



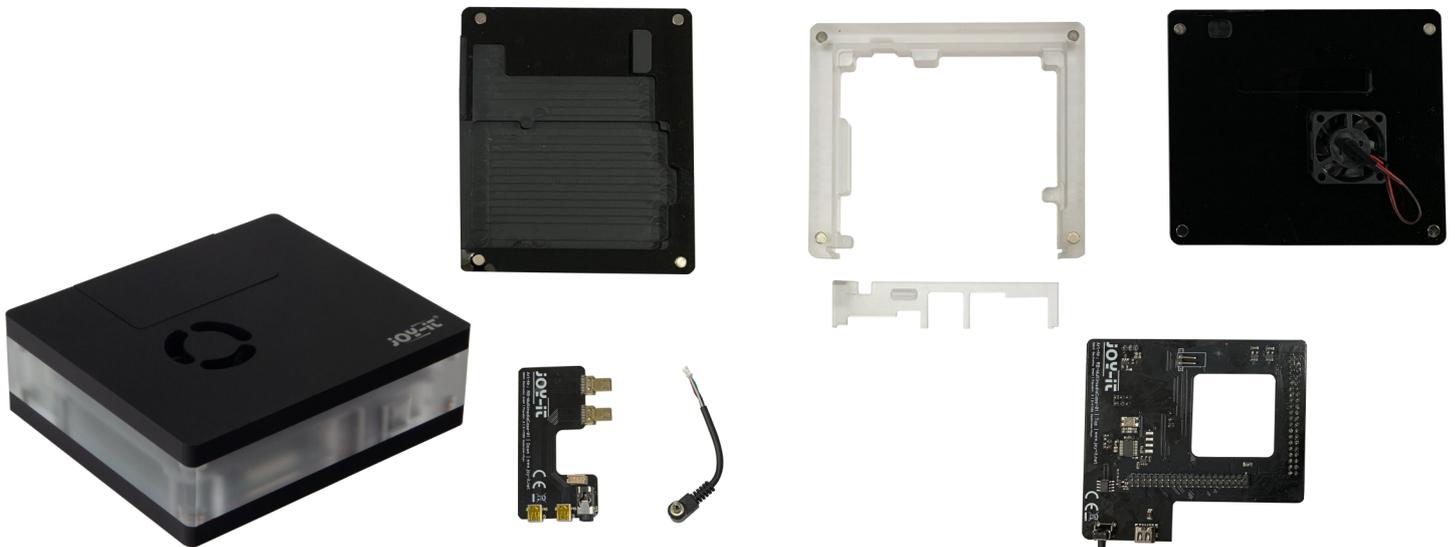
# MULTIMEDIA CASE

for the Raspberry Pi 4

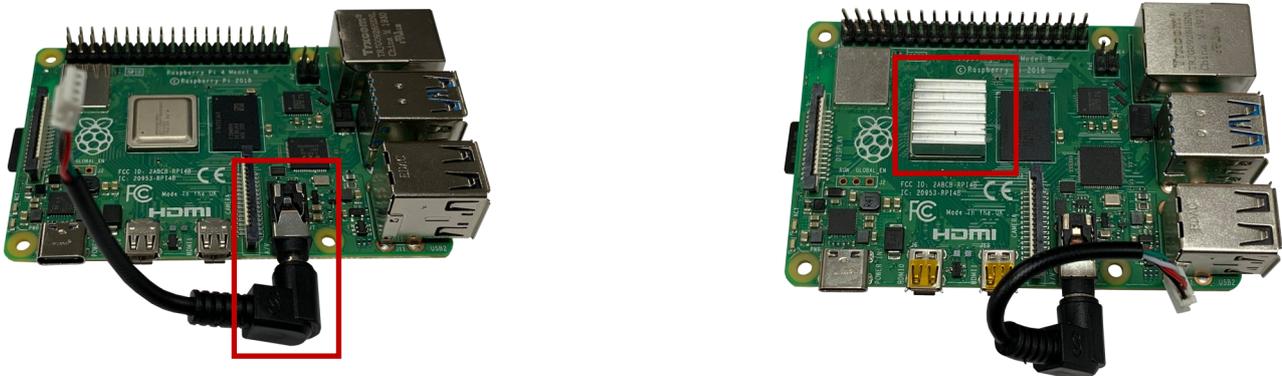
**JOY-IT**

## 1. ASSEMBLING

1. The first step in assembling the housing is to disassemble the case into its individual parts. You can easily pull it apart as the case is attached with magnets.



