

Lutron Integration

1. General

1.1 introduction

The Basalte Serial.bridge is a control interface to connect Basalte RS485 keypads and Auro RS485 motion sensors to the Basalte Core server. The Serial.bridge supports a total of 4 x RS485 lines with a maximum of 32 devices per line.

The power required by the power supply depends on the components that you connect to the serial bridge. The power consumption of the different components are:

- Power consumption Serial.bridge: 10W
- Power consumption Sentido or Fibonacci keypad: 1W
- Power consumption Auro motion sensor: 0.5W

The Serial.bridge makes it possible to integrate Basalte keypads and motion sensors with Lutron® HomeWorks.

This application note describes the integration with Lutron® HomeWorks and will guide you through setting up Lutron lights and shades with Basalte Studio and configure the controls.



2. What do you need

Installation:

- Lutron QS or QSX processor
- Controllable lights and shades in Lutron
- Core S4 or Core mini
- Serial.bridge

Software:

- Basalte Studio
- Lutron HomeWorks

3. Introduction of Basalte Studio:

You will need Basalte Studio to configure the system to use it in the Basalte Home APP. You can download the latest version on pro.basalte.live. An account can be requested at our sales department.

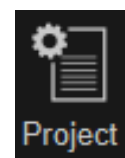


3.1 Starting

When opening Basalte Studio you can start a new project. The system automatically creates a small building structure with a device rack and a Core S4. On top of your screen you see several tabs, the next topics will explain the most important ones.

3.2 Project tab

In this tab you need to enter the buildingstructure of your project and implement all components in the exact room. If you did it already in Lutron HomeWorks you can load the structure, lights&shades and controls into your Basalte Studio project. (See 5. Configuration in Basalte Studio)

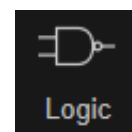


On the Basalte Home line you can

Important is to configure the Core S4 or Core mini, it can be discovered or manually configured. Please use an static IP and enter the specific subnet mask, gateway and DNS.

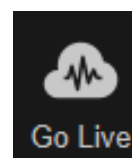
3.3 Logic tab

Here you can create logic by adding a new logic page on the left panel and drag & drop from the right panel.



3.4 Go Live tab

You can find the Go Live tab on the upper right corner, here you can push your configuration to the Core S4 or Core mini server. Use the Open Monitor button to get a view of the real life commands and when selecting a logic page you can see the communication trough the wires.



4. Configuration in Lutron HomeWorks

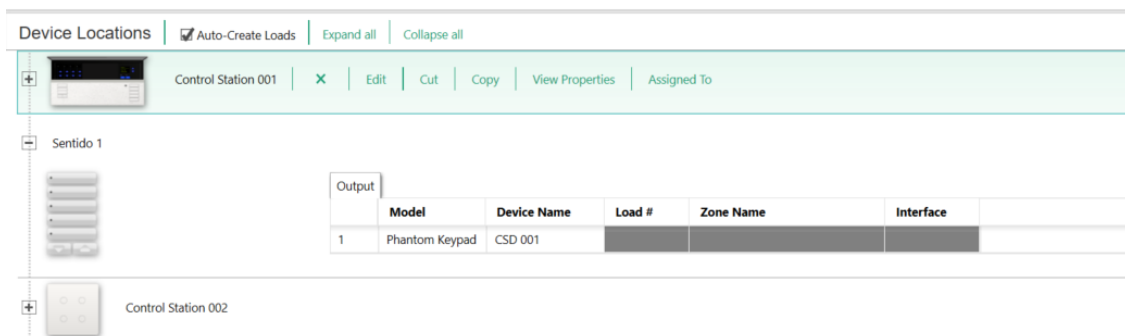
Since we will need to import the Lutron project in Basalte Studio, we will start by creating the Lutron project in HomeWorks.

Important in your project is that you need to set an username and password for your project. We will need this later in Basalte Studio to make a connection between the Basalte Core server and the Lutron processor.

4.1 Controls in HomeWorks

4.1.1 Sentido & Fibonacci:

Within the Lutron® HW® project file, a separate Lutron phantom keypad must be created to represent each Basalte keypad. The phantom keypad can be added to the project from the Toolbox in the “Design -> Controls” screen.



