

VController modification for Teensy 4.1

To run firmware 3.12.0 or higher on the VController the existing Teensy 3.2 must be replaced with a Teensy 4.1.

Step 1: determine the pin type used in the VController for the Teensy 3.2.

Open the VController by removing the six screws from the bottom plate. Remove the main PCB by removing the nuts of the EXP pedal jacks, the screws around the RRC2 connector and the screw next to it. Now gently remove the Teensy 3.2 and check the pin type. These are either thin pin headers or regular pins headers. I have used different ones for different VControllers



Thin pin headers: reichelt.de product code: BKL 10120538

Regular pin headers: reichelt.de product code: SL 1X40G 2,54

Step 2: get the parts

So you will need to get a Teensy 4.1 without a pin header attached and you will need two 14-pin headers.

Step 3: flash the firmware on the Teensy 4.1

The switch to get the Teensy 4.1 into program mode will no longer be accessible once it is placed on the board, so make sure you flash the firmware using the Teensy loader before you put the Teensy on the board.

Step 4: replace the Teensy

Solder the two 14-pin header to the top side of the Teensy, using pin 0 – 23 and the power pins.

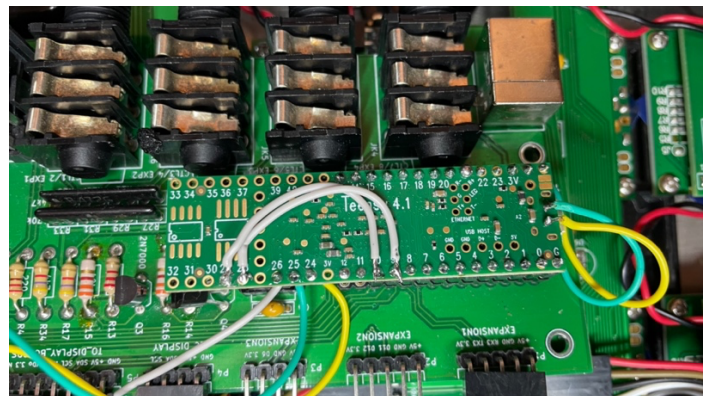
Remove the Teensy 3.2 and replace it with the Teensy 4.1.

Now replace the wires connected to D- and D+ to the small pads on the Teensy 4.1. The pads are not marked on the Teensy 4.1 but the wires do go the same way around.

The wires of pad 29 and 30 of the Teensy 3.2 go the pin 24 and pin 25 of the Teensy 4.1.

The wire of pad 28 of the Teensy 3.2 goes to pin 26 of the Teensy 4.1.

Then attach two wires connecting pin 9 with pin 28 and pin 10 with pin 29. This will fix the serial port that is on different pins on the Teensy 4.1



That's it. If you have any questions or would like me to do the modification, please contact me at sixightsoundcontrol@gmail.com.