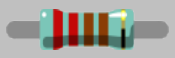
RESISTORS



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		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	Mini. 2 circuits 3 position	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.

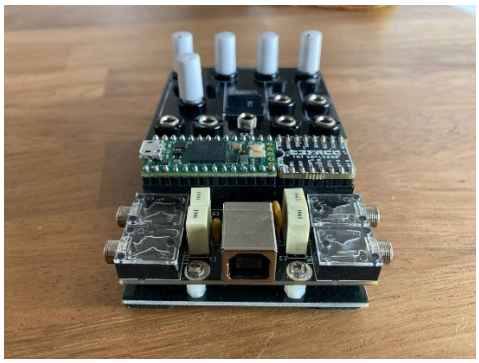
Qty	Value	Name on PCB
1	7803	REG
2	2N3904	T1, T2

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

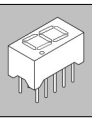
Socket connectors will be soldered in the PCB. Place sockets on the PCB, at components side, minding the size, **but do not solder them.**

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!.**

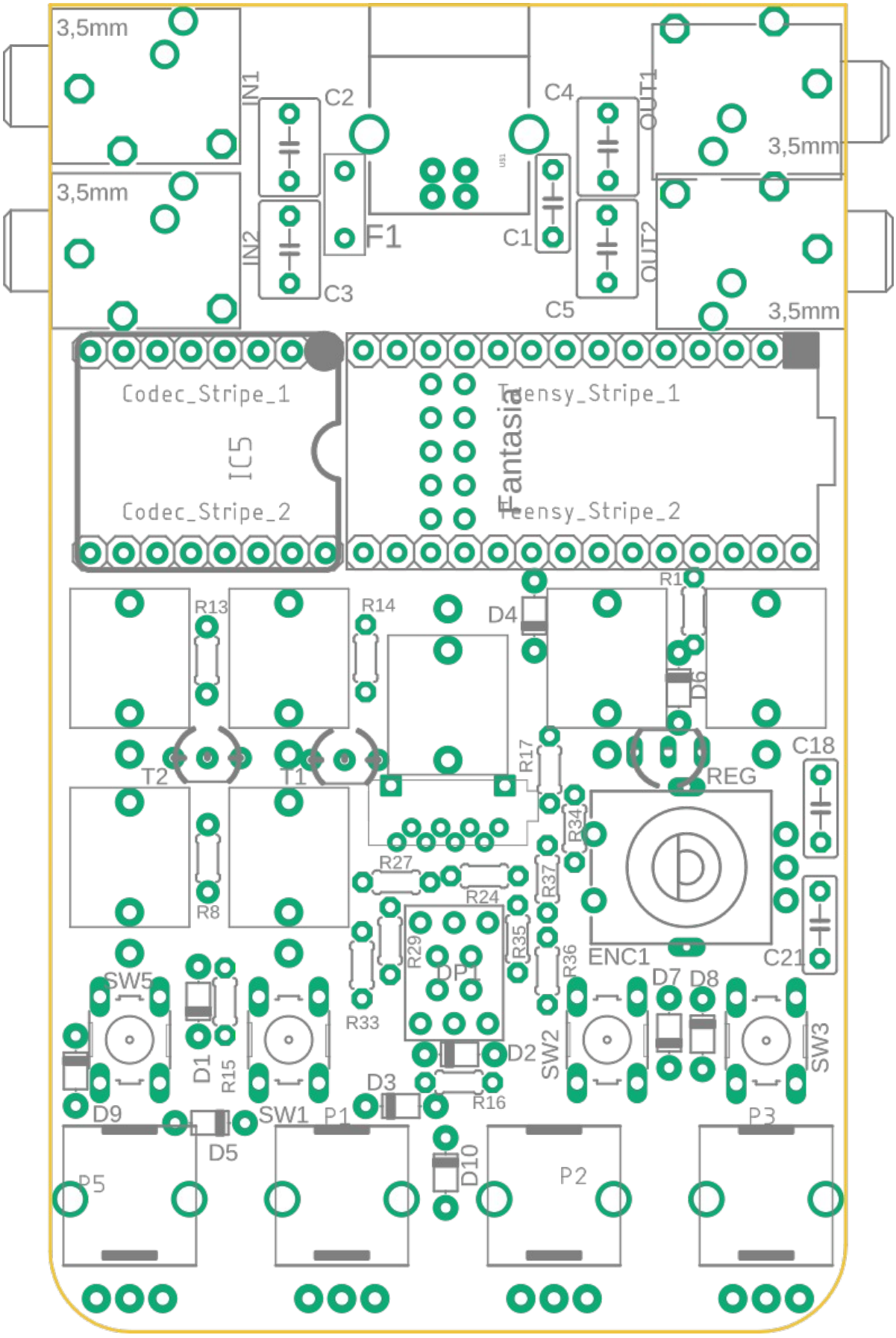
FRONT PANEL

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