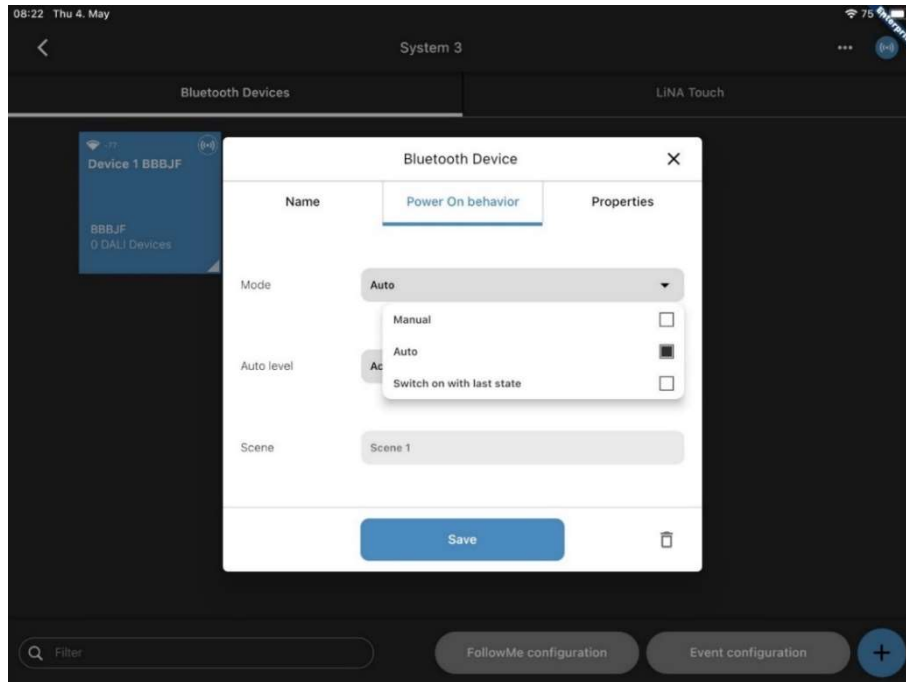


Figure 5

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

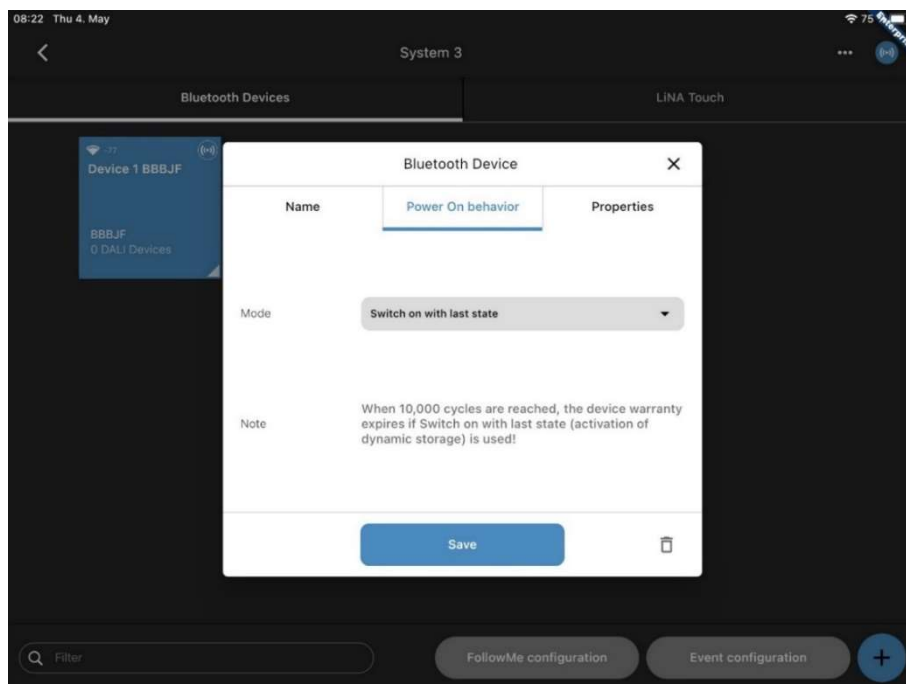


Figure 6

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

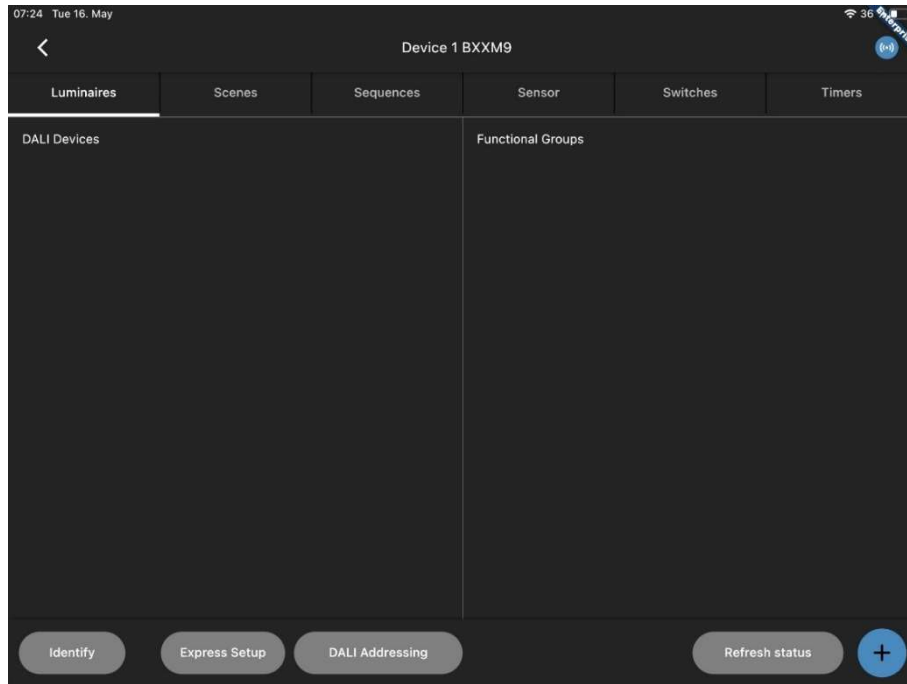


Figure 7

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

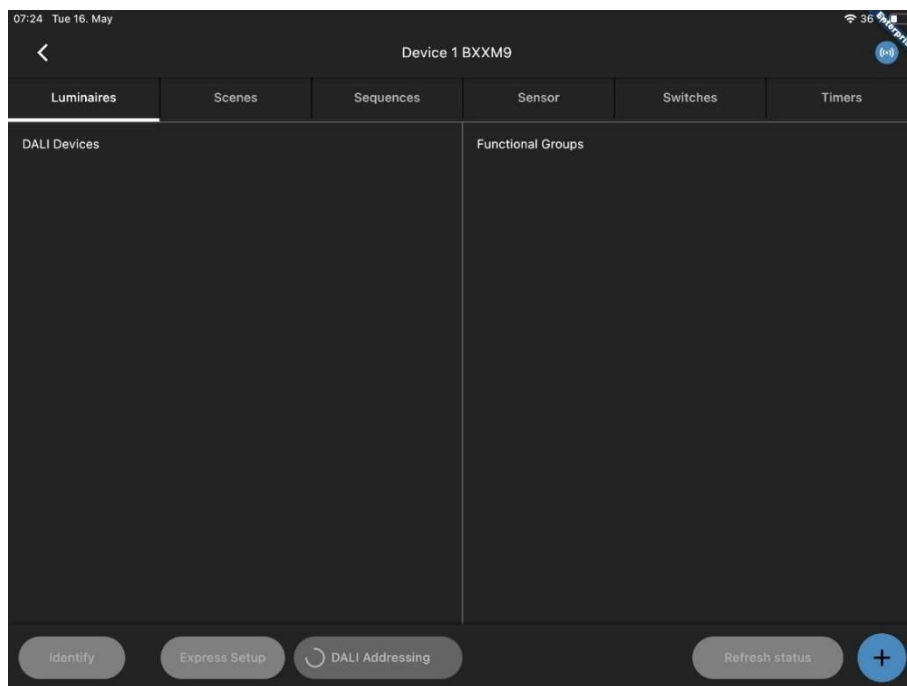


Figure 8

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

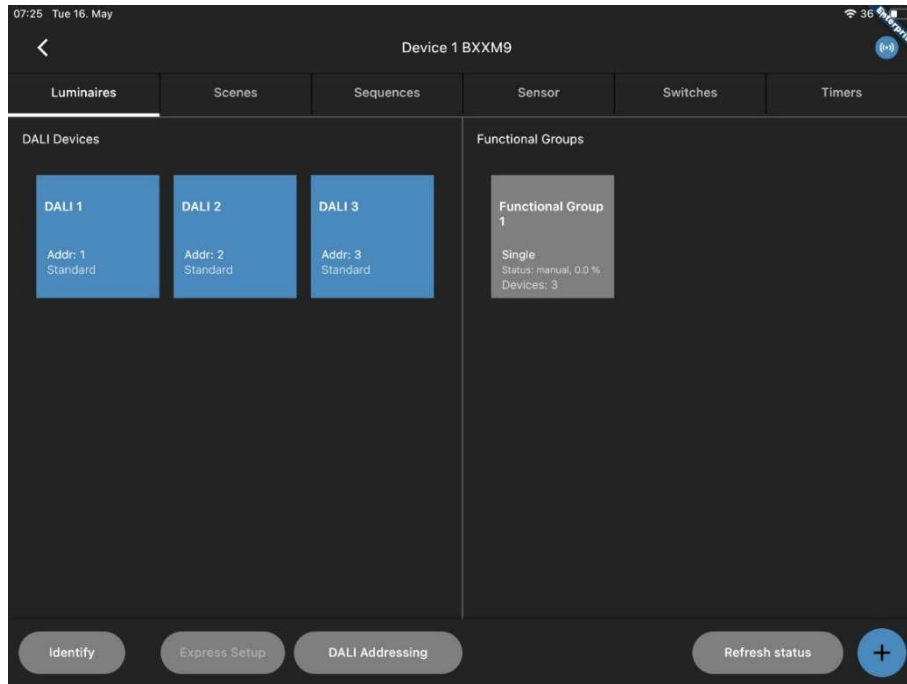


Figure 9

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

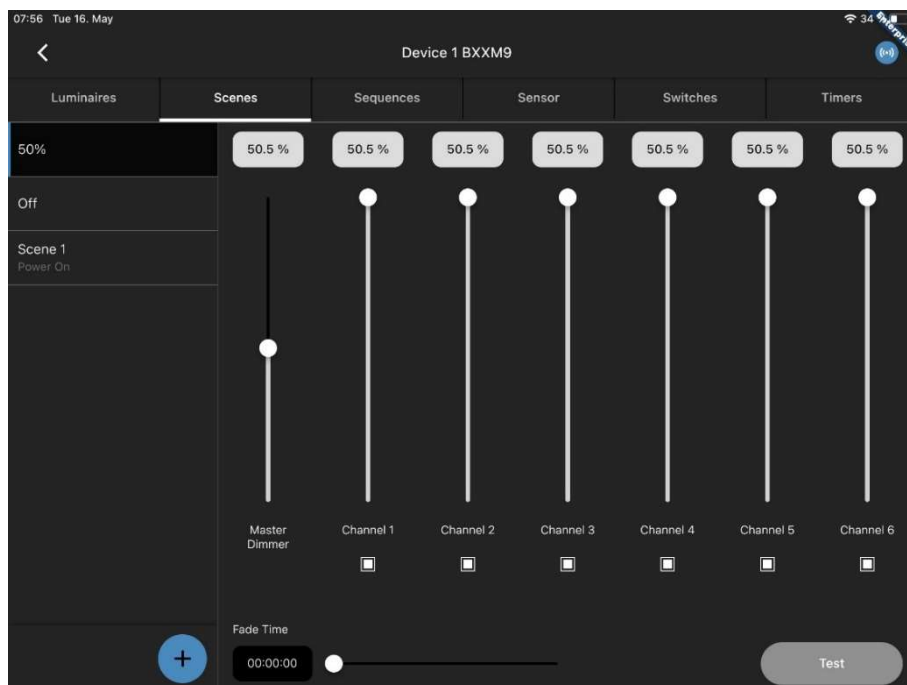


Figure 10

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

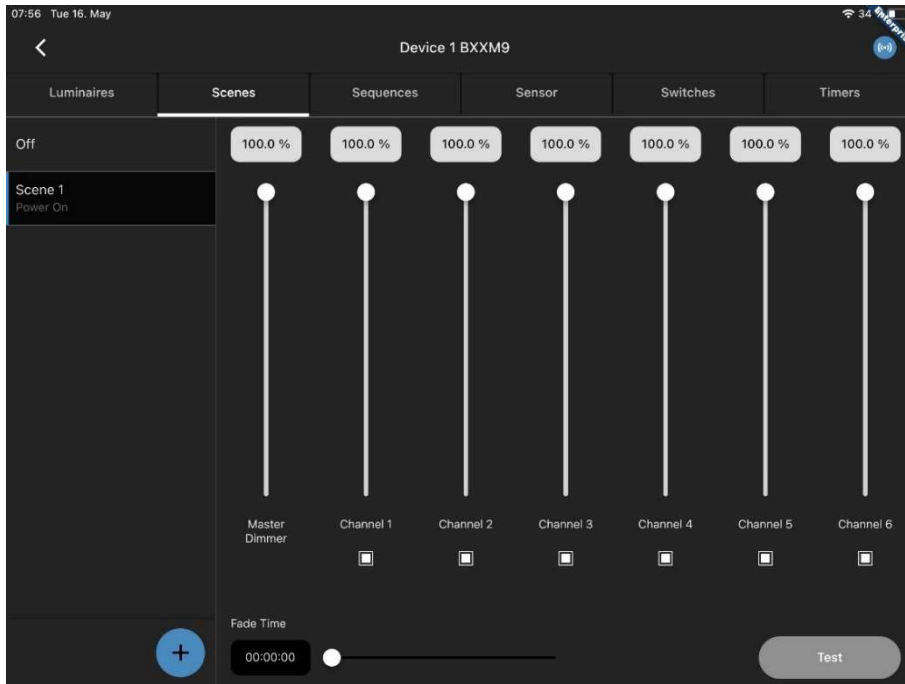


Figure 11

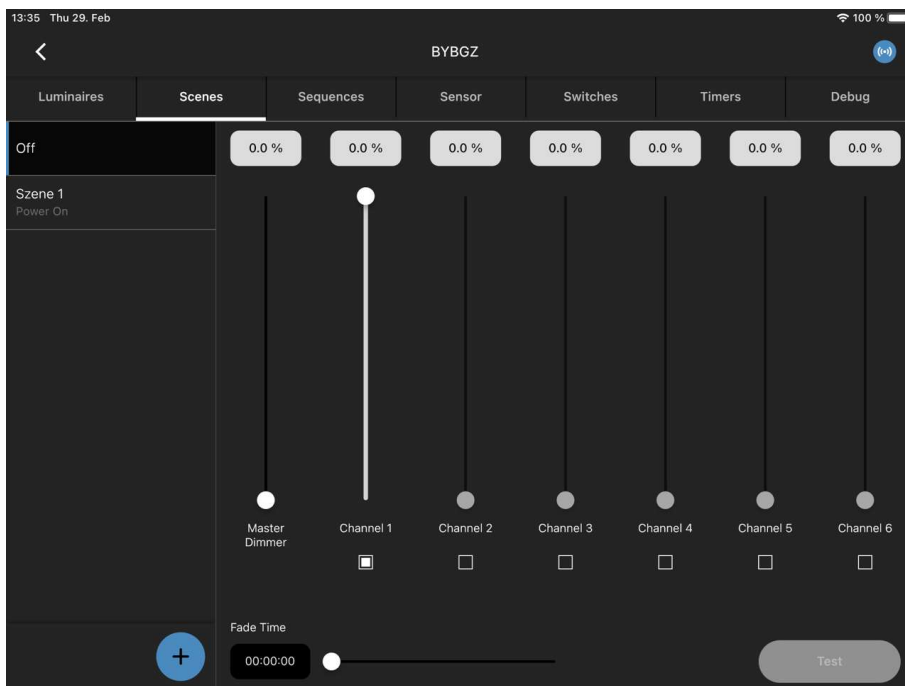


Figure 12

In most configurations, it is recommended to leave at least one channel switched on. The master dimmer should be set to zero for the "Off" scene.

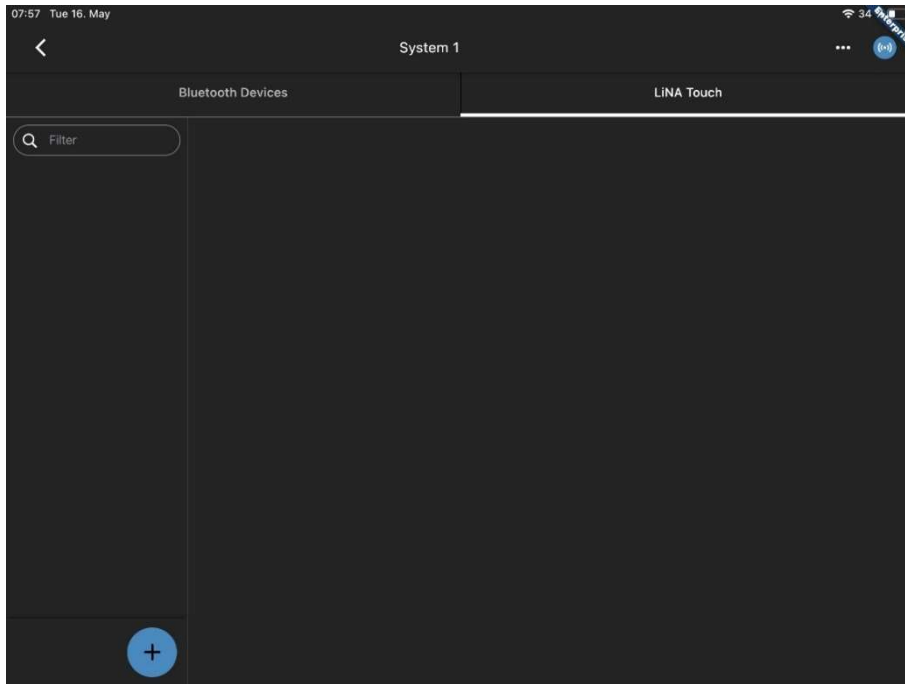


Figure 13

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".

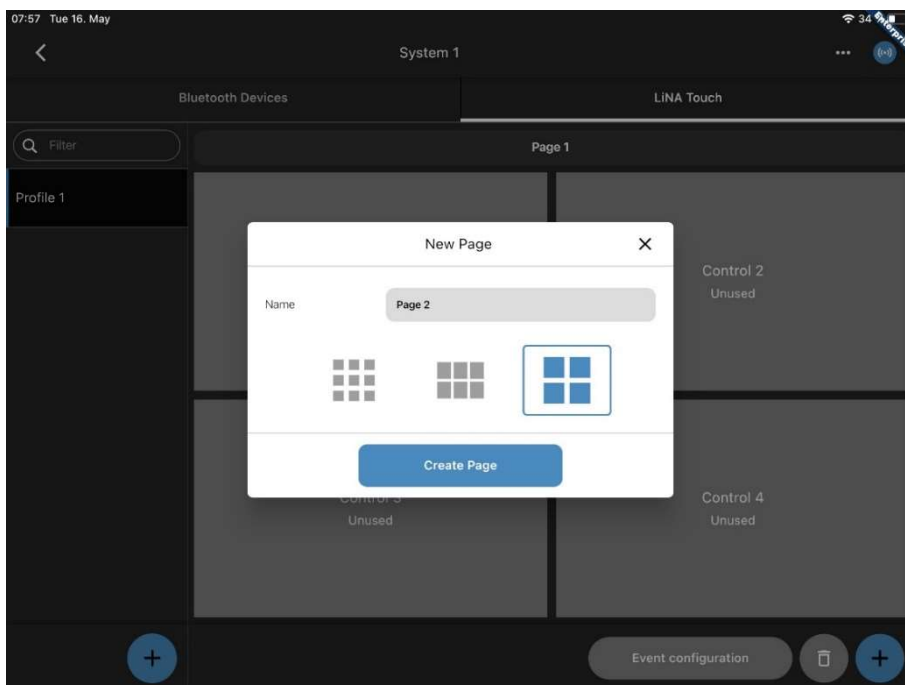


Figure 14

Here you can use the (+) button on the left-hand side to create a new touch profile and name it accordingly. Use the (+) button on the right-hand side to select a touch surface, 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.

