

# JOY-PI NOTE

3-in-1 solution: notebook, learning platform and experiment center



The Joy-Pi Note is the new flagship in the Joy-Pi family. With its 11.6" IPS screen and a detachable, wireless keyboard, it takes the Joy-Pi's basic concept in a new, high-quality and attractive format.

With 46 courses and 18 projects, the Joy-Pi Note is not only suitable as an experiment center, but is also ideal for use in the education sector. With over 22 integrated sensors and modules, there are no limits to the user's own joy of experimentation. This simplifies the introduction to electrical engineering and programming.

Due to the installed learning platform, which was developed especially for the Joy-Pi Note, the installed units can be operated and learned independently of one's own previous knowledge. It is also possible to connect additional sensors and modules via the pins of the Raspberry Pi, which are routed to the outside, and thus also carry out more complex projects.

## MAIN FEATURES

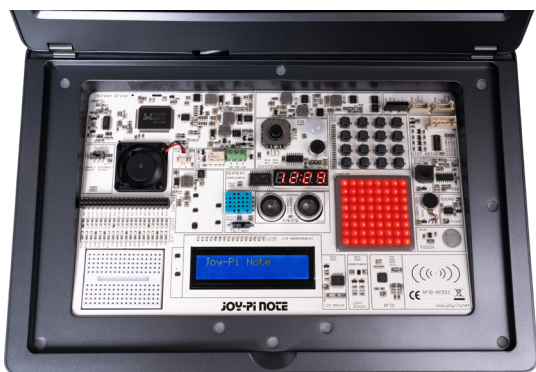
|                                  |   |
|----------------------------------|---|
| Display                          | 11,6" 1920x1080 IPS LCD   |
| Camera                           | 2 MP  |
| Special features                 | Fully equipped set, completely integrated experiment center, pre-installed learning platform, detachable wireless keyboard, integrated compartment for power-bank & accessories |
| Lessons of the learning platform | 46 courses & 18 projects for Python and Scratch   |
| Power supply                     | 12 V hollow plug, 5 V USB   |
| Compatible to                    | Raspberry Pi 4 4GB and upwards  |
| Dimensions                       | 291 x 190 x 46 mm   |
| Weight                           | 1,3 kg  |
| Items delivered                  | Joy-Pi Note, accessories, quick guide   |

## INCLUDED SENSORS, MODULES & ACCESSORIES

|          |  |
|----------|--|
| Displays | 7-segment display, 16x2 LCD module, 8x8 RGB-Matrix   |
| Sensors  | DHT11 temperature & humidity sensor, tilt sensor, motion sensor, sound sensor, touch sensor, RFID module, light sensor, ultrasonic distance sensor |
| Motors   | Servo interface, stepper motor interface, vibration motor  |

Of course, the Joy-Pi Note can also be used as a „classic“ notebook. All programs compatible with the Raspberry Pi 4 can be installed. The integrated 2MP camera also makes video conferencing possible, for example.

A Raspberry Pi is not included in the scope of delivery. All models of the Raspberry 4 family can be used. On the bottom of the device, you will find a compartment where you can insert a power bank to also operate the Joy-Pi Note mobile.



#### Control

Joystick, 4x4 button matrix, Raspberry Pi & PCB connection switch, motion sensor, sensitivity controller, sound sensor sensitivity controller, 16x2 LCD module brightness controller

#### Others

Relay, fan, GPIO extension, GPIO LED indicator, breadboard, IO/ADC/I2C/UART expansion interface, infrared sensor interface, buzzer, display driver

