Quickstart manual

You have decided, you want to have your very own Schwurbler MVP - Here is how to get one

Release Package
get it from Github

https://github.com/mommel/hs-lr-midi-schwurbler/releases

* Get your board
* Get all materials
* Solder all parts
* upload Firmware
* install Midi2LR
* configure Midi2LR
* Debug
* get your hands on it

from:
Mannel Braun
(Comic & Layout)
Julia Weber
(Revision & Correction)
Happy Shooting Community

What's inside the package?

BOM.pdf - Bill of materials

Gerber.zip -Ready to order circuit board

Etchprint.pdf - Etchable board layout

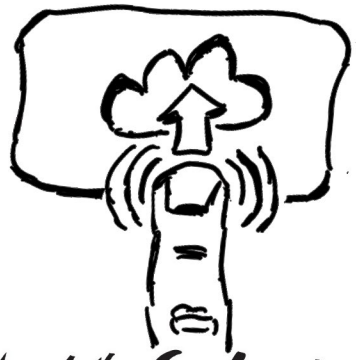
Schema.pdf - Circuit diagram

Quickstart guide - This file

precompiled firmware & the Sourcecode

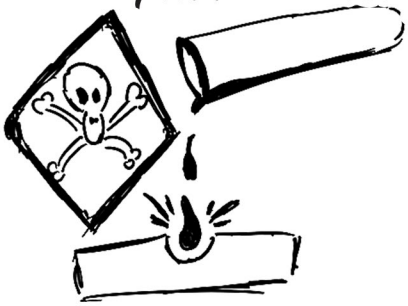
Get your board

Option 1 - Order



Upload the Gerber.zip to a manufacturer you trust

Option 2 - Etch yourself



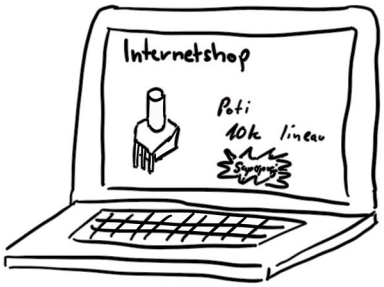
Etchprint.pdf
Print with a laser and deal with the deadly chemicals

Get your parts

1.

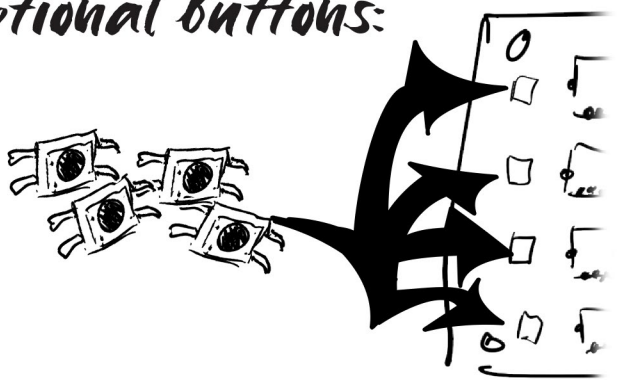
All mandantory and all optional materials are listed in the BOM

2.



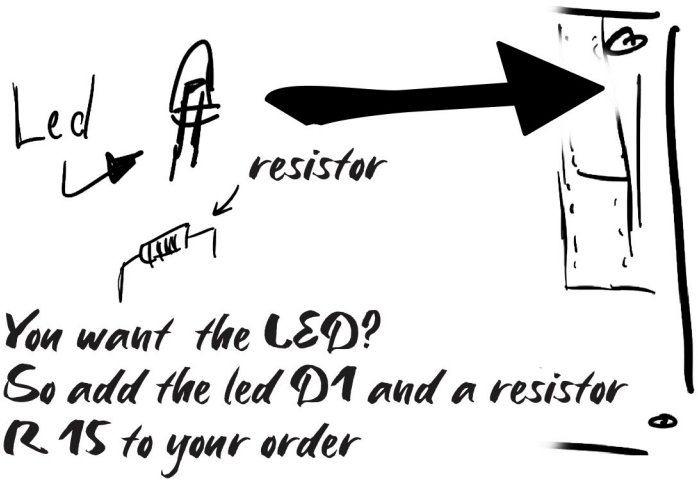
Put all mandatory items to your basket, and decide if and what you want as optional

optional buttons:



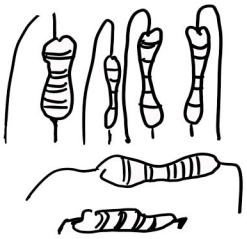
Are buttons on the left of the poti you really decire? Than grab the four additional buttons OB1 -OB4

optional status LED:



You want the LED?
So add the led D1 and a resistor R15 to your order

Debug option 1



Teensy's have a pullup Resistor on all of their pins. If that fails you might want to solder the bunch of resistors. Add R1-R14 then.