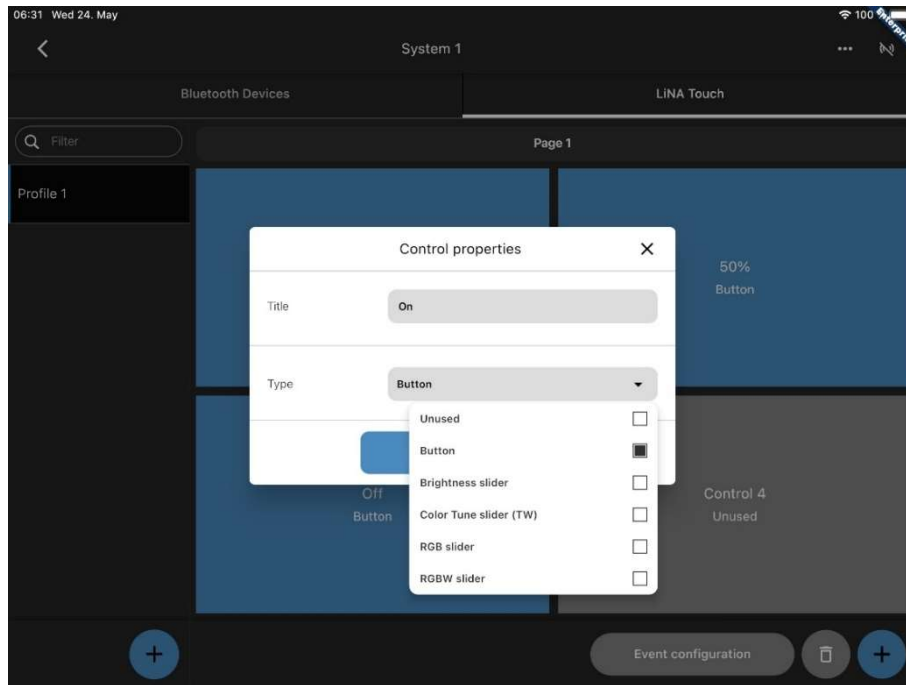


Figure 15

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

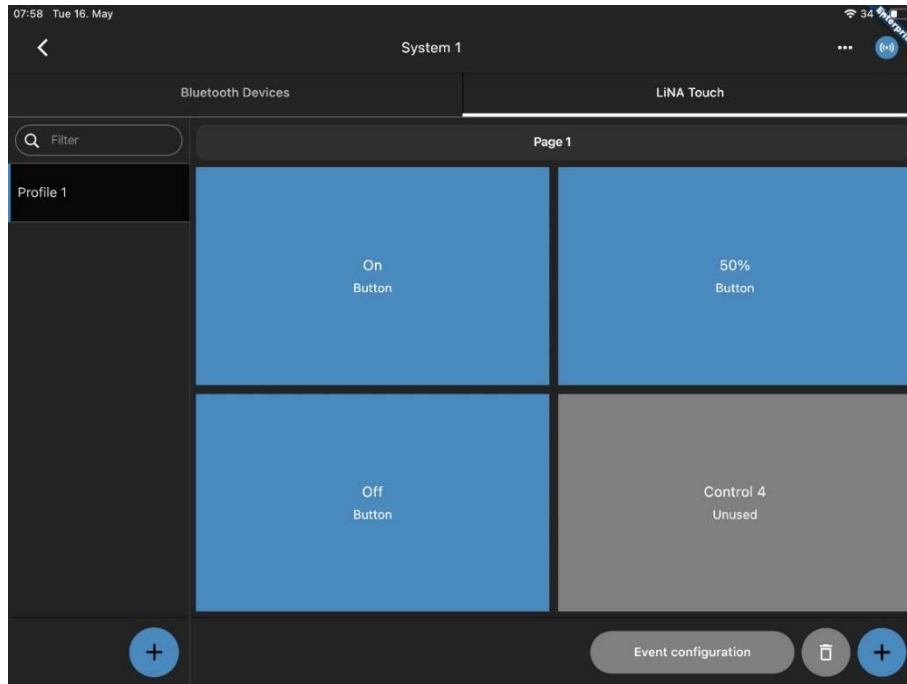


Figure 16

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

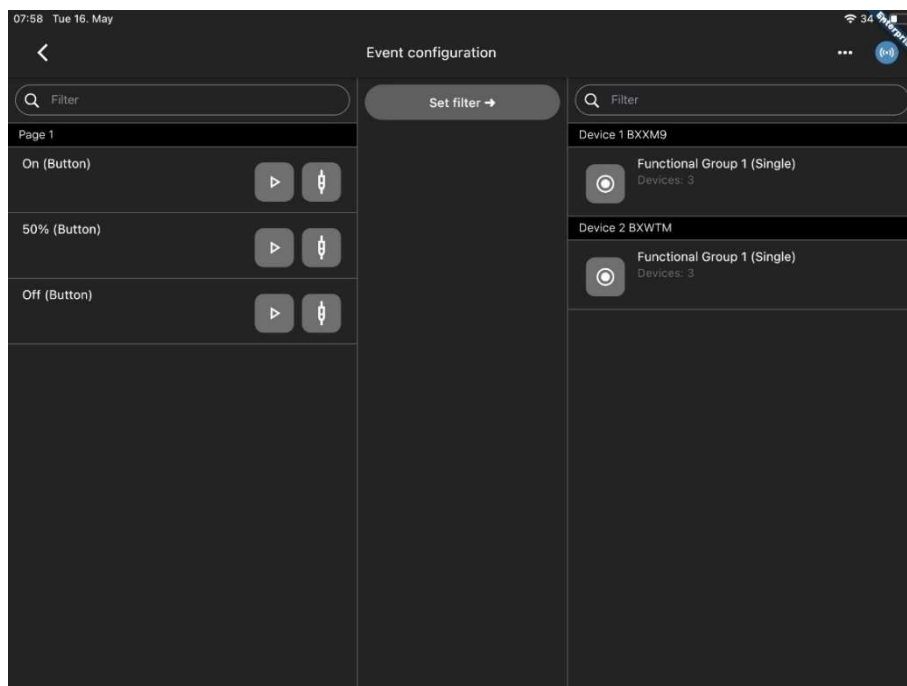


Figure 17

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.

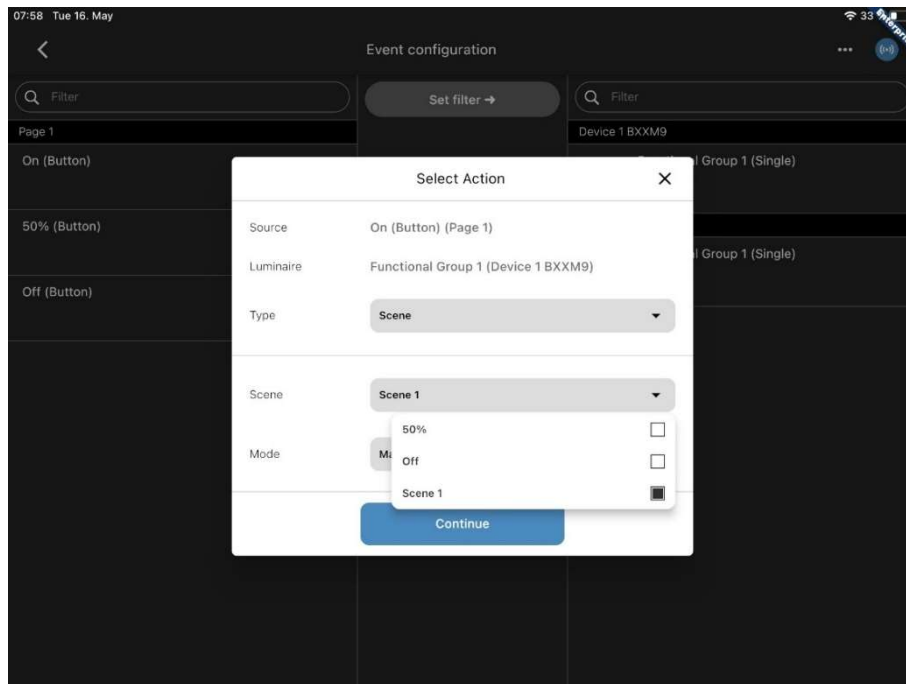


Figure 18

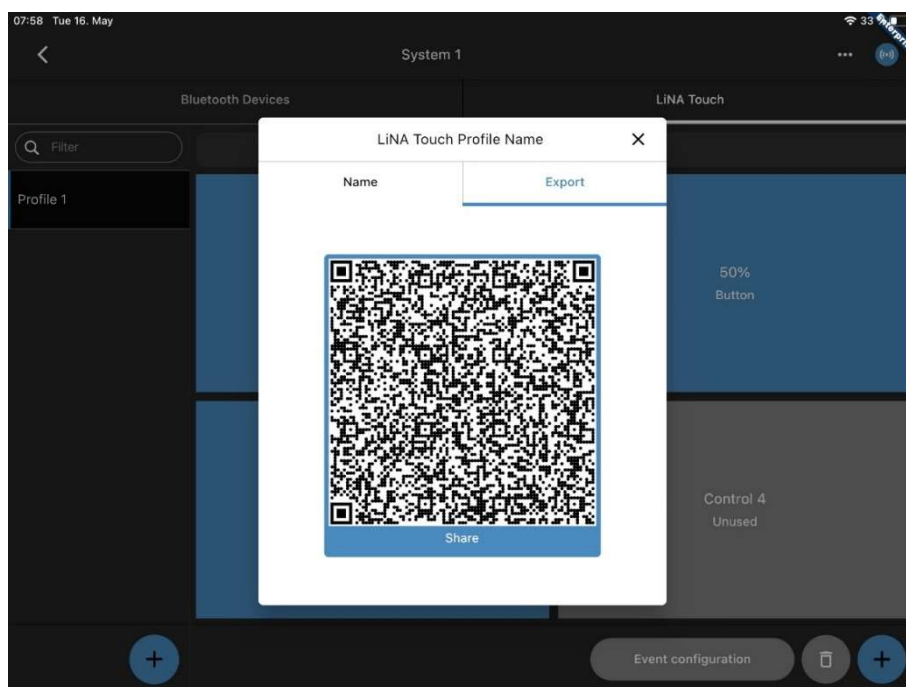


Figure 19

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.

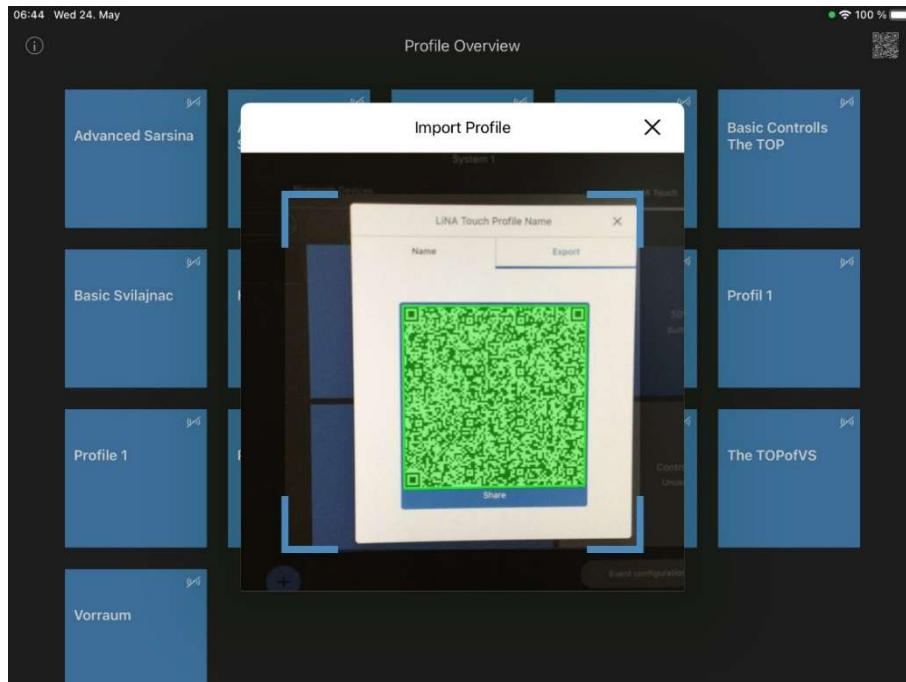


Figure 20

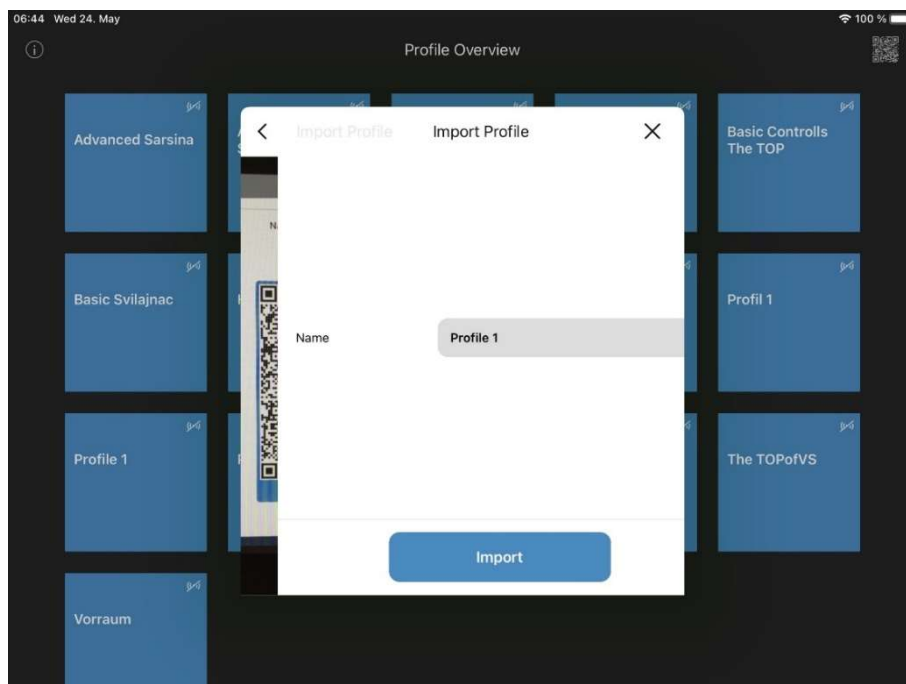


Figure 21

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:

<p>Sets the dimming speed of the stored scene in a DALI value Fixed (0-254)</p>	Dimming speed	0
<p>Here the light level for the "Active" state is selected.</p>	Active light level	100.0 %
<p>Here you can define how long the "active level" is held.</p>	Time, active	00:09:57
<p>Here the light level for the "passive" state is selected.</p>	Passive light level	0.4 %
<p>Here you define how long the "passive level" is held.</p>	Time, passive	00:00:10
<p>Here the light level for the "basic" state is selected.</p>	Basic light level	0.1 %
<p>Here you define how long the "basic level" is held.</p>	Time, basic	∞
<p>Here you define how long the "basic level" is held.</p>	Emergency Basic Level	<input type="checkbox"/> 0.0 %
<p>By setting a check mark, you can select which light level is always kept, it is oriented to the basic Level.</p>	Semi auto mode	Off ▼
<p>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.</p>		

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

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

Return to Auto after ∞

Return to State Active

Return to Auto after ∞

Return to State Active

- Active
- Passive
- Basic
- Off

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

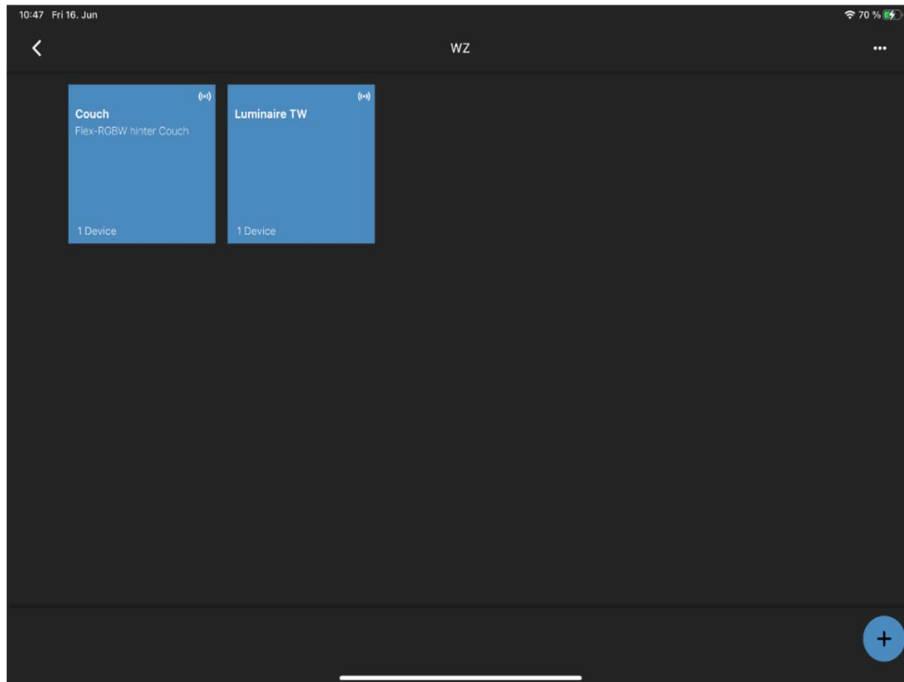


Figure 22

Add your node to the system and enter the configuration.