The screenshot shows the 'Device Locations' panel in the Lutron HomeWorks software. At the top, there are options for 'Auto-Create Loads', 'Expand all', and 'Collapse all'. Below this, a 'Control Station 001' is selected, showing a keypad icon and a context menu with options: 'X', 'Edit', 'Cut', 'Copy', 'View Properties', and 'Assigned To'. Underneath, a 'Sentido 1' device is expanded, displaying a keypad icon and a table. The table has a header row with columns: 'Model', 'Device Name', 'Load #', 'Zone Name', and 'Interface'. The first row of data contains: '1', 'Phantom Keypad', 'CSD 001', and empty cells for 'Load #', 'Zone Name', and 'Interface'. Below the table, another 'Control Station 002' is visible with its keypad icon.

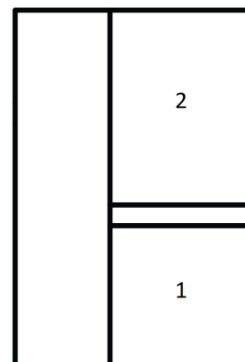
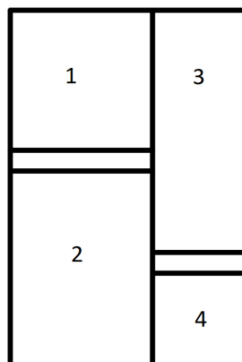
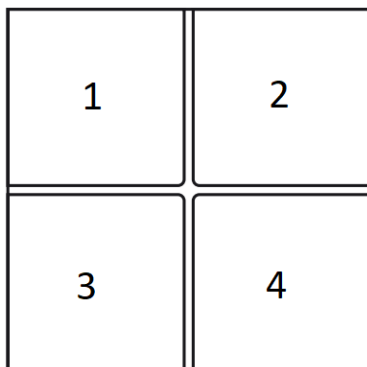
	Model	Device Name	Load #	Zone Name	Interface
1	Phantom Keypad	CSD 001			

When assigning actions to the phantom keypad buttons, a particular order needs to be followed. The number/purpose of each button is static and must be configured as shown in the figure below.



Component Number	Name
1	Sensor 1 Short
2	Sensor 2 Short
3	Sensor 3 Short
4	Sensor 4 Short
5	Multi touch Short
6	Sensor 1 Long
7	Sensor 2 Long
8	Sensor 3 Long
9	Sensor 4 Long
10	Multi touch Long
11	Scene Green
12	Scene Red
13	Scene Yellow
14	Scene Blue

The numbers of the sensors corresponds with the following physical buttons on the Sentido/Fibonacci keypad electronics, when installed correctly/upright:



4.1.2 Auro RS485

To integrate the Auro motion sensor with Lutron HomeWorks, you do not need to prepare anything in Lutron programming. Proceed to 5.2.3 for next steps.



4.1.3 Lutron Keypad

If you want to use the traditional Lutron Keypads and link their functions in Basalte Studio and the Basalte Home APP.

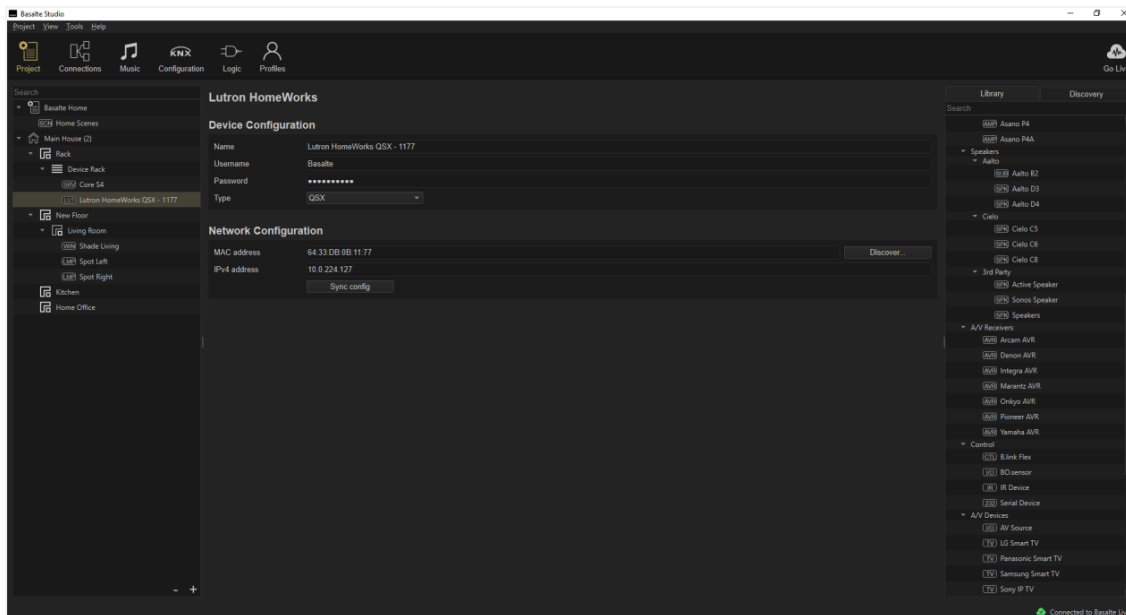
Within the Lutron® HW® project file, a separate Lutron keypad must be created. The keypad can be added to the project from the Toolbox in the "Design -> Controls" screen. We can trigger each button within studio or use the triggers from the Lutron system to add actions in the logic.



