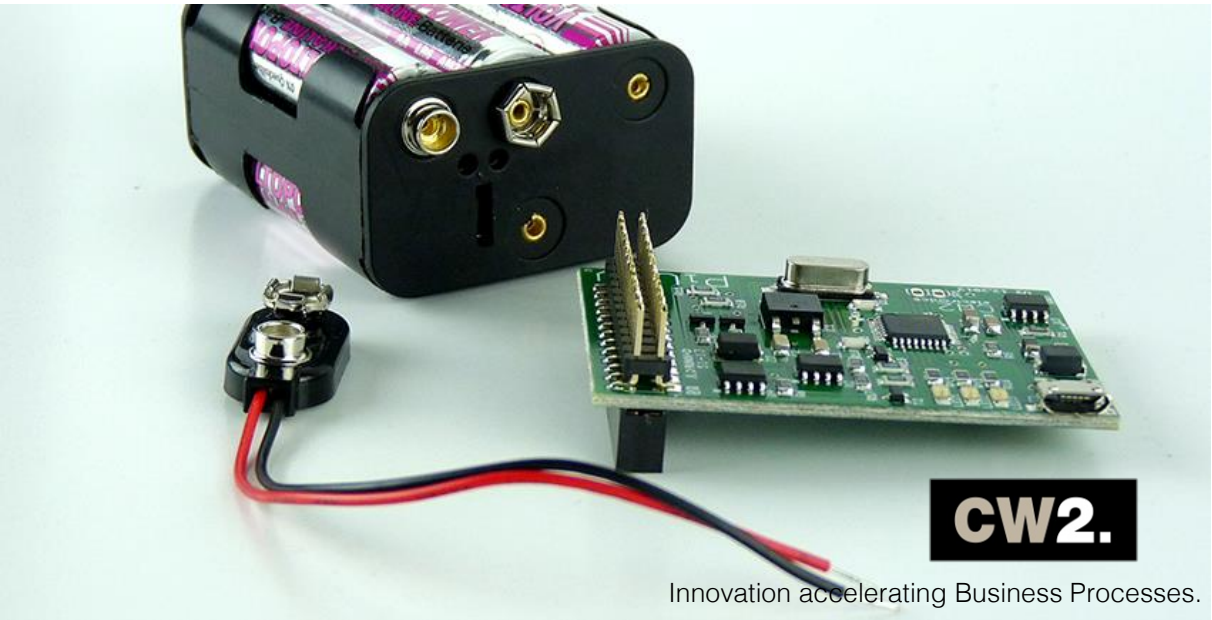
Manual

Version 02/2014



CW2. Pi UPS

1. Intended use

The Pi UPS device guarantees an uninterrupted provision of electricity for the Raspberry Pi minicomputer. The provided software ensures the proper shutdown of the Raspberry Pi.

For reasons of security and licensing (CE) it is not permitted to rebuild and/or modify the Pi UPS device. It is not allowed to use this device for other purposes as described above, as this could harm the product itself as well as the connected minicomputer or other controlled devices.

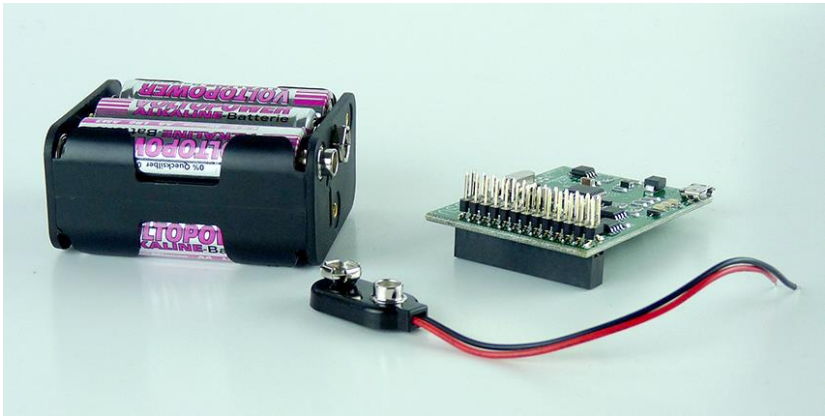
2. Scope of supply

* Pi UPS circuit board
* Press-stud connection for the Pi UPS battery pack (see below)
* Battery pack for 6 AA batteries (batteries not included)
* Software available here: http://piups.net/support

