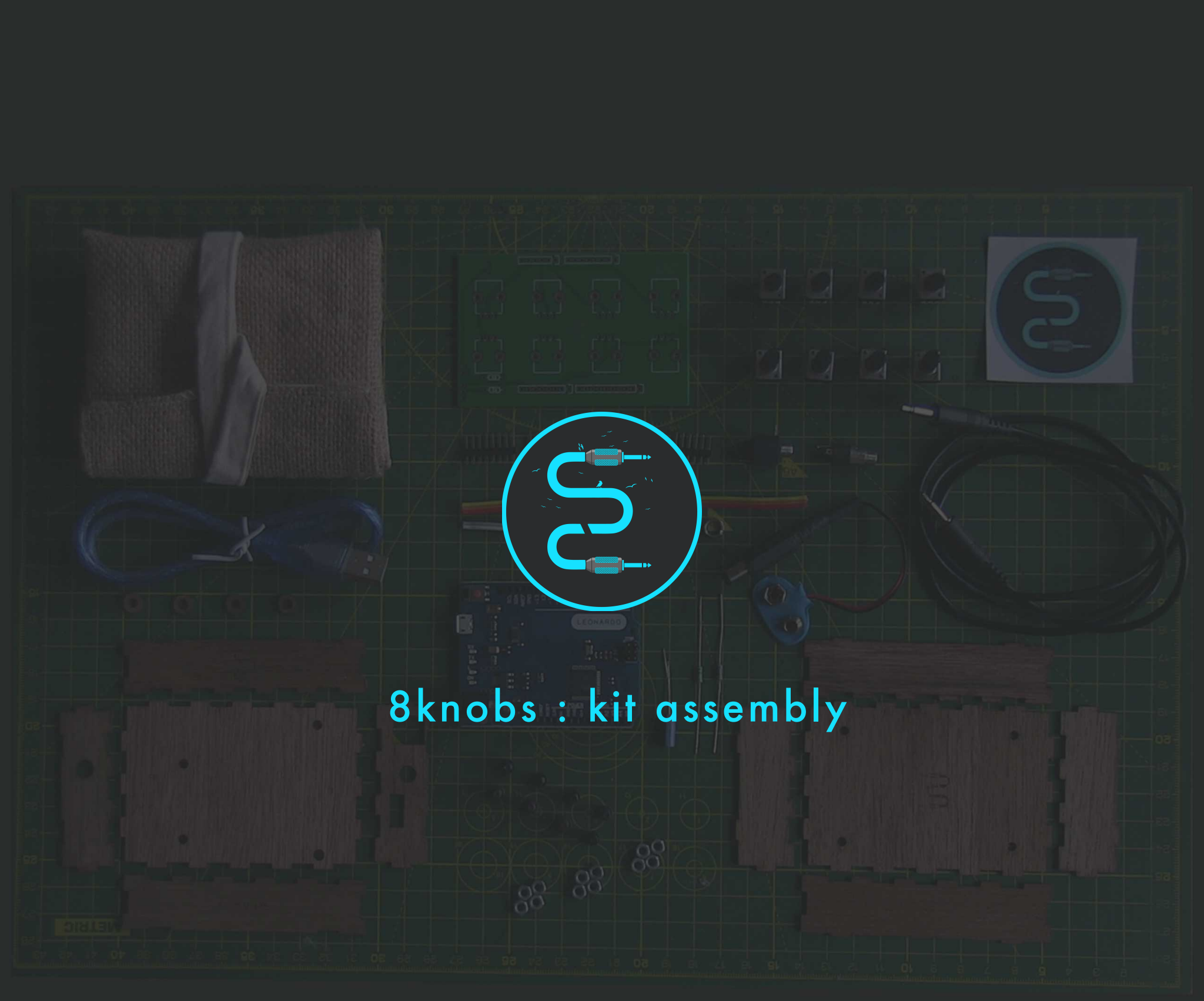
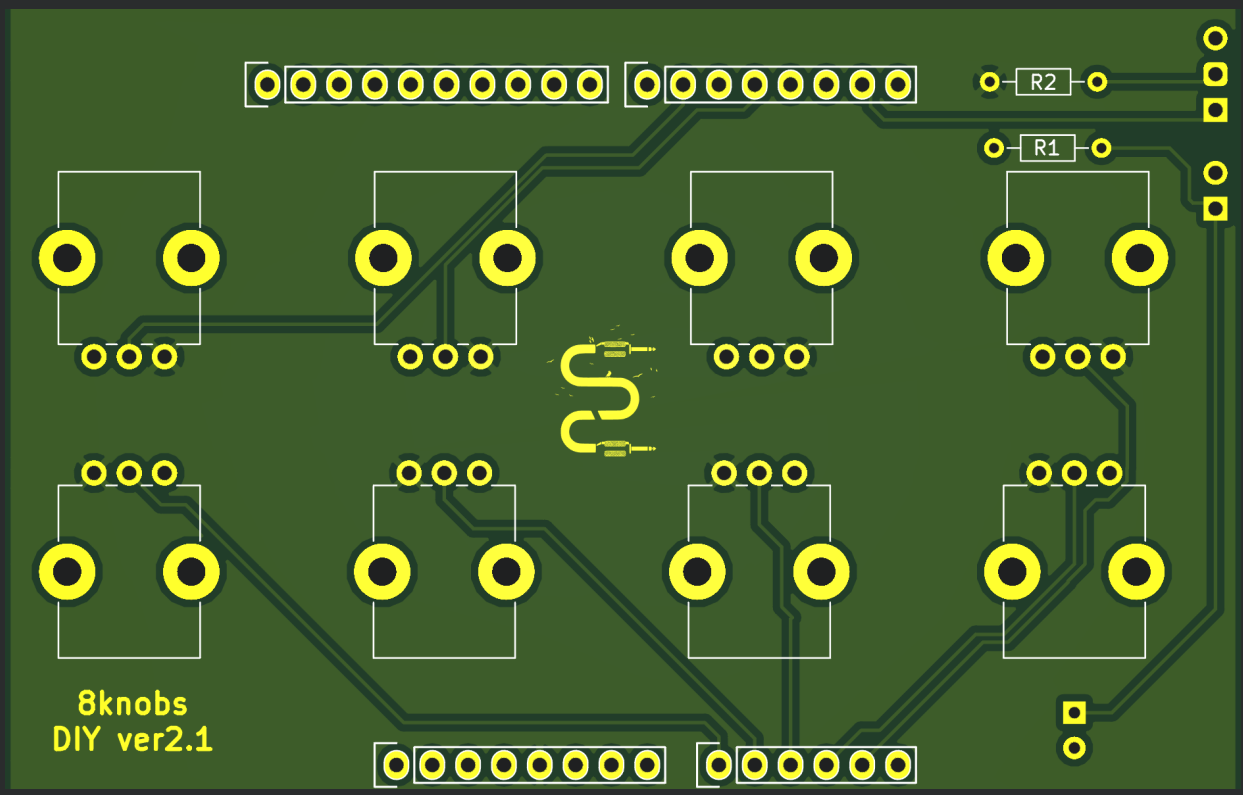