2. Then connect the AUX plug to the jack socket from the Raspberry Pi. Now insert the already written SD card into the Raspberry Pi. You find more information about that in **Chapter 2: Software installation**. Also attach the heat sink to the CPU of the Raspberry Pi.



3. Afterwards, connect the small board to the two microHDMI connectors. Optionally, you can now connect the cable from the AUX connector to the appropriate socket on the circuit board. The cable should lie as flat as possible against the board, otherwise space problems may occur.



- Now place the Raspberry Pi with the circuit board on the bottom of the case.



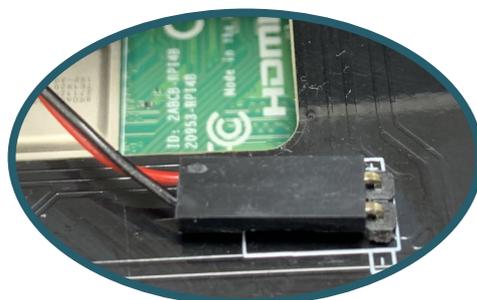
- In the following step, attach the center piece and push the connection panel into the center piece.



- Therefore, place the large board on the GPIO bar of the Raspberry Pi. The circuit board is inserted at a slight angle so that the connections fit easily into the panel.  
Important:  
Should you use the audio cable, care must be taken to ensure that the cable does not get under the jumper pins on the bottom, otherwise the top PCB will not mount correctly.



- Connect now the fan, which is attached at the cover, to the big board. Make sure that the red cable is connected to "+" and the black cable to "-".



- Furthermore, place the cover on the case. Your case is now completely assembled.



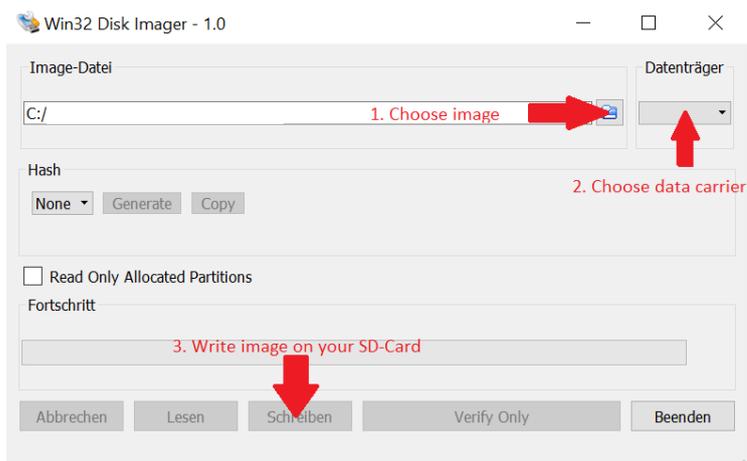
Your case has a removable lid, so the GPIO bar of your Raspberry Pi is still usable despite being in a case.

## 2. SOFTWARE INSTALLATION

Before this housing can be used, an operating system must be installed on the SD card. If you have already written an image file to an SD card or you bought a set with an written SD card, you can skip this chapter. Our configured

LibreElec-Image can be downloaded [here](#).

- Download the image file (.zip format) to your PC. After unpacking the file you will get a file with the extension .img.
- Connect a microSD card to your PC.
- Start the [Win32-Disk-Imager](#) and select
  - the downloaded image file.
  - the drive to be written on.
  - Click on Write to write the image onto the SD card.
- Now the card is written with the operating system and it can be inserted into the microSD card slot of the Raspberry Pi.