3. Safety instructions

For damages which are caused by ignoring the content of this manual you will loose all your warranty. We also assume no liability for complications on the minicomputer itself or any device connected with it! We further assume no liability for damage of property and/or persons which are caused because of improper use of this device and/or ignoring the safety instructions. You will loose all your warranty because of this. Please pay attention to all the references which are supplied with a yellow exclamation mark.

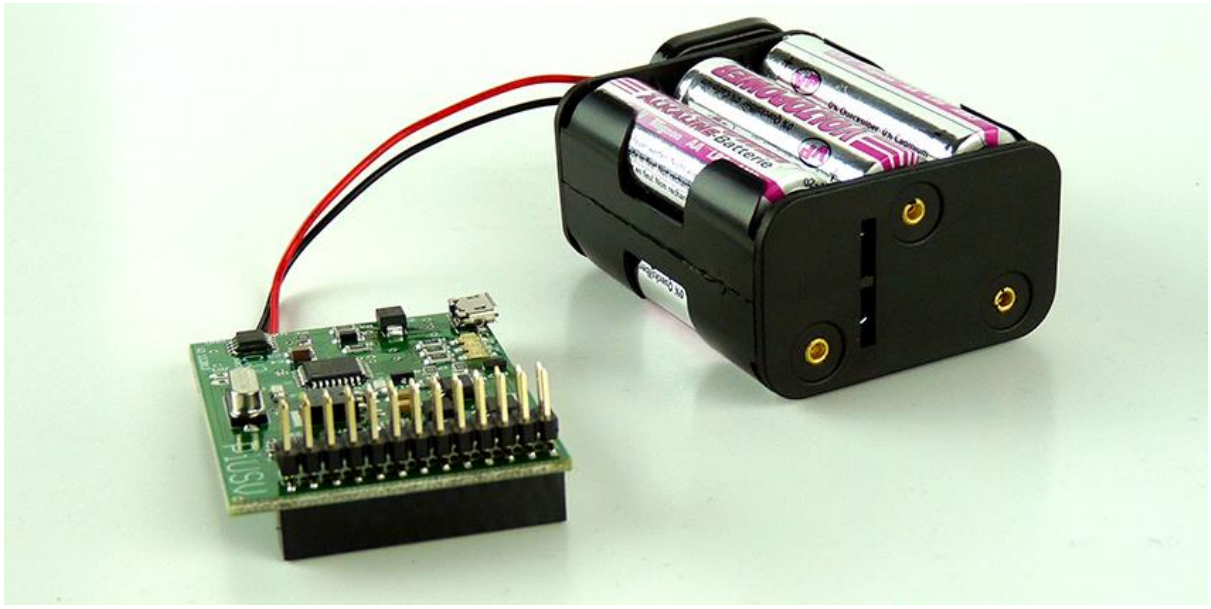
For persons and the product



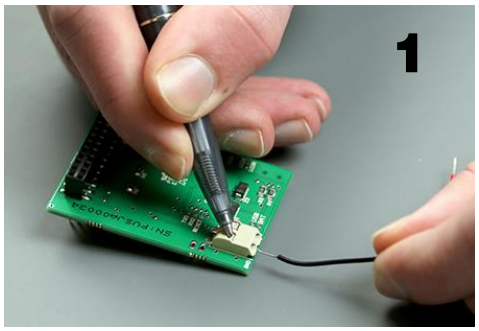
- This product is not a toy for children, so please keep it away from them!
- Never try to braze something on the Pi UPS or to manipulate any of the prefabricated parts with a strong item!
- Pleace carefully read the instruction manuals and safety instructions of all other devices connected to the Pi UPS!
- Never harm this product with any form of mechanical pressure!
- Never expose this product to extreme temperatures and/or any form of moisture!
- As soon as you recognize it is not possible anymore to use this device safely, instantly retire it and guard it from accidental usage! This is the case if Pi UPS:
  – shows visible damages
  – stopped functioning properly
  – was stored for a longer period of time among difficult terms of the environment
  – was transported roughly

Other

- Service, modifications and repairs only allowed by an expert and/or authorized service centers.
- If you have any further questions which are not answered here, please contact us instantly via our service email address.