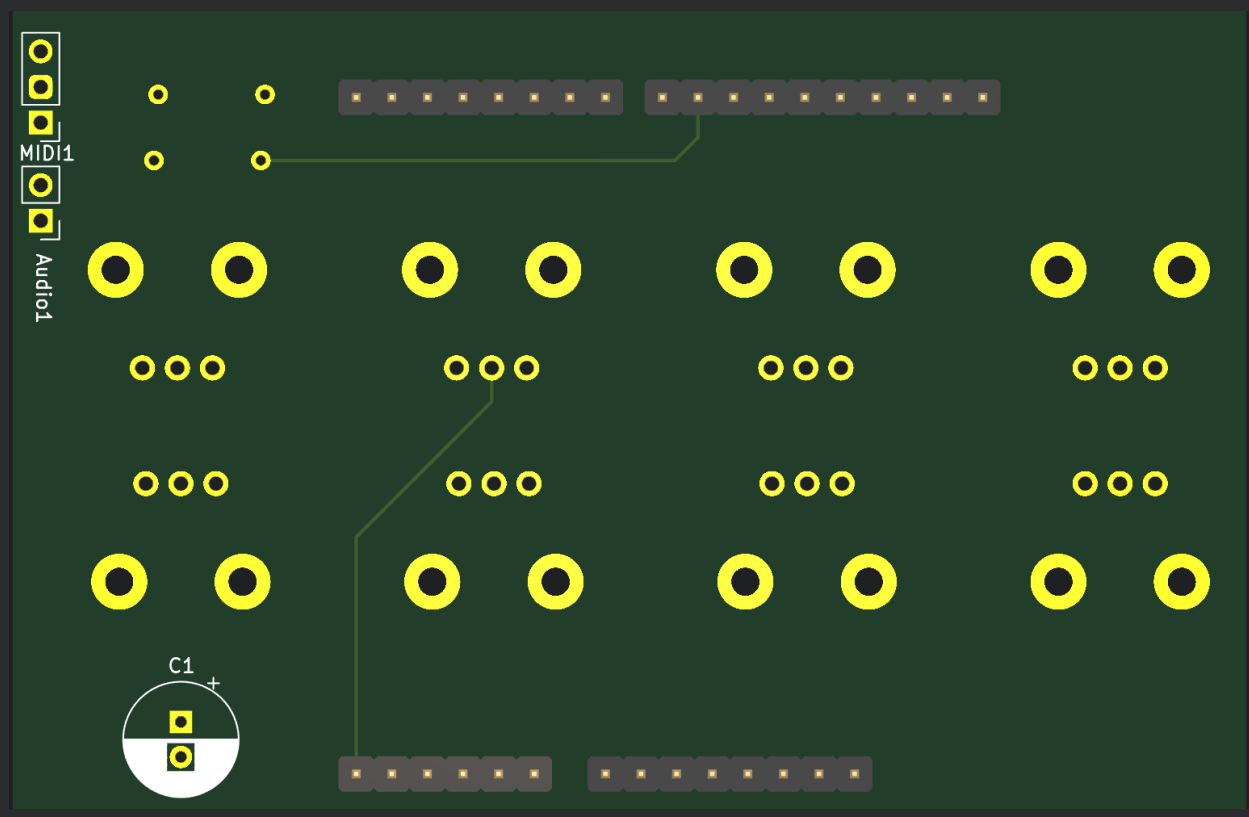