#### Accessories

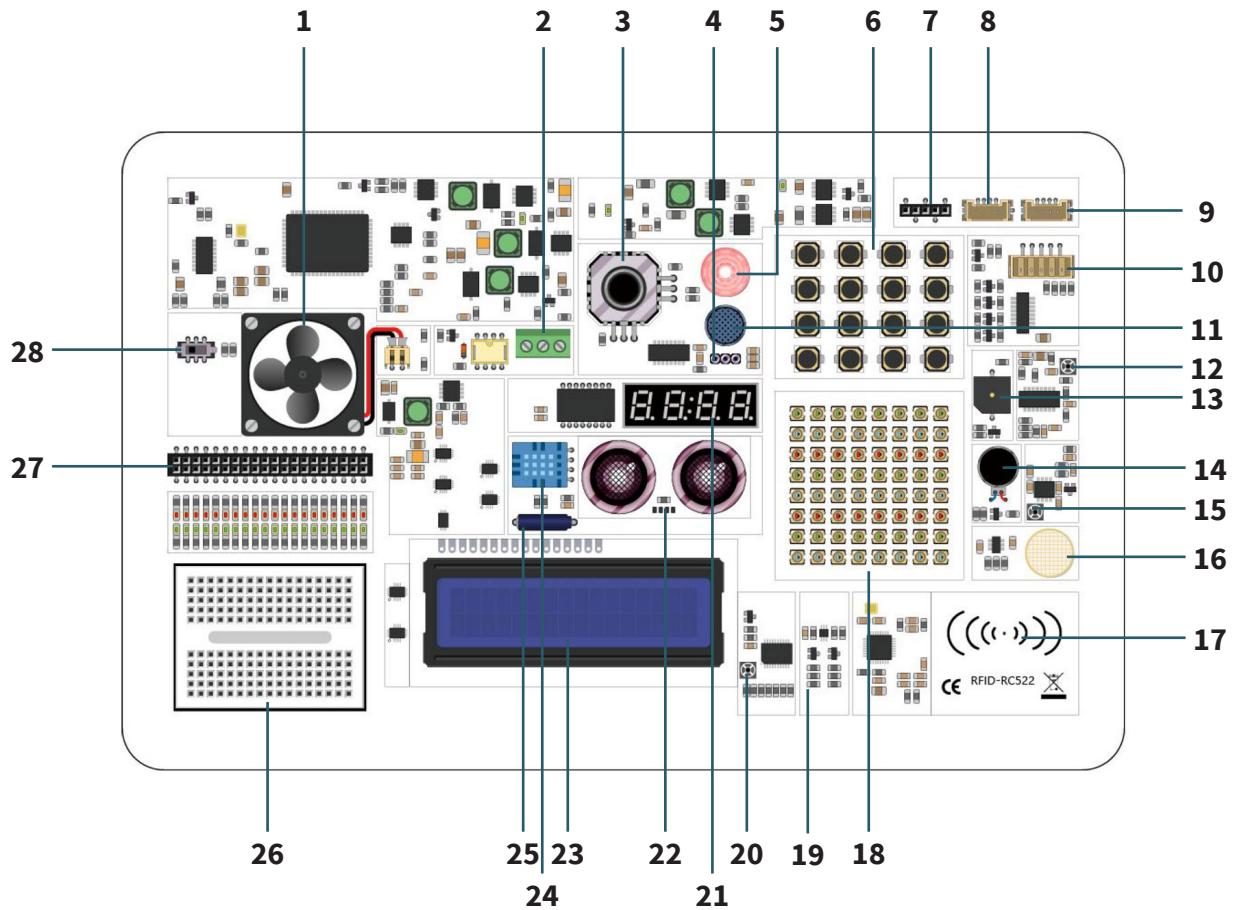
RFID chip, RFID card, 12 V power supply, servo motor, stepper motor, infrared receiver, infrared remote control, DC motor with fan attachment, HDMI connector, screwdriver, microSD card (32 GB), SD card reader, electronic accessories, wireless mouse, wireless keyboard

### ADDITIONAL DETAILS

|                       |               |
|-----------------------|---------------|
| Article No.           | RB-JoyPi-Note |
| EAN                   | 4250236821627 |
| Customs tariff number | 8473302000    |



## SCHEMATIC ILLUSTRATION



|    |  |    |                                     |
|----|--|----|-------------------------------------|
| 1  | Fan                                    | 15 | Sound sensor sensitivity controller |
| 2  | Relay                                  | 16 | Touch sensor                        |
| 3  | Joystick                               | 17 | RFID module                         |
| 4  | Infrared interface                     | 18 | 8x8 RGB Matrix                      |
| 5  | PIR motion sensor                      | 19 | Light sensor                        |
| 6  | Button matrix                          | 20 | LCD module brightness controller    |
| 7  | Serial interface                       | 21 | 7-segment display                   |
| 8  | I2C interface                          | 22 | Ultrasonic sensor                   |
| 9  | Servo motor connection                 | 23 | 16x2 LCD-display                    |
| 10 | Stepper motor connection               | 24 | DHT11 sensor                        |
| 11 | Sound sensor                           | 25 | Tilt sensor                         |
| 12 | Motion detector sensitivity controller | 26 | Breadboard                          |
| 13 | Buzzer                                 | 27 | GPIO expansion                      |
| 14 | Vibration motor                        | 28 | PCB connection switch               |

## INCLUDED PYTHON PROJECTS

„Hello“ - Welcome project

Intruder alarm

Environmental monitoring

Servo-Demo

„NFC Music“ - NFC controlled music box

Tilt display

Distance measurement

Smart light

Ultrasonic music

„RGB Cobra“ game

Stepper motor demo

Remote control

Music box

Box mover game

Memory game

Calculator

PIR video

„Flying bird“ game

## INCLUDED PYTHON COURSES

Python3 and GPIO usage

Making a buzzer alarm

Use the vibration module

Use and control the relay

Using the tilt sensor

Controlling the 4 digit segment display

Using the joystick module

Making a circuit using the bread board

Control and move the servo motor

Control the step motor

Powering the 8x8 RGB LED

Detect motion using the PIR sensor

Using the touch sensor

Controlling the LCD display

Using the sound sensor

Detect light using the light sensor

Using the DHT11 sensor

Using the ultrasonic sensor

RGB LED distance rainbow

Using the IR receiver

Play songs using the IR remote

Using the button matrix

Alarm system

Morse code translator

Using the RC522 RFID module

RFID numbers part 1

RFID numbers part 2

Recording using the microphone

Taking footage using the camera

PIR activated video

## **INCLUDED SCRATCH COURSES**

Know about Scratch

Someone calls

„Noisy monkey“ game

„Shy rabbit“ game

„Blockhead“ game

„Catch the mouse“

„Whac Mole“

Flying cats

Tilt reminder

Intrusion alarm

Automatic fan

Flashing LED

Tilt light

Memory

„Open the safe“

Morse code