

## ASSEMBLY MANUAL

JULY 2016

### EXTRADRIVE - (A)SYMMETRIC OVERDRIVE EFFECT PEDAL ORDERCODE: K8111



## Table of contents

What's in the box	3
Assembly instructions	4

Let's get started!





## ASSEMBLY INSTRUCTIONS

1. Place the 2 supplied cover stickers as shown in the images below. **Note the orientation of the bottom cover!**



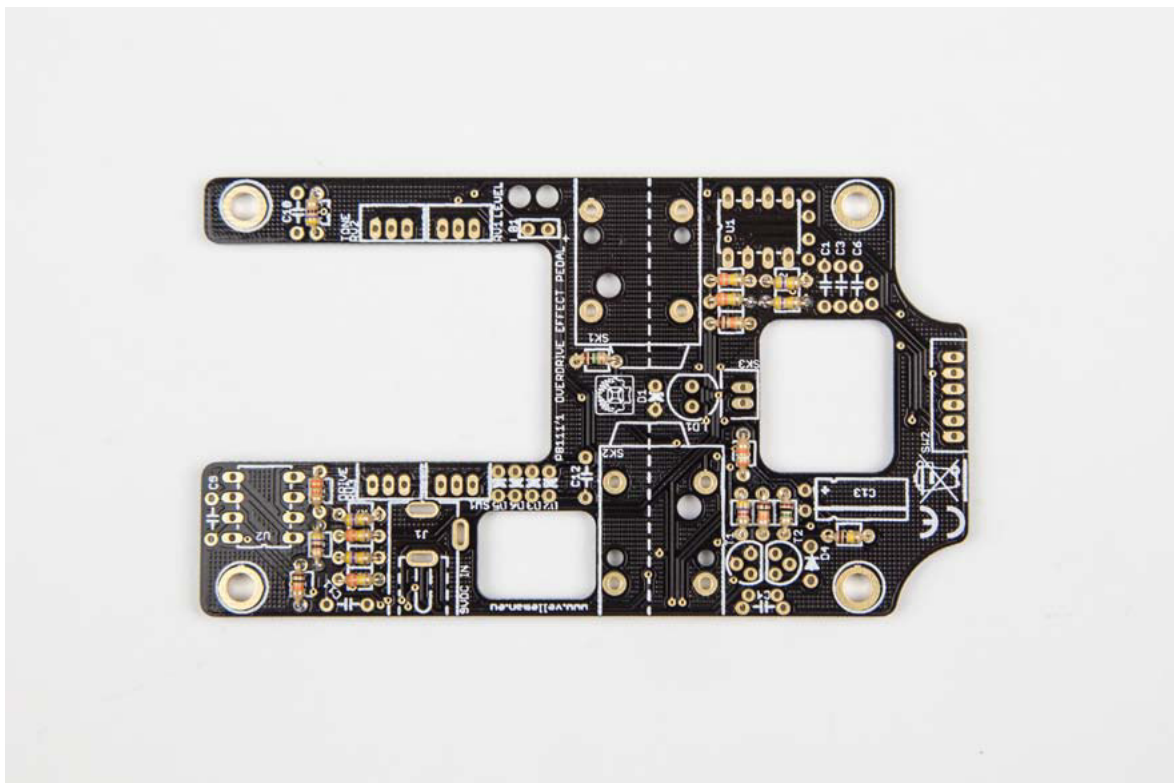
2. All components are placed in the correct order of usage on the supplied tape.