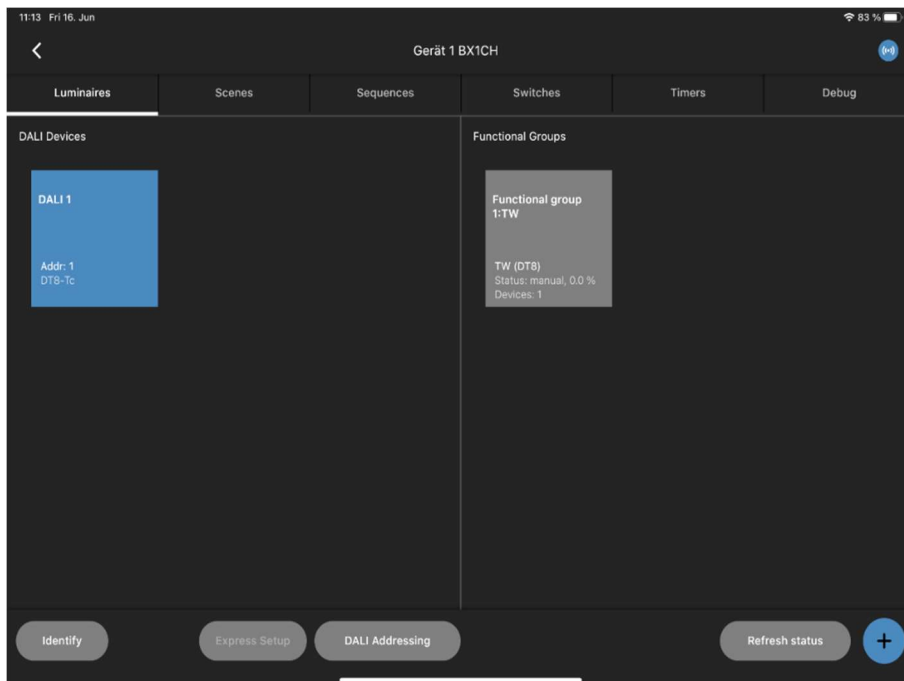


Figure 23

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

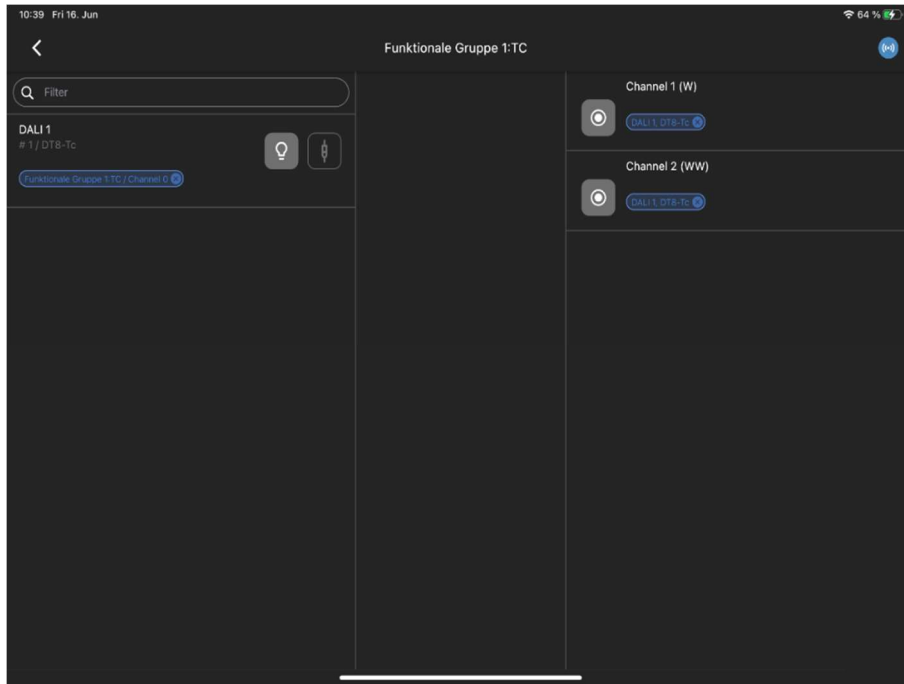


Figure 24

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

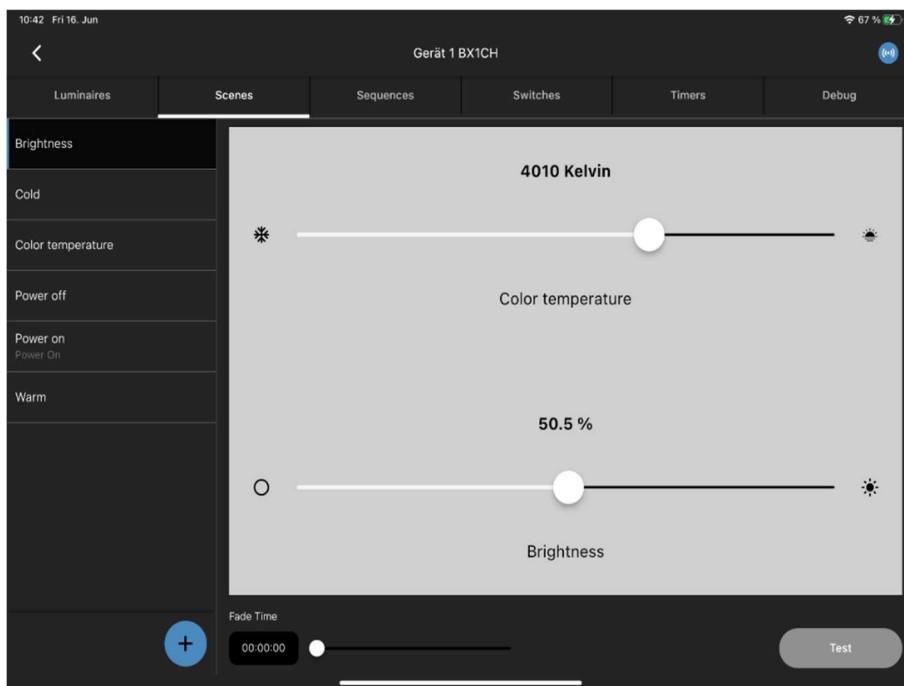


Figure 25

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

6 IMPLEMENTING A DIGILED (186839) + MANUAL CONFIGURATION

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

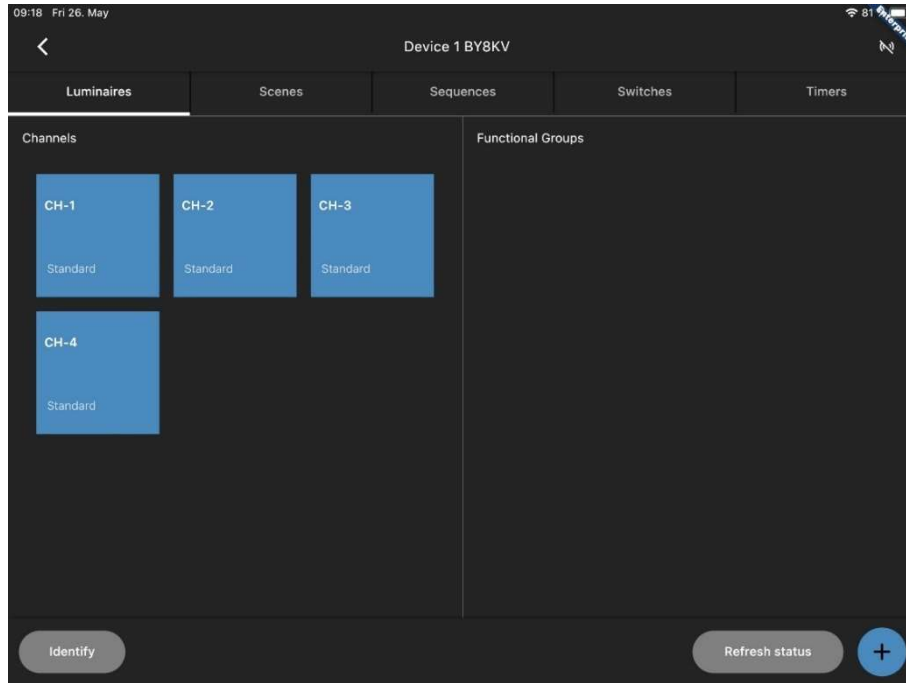


Figure 26

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

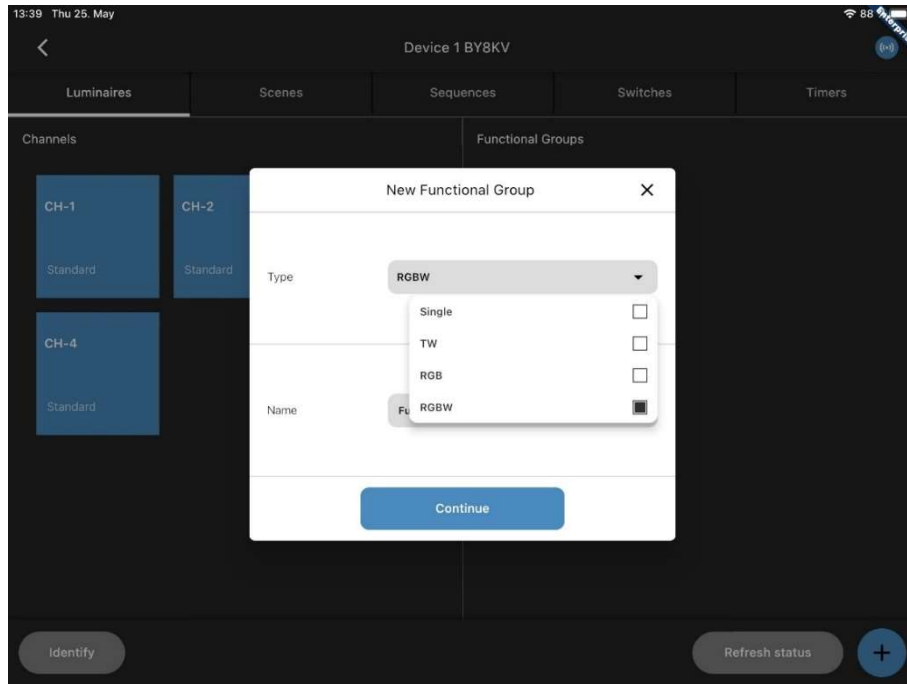


Figure 27

As you probably already have mentioned, you can't do an express setup here. Therefore you must create a Functional Group by yourself! Here you must select, how many channels your modules have. In this case it is RGBW.

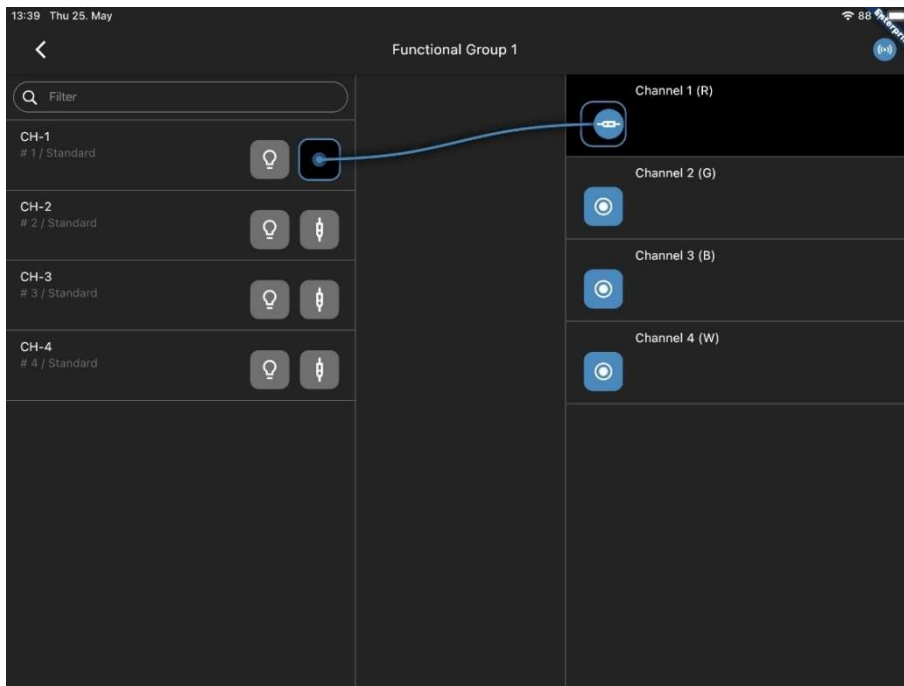


Figure 28

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).

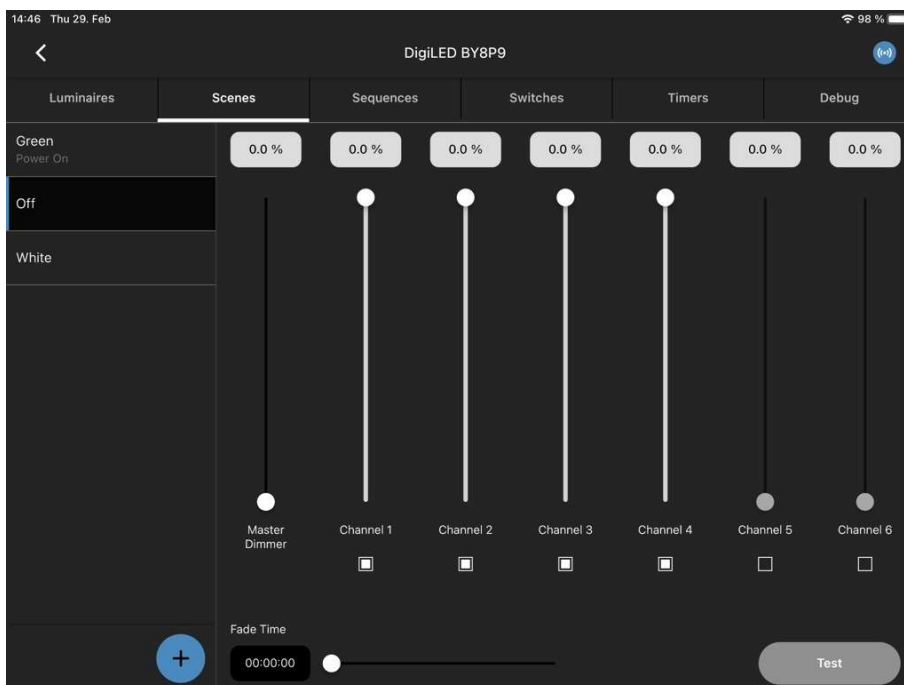


Figure 29

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 colors easier. Which should look something like this:

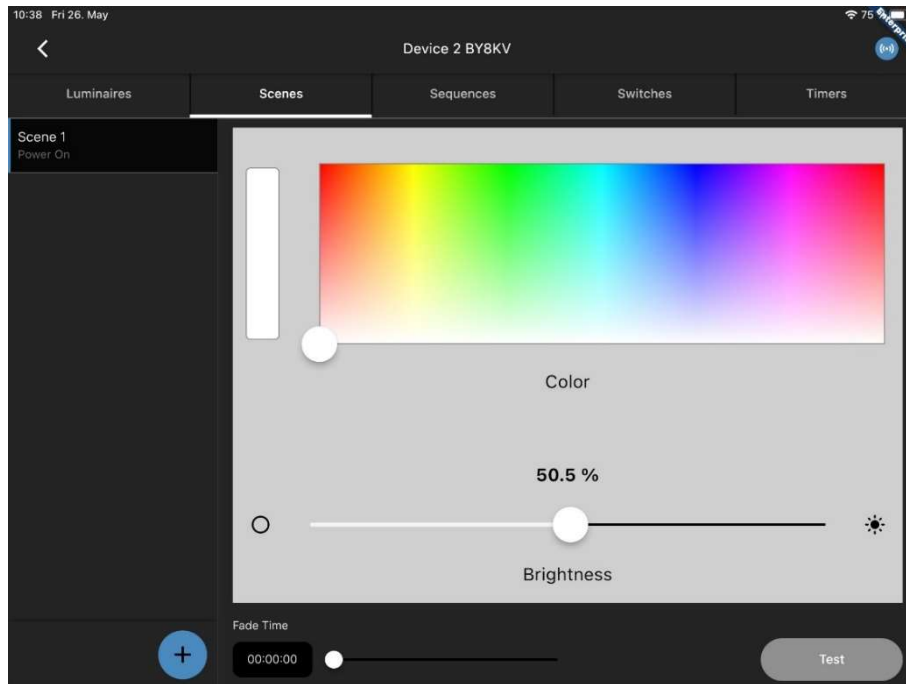


Figure 30

If you configured every scene you like, go back to Figure 13 and onward to move on.

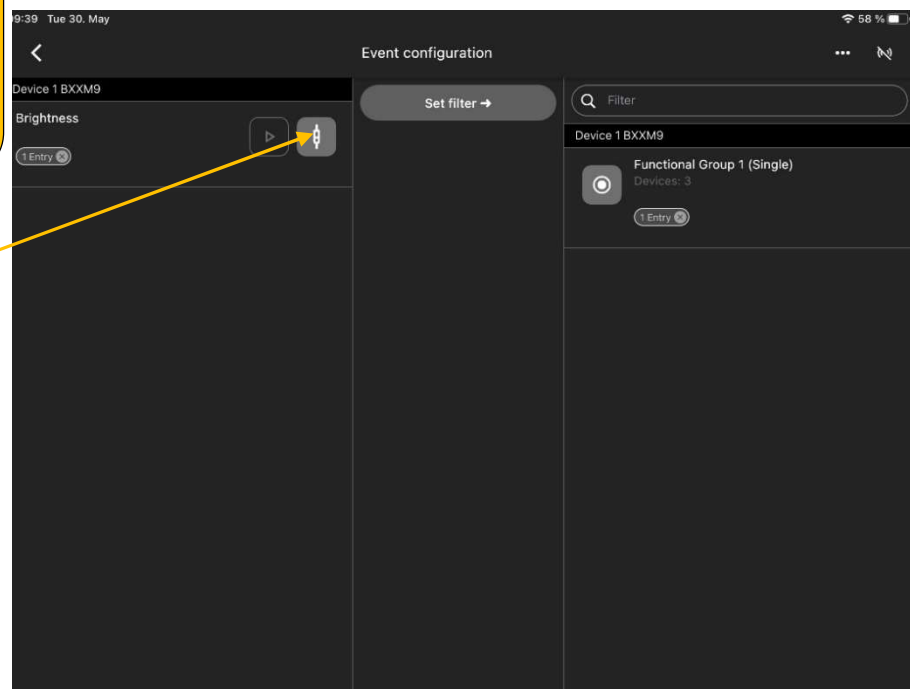
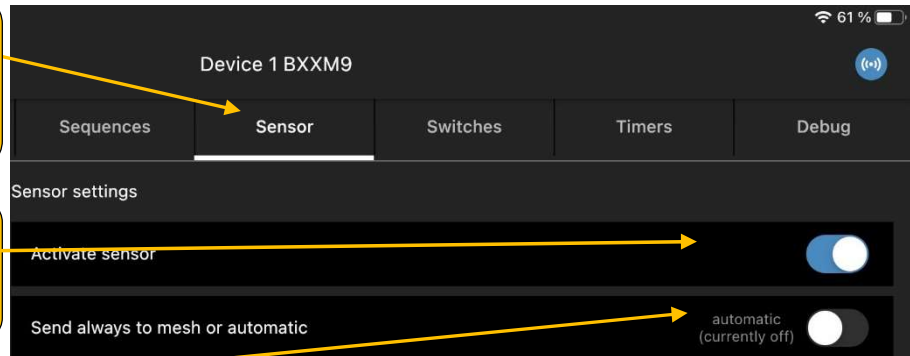
7 DAYLIGHT CONTROL EXPLAINED

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

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



Before you can adjust the light regulation, you have to connect an internal functional group.

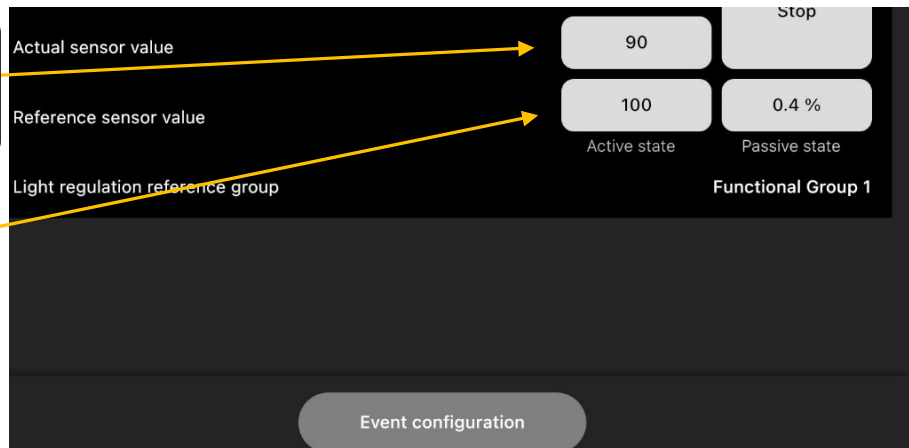
With the light level slider, you can try out how bright, the light regulation will be.

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

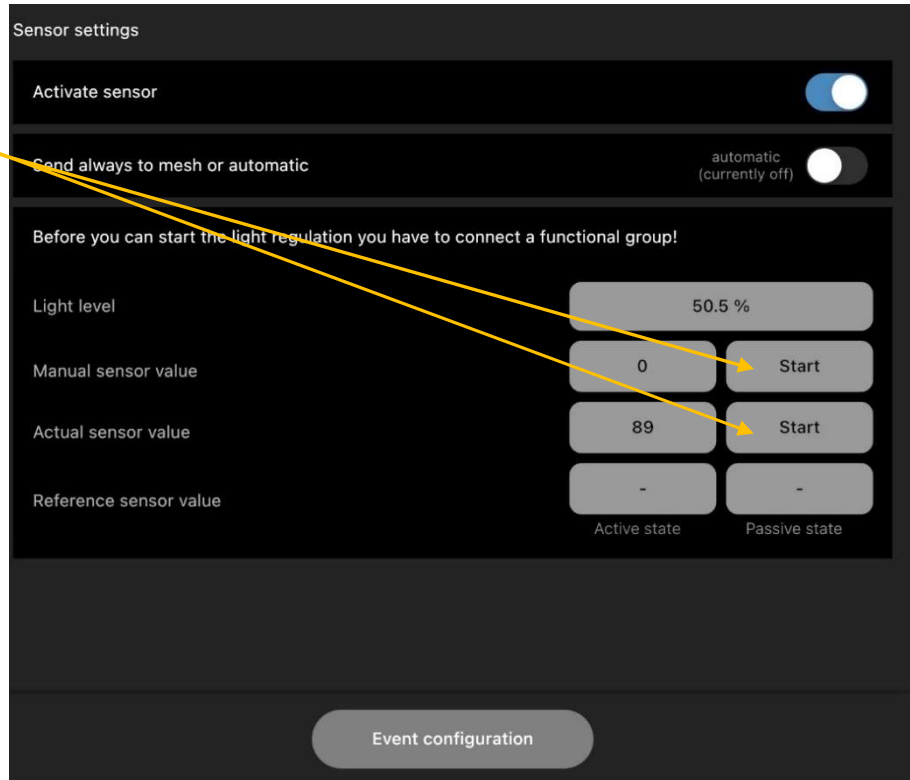


The actual sensor value shows the automatic measured sensor value.

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



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



Daylight control can only be started if an event configuration has been conducted beforehand.