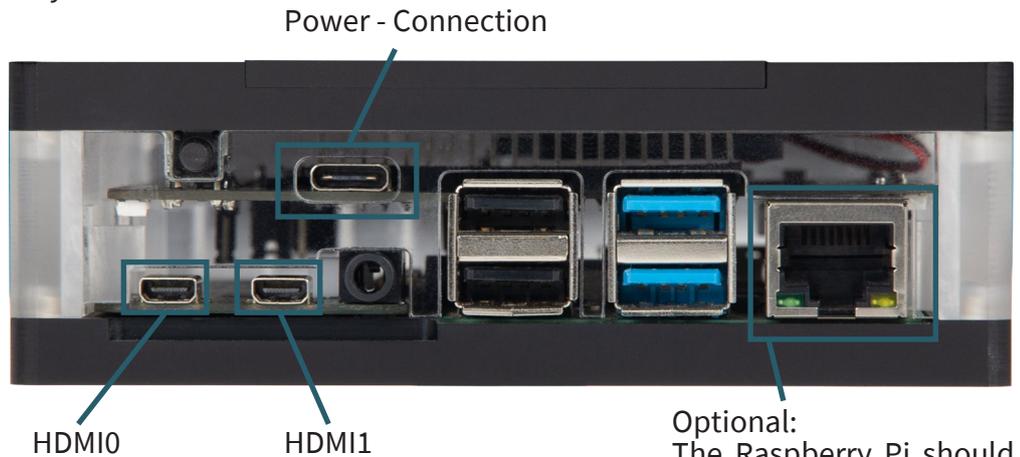


### 3. CONNECTION

In this chapter you will see what you have to connect to your TV to transmit the Multimedia Case image. When first setting up the Raspberry Pi, however, a mouse and keyboard must be connected temporarily.

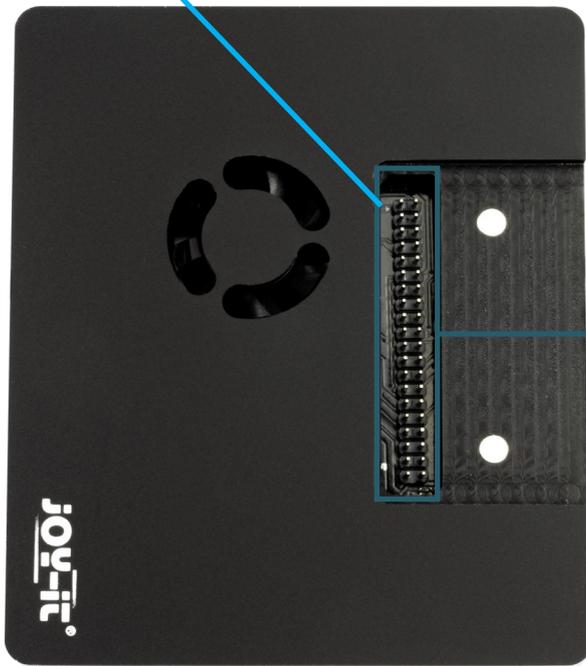
#### microHDMI - Connection

HDMI0 should be used if only one monitor is used. Especially when 4K resolution is required.



Optional:  
The Raspberry Pi should have a connection to the network via cable or Wifi.