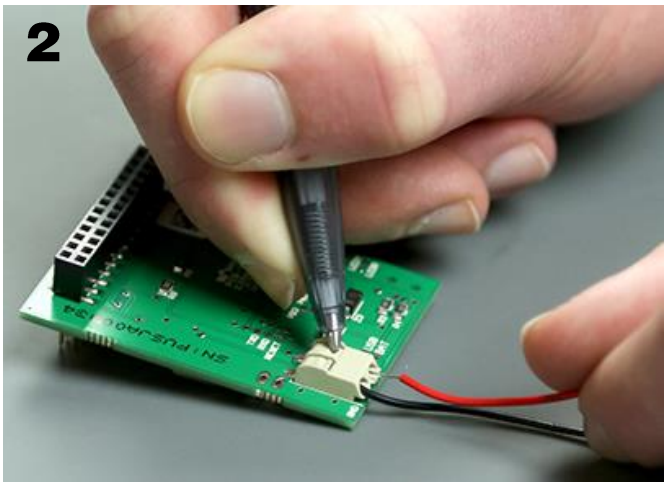
4. Handling and Installation



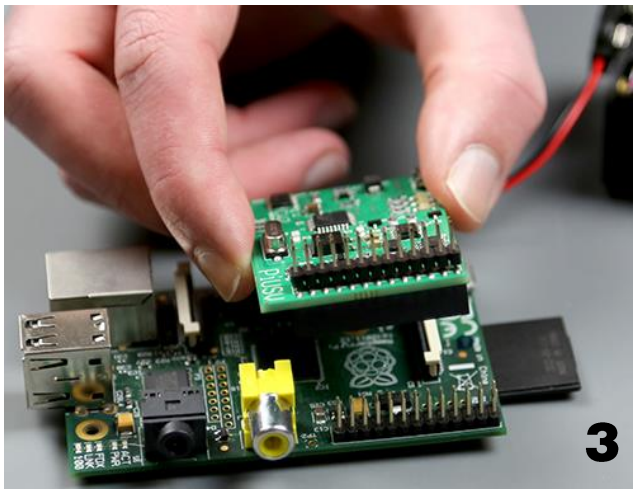
1. Take the Pi UPS, the battery pack and the press-stud connection out of their packages.

2. Insert the six AA batteries (not included in the delivery) into the battery pack.

3. Now connect the battery pack with the Pi UPS using the clamp-connection (**see pictures 1 + 2**). Please note that the wires from the battery pack are connected correctly to the press-stud connection. The press-stud connection uses two small gray buttons. You open the clips with these while pressing on them.

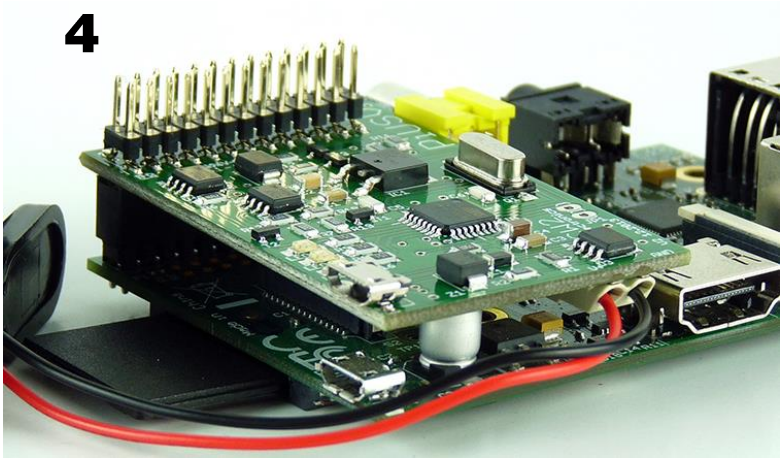


Then insert the wires accordingly: The black wire into the hole which says GND. Both wires are fixed when you release the buttons again.