8 HOW TO USE MOTION DETECTION

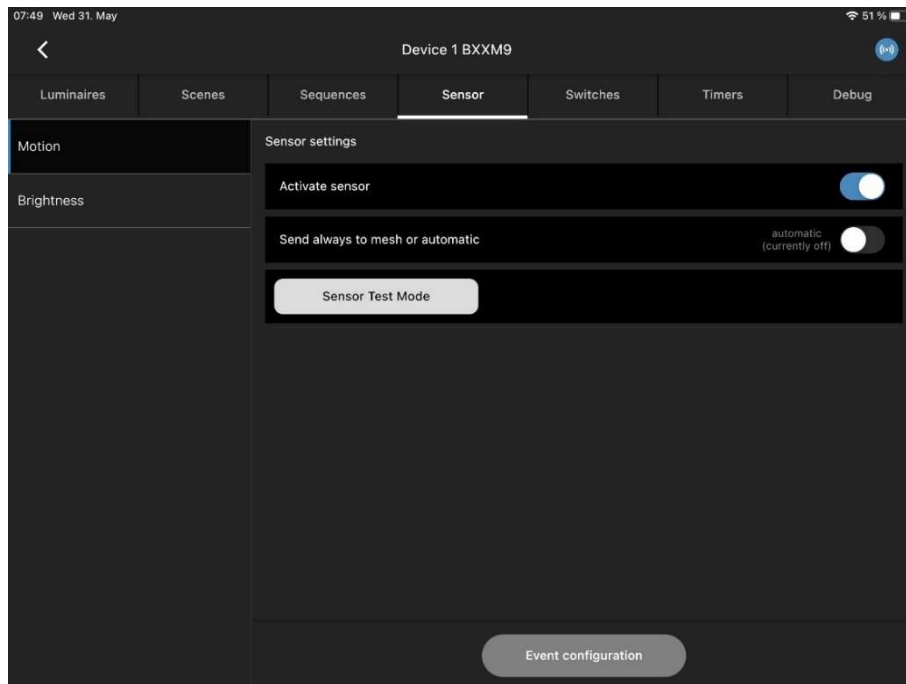


Figure 31

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.

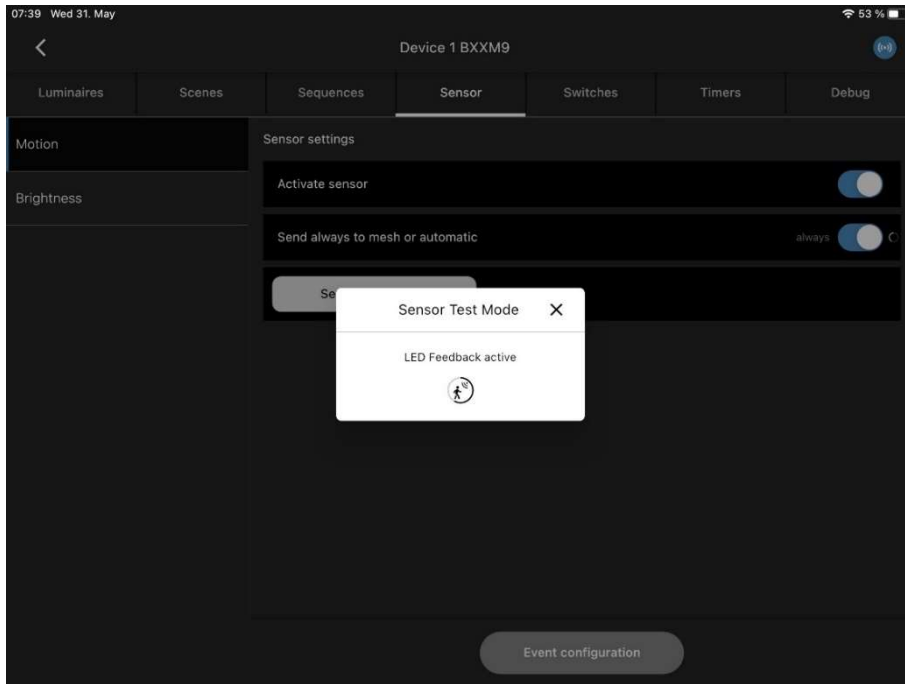


Figure 32

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 32” gets filled, it resets every time movement is detected.

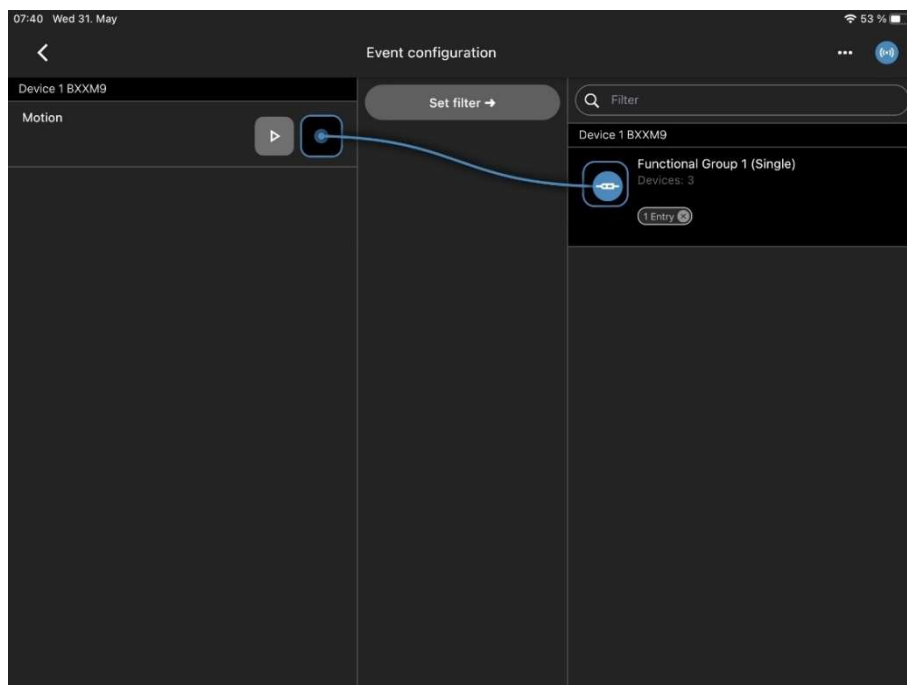


Figure 33

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.

9 USING SEQUENCES

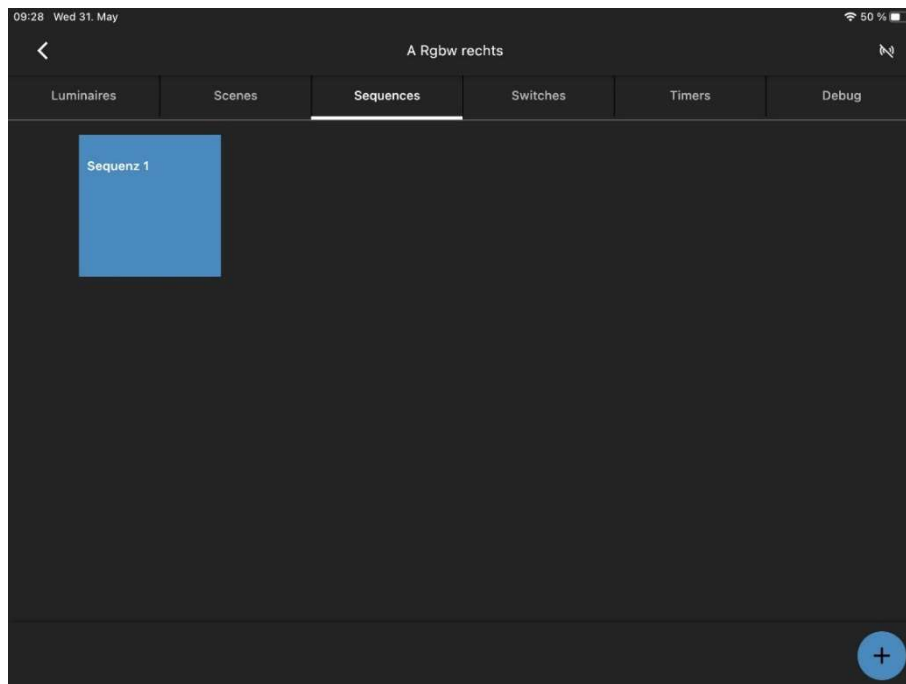


Figure 34

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

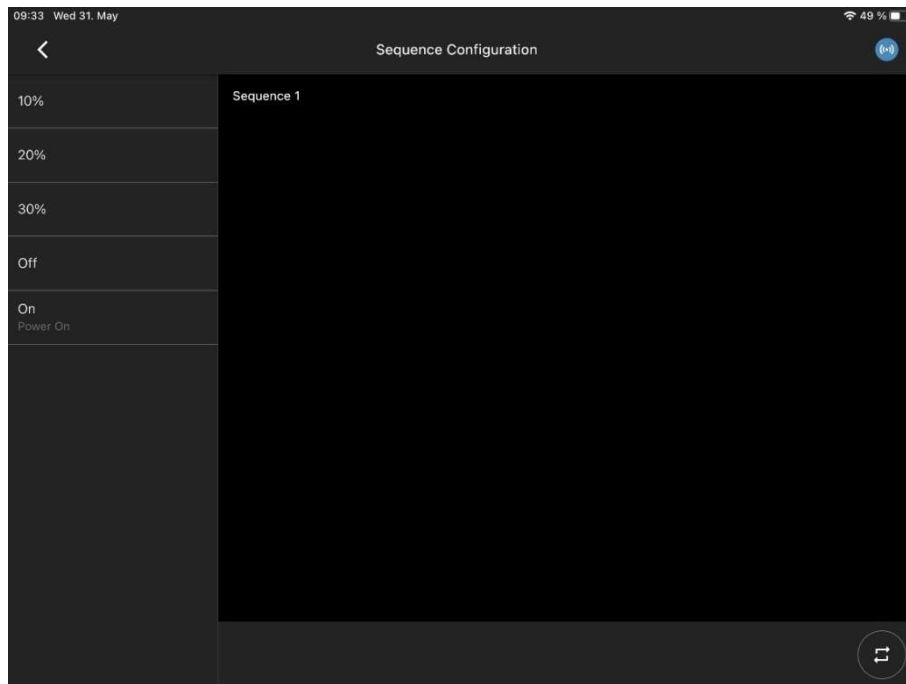


Figure 35

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

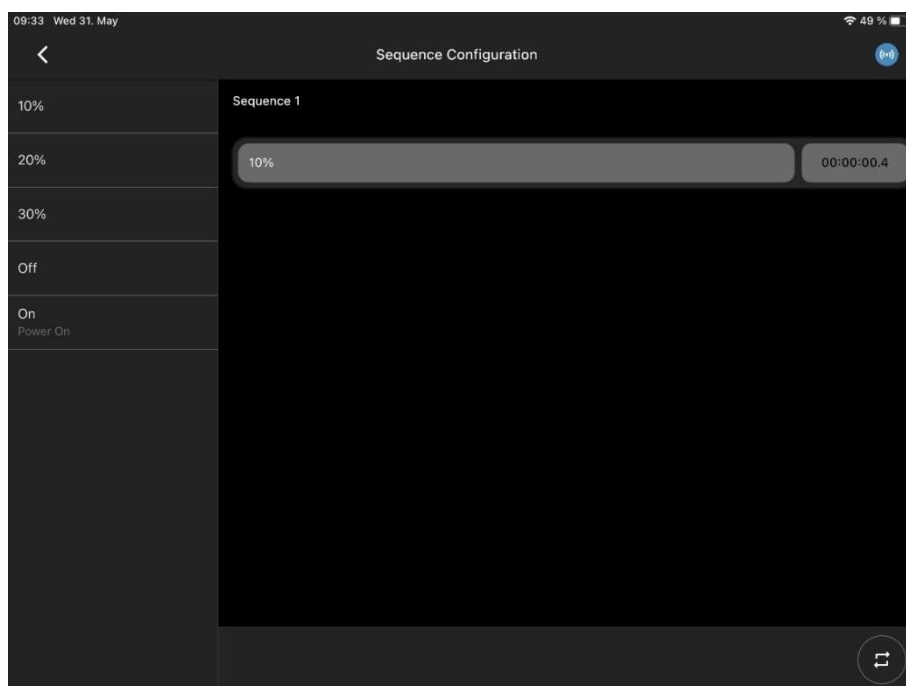


Figure 36

You can simply add each scene by drag and drop.