8knobs : kit assembly

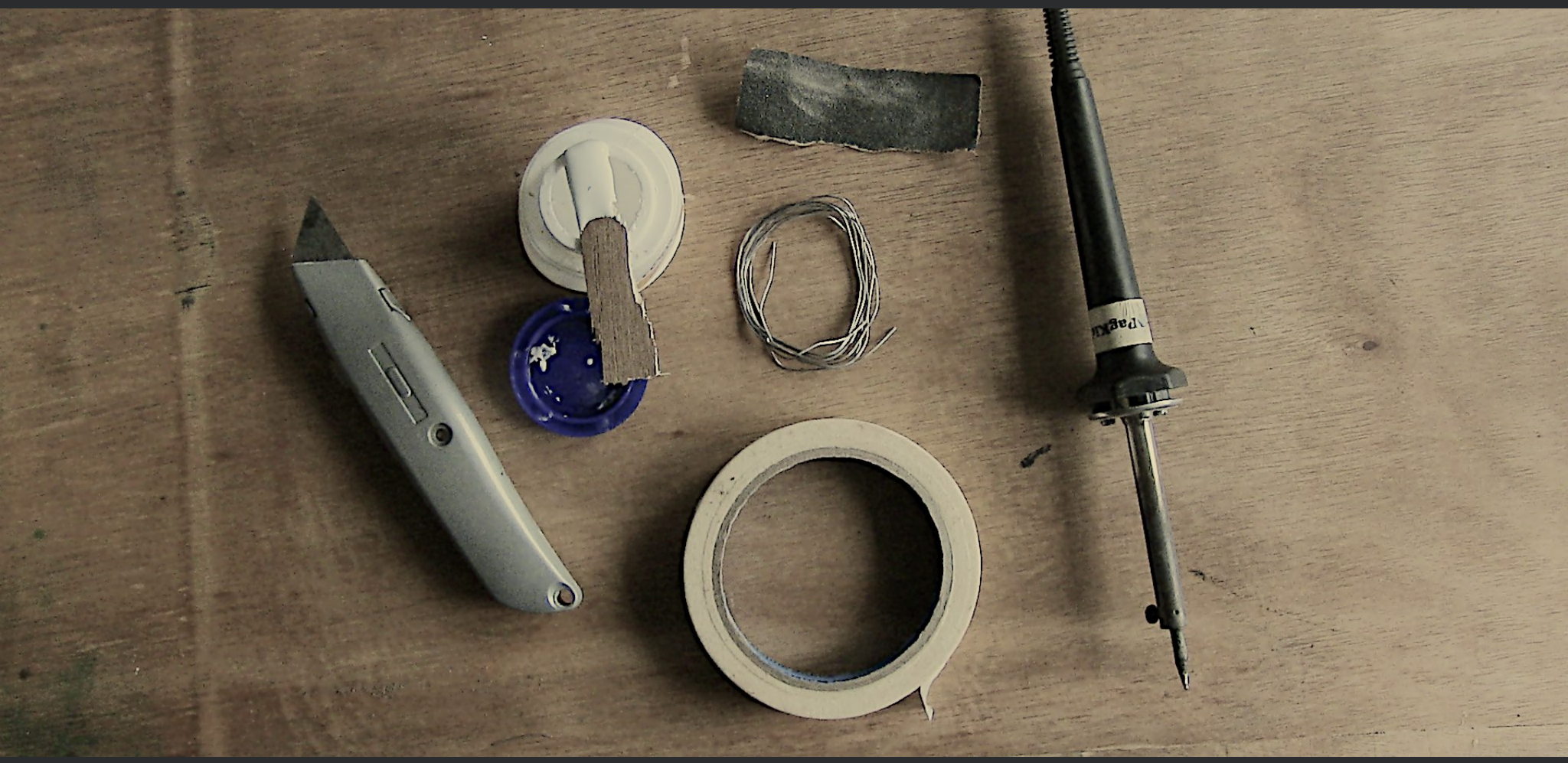
front side



back side

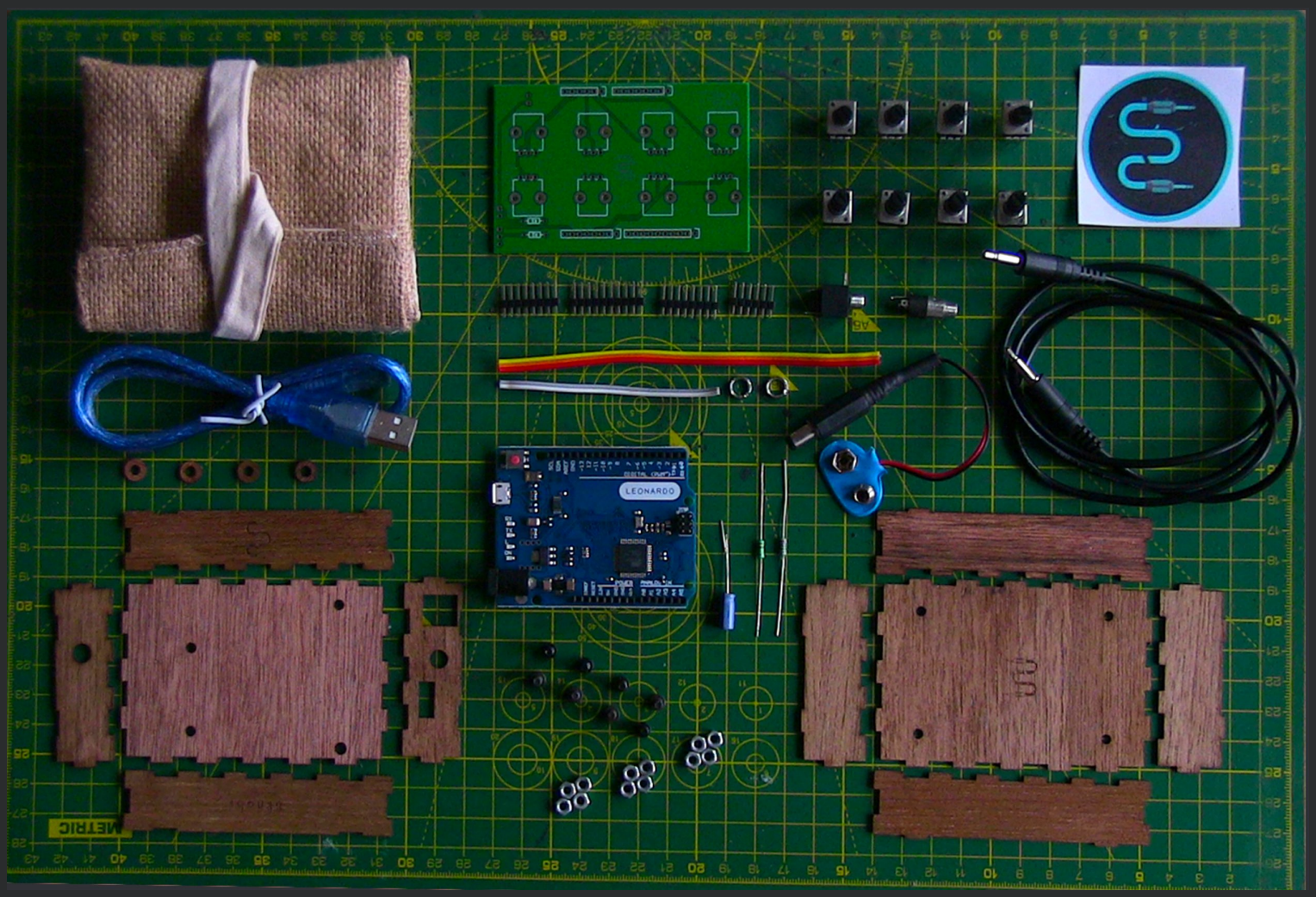


what you need



- soldering iron
- some solder wire or tin
- paper tape
- cutter / wire cutter
- white glue
- sandpaper

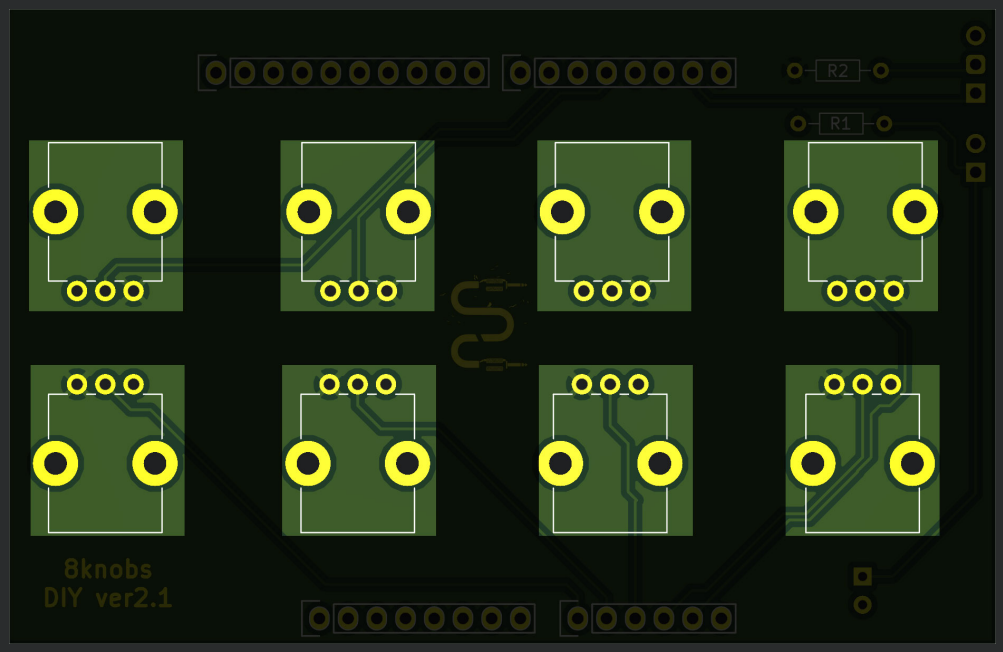
what you get

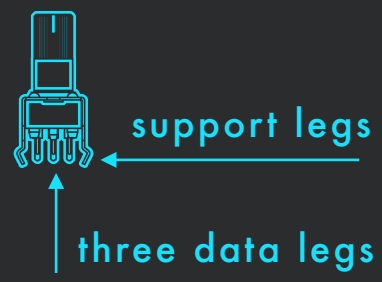


8knobs circuit
8x potentiometer
4x header pins
100k registor
270k registor
200uf capacitor
atmega32u4 arduino board
mono audio connector and wire
stereo audio connector and wire

enclosure with cover
8x M3 hex bolt
12x M3 nuts
cover for enclosure
washer for enclosure
9v battery clip to DC cable
3.5mm mono audio connector
sound codes stickers

step 1:

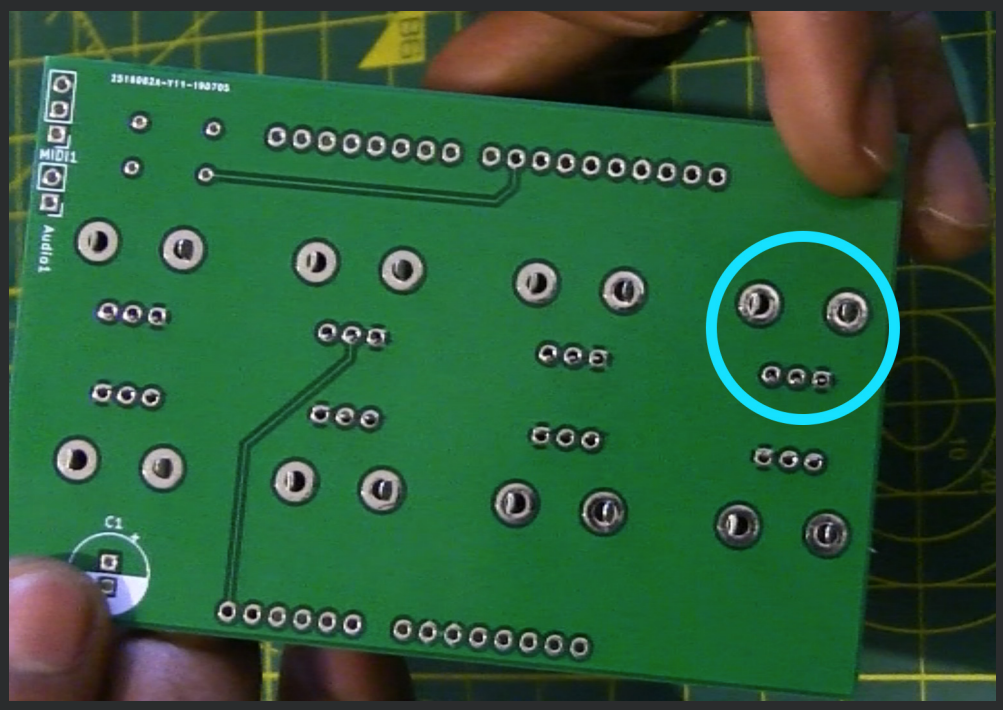




- position and snap fit all the potentiometers on the front side

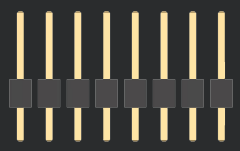
on the back side of the board:

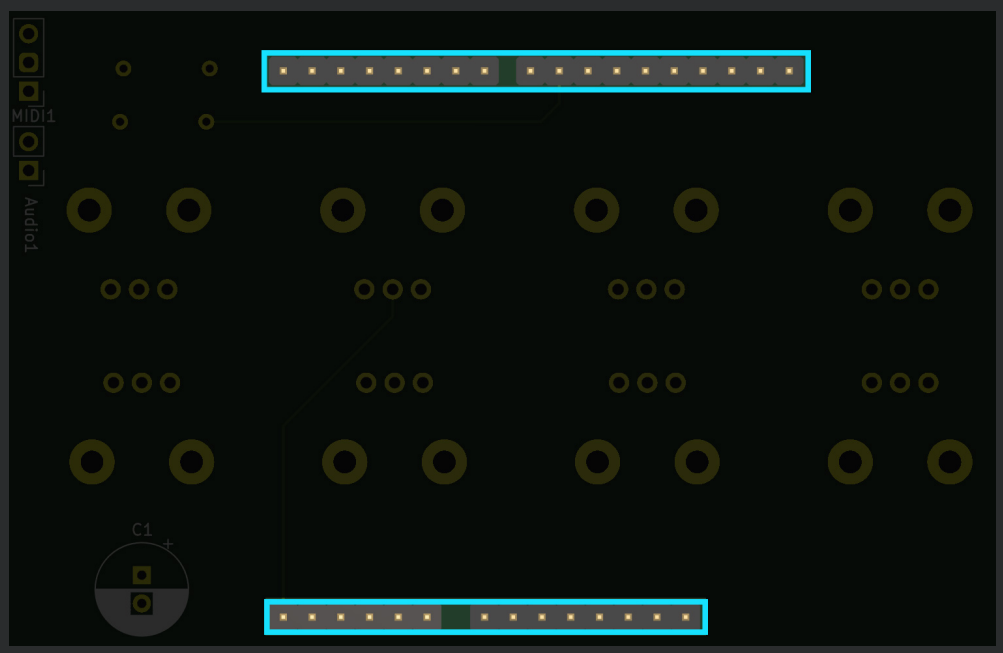
- solder all two support legs
- solder all three data legs



*always make sure the points don't interconnect

step 2:

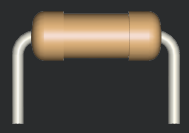




- insert the header pins on the back side of the board
- solder the header pins on the front side of the board