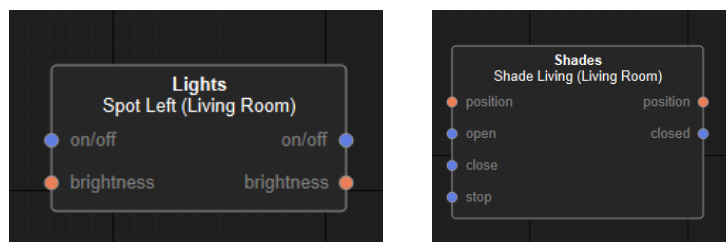
5. Configuration in Basalte Studio

5.1 Lights and shades in Lutron

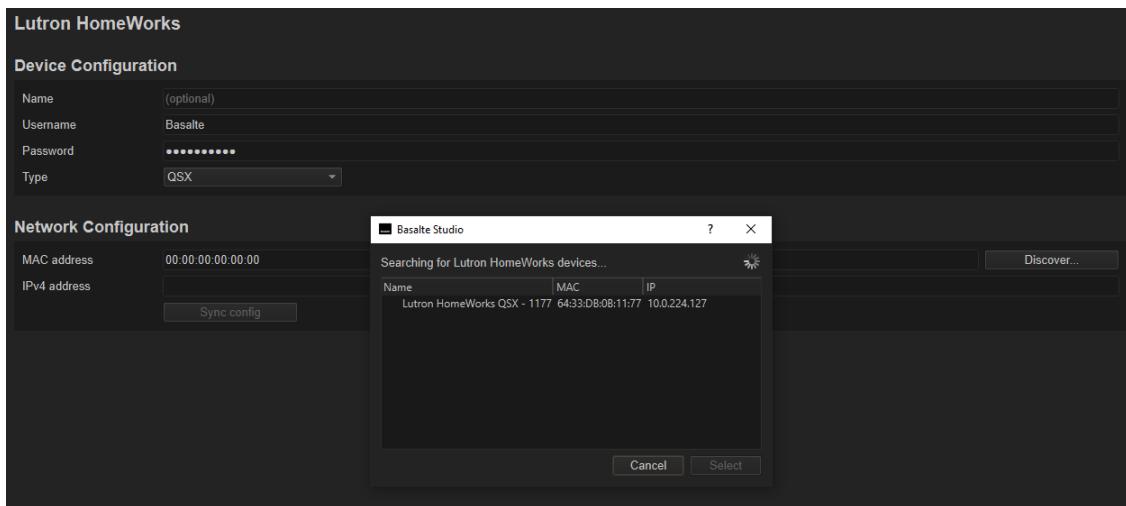
You can load your Lutron lights and shades in Basalte Studio in two ways. The first way is to load the Lutron project in Basalte Studio (Project -> Download from Lutron). Then select your Lutron processor and enter your credentials. The Lutron configuration with its lights and shades will be loaded in Basalte Studio.