**Resistors:** R1 to R19

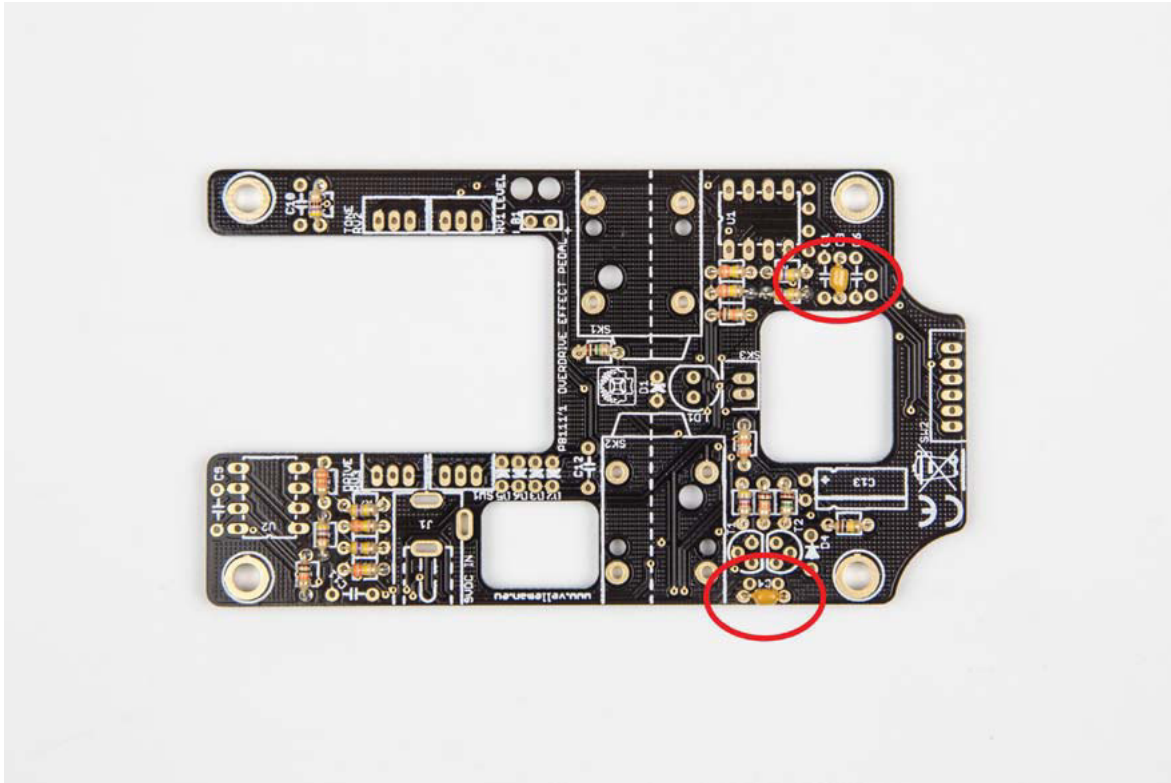


Tape order:

R1:330K	R12:4K7	D5:1N4148
R2:470K	R13:330K	D6:1N4148
R3:330K	R14:10K	D4:1N4007
R4:470K	R15:470E	
R5:390E	R16:470E	
R6:10K	R17:33K	
R7:470K	R18:100K	
R8:330K	R19:1M	
R9:470K	C3:104	
R10:1M	c4:104	
R11:10K	ZD1:3V3	
	D2:1N4148	
	D3:1N4148	