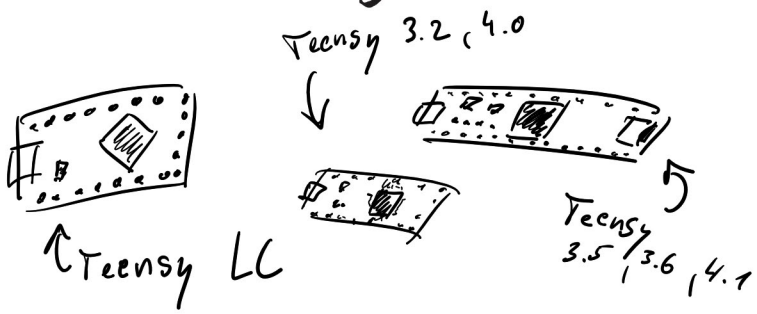
Debug option 2

If your power feals a bit flacky, you might want to add a capacitor to smooth the voltage. Add C1

MicroController - So many options

LC, 3.2, 4.0

3.5, 3.6, 4.1



In general you need nothing more than the LC. It's el cheapo version but tottally sweets the needs of the MVP Version. So if you don't know why you should get e.g. the super fast and longer 4.1 - just take the Low Cost

Checklist

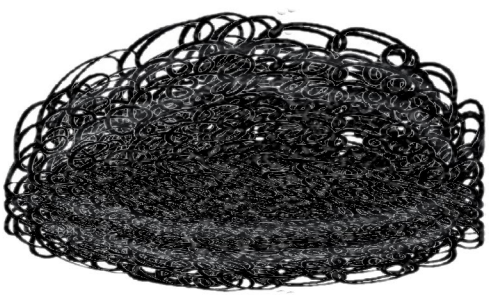
MVP

- [ ] circuit board
- [ ] potentiometer
- [ ] buttons
- [ ] painter's tape
- [ ] solderingiron
- [ ] solder
- [ ] sponge*
- [ ] Teensy

optional

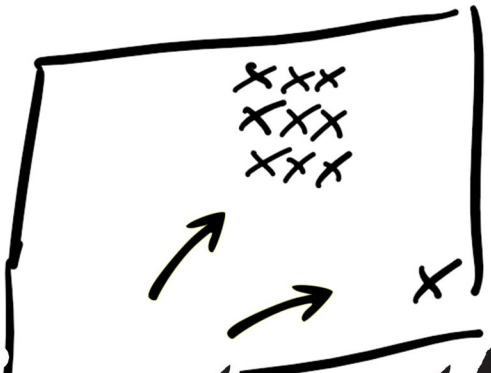
- [ ] LED + resistor
- [ ] resistors
- [ ] capacitor
- [ ] extra buttons

*Hint:



If the heck no sponge is around, have a look in your kitchen, there might be a steel sponge. You can use it without water. But beware of putting it back to the kitchen: It's contaminated

Equip the board 1



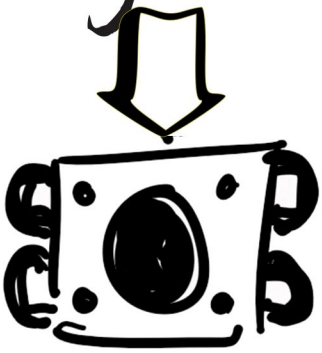
Where to put ?

The buttons

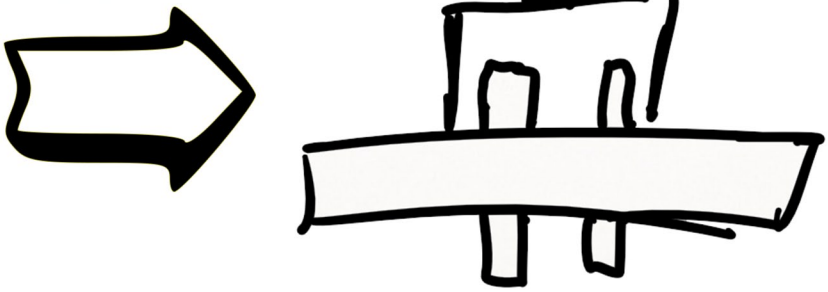
Amount 10

Identifier: B1 -B 10

Birdseye view



cornerview



Keep in mind !