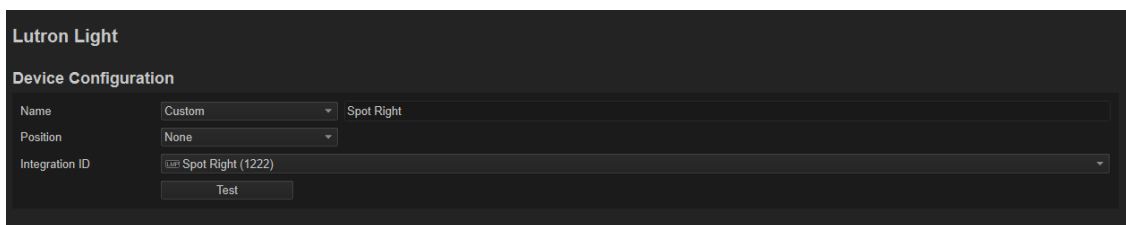
Push it to the server. You can now control your lights and shades via the Basalte Home app. Controlling lights via logic is also possible:



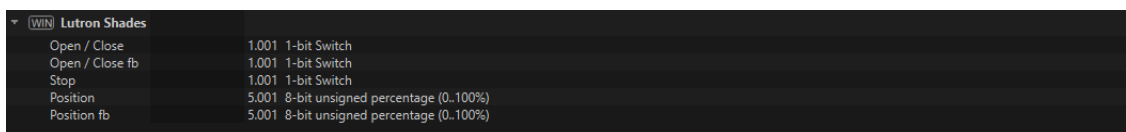
A second way to add lights and shades from Lutron is to add the Lutron HomeWorks process to your Basalte Studio project. First discover the processor and then link the username and password.



Add light and shades and link to the corresponding integration ID.



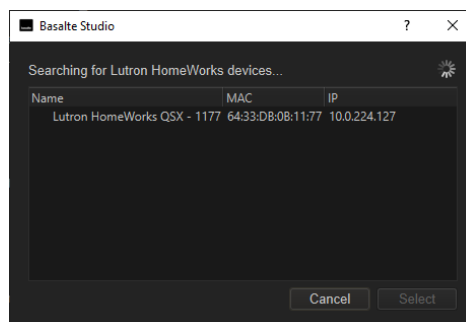
You can test the lights and shades by clicking on test. If you want to control the Lutron lights/shades via KNX, you can configure this in the KNX configuration tab.



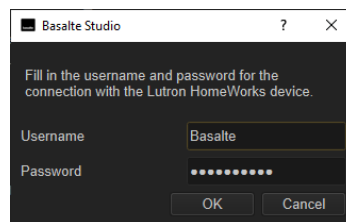
5.2 Controls in Basalte Studio

5.2.1 Import from Lutron:

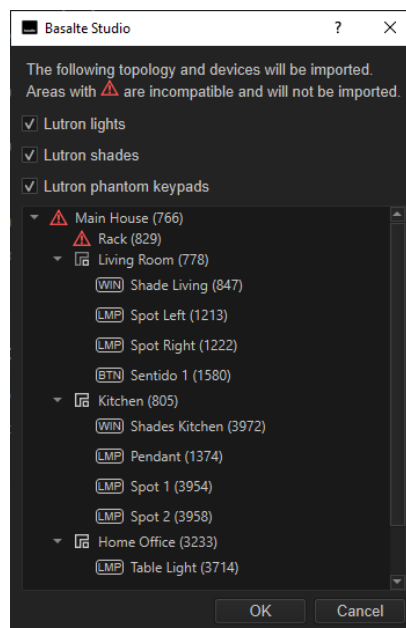
Now that we configured all Lutron phantom keypads in the Lutron processor, we can import the Lutron project in Basalte Studio. In the left top corner, navigate to Project and select "Download From Lutron".



Enter the username and password you previously created in the “Configure Integration” window in HomeWorks.



After the connection is established, Studio will receive info from the Lutron processor. Select the devices that need to be imported.



5.2.2 Phantom keypad in Studio:

Select the Lutron Phantom keypad from the topology in the left panel. After the import, the Name and Integration ID will already match the Lutron project.