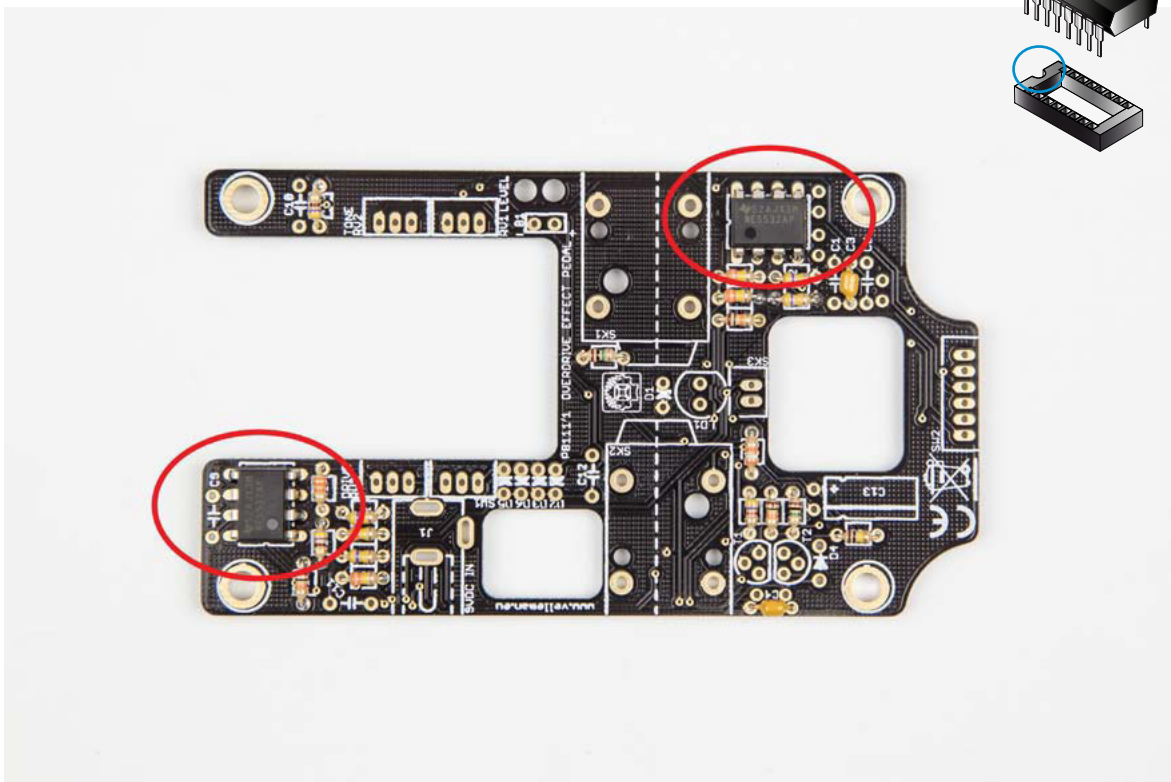


3. 100  $\mu$ F axial capacitors: C3, C4



4. 2 x IC: U1 and U2

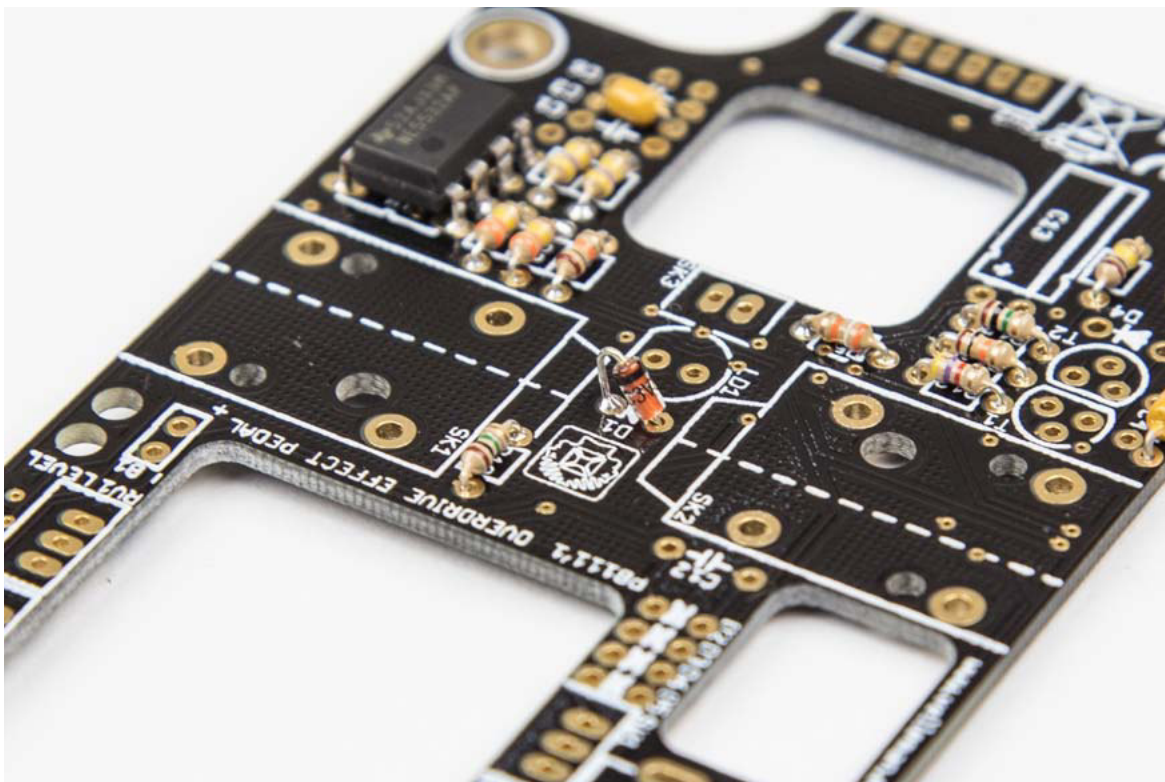
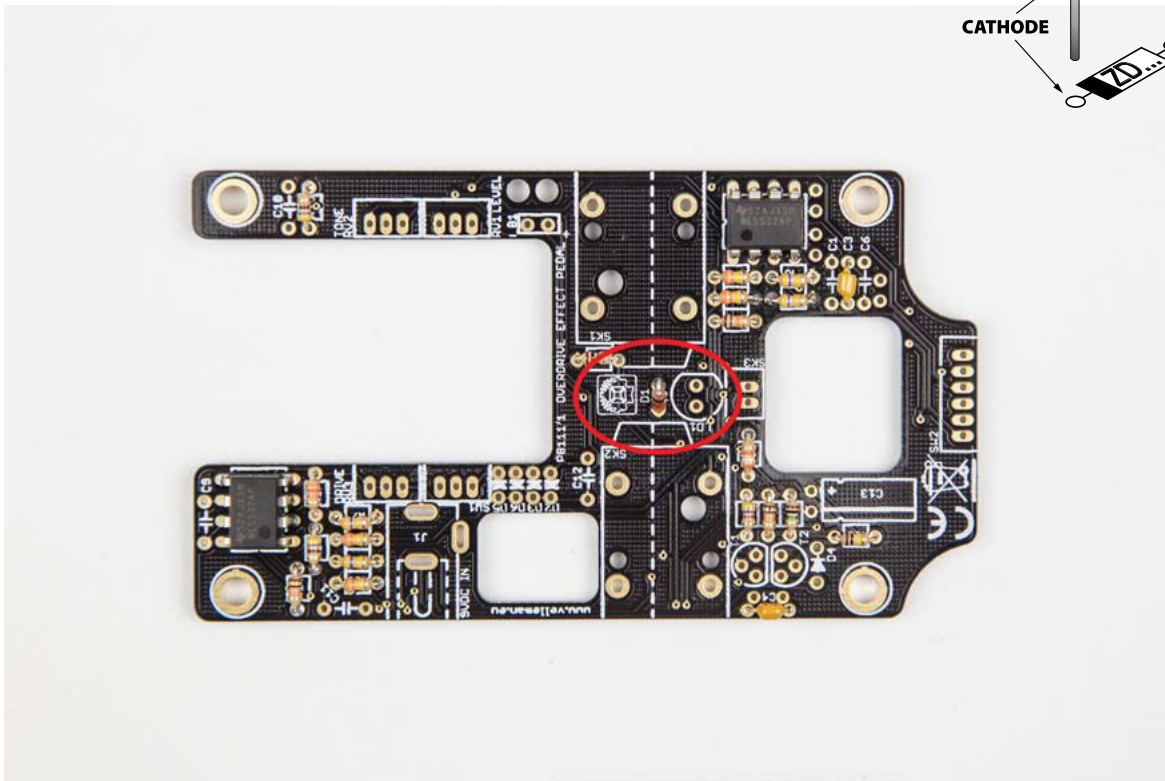
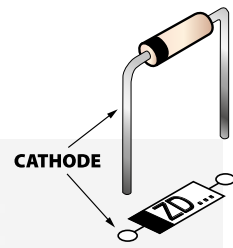
Note the orientation of the IC's!