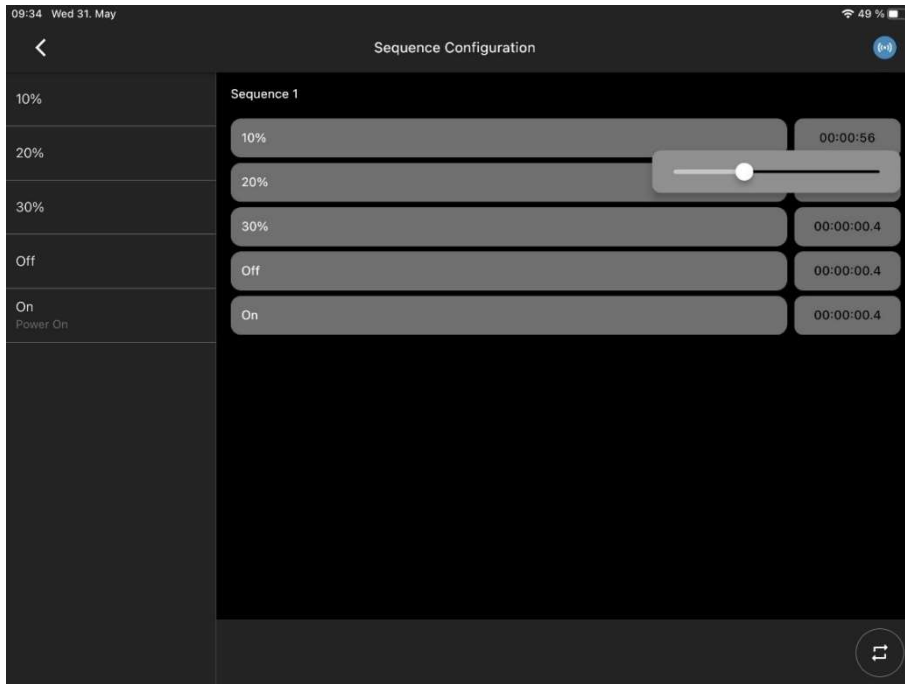


Figure 37

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

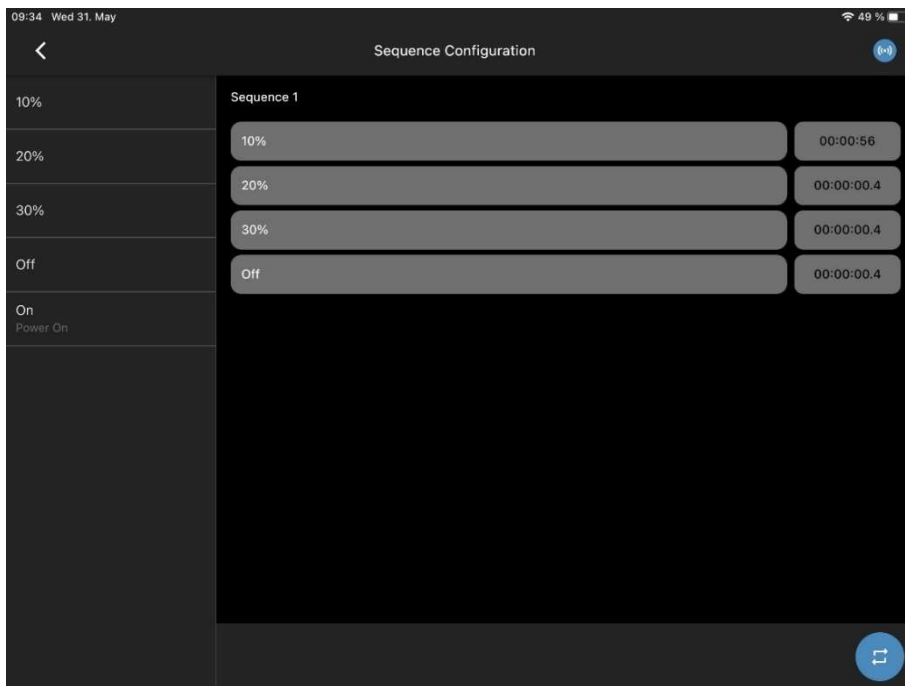


Figure 38

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

10 ADD AND USE TIMERS

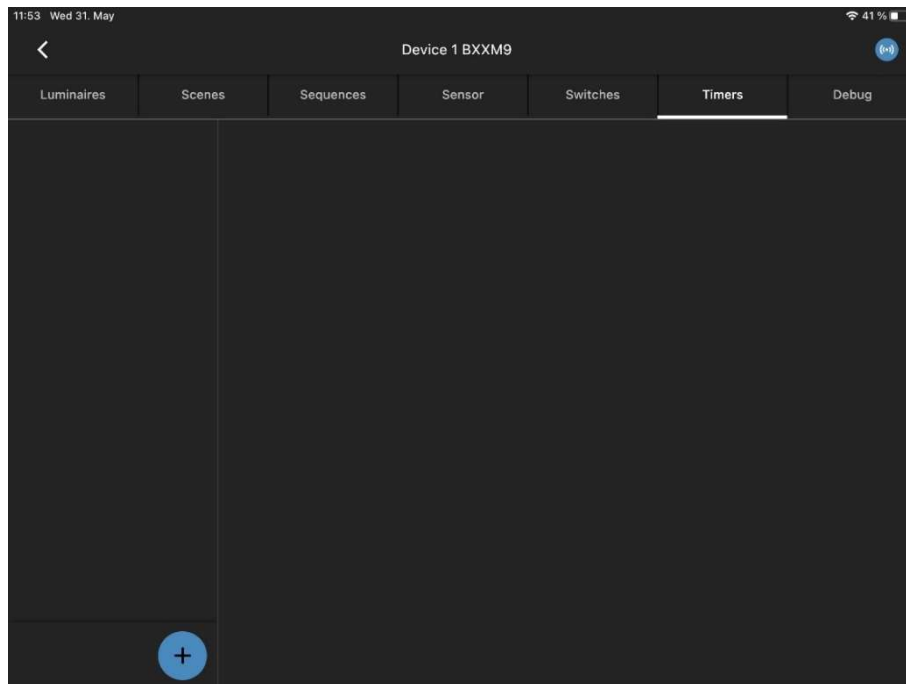


Figure 39

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

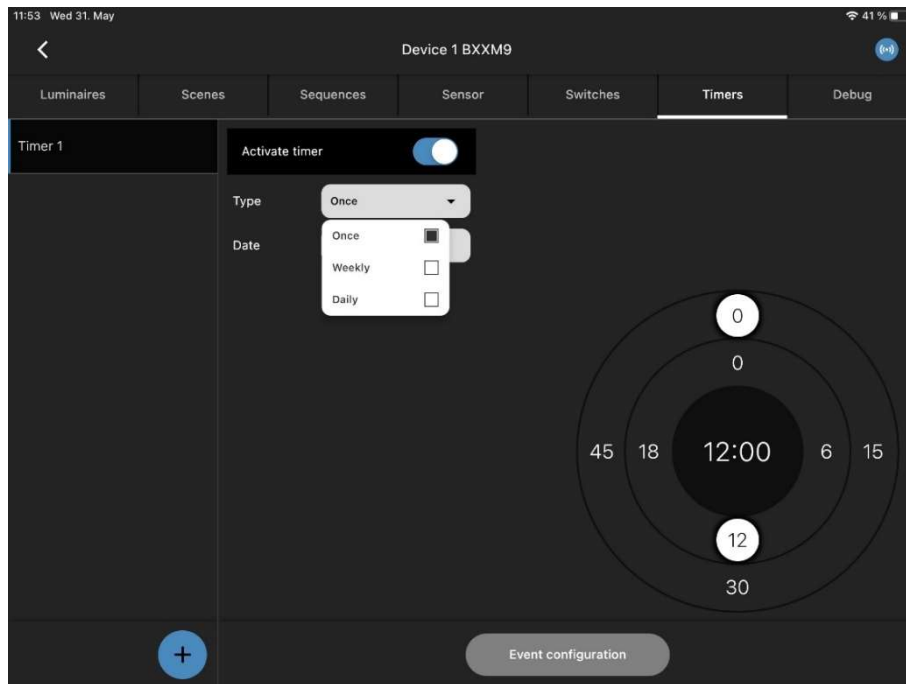


Figure 40

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

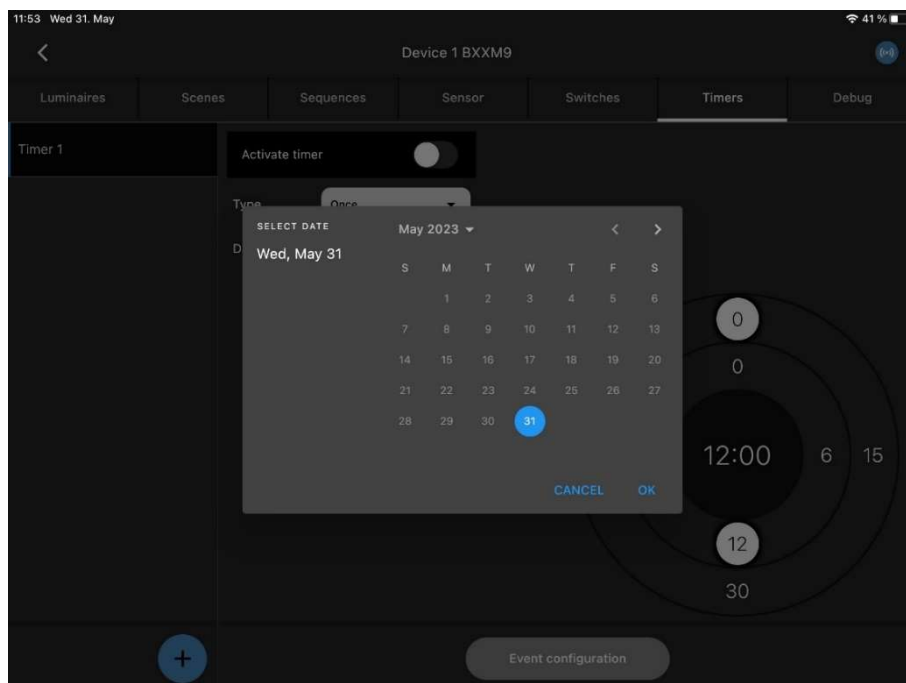


Figure 41

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

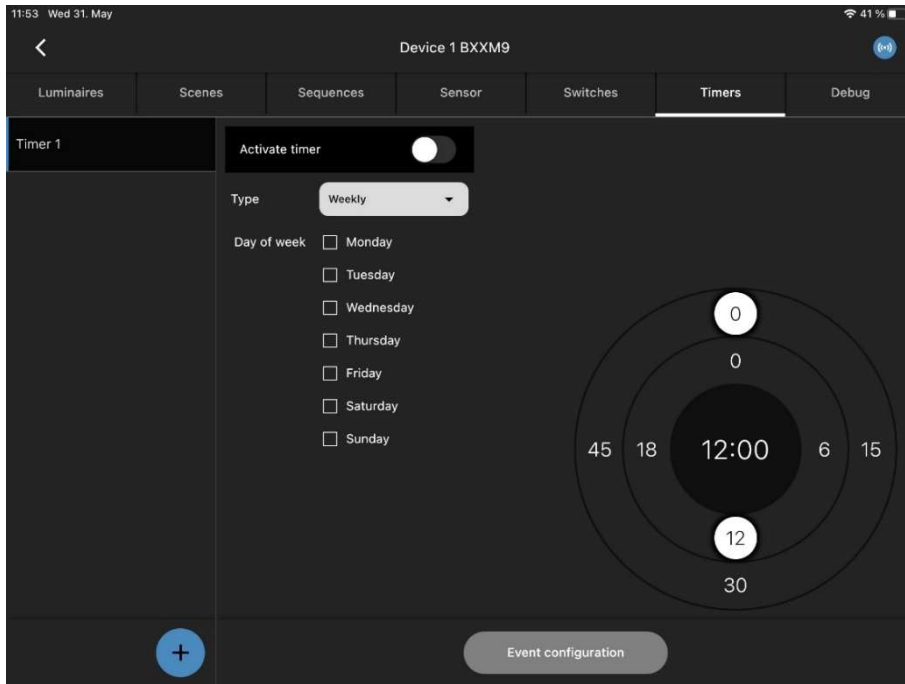


Figure 42

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

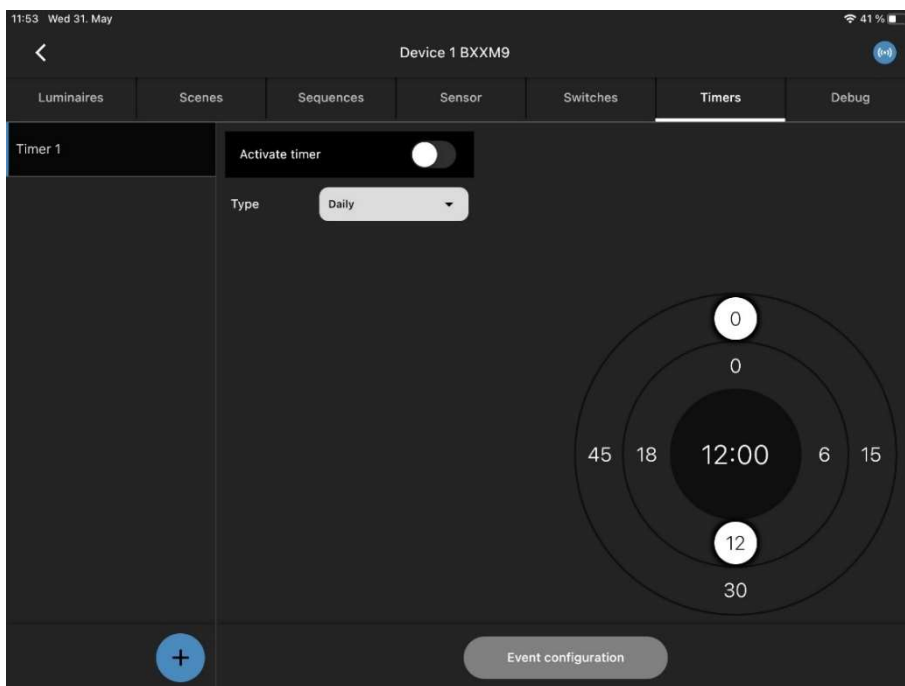


Figure 43

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

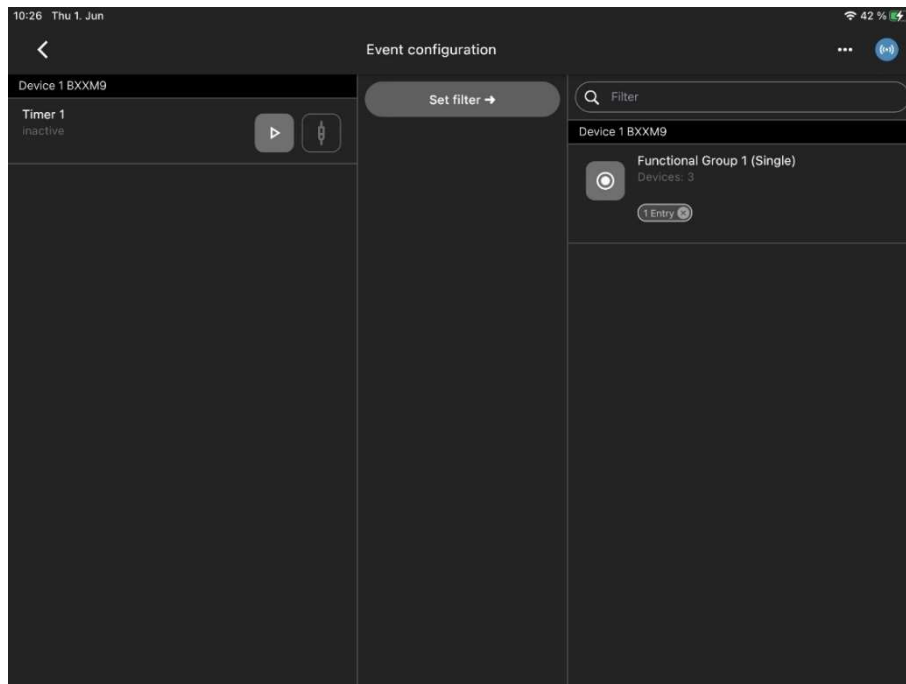


Figure 44

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

11 USING THE AIR SENSOR

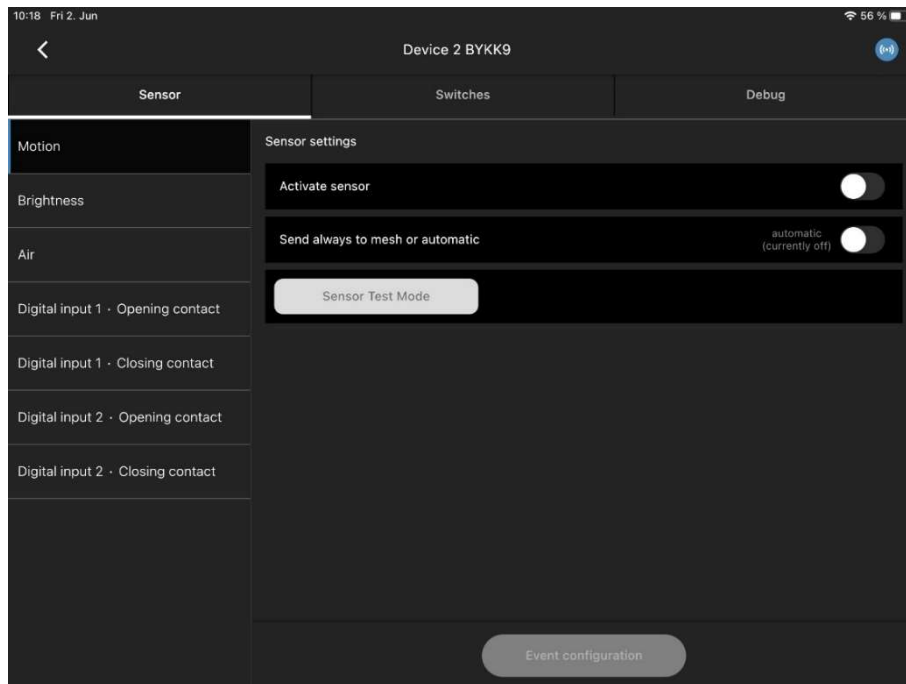


Figure 45

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.

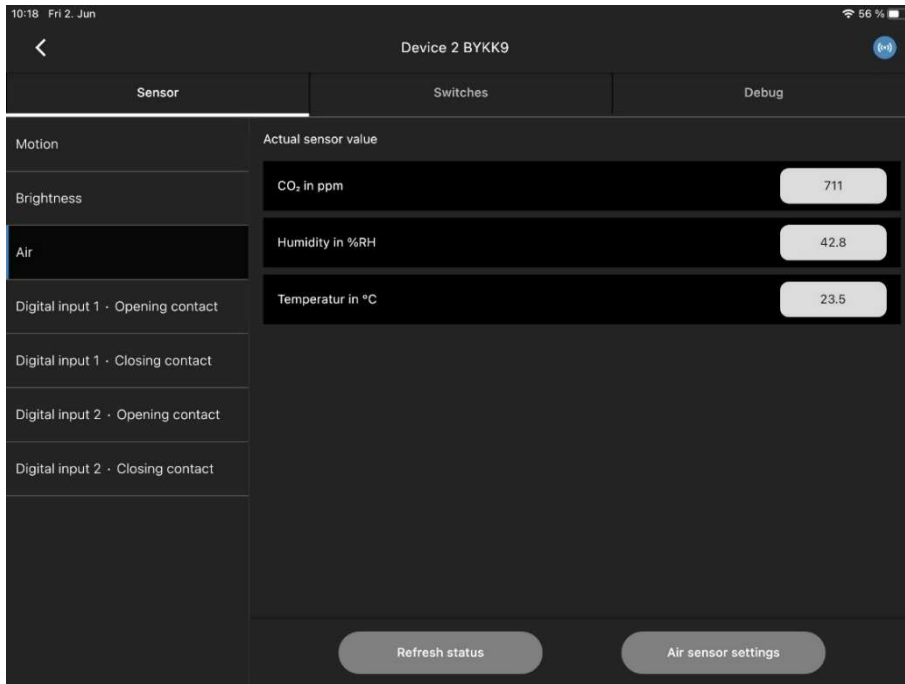


Figure 46

You can see the values of CO₂, humidity in %RH and temperature in °C in the Tab „Air“.

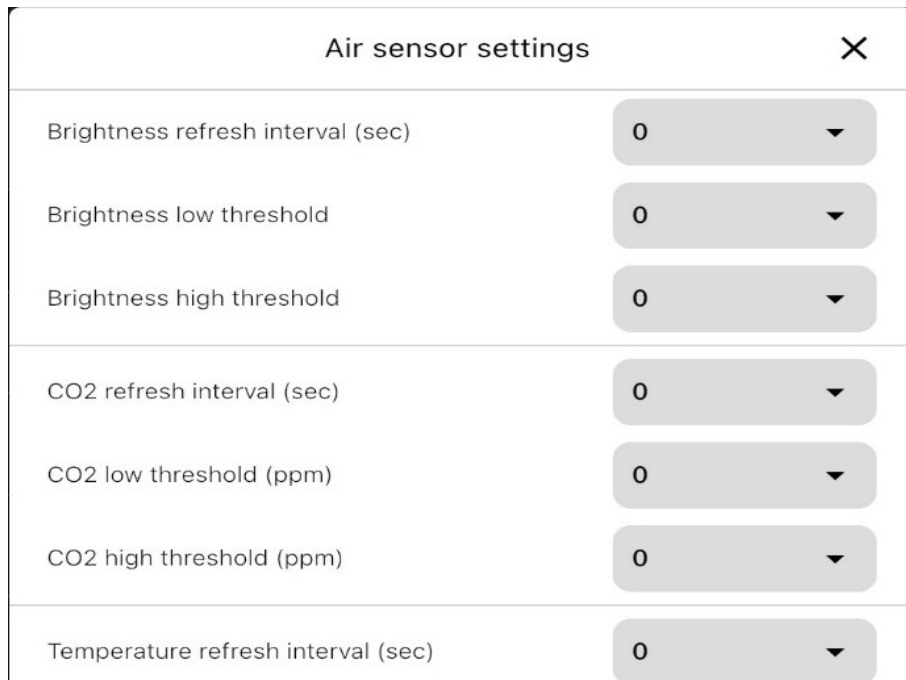


Figure 47

Temperature high threshold (°C)	0
Humidity refresh interval (sec)	0
Humidity low threshold (%RH)	0
Humidity high threshold (%RH)	0
Air quality indicator on/off	<input checked="" type="checkbox"/>
Orange threshold	800
Red threshold	1400

Save

Figure 48

For the CO₂ 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.

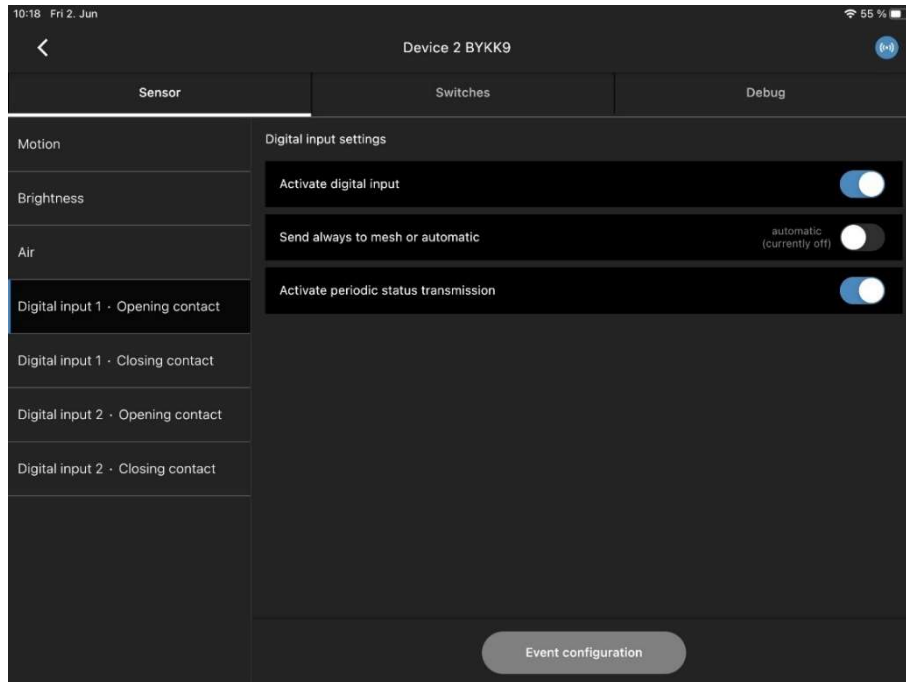


Figure 49

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 (CO₂, humidity etc.)

12 USING THE BLU2LIGHT RELAIS

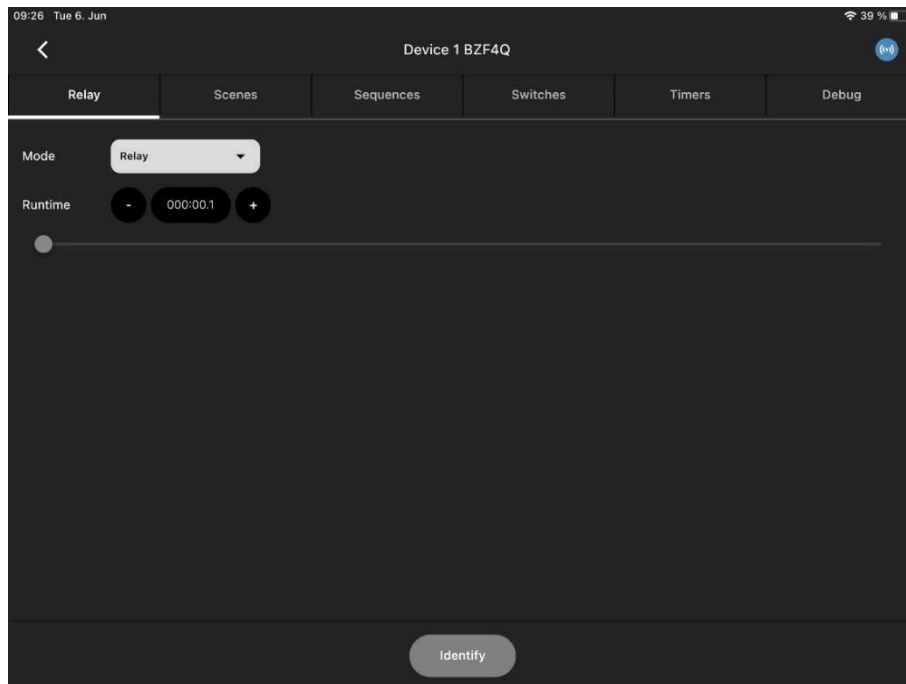


Figure 50

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"!**

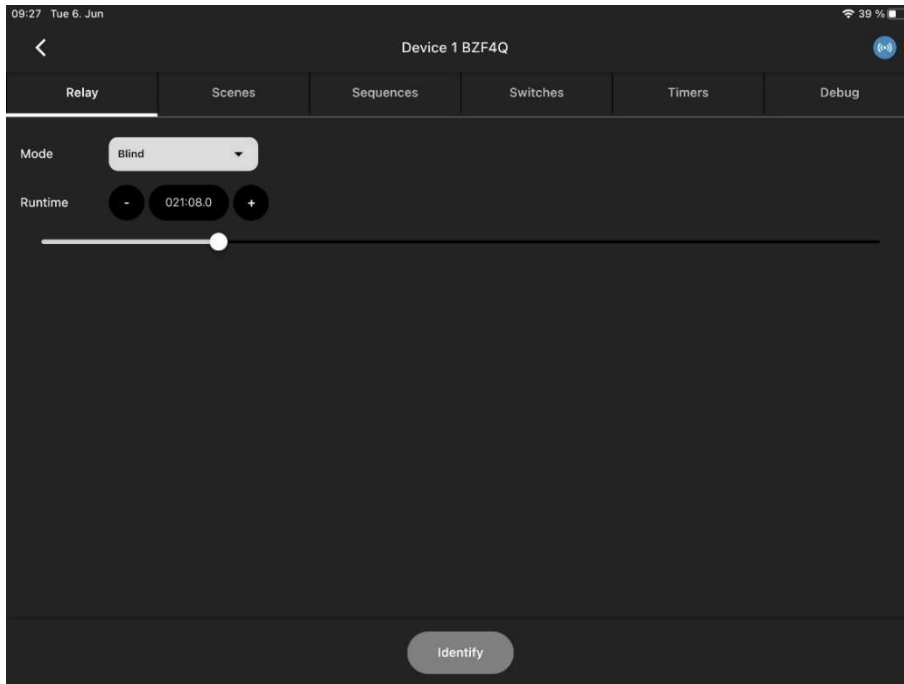


Figure 51

The set running time must correspond to the time that the blind needs to move from one end point to the other. You can also change the time manually using a slider (see Figure 52).

You can use the scene settings for channel 1 (blind) to specify the percentage of the distance the blind should move.