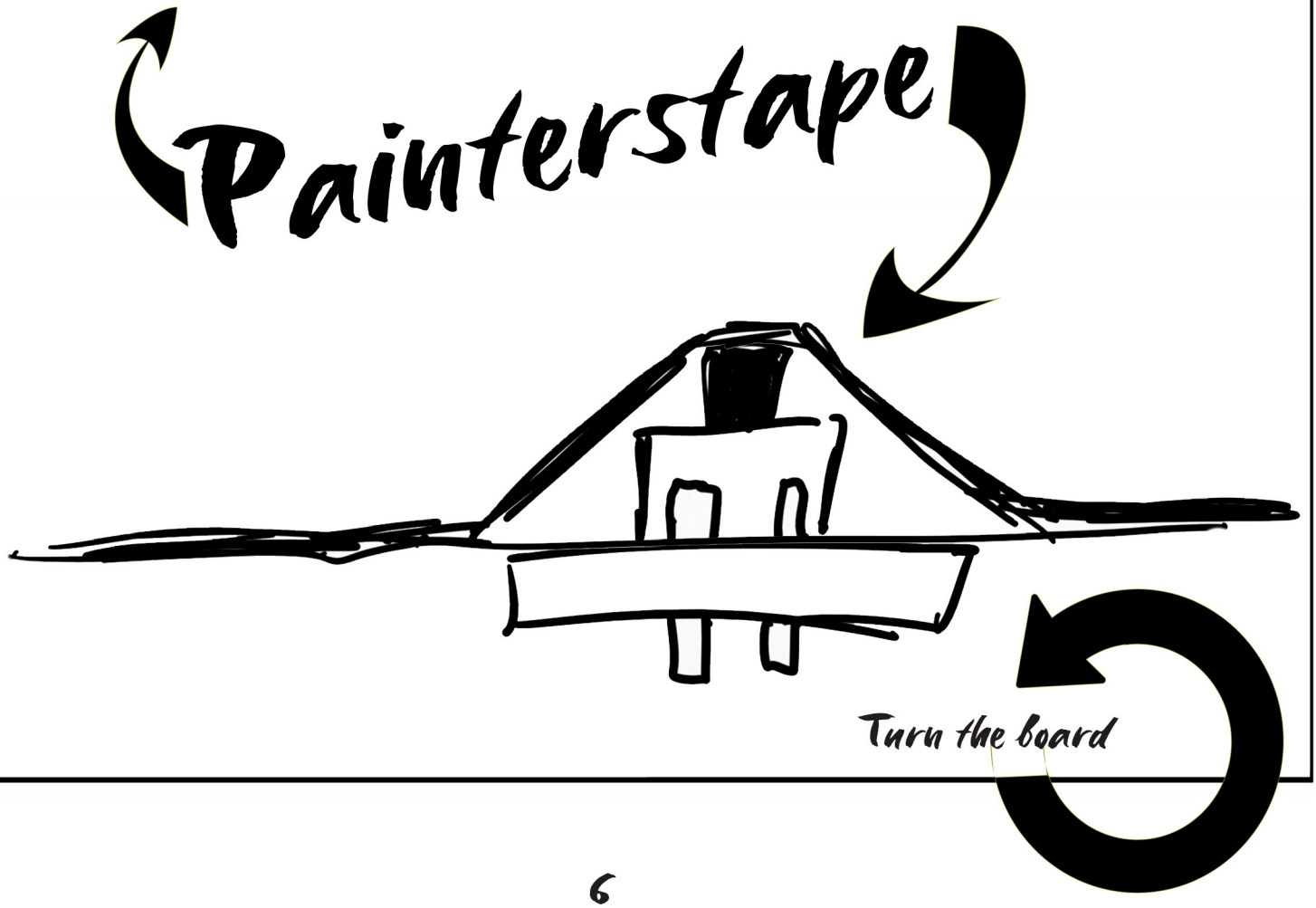
Always start with the parts with the lowest height, so you keep your live much easier!

Equip the board

1.1

still buttons

To fixure the loose items, put painters tape over the buttons and board. First when all buttons are covered. Swap the board downfacing



Equip the board 1.2

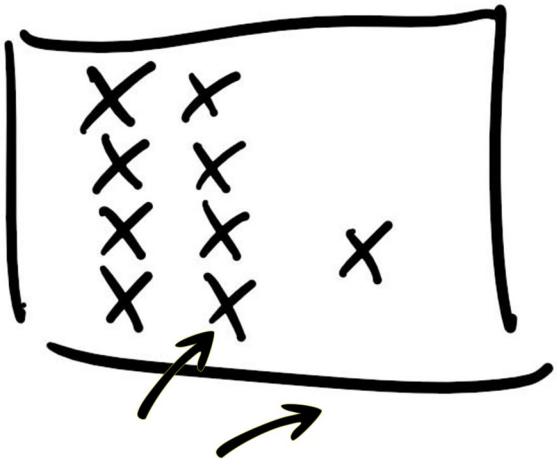
The board is turned upside down

solder the buttons

Stick about 2 seconds with the tip of your soldering iron to the hole and the pin. After that period all should be heatened up enought to give you a nice joint

