

## Firmware 1.0 – original Firmware Files

### Firmware 1.1 – Power Fail Warning

- In the configuration terminal a new option has been included „warning-enable “
- If this option is enabled, a warning is sent through the serial interface, when the primary voltage source fails – this option is similar to the function „shutdown-enable“ where a warning is sent out to shutdown the Raspberry Pi

### Firmware 1.2 – PowerBack Detection

- After a power failure of the primary voltage source the shutdown-time can now be canceled if in the configured shutdown-time the voltage-source turns back on. In this case there would be an additional message sent out the serial interface which can be processed in a python script for example – a modified serialShutdown.py script is added with this firmware update.

### Firmware 1.21 – Fix Shutdown Timer

- Bug-Fix: Shutdown Timer can now be set > 255 seconds

### Firmware 1.3 Beta

- Bug-Fix: PowerOff-Alarm Fixed
- StromPi3\_Status.py Support: Now it is possible to read out the Configuration of the StromPi3 through a python Script. It is also possible to read out the current ADC Voltage Values (like the current battery volatge) and process them in own python functions
- Firmware Version Output in "show-status" function

### Firmware 1.4

- Serial-Less Mode: If the Serial-Interface is blocked by another HAT or an other module, it is possible to use the StromPi3 in a Serial-Less Mode. In this case the Shutdown-Signal is not sent out through the serial Interface as a message, but is indicated through a connected GPIO-LINE (Like in the previous versions of the StromPi family) As for this needed extra connection, please refer to the manuals located in the "SerialLess" Folder
- Battery-Voltagelevel percentage output in "adc-output"
- Charging State Output
- Batterylevel-Shutdown: The Battery-Voltage is measured and then mapped on 4 available voltage levels (1:10%, 2:25%, 3:50%, 4:100%) at the end of the main-Task. In the case the Batterylevel-Shutdown is configured, the StromPi3 give a shutdown-signal to the Raspberry Pi and cuts of the PowerPath in a fixed 10 seconds timer, when the Battery has been discharged to the configured level.

### Firmware 1.41

- Bugfix for StromPi for StromPi3\_Status.py (Time-Output)