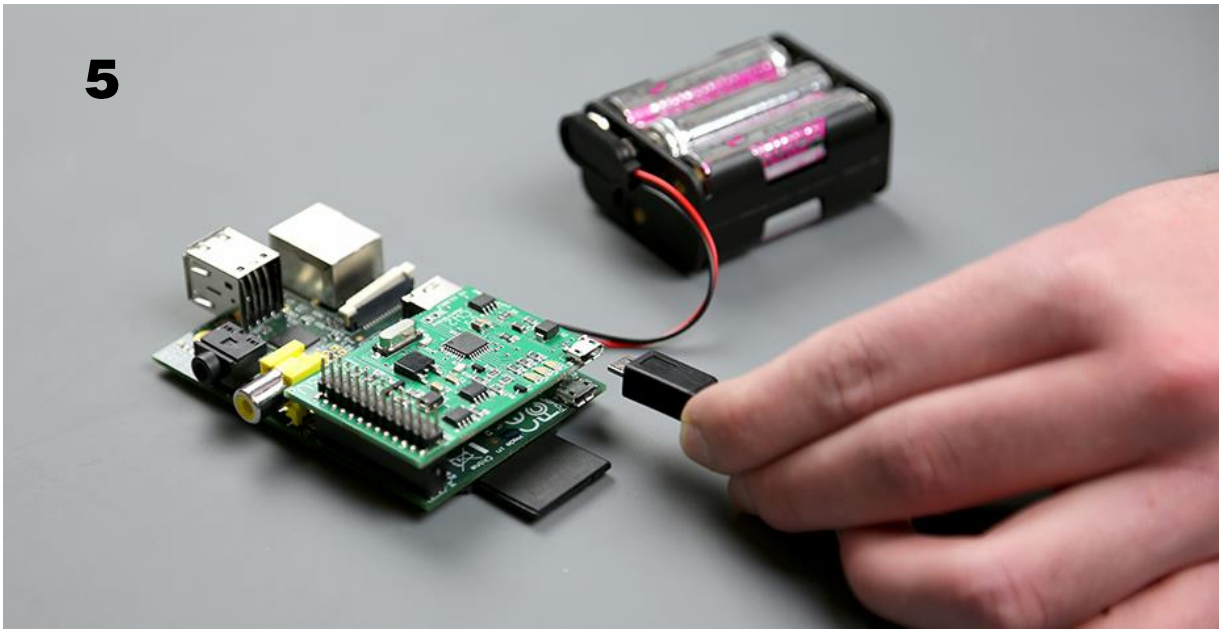


4. Carefully plug the Pi UPS on the GPIO port of the Raspberry Pi. Important: Please connect the CW2. Pi UPS carefully with the GPIO port of the Raspberry Pi.
Take care of the correct direction, otherwise you could harm both devices (pictures 3 + 4).

You don’t need to connect a USB cable to the Raspberry Pi.