Pin 1 marking

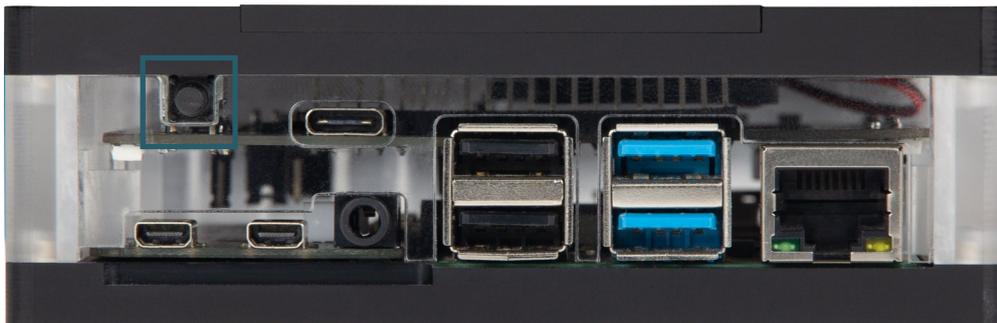


#### GPIO - Pinout

3.3V DC	1		2	5V DC				
SDA1, I2C	GPIO 2		3	4	5V DC			
SCL1, I2C	GPIO 3		4	5	Ground			
GPCLK0	GPIO 4		5	6	GPIO 14	TXD0		
Ground	9		6	7	GPIO 15	RXD0		
GPIO 17	11		7	8	GPIO 18	PWM0		
GPIO 27	13		8	9	10	Ground		
GPIO 22	15		9	10	11	GPIO 23		
3.3V DC	17		10	11	12	GPIO 24		
MOSI, SPI0	GPIO 10		11	12	13	Ground		
MISO, SPI0	GPIO 9		12	13	14	GPIO 25		
CLK, SPI0	GPIO 11		13	14	15	GPIO 8	SPI	
Ground	25		14	15	16	GPIO 7	SPI	
ID_SD	GPIO 0		15	16	17	GPIO 1	ID_SC	
GPIO 5	29		16	17	18	30	Ground	
GPIO 6	31		17	18	19	31	GPIO 12	PWM0
PWM1	GPIO 13		18	19	20	32	Ground	
MISO, SPI1	GPIO 19		19	20	21	33	GPIO 16	
GPIO 26	37		20	21	22	34	GPIO 20	MOSI, SPI1
Ground	39		21	22	23	35	GPIO 21	SCLK, SPI1

### 4. PUTTING INTO OPERATION

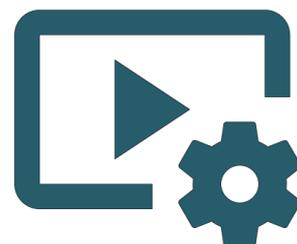
When you have successfully connected the case to your device, you can start the Raspberry Pi with the on/off button.



When you start the Raspberry Pi for the first time, you will be asked to make the initial settings on the Raspberry Pi and the case. This cannot be cancelled.

## 5. USAGE

In our prepared image you can find addons to personalize your Multimedia Case. You can find these addons in Kodi under **Add-ons** → **Program add-ons**. In the following you will find a more detailed explanation of the functions of these addons.

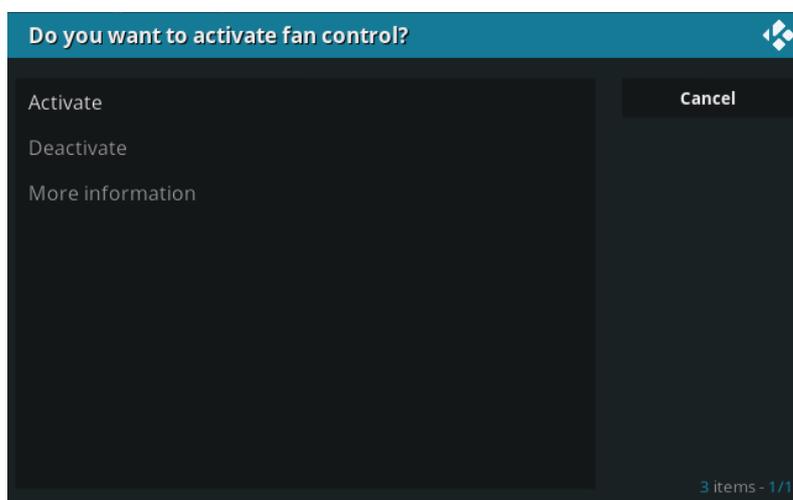


### Multimedia Case Configuration

With this addon you can activate or modify certain functions of the Multimedia Case to personalize it even more.

#### **Fan Control**

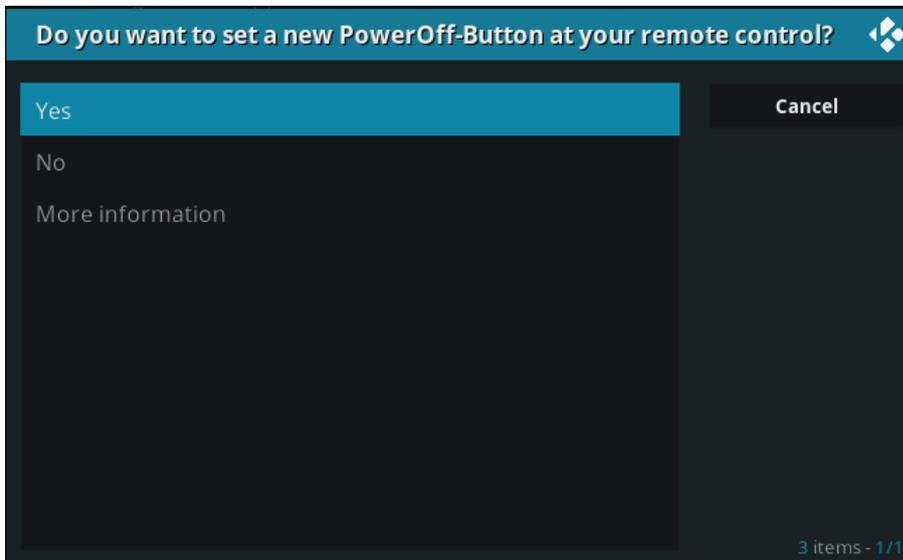
This allows you to adjust the fan to the temperature of the Raspberry Pi. For this purpose the jumper, which is marked as FanCntrl, must be set to ON. If the jumper is set to OFF, the fan runs permanently at its maximum speed.



