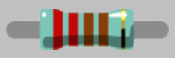
RESISTORS



Color code can be difficult to identify, we strongly recommend to use a **multimeter**.

Qty	Value	Code	Name on PCB
2	100k	Brown, black, black, orange, brown	R8, R13
5	100	Brown, black, black, black, brown	R1, R14, R15, R16, R17
8	470	Yellow, violet, black, black, brown	R24, R27, R29, R33, R34, R35, R36, R37

DIODE

Solder the diodes **observing their polarity**. The black or white line on the diode must match with the white line on the diode symbol on the PCB silkscreen.

Qty	Value	Name on PCB
10	BAT85	D1, D2, D3, D4, D5, D6, D7, D8, D9, D10

HORIZONTAL MINI JACKS

Place and solder the four horizontal mini jacks.

4	Stereo mini Jacks	IN1, IN2, OUT1, OUT2

TACTILE SWITCHES

Place the switches on their right places, push them till are flush to the PCB.
Double check they all are perfectly straight and solder them. Then, place switch caps in place.

Qty	Type	Name on PCB
4	Momentary switch	SW1, SW2, SW3, SW5

CAPACITORS & PTC

Identifying capacitors can be quite tricky. Codes stated are indicative, please take a look at this guide for help identifying capacitors: http://www.wikihow.com/Read-a-Capacitor

Qty	Value	Code	Name on PCB
3	100n	104	C1, C18, C21
4	1u	1k63	C2, C3, C4, C5
1	PTC		F1

REGULATOR & TRANSISTORS

Be sure they are orientated correctly. The curved and flat sides of the silkscreen outline of the transistor on the PCB must match that of the transistor's body.

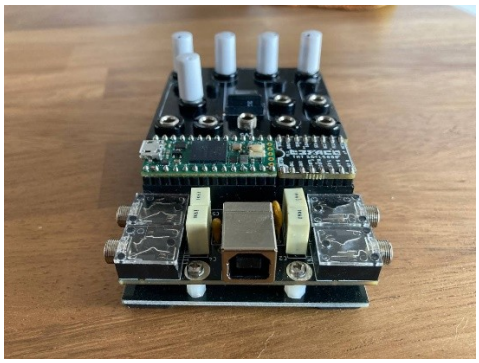
Qty	Value	Name on PCB
1	7803	IC1
2	2N3904	T1, T2

USB CONNECTOR

Place and solder the USB connector.

PREPARING TEENSY AND CODEC

Now we will place Teensy and the codec. **Make sure orientation and placement is good before soldering.**



SOCKET CONNECTORS

Socket connectors will be soldered in the PCB. Place sockets on the PCB, at components side, minding the size, **but do not solder them.**

Qty	Size	Place on PCB
2	1x8	IC11
2	1X14	Long sides of footprint

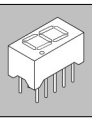
Place pin headers into the sockets, the long side of the pins that will fit in. Place **Teensy** (**USB facing up**) and **codec** (**Befaco name facing up**) boards on the pins, watch the footprint for the orientation. Do this **gently. Double check they all are perfectly straight,** Once all pins are in place, **proceed to solder them all, both at PCB and teensy, Pushing down the teensy and codec gently.**
CHECK OUR VIDEO TUTORIAL IF YOU HAVE FURTHER DOUBTS.-- >

POGO PIN HEADER

Remove the teensy and Place the Pogo pin header on the PCB, then place back the teensy pushing the pogo pins. Double check they all are perfectly straight and solder them. If not they might move and cause trouble!

Qty	Size	Place on PCB
1	2X5	Between the 1x14 pins

7 SEGMENT DISPLAY



Place the displays (located in ICs foam), **minding that dot will face down (Segment dot) but don't solder it yet. We will wait for the front panel to be in place to solder it right.**

POTENTIOMETERS

Now place the potentiometers on the PCB but... **don't solder them yet!**

Qty	Type	Name on PCB
4	Single B10k	P1, P2, P3, P5
1	Encoder	ENC1

MINI-JACKS

Place the mini-jacks on the PCB. We will place them, make sure they are flat **and solder them all**. You might use the panel to make sure all jacks are flat and straight.