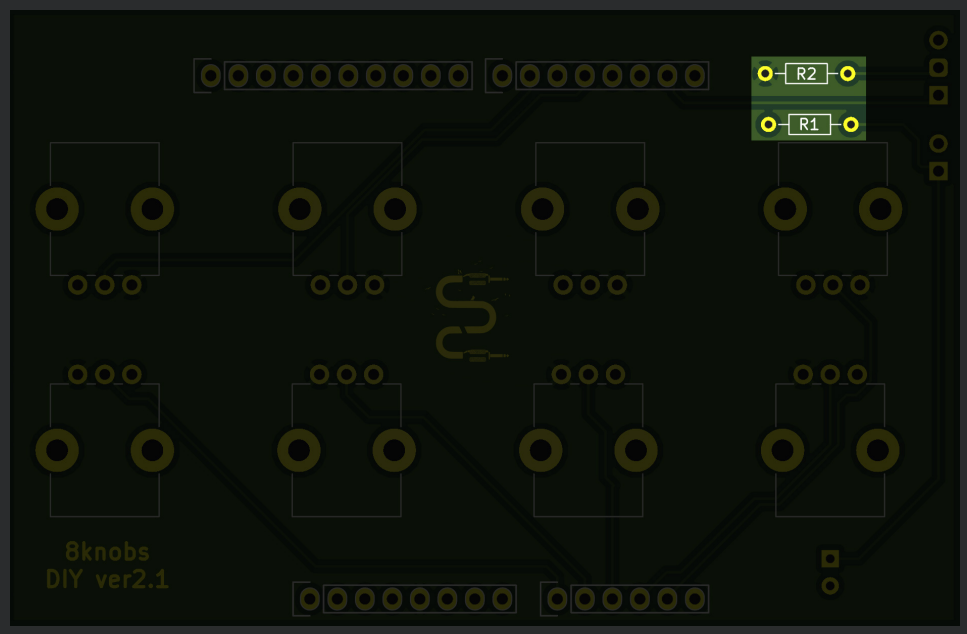
masking tape or play dough can be used to keep the header pins in place

step 3:



R2: 200k
R1: 270Ω

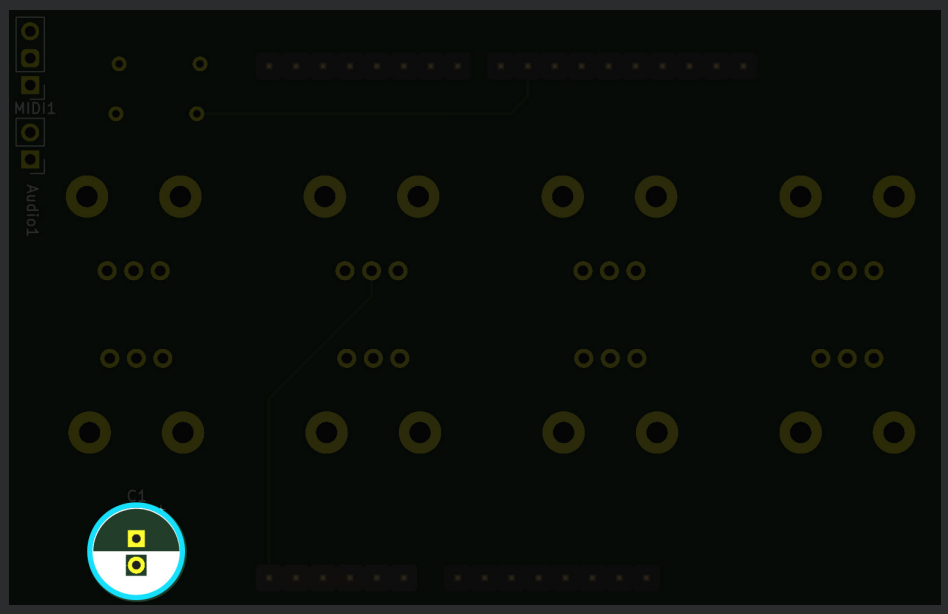
bend both the register legs



- insert both the registers on the marked position on the front side
- solder them on the back side of the board

step 4:

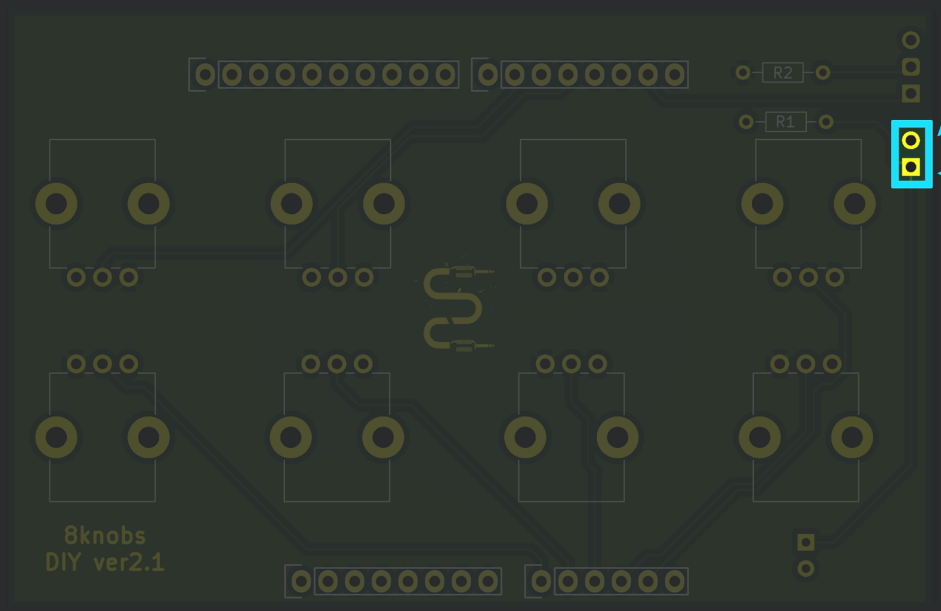
capacitor: 2.2uf

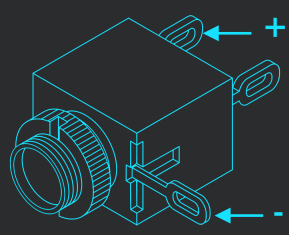


the short pin or the white strip on the capacitor goes on the white part of the circle

- insert the capacitor on the backside of the board
- solder the pins on the front side

step 5:



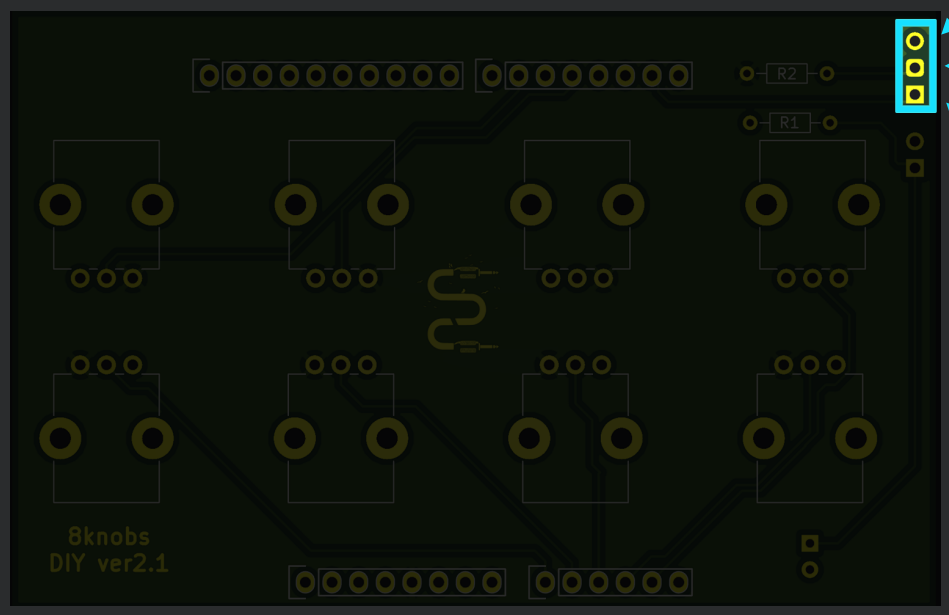


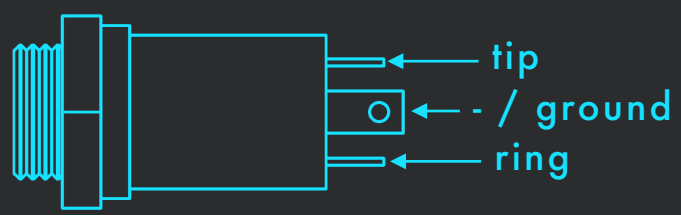
connect the 3.5mm audio connector

- use the supplied wire to solder and connect the mono connector to the board
- insert the stripped end of the wire from the back side and solder it on the front side

don't worry, we will attach the (currently on a wire hanging) audio connector to the panel at later steps

step 6:



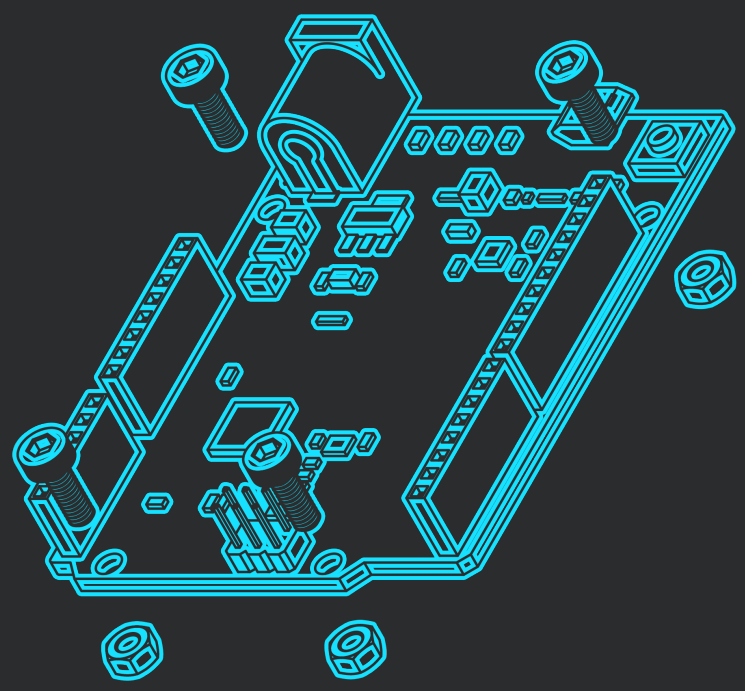


connect the 3.5mm stereo audio connector for midi output

- use the supplied wire to solder and join the stereo connector
- insert the stripped end of the wire from the back side and solder it on the front side