#### **PowerOff-Button**

With this program you can set a button of any remote control as on/off button of the Multimedia Case. More buttons to control the system can be configured in the IR Control Configuration addon.

When a new key is learned, the Multimedia Case starts flashing colourfully. Now you have to press any key three times to set it as PowerOff-Button. When a signal is received, the Multimedia Case lights up white. However, if any key is pressed other than the previous one, the case will light up red and you have to press any key three times again. The case will light green if a new PowerOff-Button has been successfully set.

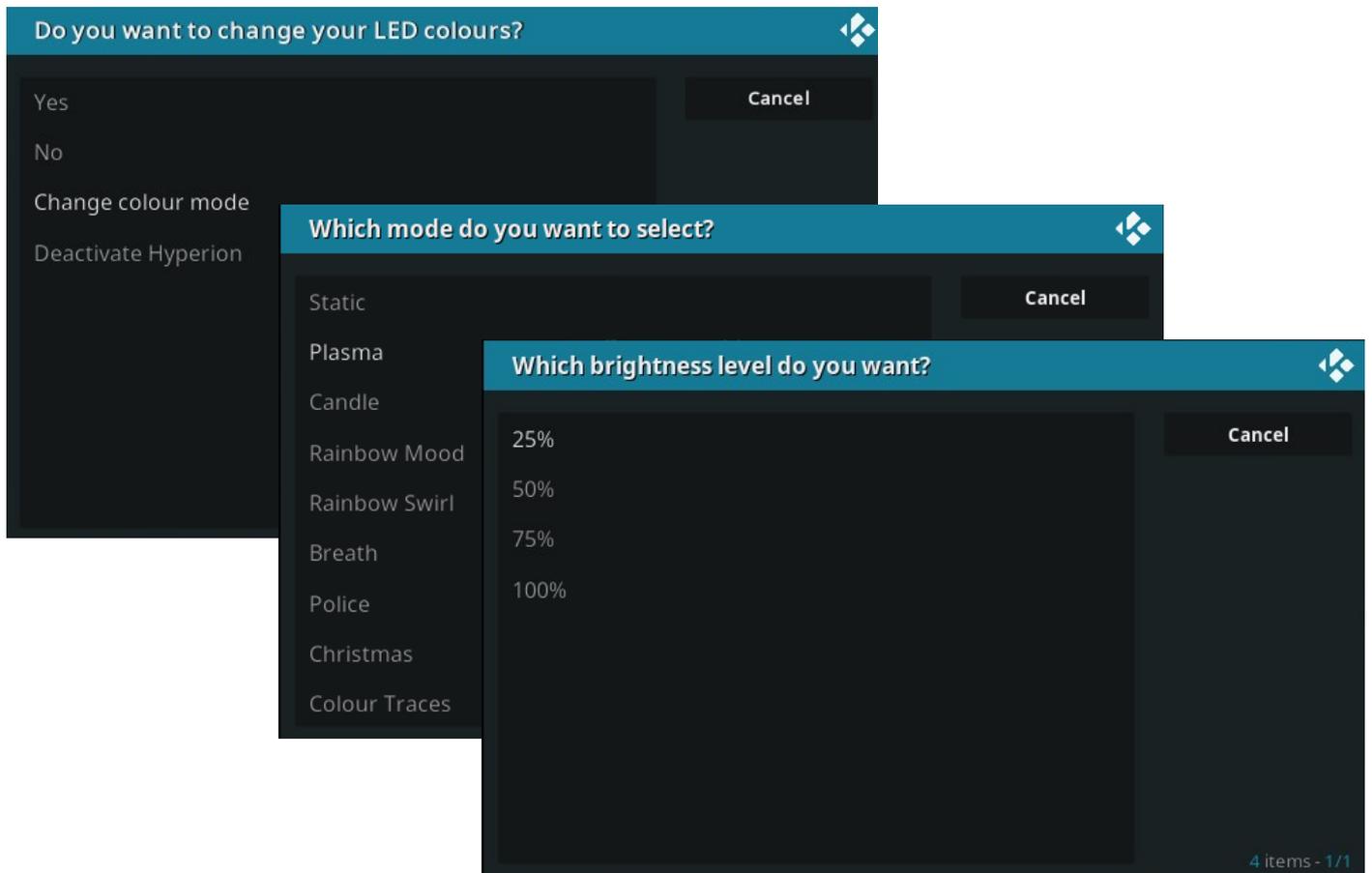
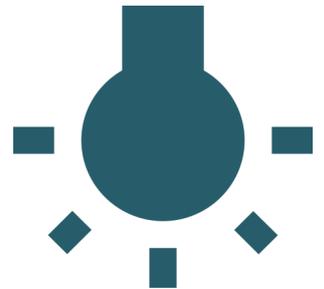