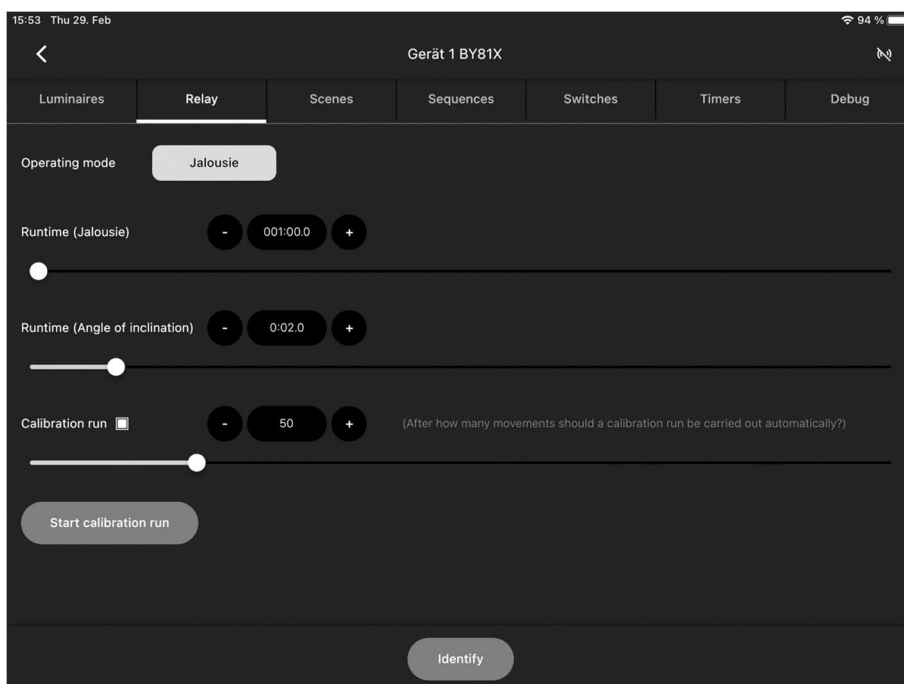


Figure 52

When you lower your jalousie, the relay stops the time in which your jalousie reaches the end of the rail. You can also change the time manually using a slider (see Figure 51). The set running times must match the times that the jalousie and the slats need to move from one end point to the other.

Errors of several cm can occur if intermediate positions are approached several times (e.g. from 30% to 60%). However, this is rectified by moving to an end point. You can set the number of movements after which an automatic calibration run should be performed if the end positions are not reached. You also have the option of starting the calibration run manually by pressing the "Start calibration run" button. This moves the jalousie to the nearest end point and back to the previous position.

Using the scene settings for channel 1 (jalousie) and channel 2 (slats), you can specify the percentage of the jalousie's movement and the angle of inclination. You can set up separate and joint scenes for the 2 channels.

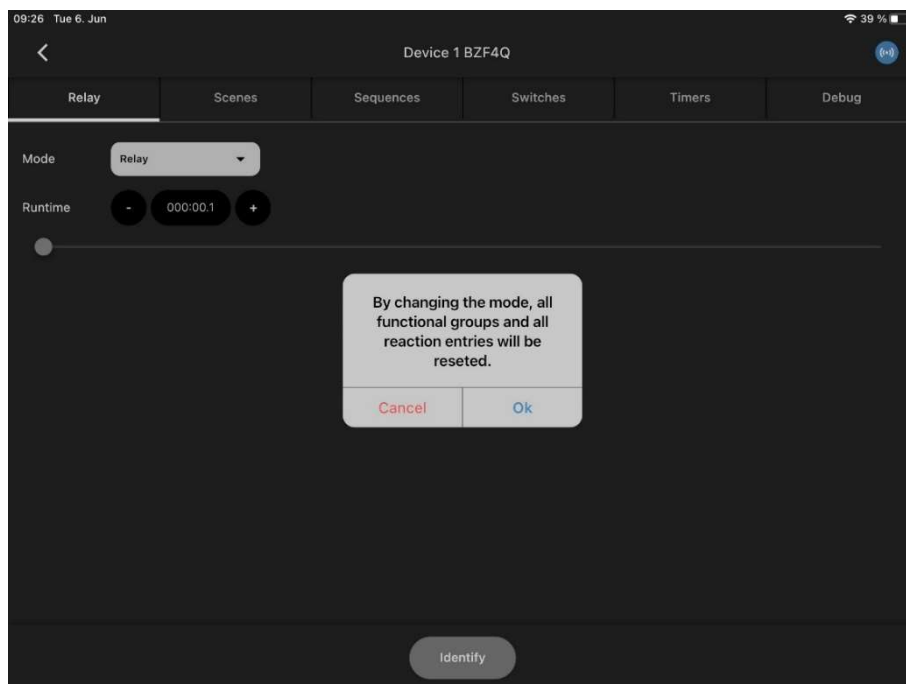


Figure 53

Please have in mind that by changing the mode, you reset all the functional groups connected to your relay! You must choose the mode after scanning of the Node!

13 USING THE B2L CONNECT PB4

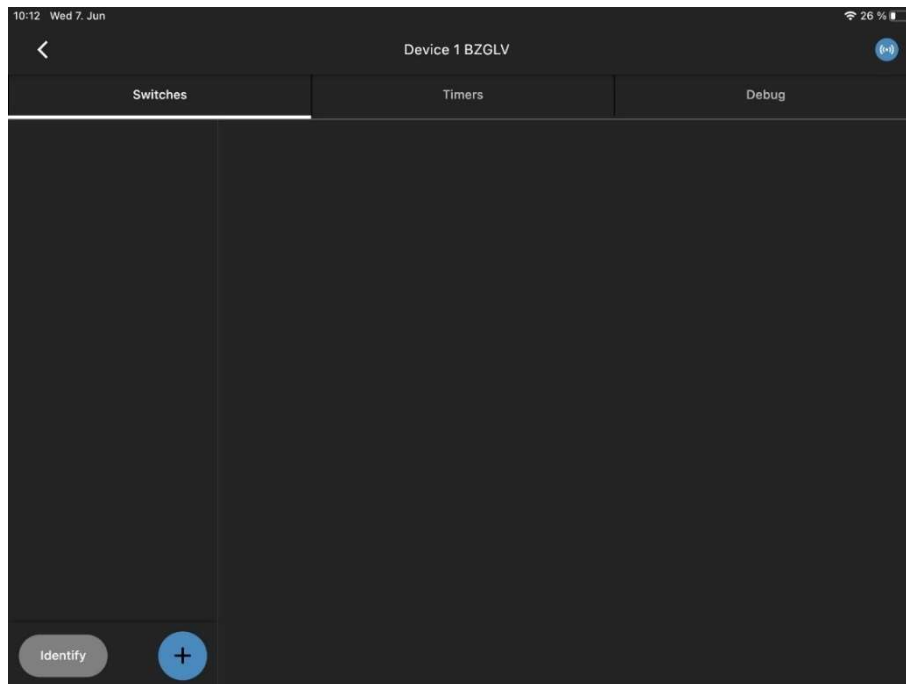


Figure 54

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.

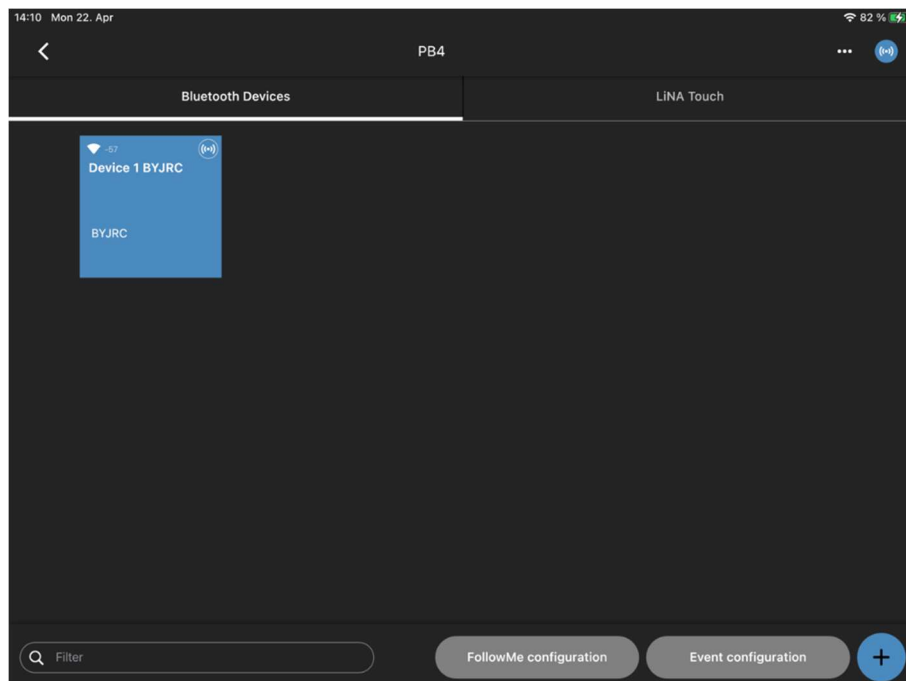


Figure 55

If you don't need the options in "Figure 54" you can simply open your Event configuration. There you will now see the inputs of your Connect PB4.

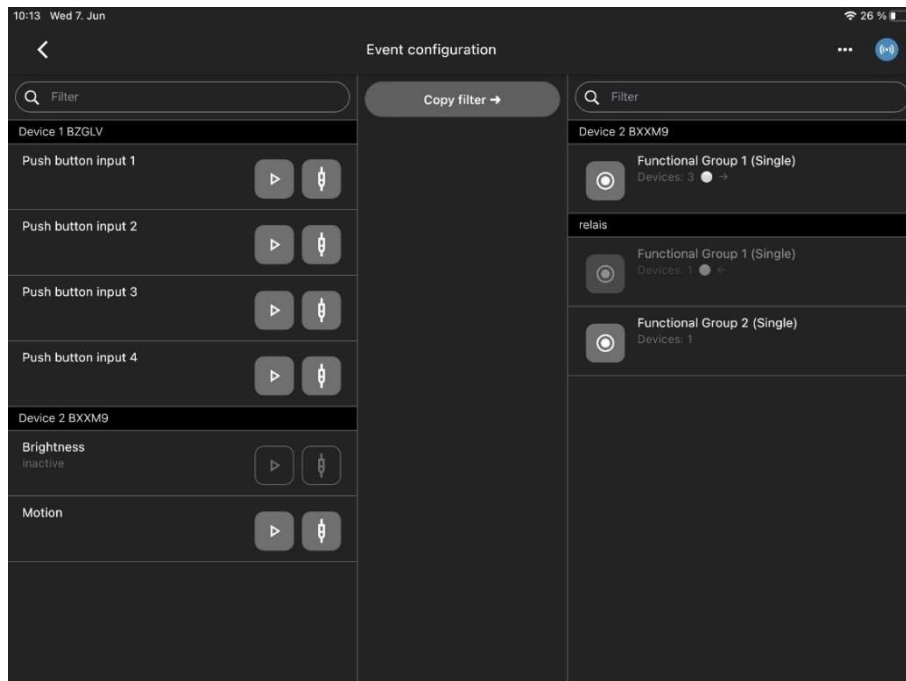


Figure 56

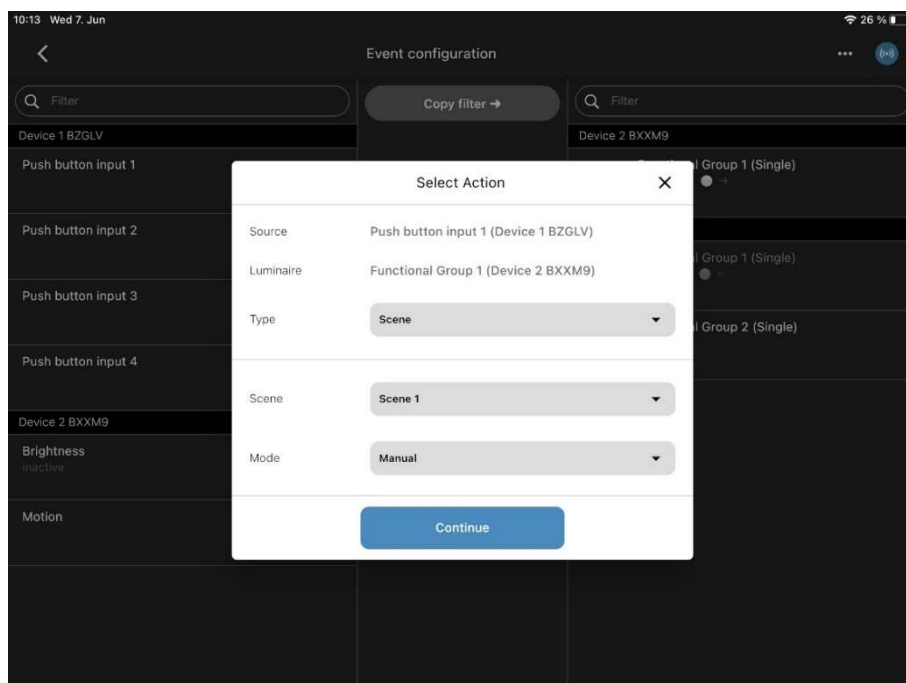


Figure 57

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. The device can't be configured.

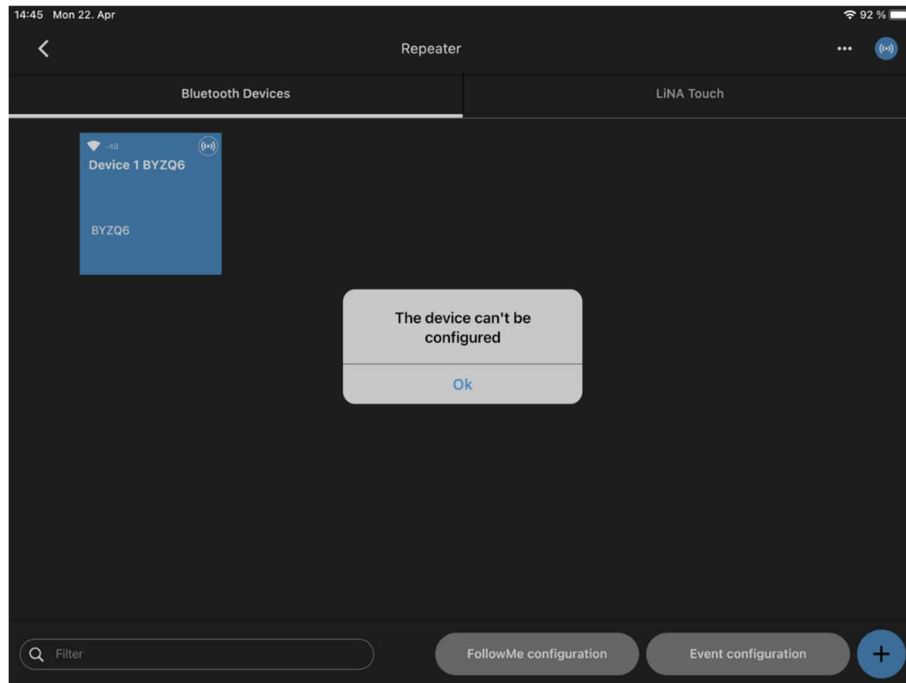


Figure 58

15 INCLUDING THE BLU2LIGHT CONNECT DMX CONTROLLER

Start scanning the node in your system and go into the settings as in "Figure 2". You can now select either receiver, master or master follower mode by setting the mode to the desired function. If you want to change the mode for a device, the corresponding device must be deleted from the system configuration and scanned in again.

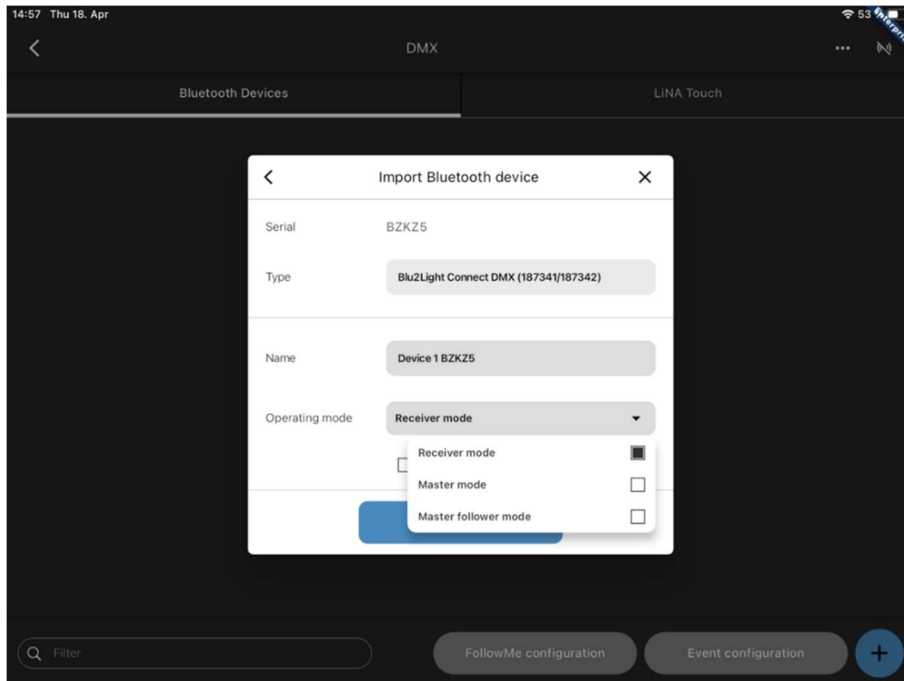


Figure 59

15.1 RECEIVER MODE

This mode is used when the device is connected to a DMX controller. After scanning the Node, please select the “Receiver Mode” and press the button “Continue”.

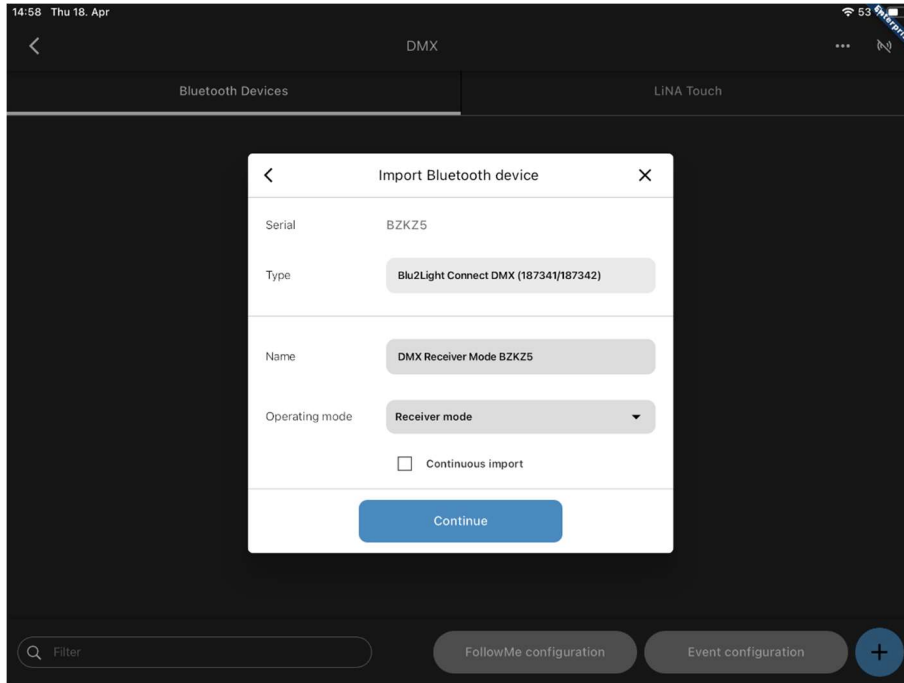


Figure 60

There are 32 configurable channels.

