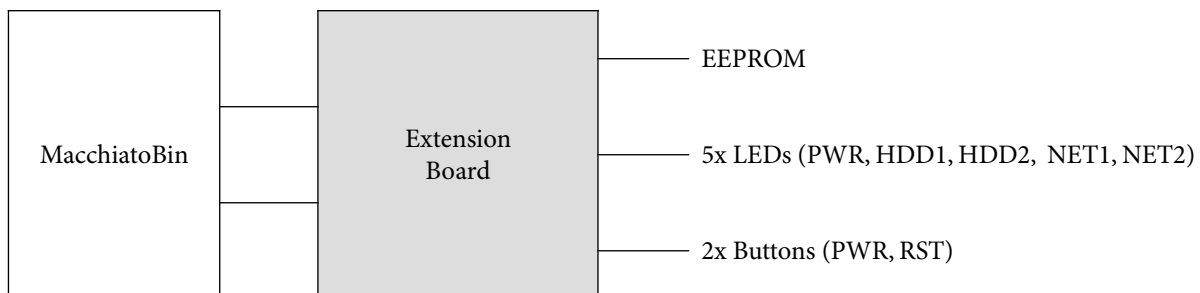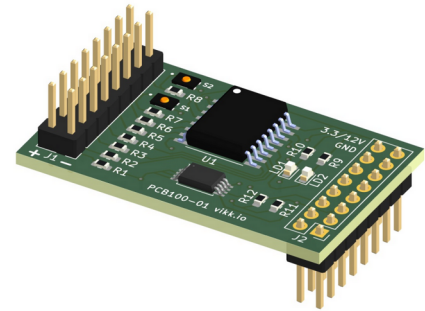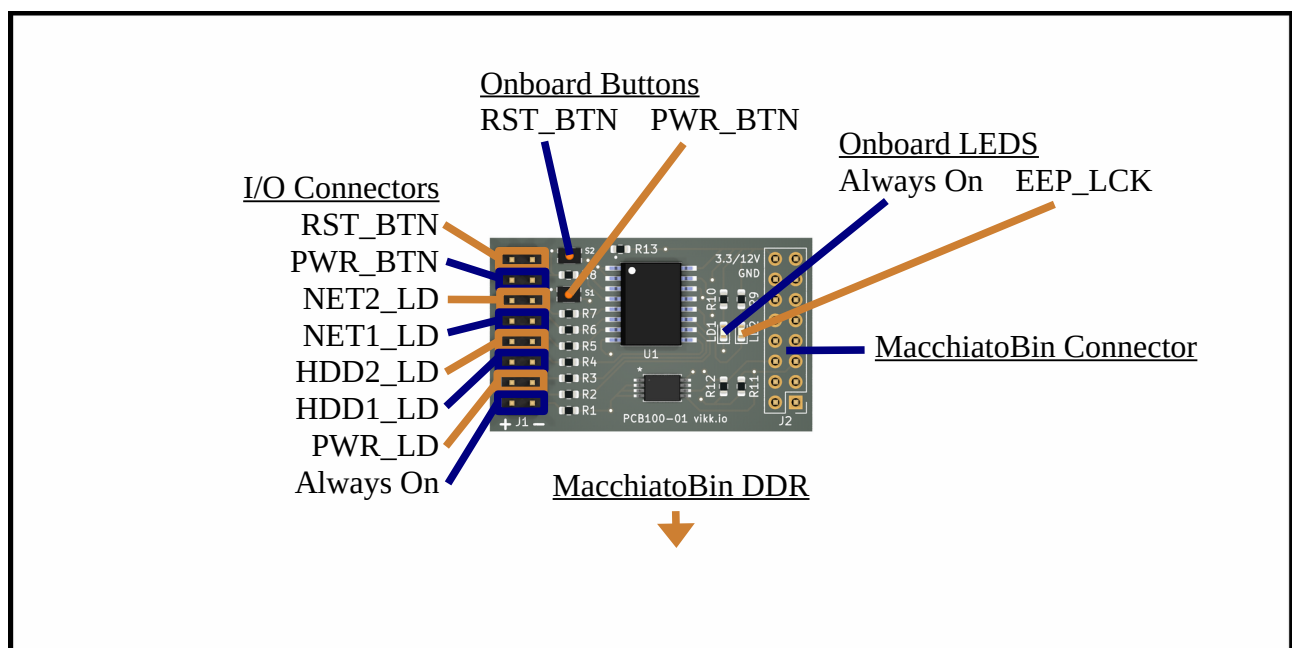# IO extension board for MacchiatoBin

Product Name: MCBIN-IOEXTEND
PCB Name: PCB100-01

The MacchiatoBin has no GPIO ports, this extension board uses I2C from the MacchiatoBin's "SLIC TDM Module header" (J12) to provide an I2C expander and a 4k EEPROM to the primary I2C bus. The extension board includes pull-up resistors to provide 3.3V GPIOs suitable for ATX chassi LEDs and buttons.
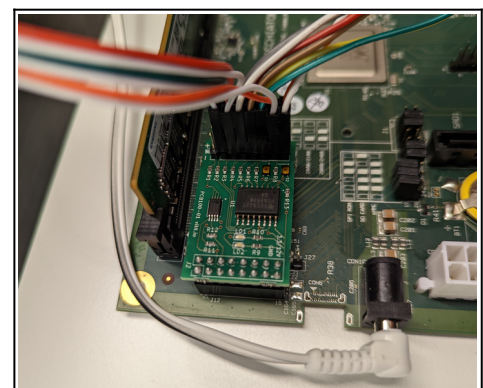


## Hardware Installation



The extension board J2-header is mounted on the J12 header on the MacchiatoBin board according to pictures. The ATX case cables can then be connected to the J1-header on the extension board.

All pins are optional. Note the + and – signs printed next to J1.

For ATX power LED, the user can either use the Always On pins that cannot be controller by software or the PWR_LD pins that are software configurable (when driver is loaded).

# Software

**ioext linux driver source code:**

A driver is available to download with installation instructions and source code

https://vikk.io/git/viktor/ioext

**Version 1.0 driver**

- kernel driver enabling sysfs, led-classes and led-triggers for the extension board
- iopoll application daemon that polls the power and reset buttons on the ioext board
- ioext systemd service aids in loading driver, iopoll daemon and configures led-triggers

Note: EEPROM on the ioext board is reserved but not used by this version of the driver.

The driver package is prepared for use with Arch Linux and needs to be modified if to be used with other distributions.

# Purchasing and Contact

Visit my shop to buy or request quote on the extension boards:

https://vikk.io/shop/

Visit my homepage for contact information:

https://vikk.io/contact

# Product Photo