The Raspberry Pi will restart after successful adjustment.

### Multimedia Case LED Configuration

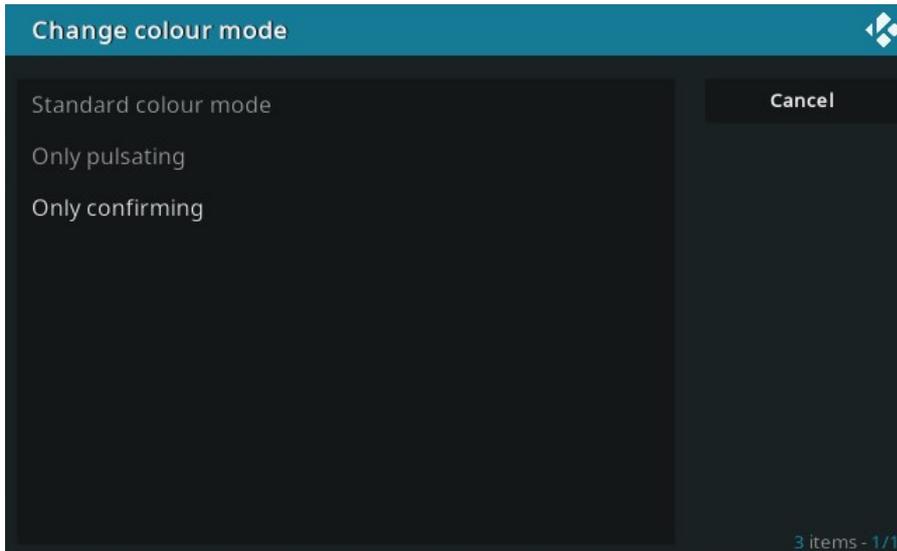
This addon allows you to adjust the LEDs of the case. In this addon you can select different effects or static colours and adjust their brightness.

**Note that this addon is only compatible with firmware version 1.0.1 or higher.**



### LED colour mode

The board has since firmware v1.0.1 the possibility to set the LEDs by the board. This means that you can switch off the LEDs when the Raspberry Pi is switched off. For this purpose, there are the following three color modes that you can choose.