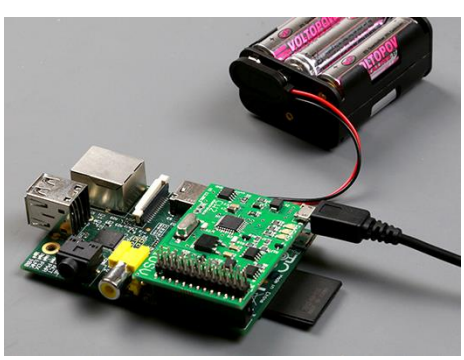


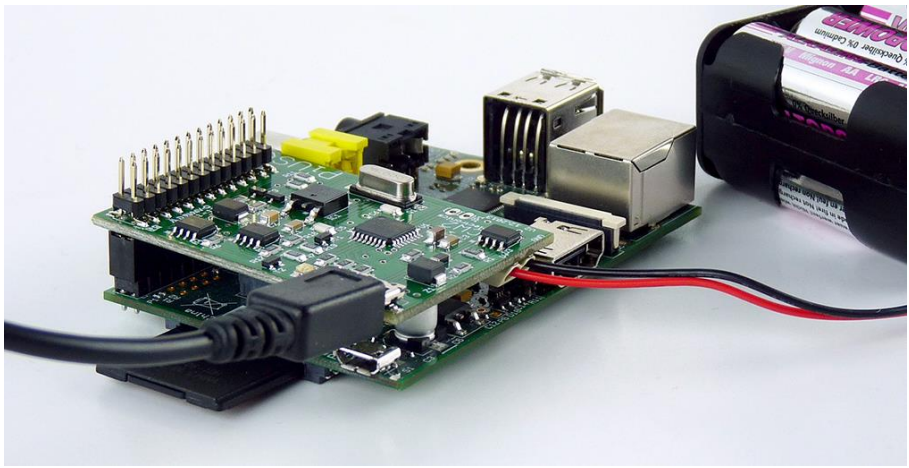
5. Caution: The power supply system for the Raspberry Pi must be connected to the Pi UPS too (**see picture 5)**!

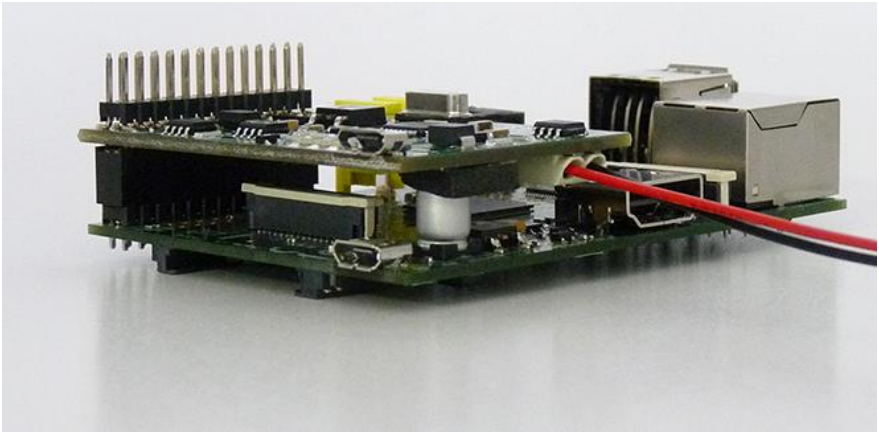


6. Now everything is set up and it is safe to power up your Raspberry Pi and install the CW2. software which you can download here: http://piups.net/support. This program will work in the background without any kind of graphical user interface.

7. The Pi UPS is ready to use! Have fun!







8. Hint: The Pi UPS was designed solely for the safe shutdown of the Raspberry Pi minicomputer and not for running the Raspberry Pi permanently with batteries. Doing this could harm the Pi UPS.

5. Disposal

On behalf of our natural environment you as a consumer are called to recycle as much of the used materials as possible. So please bring damaged or unused electronic devices to the public collection points for electronic scrap.

6. Technical specifications

In general

~ Classification after IEC 62040-3: Class 1, part 3, which means that as soon as voltage gaps happen, the UPS switches to batteries. No recharge feature implemented
~ Primary voltage and battery voltage: UP=5V (USB) => ~ Primary voltage: UP=5V (USB)
~ Allowed battery voltage: U SinMax=7.5V-12V
~ Maximum current with battery pack: I_{Max}=1,000mA
~ Communication between Pi and the Pi UPS through I²C
~ Power supply for the Pi through GPIO, therefore no connection to the Pi needed
~ Weight Pi UPS alone: 125g
~ Dimensions: Width 55mm, Depth 40mm, Height 20mm

GPIO Port

Connections

~ IN1: Primary power supply through Micro USB
~ IN2: Secondary power supply through press-stud connection

LED states

~ LED1: All good, default state
~ LED2: Batteries weak or empty
~ LED3: Emergency mode, power supply through secondary power supply

Note

This reference manual shows the technical status from February 11th, 2014.
Innovations regarding the used technologies and configuration reserved.
The software download will be updated regularly.

CW2.
Innovation accelerating Business Processes.

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