SD card holder

Place the SD card holder on the PCB. Do this gently, the pins could bend**. Don't solder it yet!.**

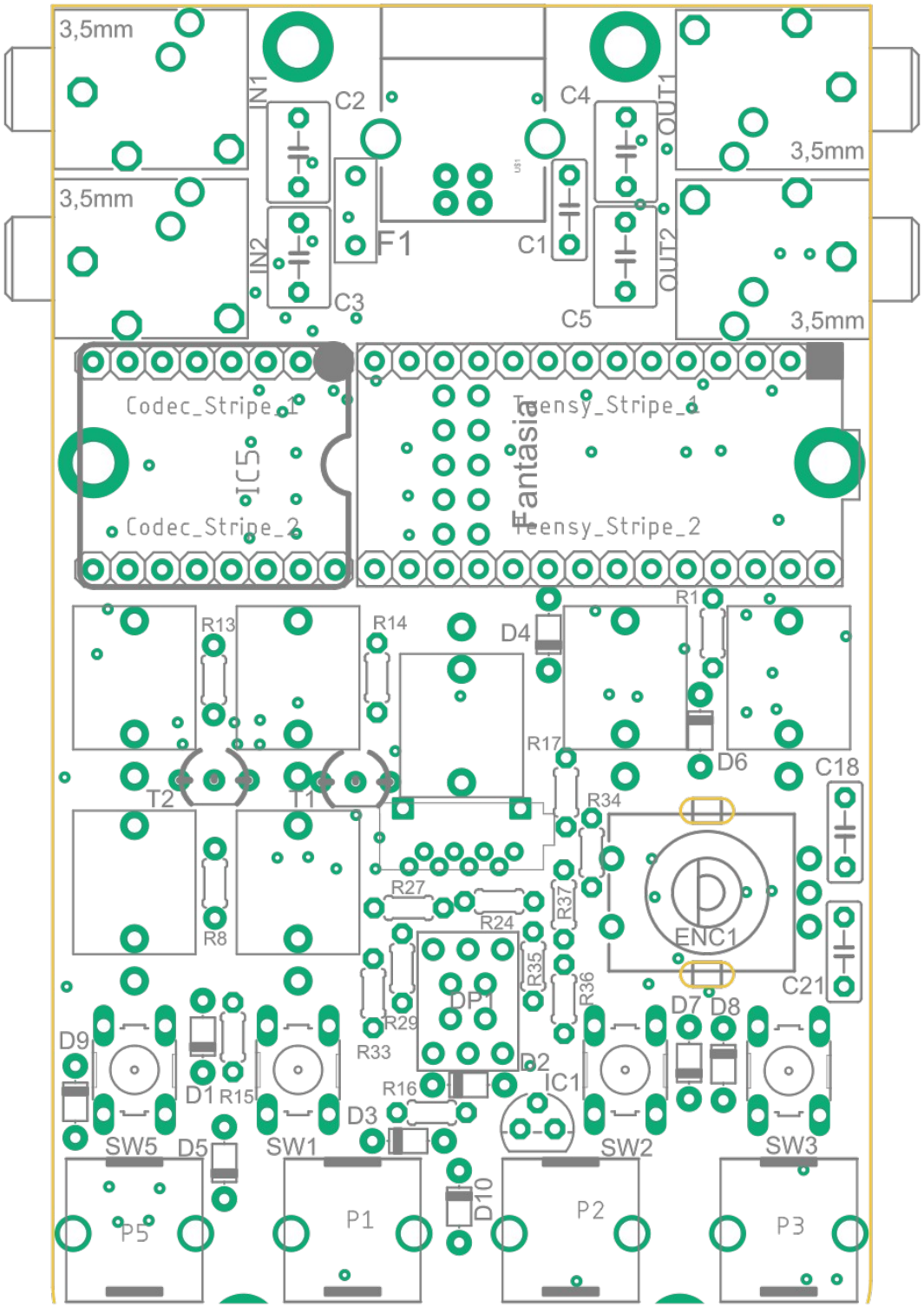
FRONT PANEL

Place the **plastic windows** into the Display hole, from the back side of the panel. Remember to remove the protection plastic from **both sides**. Attach the **front panel** adjusting the parts one by one if necessary until it fits. At this point a pair of fine tweezers can be helpful.

Now you can proceed to place nuts and solder all components.

BOTTOM PANEL

Place the spacers facing down and screw them to the PCB and the Bottom Panel, attach the rubber circles to the bottom panel


3,5mm
3,5mm
3,5mm
3,5mm
IN1
IN2
OUT1
OUT2
C1
C2
C3
C4
C5
F1
Codec_Stripe_1
Codec_Stripe_2
Teensy_Stripe_1
Teensy_Stripe_2
Fantasia
IC5
R1
R8
R13
R14
R15
R16
R17
R24
R27
R29
R33
R34
R35
R36
R37
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
C18
C21
T1
T2
DP1
ENC1
IC1
SW1
SW2
SW3
SW5
P1
P2
P3
P5