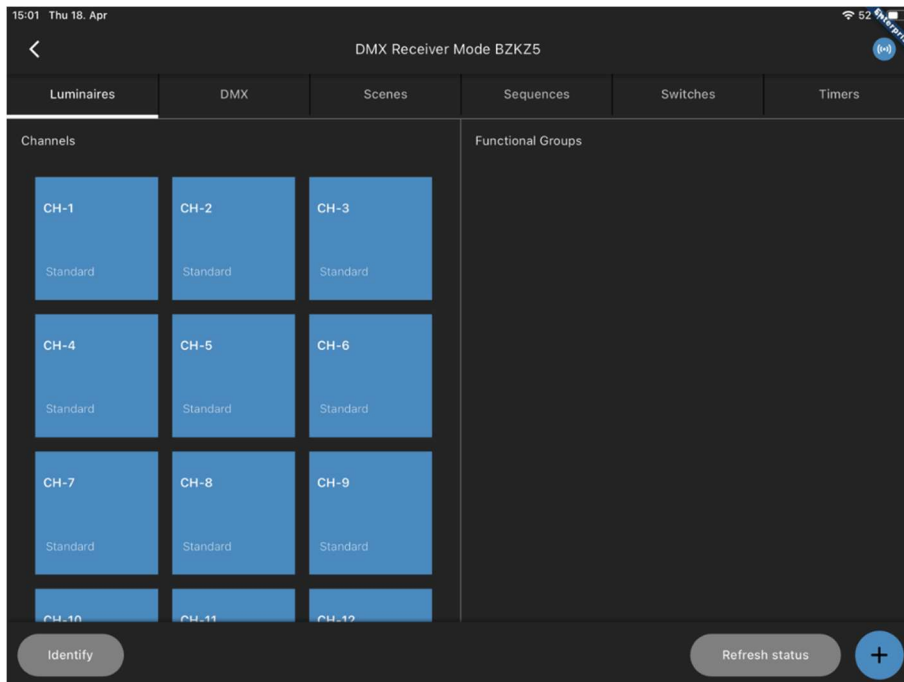


Figure 61

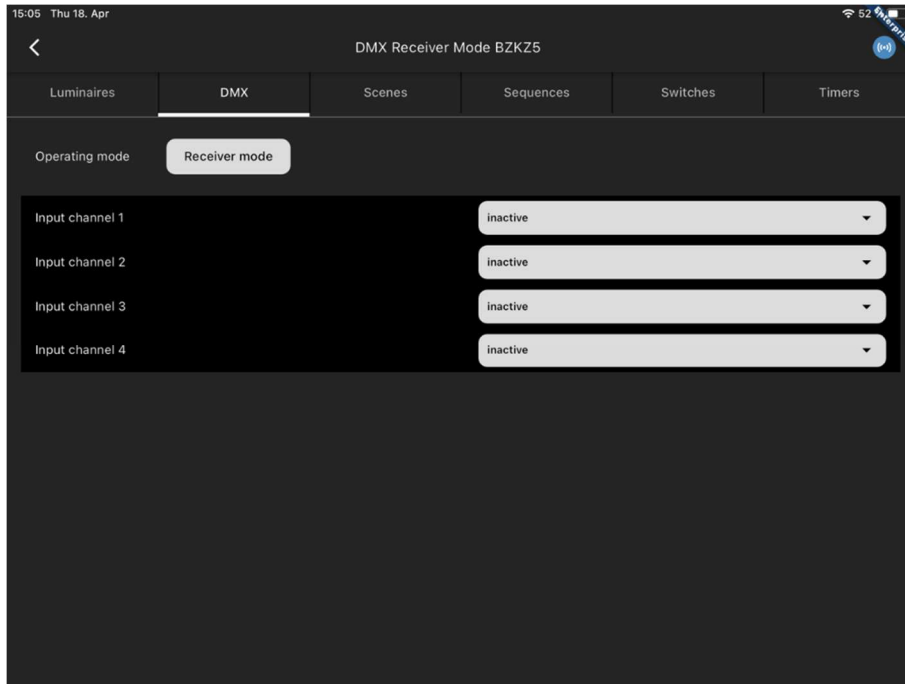


Figure 62

Please select the tab “DMX” to access the input channels. In this view, the channels must be assigned according to the channels used by the DMX controller.

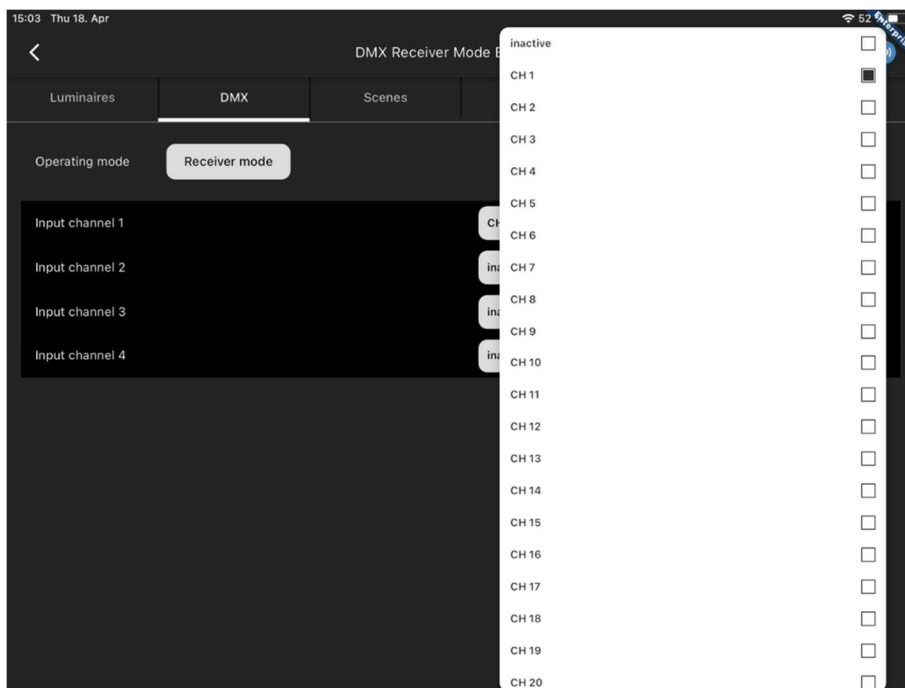


Figure 63

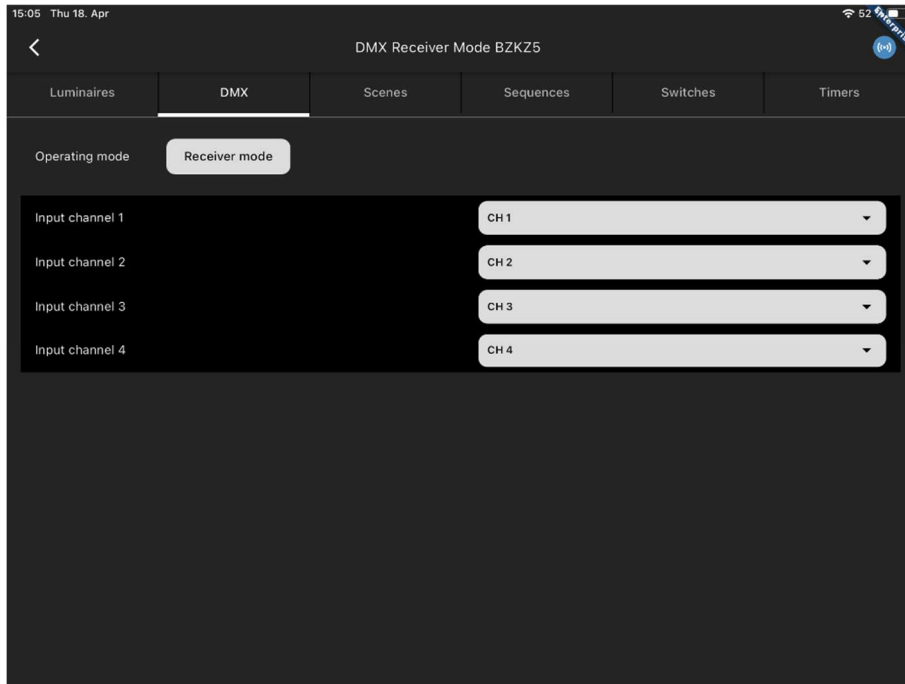


Figure 64

15.2 MASTER MODE

This mode is used when the device is connected to a DMX spotlight. After scanning the Node, please select the “Master Mode” and press the button “Continue”.

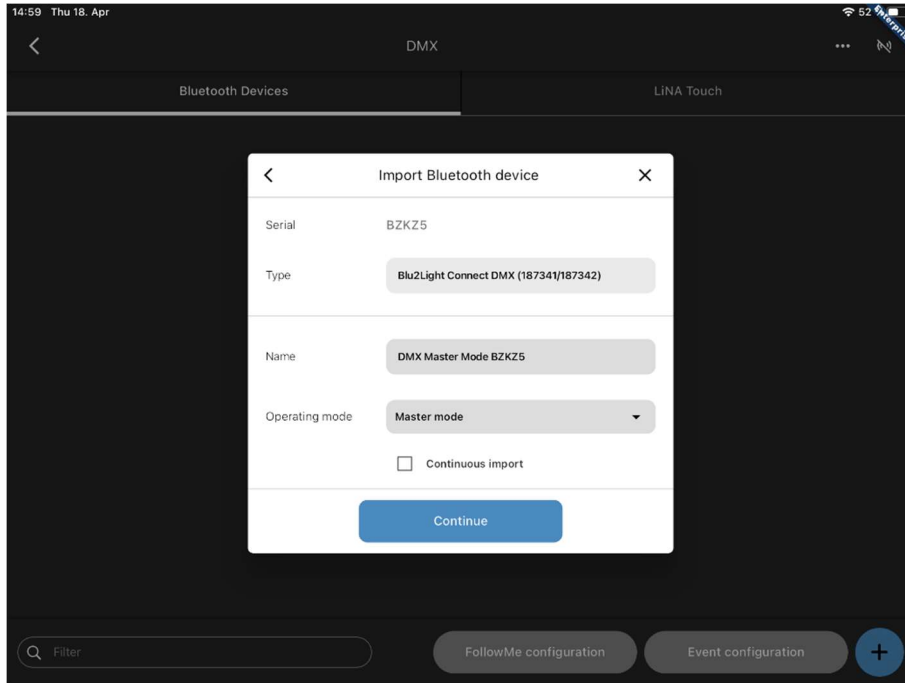


Figure 65

There are 32 assignable channels available.

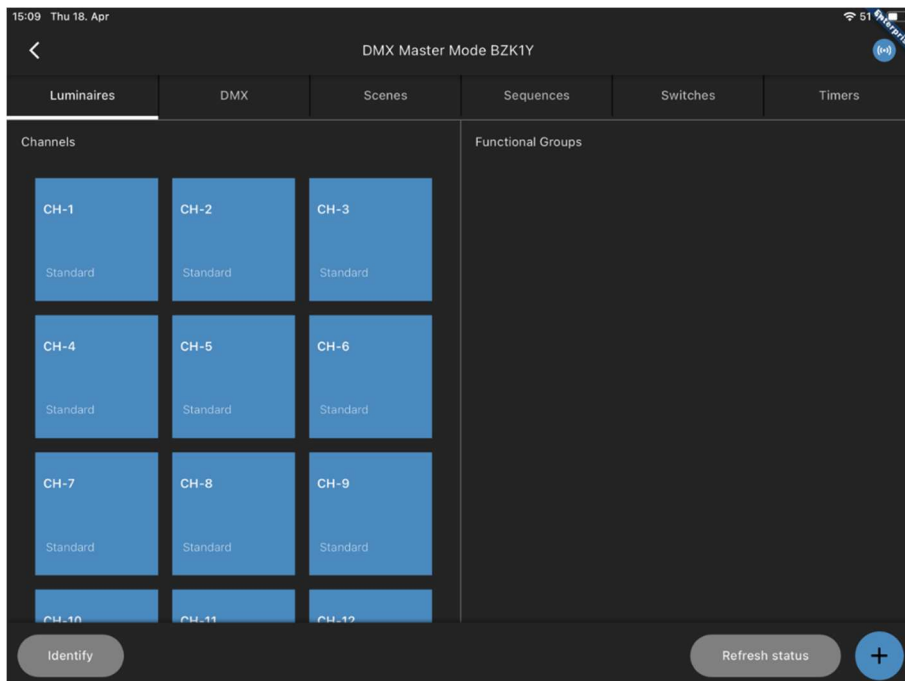


Figure 66

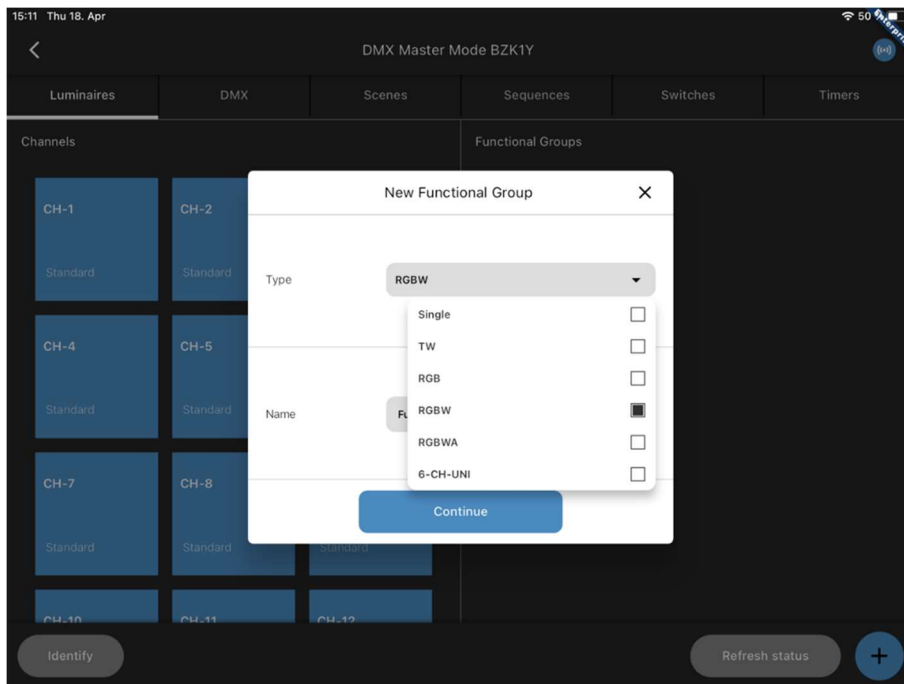


Figure 67

You cannot perform an express setup. You must therefore create a function group by yourself! Here you must select how many channels your spotlight has. In this case, it is RGBW.

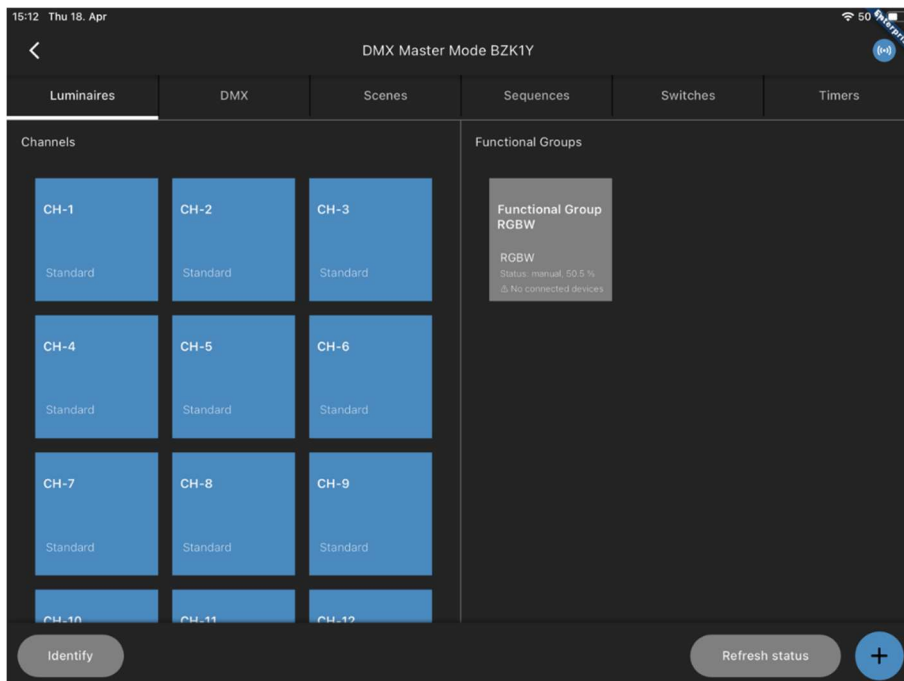


Figure 68

Pressing the tile of the just created Functional Group takes you to the next step where you must connect every channel of the device (R, G, B, W) to every channel of the Functional Group (also applicable for other systems).

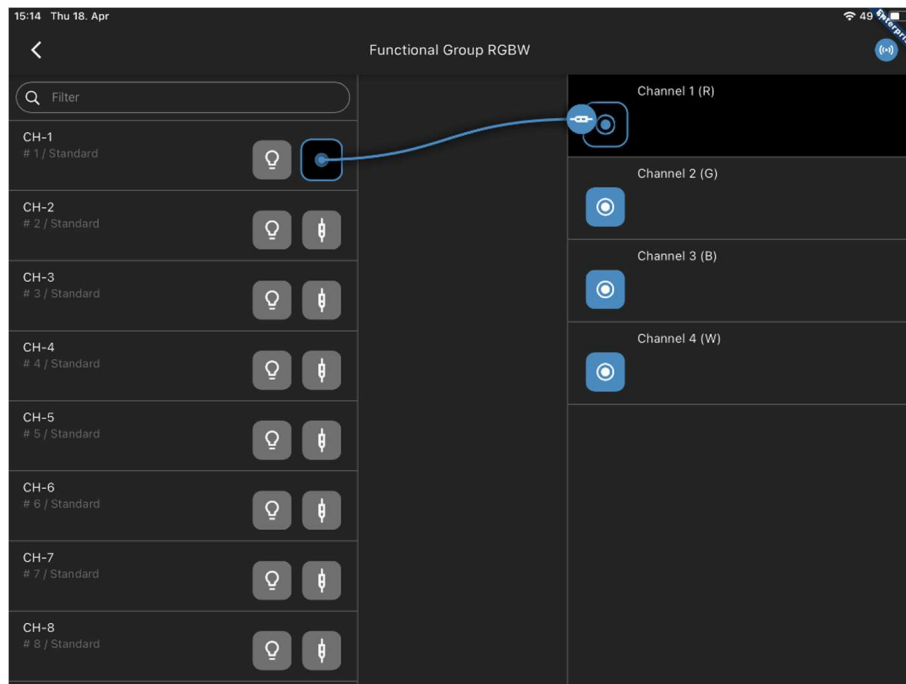


Figure 69

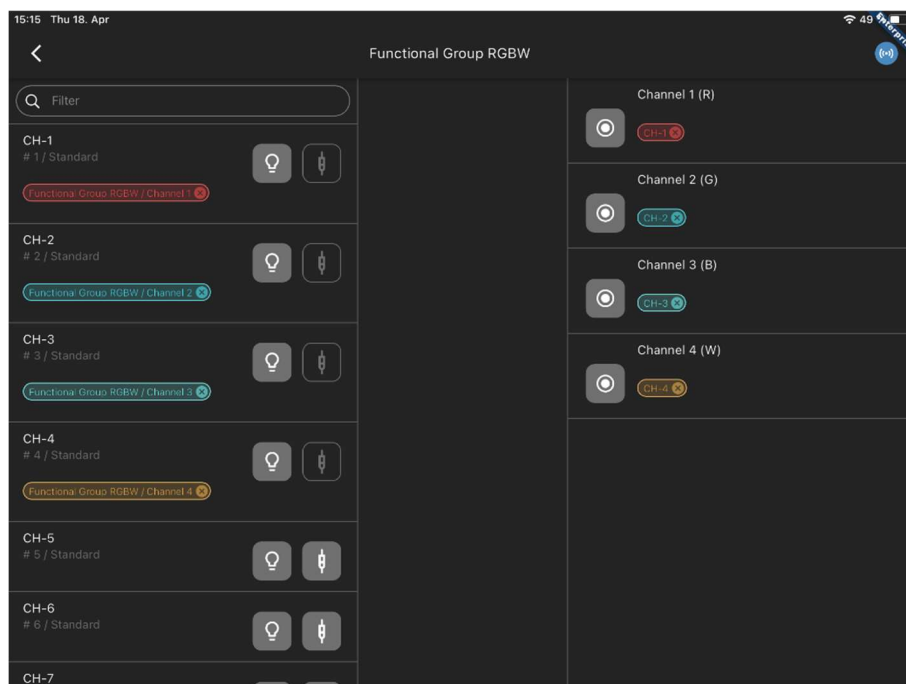


Figure 70

Now we configure our scenes as we did for a simple configuration (Figure 10-12). In this case 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 colors easier (see Figure 30).

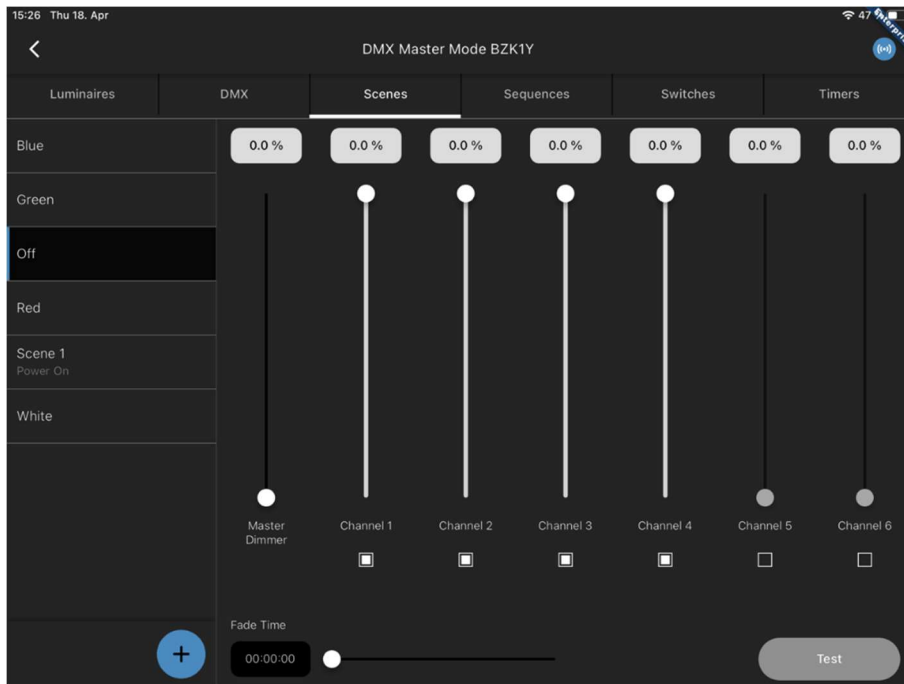


Figure 71

Once you have configured all the desired scenes, go back to Figure 13 to create a user interface for the LiNA Touch app.

