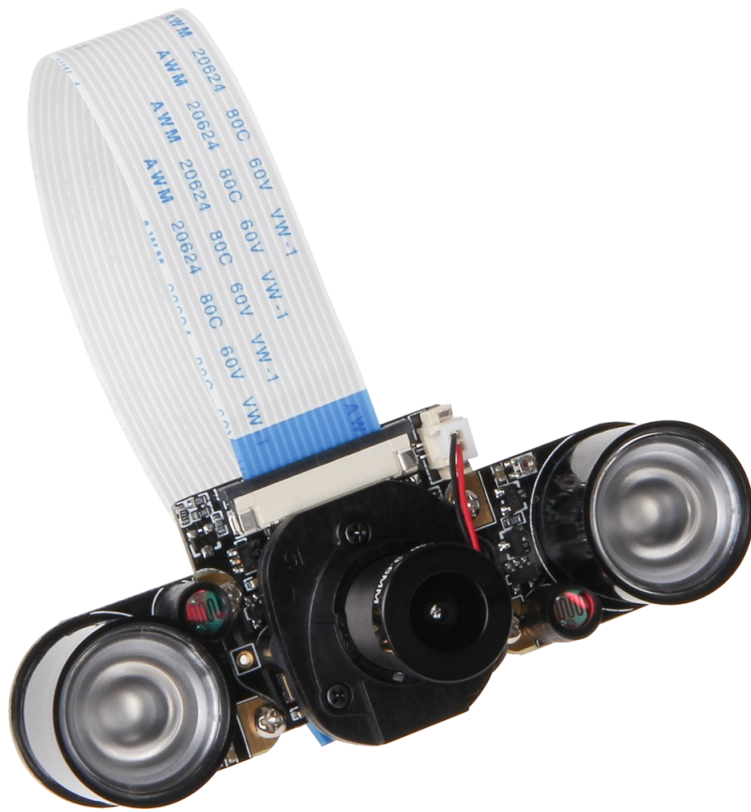


# JOY-IT



5MP Camera  
with IR-CUT Filter

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## 1. INTRODUCTION

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Dear customer,  
thank you for choosing our product.  
In the following we have listed what has to be considered during commissioning.

## 2. OVERVIEW AND CONNECTION

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The IR-PRO camera is a high-resolution camera for your Raspberry Pi, which can be equipped with two infrared LED modules. So shooting in low light conditions, and even at night, is no longer a problem!

Simply take the two infrared modules and screw them together with your camera module as shown in the following pictures.



Now connect the module to the CSI interface of your Raspberry Pi using the ribbon cable provided.



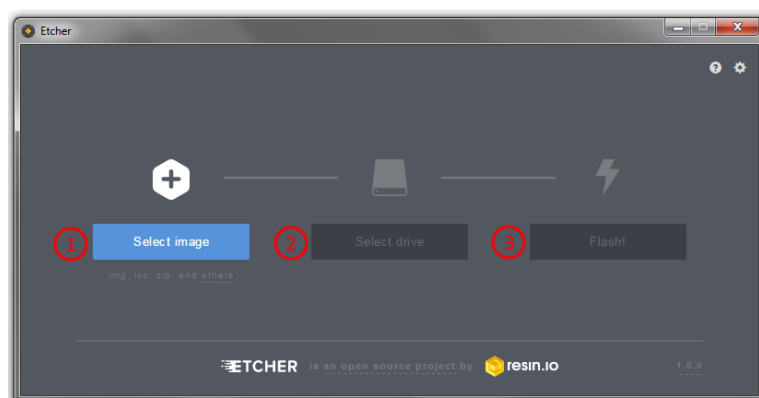
### 3. INSTALLING THE SYSTEM

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If you are already using the latest Raspbian software on your Raspberry Pi, you can skip this step and proceed immediately to the next step.  
Otherwise, please follow the instructions.

Please install the latest Raspbian system image on your SD card.  
You can download it [here](#).

With a suitable program (e.g. Etcher) you can then transfer the image to your SD card.



After successful transmission, the SD card can be inserted into the Raspberry Pi and the system can be started.

## 4. INSTALLING THE CAMERA

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First open a terminal window and start the Raspberry Pi configuration menu by entering the following command:

```
sudo raspi-config
```

In the menu that now opens, navigate to the **Advanced Options** menu. Here you select the option **Camera** and activate it.

```
Raspberry Pi Software Configuration Tool (raspi-config)
1 Change User Password      Change password for the default use
2 Hostname                  Set the visible name for this Pi on
3 Boot Options              Configure options for start-up
4 Localisation Options      Set up language and regional settin
5 Interfacing Options       Configure connections to peripheral
6 Overclock                 Configure overclocking for your Pi
7 Advanced Options          Configure advanced settings
8 Update                    Update this tool to the latest vers
9 About raspi-config        Information about this configuratio

<Select>                    <Finish>
```

```
Raspberry Pi Software Configuration Tool (raspi-config)
P1 Camera                   Enable/Disable connection to the Ra
P2 SSH                      Enable/Disable remote command line
P3 VNC                      Enable/Disable graphical remote acc
P4 SPI                      Enable/Disable automatic loading of
P5 I2C                      Enable/Disable automatic loading of
P6 Serial                   Enable/Disable shell and kernel mes
P7 1-Wire                   Enable/Disable one-wire interface
P8 Remote GPIO              Enable/Disable remote access to GPI

<Select>                    <Back>
```

Then you can leave the menu via **Finish** and restart your Raspberry Pi.

## 5. USING THE CAMERA

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### 5.1 TAKING PICTURES

The following console command can be used to capture images with the camera:

```
raspistill -o image.jpg
```

The image is then saved under the name **image.jpg** in the user directory (/home/pi).