The legs are a bit peaky so you want to cut them down to a more suitable size

Equip the board 2



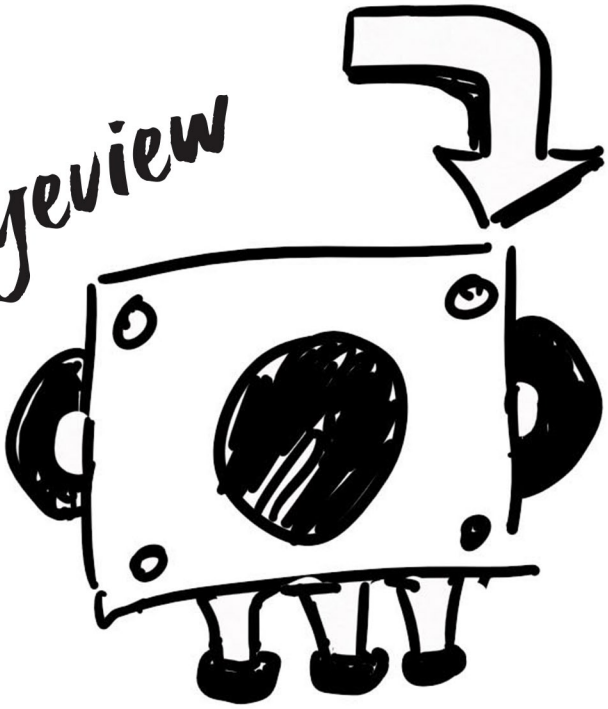
Potentiometers

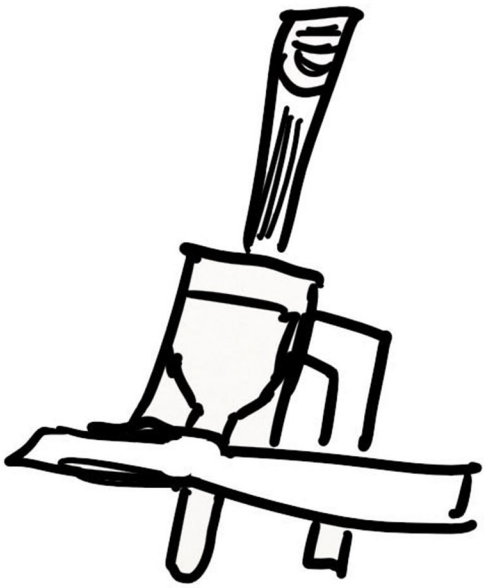
amount 9

identifier Re1 - Re9

Put it here!

Birdseyeview





Sideview

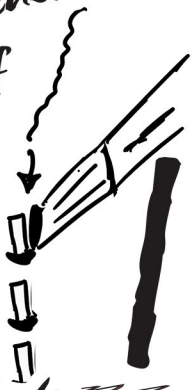
Fix, turn solder as before.

Equip the board

Warning!
The Teensy has narrow pins

Teensy 3

To not bridge pins take a tip with a flattened side. It's much easier to dose the right amount of solder when you come from the side.

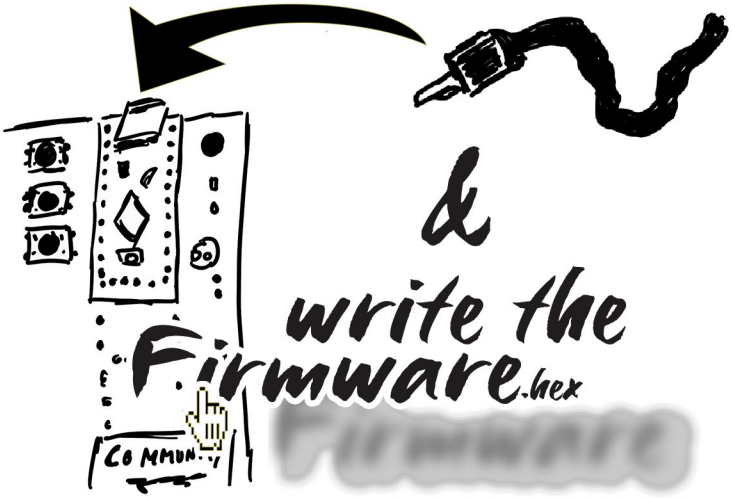


You made it! Grats

If you own one

check you work with a multimeter

attach USB



& write the Firmware.hex

Midi-2-Lr
get it & install

Lightroom Classic
start & get your feet wet