15.3 USING RECEIVER AND MASTER MODE IN COMBINATION

This combination is used when you want to control a spotlight via DMX controller. Please repeat the steps of configuration for Receiver and Master Mode (Figures 60 – 71).

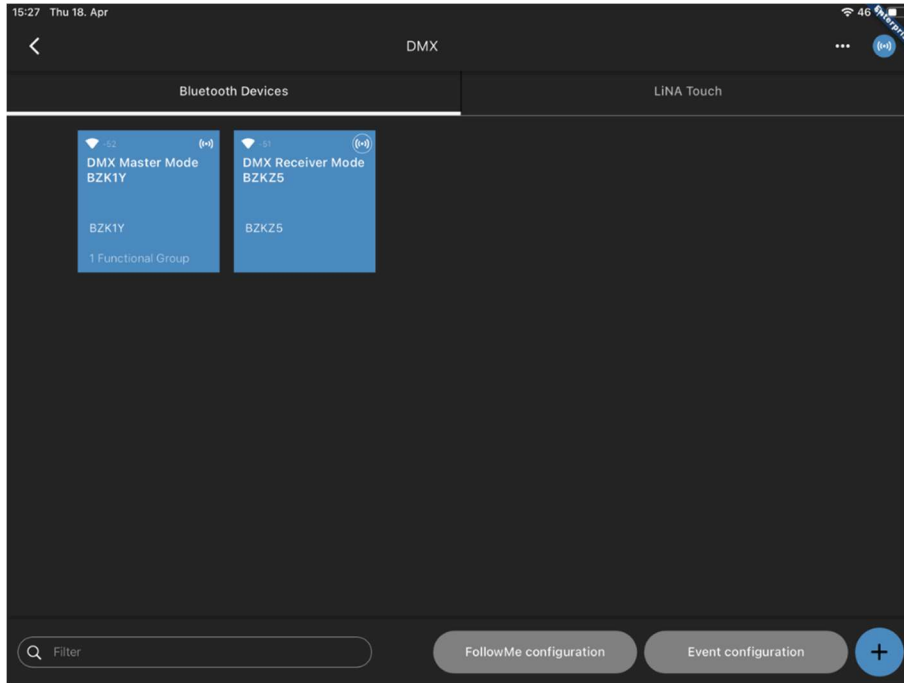


Figure 72

Please open the Event configuration and assign the Push button inputs 1 to 4 of the DMX device in Receiver Mode to functional group of DMX device in Master Mode.

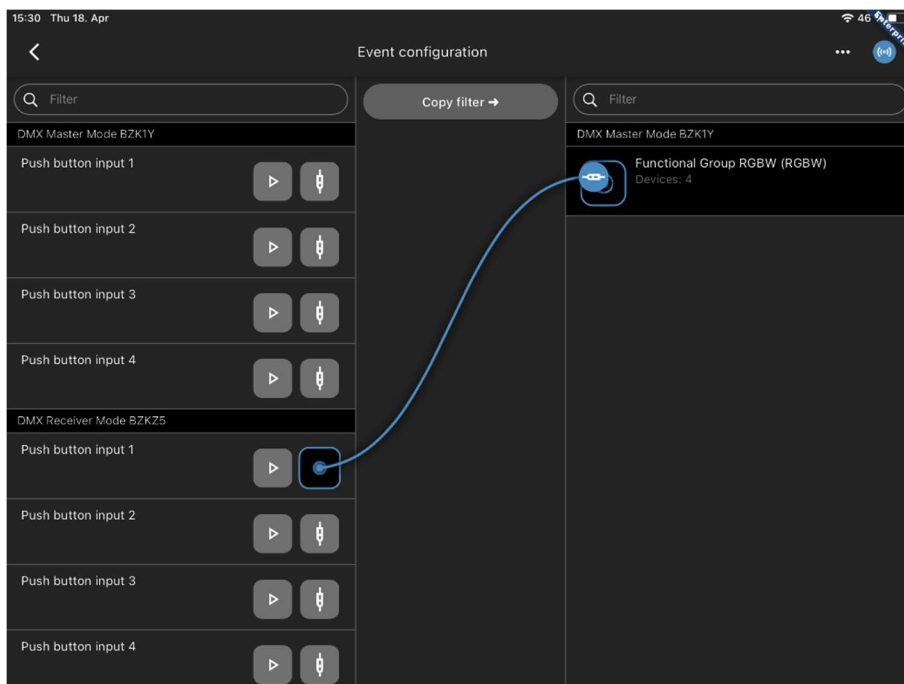


Figure 73

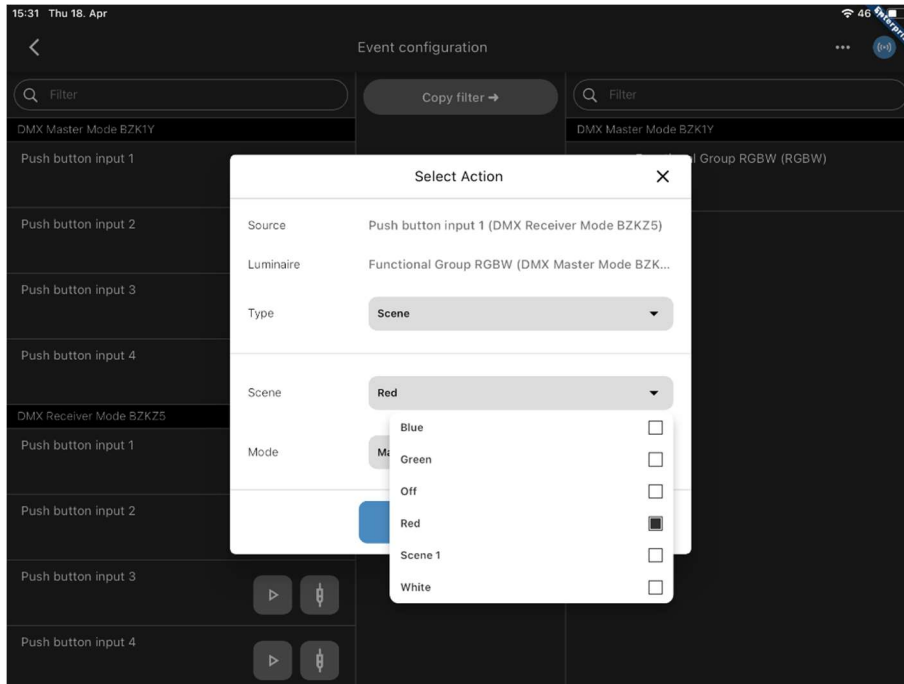


Figure 74

Select the type of action and the desired scene. See the overview mentioned in figure 75.

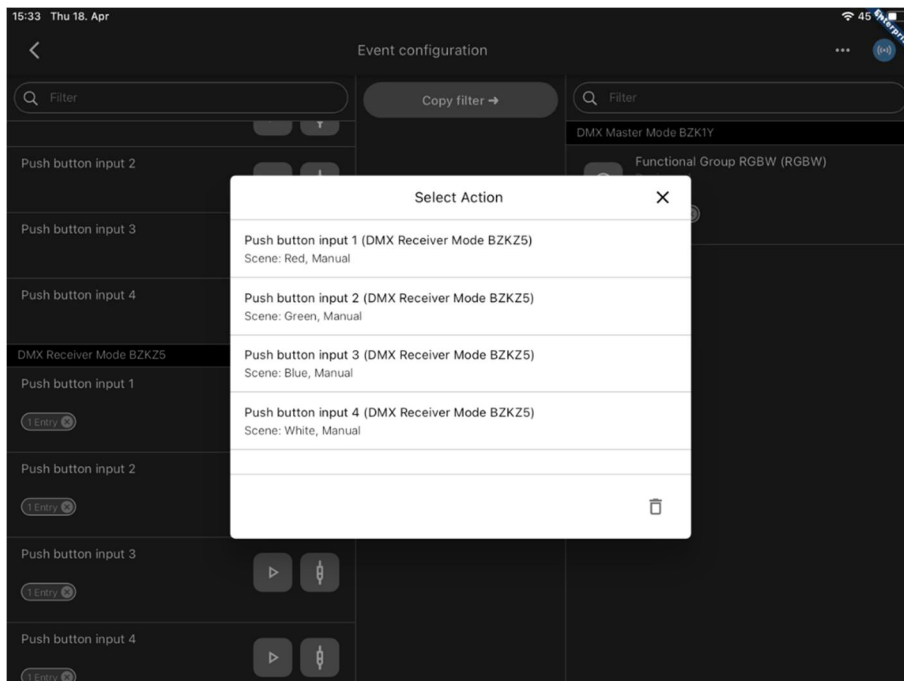


Figure 75

After completing the event configuration, you can control the connected DMX spotlight via the DMX control device. The control signals are transmitted from the DMX controller via the DMX device in receiver mode to the DMX device in master mode using a Bluetooth connection.

15.4 MASTER FOLLOWER MODE

The Master Follower Mode allows the DMX light control commands to be passed on as dimming levels. After scanning the Node, please select the “Master Follower Mode” and press the button “Continue”.

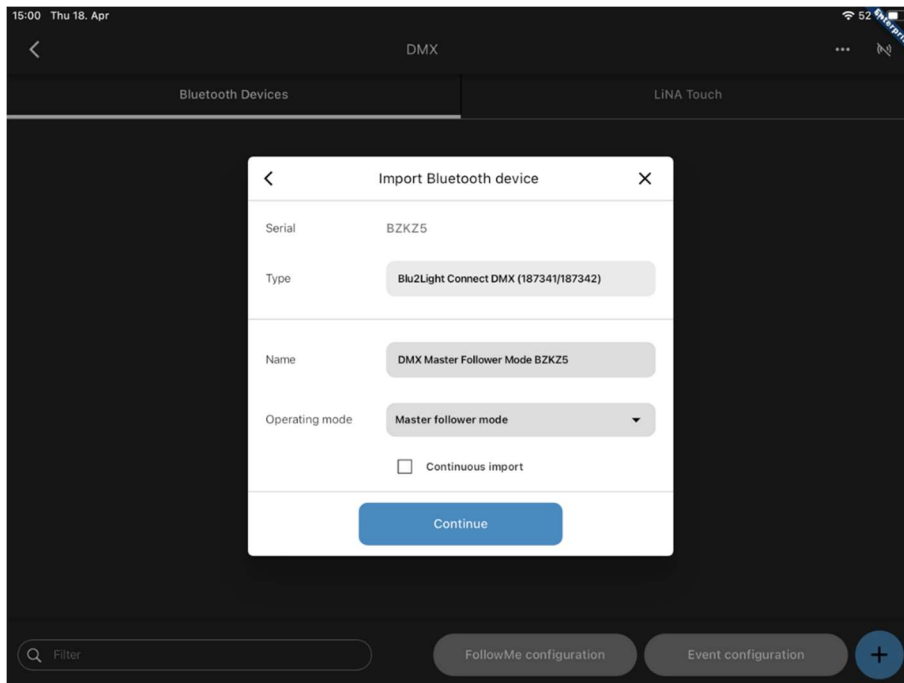


Figure 76

You cannot perform an express setup. You must therefore create a functional group by yourself! Here you must select how many channels your spotlight has. In this case, it is RGBW (Figure 67-70).

After that you can configure the scenes as we did for a simple configuration (Figure 10-12). In this case 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 colors easier (see Figure 30).

The second DMX Node has to be configured as Master (figure 65). Please create the functional group. In this case, it is RGBW (Figure 67-70).

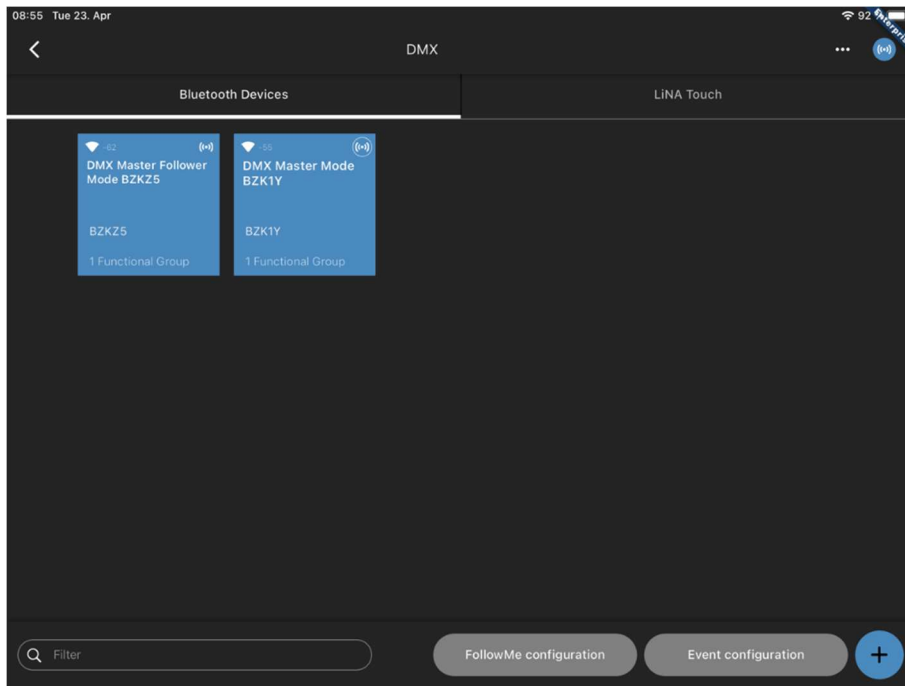


Figure 77

Please open the FollowMe configuration.

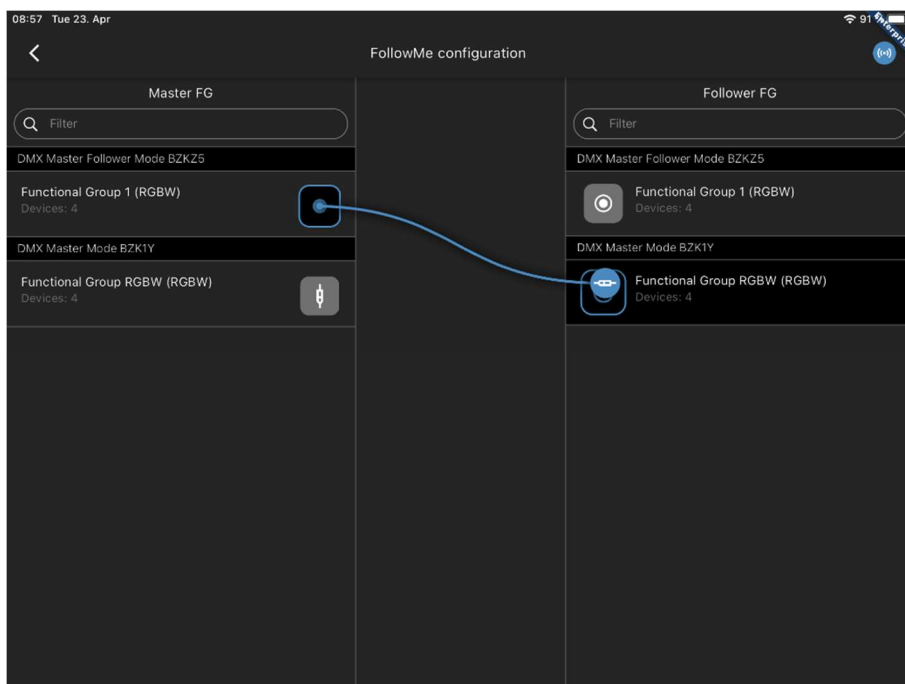


Figure 78

Assign the Functional Group of DMX Master Follower to the Functional Group of DMX Master.

After completing the event configuration, you can control the connected DMX spotlight via the DMX control device. The control signals are transmitted from the DMX controller via

the DMX device in Master Follower Mode to the DMX device in Master Mode using a Bluetooth connection.

Switching on the channels on the DMX controller follows the position as dimming level. The mixing of colours is possible.

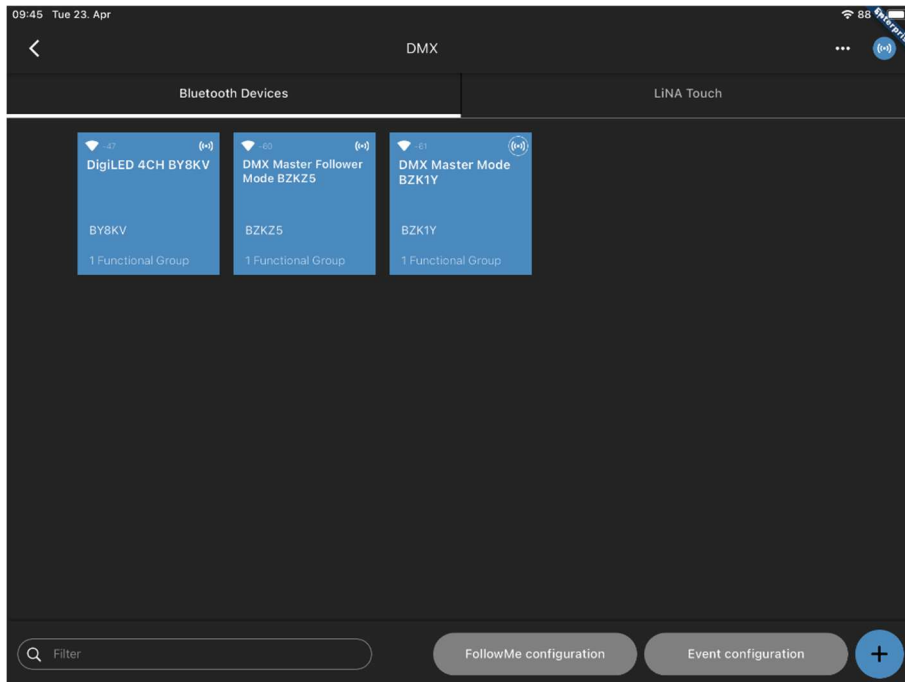


Figure 79

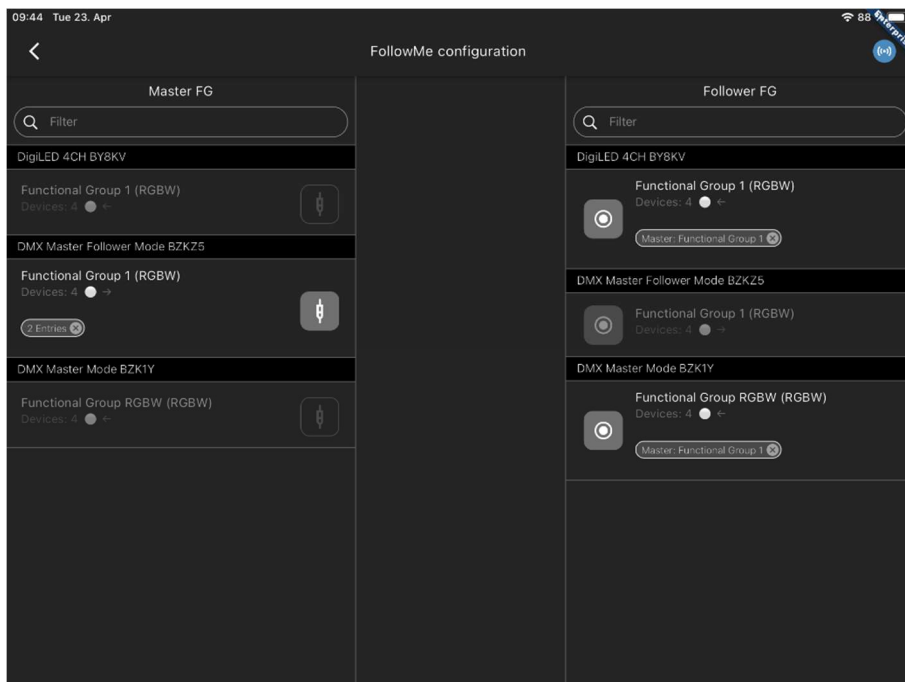


Figure 80

Instead of a second DMX device in master mode, a DigiLED 4CH can also be integrated into the system. The linking is identical (figure 80). The DigiLED 4CH can also be added to a system consisting of 2 DMX devices (figure 79).

16 DO'S AND DON'TS

16.1 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 proper and uninterrupted mains supply.
- Steps to configure a system:
 1. 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%.

16.2 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. We recommend max. up to 2 minutes.
- 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).

16.3 INFORMAL

- 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