### 5.2 TAKING VIDEOS

Videos can be recorded with the following command:

```
Raspivid -o video.h264 -t 10000
```

The appendix "**-t 1000**" defines the duration of the recorded video. In this case, the video recording takes 10 seconds.

The video is then saved under the name **video.h264** in the user directory (/home/pi).

### 5.3 ACTIVATING/DEACTIVATING THE IR CUT-FILTERS

The IR CUT filter uses the built-in infrared LEDs to provide good images even in a very dark environment, or even at night. There are two ways to deactivate the filter (e.g. for day recordings):

#### KONFIGURATION VIA THE SETTINGS

Open the **config.txt** file with the following command:

```
sudo nano /boot/config.txt
```

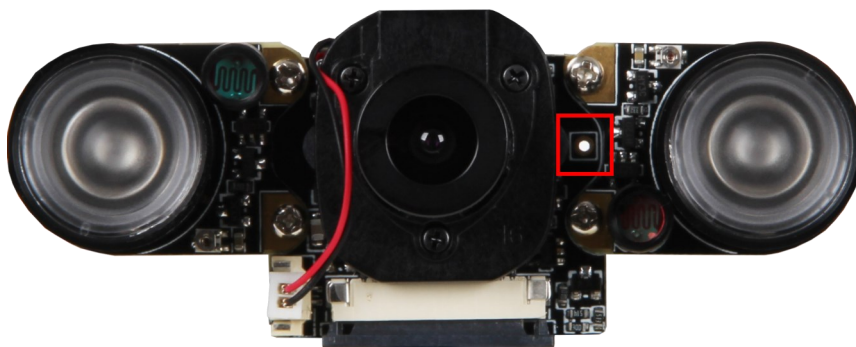
Use the following command to start the camera in night mode from the next reboot:

```
disable_camera_led=1
```

Simply remove the same line to return the camera to normal mode.  
The changes are also applied here after a restart of the system.

#### KONFIGURATION VIA GPIO

The IR CUT filter does not have to be activated or deactivated via the settings file. Alternatively, this can also be done via the GPIO configuration. Simply connect the marked contact to a GPIO pin of your choice. A GPIO-HIGH signal operates the camera in normal mode. A GPIO-LOW signal operates these in night mode.



## 6. SECURITY– AND DATA PROTECTION INFORMATION

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- Keep the operating instructions and notes!
  - If the device is passed on to third parties, it must be provided.
  - Use this device only for the respective area of application and according to the operating instructions.
  - Follow our instructions when setting up and using the device to ensure that it functions properly.
  - Read the instructions in full before you start setup / use.
  - Do not install this unit near heat sources such as heaters, ovens, refrigerators, etc.
  - Never touch the device with wet hands.
  - Protect the unit from moisture and rain.
  - Under no circumstances may it be used in rain, in damp rooms or even in or under water.
  - Before commissioning, make sure that the available mains voltage corresponds to the specified mains voltage.
  - Under no circumstances may you deviate from the specified mains voltage during use.
  - Never touch the power plug with wet hands.
  - This product is not a toy. Do not let children play with the camera.
- 
- When using them, particular attention must be paid to the personal rights applicable in Germany and the right to informational self-determination.
  - Make sure that only your own home or property is visible in the visible area of the camera.
  - Do not point the camera at other people's property at any time.
  - Public areas, such as streets and footpaths in front of your own property, may also not be filmed.
  - If persons are admitted without their knowledge and without their consent, this can have legal consequences.
  - The camera may only be installed in the hallway of a rented apartment with the written consent of the landlord and all tenants.
  - Never use the recordings for private investigative calls, e.g. in the event of a break-in.
  - If there is any hope of identifying any burglars on the basis of the photographs, you should inform the police immediately.



## 7. OTHER INFORMATIONS

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Our take-back obligations under the Electrical and Electronic Equipment Act (ElektroG)

**Symbol on electrical and electronic equipment:**



This crossed-out dustbin means that electrical and electronic equipment does not belong in household waste. You must return the old devices to a collection point.

Before disposal, you must separate old batteries and accumulators which are not enclosed in the old device from it.

**Return options:**

As an end user, you can dispose of your old device (which essentially fulfils the same function as the new one purchased from us) free of charge when purchasing a new device.

Small appliances where no external dimensions are larger than 25 cm can be delivered in normal household quantities, irrespective of the purchase of a new appliance.

**Possibility of return at our company during opening hours:**

Simac GmbH, Pascalstr. 8, 47506 Neukirchen-Vluyn, Germany

Possibility of return in your area: We will send you a parcel stamp with which you can return the device to us free of charge.

Please contact us by e-mail at [Service@joy-it.net](mailto:Service@joy-it.net) or by phone.

**Information about packaging:**

If you do not have suitable packaging material or do not wish to use your own, please contact us and we will send you suitable packaging. Please inform us if your device contains Lilon batteries in this case. an additional warning label must be attached.




## 8. EU-DECLARATION OF CONFORMITY

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Manufacturer: Simac GmbH  
 Pascalstr. 8  
 47506 Neukirchen-Vluyn

Article name: RB-Camera-IR-PRO

Declares that the product is in compliance with the essential requirements of the following directives when used as intended:  
 EMV-Richtlinie 2014/53/EU & 2014/35/EU, RoHS-Guideline 2011/65/EU

Date	Name of the person responsible	Signature	Position in the company
13.07.2017	Yue Yang		executive manager

## 9. SUPPORT

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We also support you after your purchase. If there are any questions left or if you encounter any problems please feel free to contact us by mail, phone or via our ticket-support-system on our website.

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

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

Phone: +49 (0)2845 98469 – 66 (11- 18 Uhr)

Please visit our website for more informations:

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