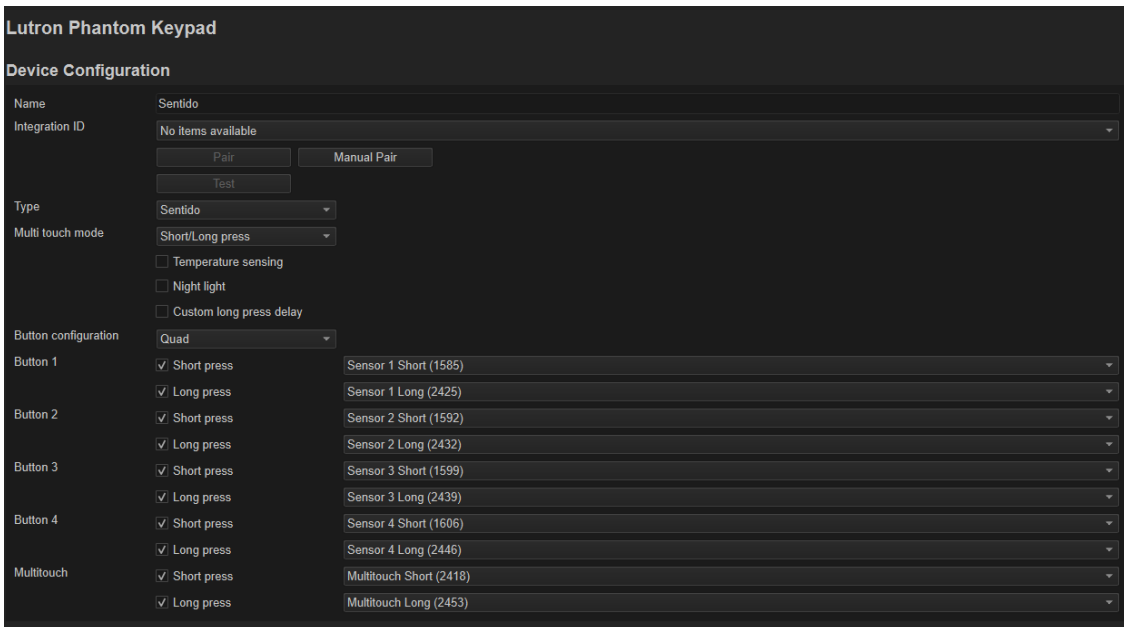
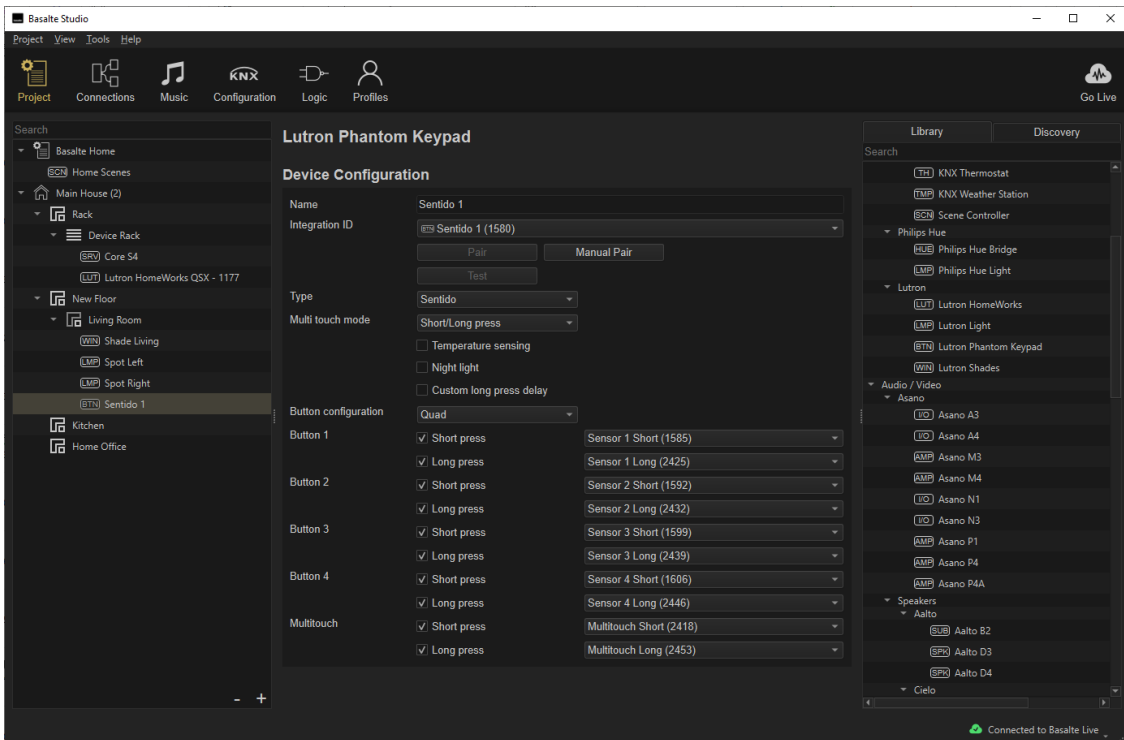
Next step is to activate the keypad. There are 2 different pair mechanisms:

Automatic Pair

This can be used for devices without rotary dial on the back: the ID will be set automatically.