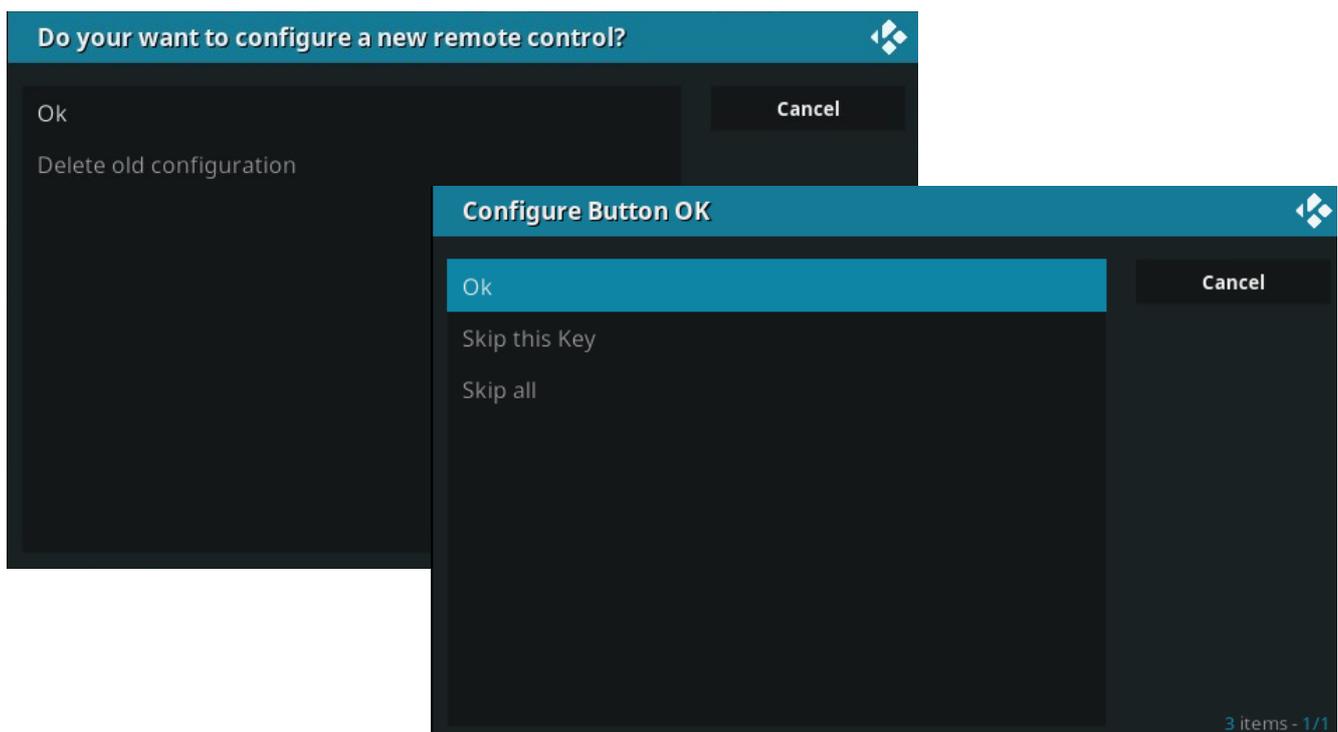
The Raspberry Pi will reboot after a successful setup by Hyperion.

### IR Control Configuration

With this addon, you can configure the remote control of your choice. This is useful if you want to use a separate remote control for operation in Kodi and don't want to control Kodi with HDMI-CEC, i.e. with the remote of your TV.

The addon will guide you through and save each button on the remote control that is necessary to use Kodi, so you don't need to have a keyboard or mouse connected to the Raspberry Pi anymore.

Note that you will not get any feedback when pressing a key but only a message when a key has been set.



Press any button on your remote control several times-----  
Press button OK on your remote control several times-----  
Press button EXIT on your remote control several times-----  
Press button LEFT (<) on your remote control several times-----  
Press button RIGHT (>) on your remote control several times-----  
Press button UP (^) on your remote control several times

The Raspberry Pi will restart after successful adjustment.

## 6. FURTHER INFORMATION

Our Information and Take-back Obligations according to the German Electronic Law (ElektroG)

### Symbol on Electrical and Electronic Products:

This crossed-out bin means that electrical and electronic products do not belong into the household waste. You must hand over your old appliance to a registration place. Before you can hand over the old appliance, you must remove used batteries and replacement batteries which are not enclosed by the device.



### Return Options:

As the end user, you can hand over your old appliance (which has essentially the same functions as the new one bought with us) free of charge for disposal with the purchase of a new device.

Small devices, which do not have outer dimensions bigger than 25 cm can be handed in for disposal independently of the purchase of a new product in normal household quantities.

#### 1. Possibility of return at our company location during our opening hours

Simac Electronics Handel GmbH, Pascalstr. 8, D-47506 Neukirchen-Vluyn

#### 2. Possibility of return nearby

We will send you a parcel stamp with which you can send us your old appliance free of charge. For this possibility, please contact us via e-mail at [service@joy-it.net](mailto:service@joy-it.net) or via telephone.

### Information about Package:

Please package your old appliance safe for transport. Should you not have suitable packaging material or you do not want to use your own material, you can contact us and we will send you an appropriate package.

## 7. SUPPORT

If any questions remained open or problems may arise after your purchase, we are available by e-mail, telephone and ticket support system to answer these.

E-Mail: [service@joy-it.net](mailto:service@joy-it.net)

Ticket-system: <http://support.joy-it.net>

Telephone: +49 (0)2845 98469 – 66 (10 - 17 o'clock)

For further information visit our website:

**[www.joy-it.net](http://www.joy-it.net)**