like previously, we will attach the stereo connector to the panel at later steps

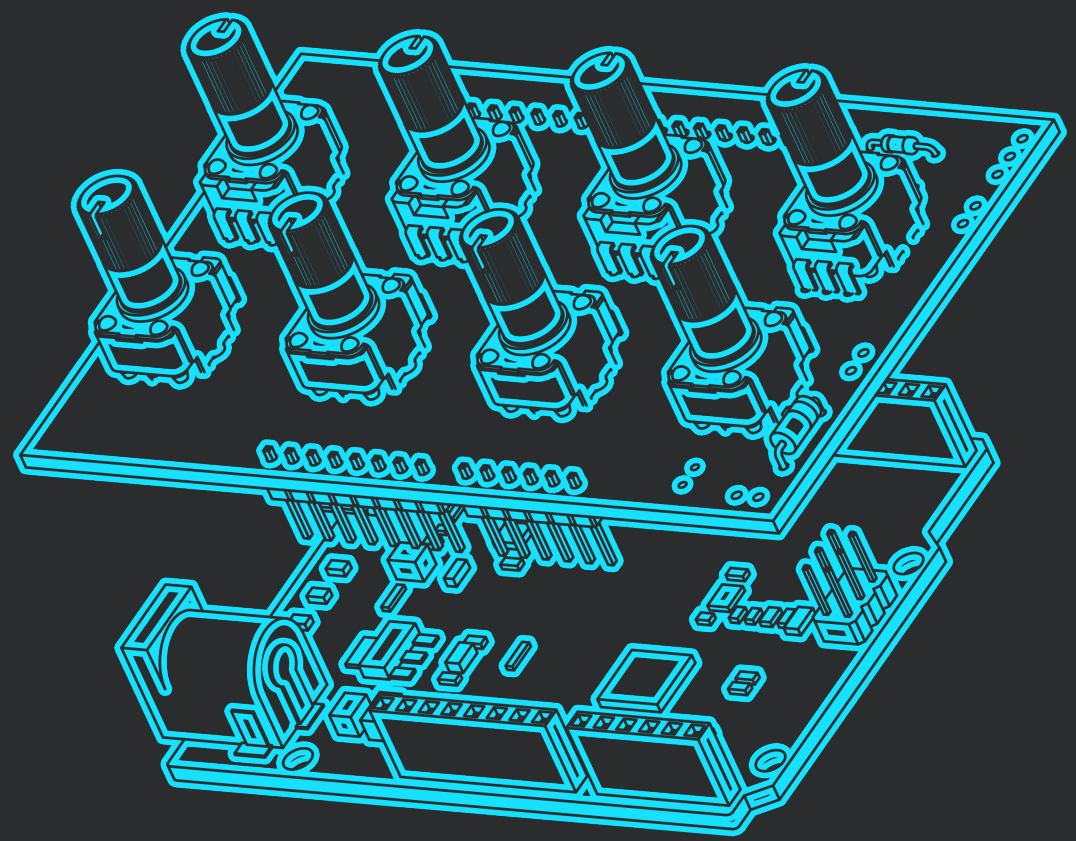
step 7:



- insert the hex nut through the mounting holes in the arduino and hand tighten the nuts on the back side

tightening it by hand is sufficient, simply make sure nothing jitters

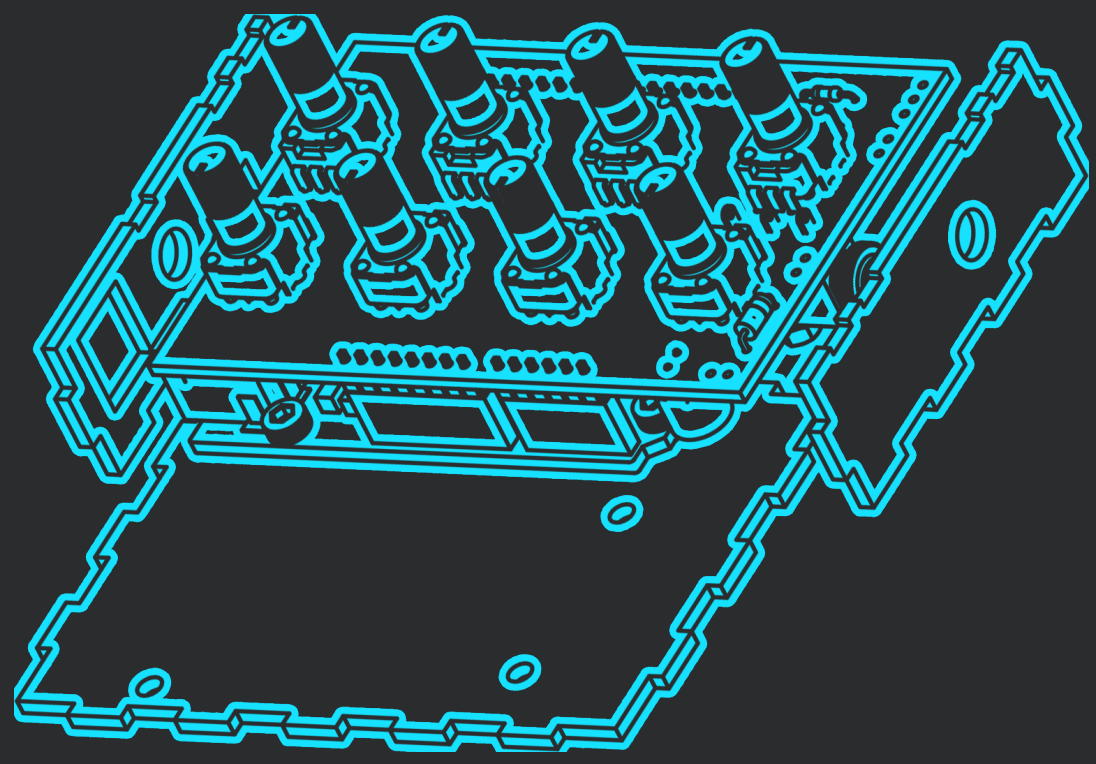
step 8:



align the 8knobs board with the arduino board and make sure all the header pins are inserted

gently press in the centre and on all four corners diagonally, addressing two corners at once till everything is well mounted

step 9:



- using the bolt as a guide, align the bottom cover
- align and place the mono connector into the panel and lock it with a nut
- align and place the DC connector through the hole present in the side panel and lock the stereo connector with a nut
- position the remaining two panels (front and back) and apply adhesive to all the finger joints to bond them

masking or paper tape can be used to make good contact for the adhesive while working


done!