Manual Pair

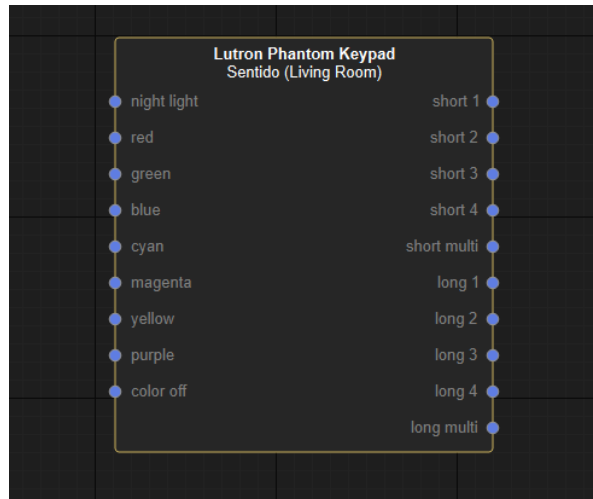
This can be used when connecting the Sentido with rotary dials on the back. Make sure that the ID of the Sentido matches the ID you set in Studio.



Pair the Sentido or Fibonacci. If you click on pair you will need to touch the Sentido or Fibonacci so the server knows which device it is. If you click on Test, the paired Sentido will lighten up. Manual pairing is done by giving the ID of the Sentido, which is the method when using older Sentido keypads with rotary dial.

Your Sentido or Fibonacci is now linked. You can choose between the different functions of the Sentido/Fibonacci. If it is quad or dual etc.

In the logic tab you can link the controls of the Sentido/Fibonacci to other lights, controls...

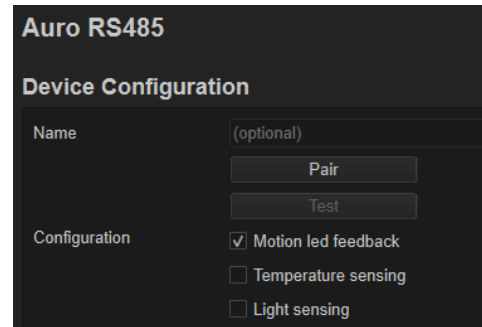


5.2.3 Auro RS485 in Studio:

You have to manually add the Auro motion sensor into your Basalte Studio project because there is no pre-configuration required in Lutron HomeWorks.

Add the Auro sensor in the room by drag & drop from the product list in the right panel.

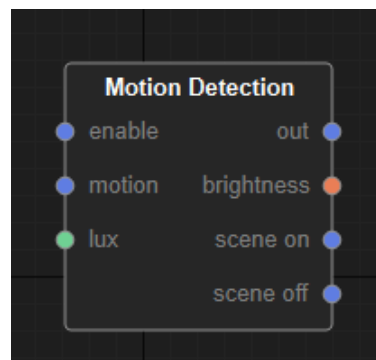
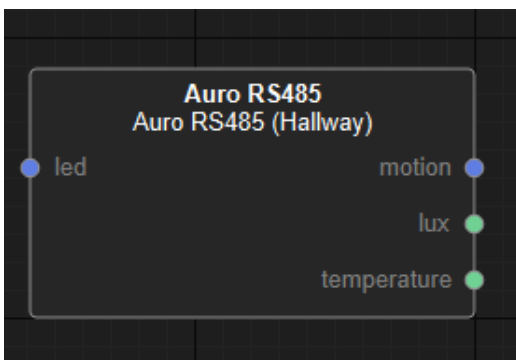
You can give it a name and pair the Auro with your system. When in pair mode, you need to push the button on the back of the Auro so the server knows which device it is pairing with. If you click on Test, the feedback LED on Auro will light up.



You can add some extra functions like Temperature Measuring and Light Brightness (Lux).

Additional configuration is required in the logic tab.

Drag & drop the Auro RS485 function block and Motion detection function block onto your logic page.



5.2.4 Lutron Keypad in Studio:

The Lutron Keypads should be configured in the HomeWorks software, after which you need to import the project into Basalte Studio. The Keypads will not appear in the project tab and are only accessible in logic.

Drag & drop the Lutron keypad function block and link it to the one you want to use.

Here you can trigger a buttons or add some actions to a button press.