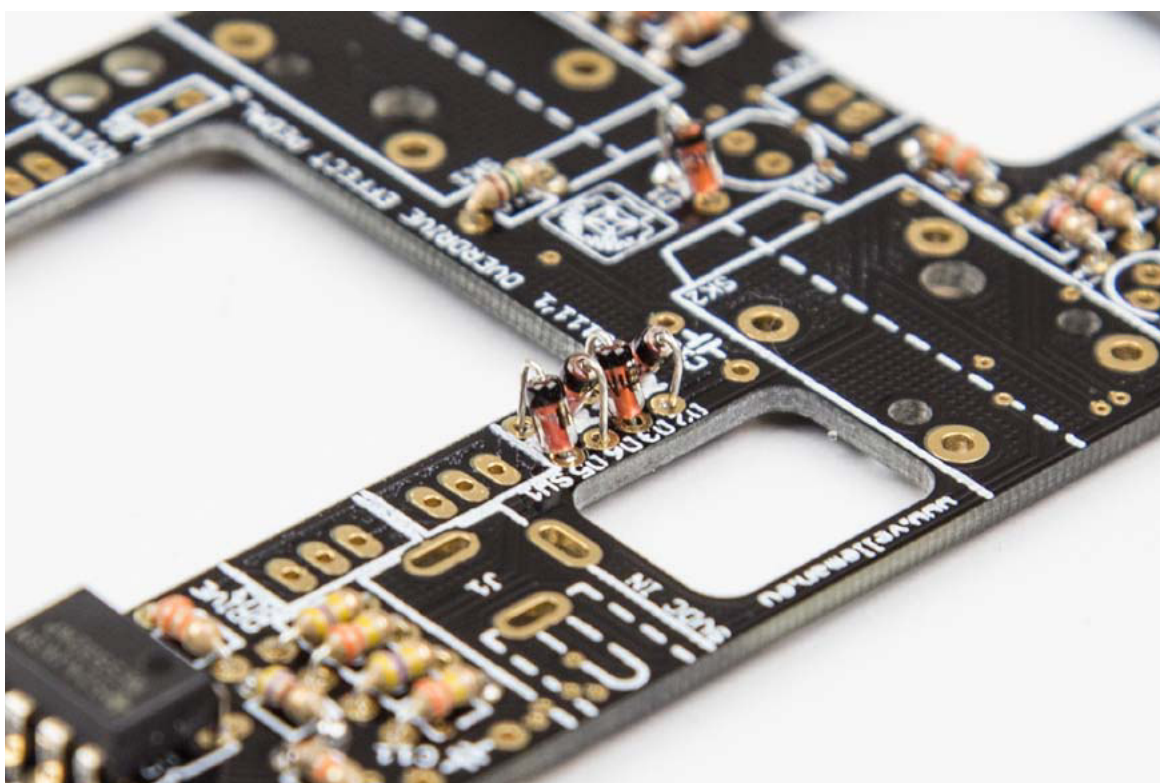
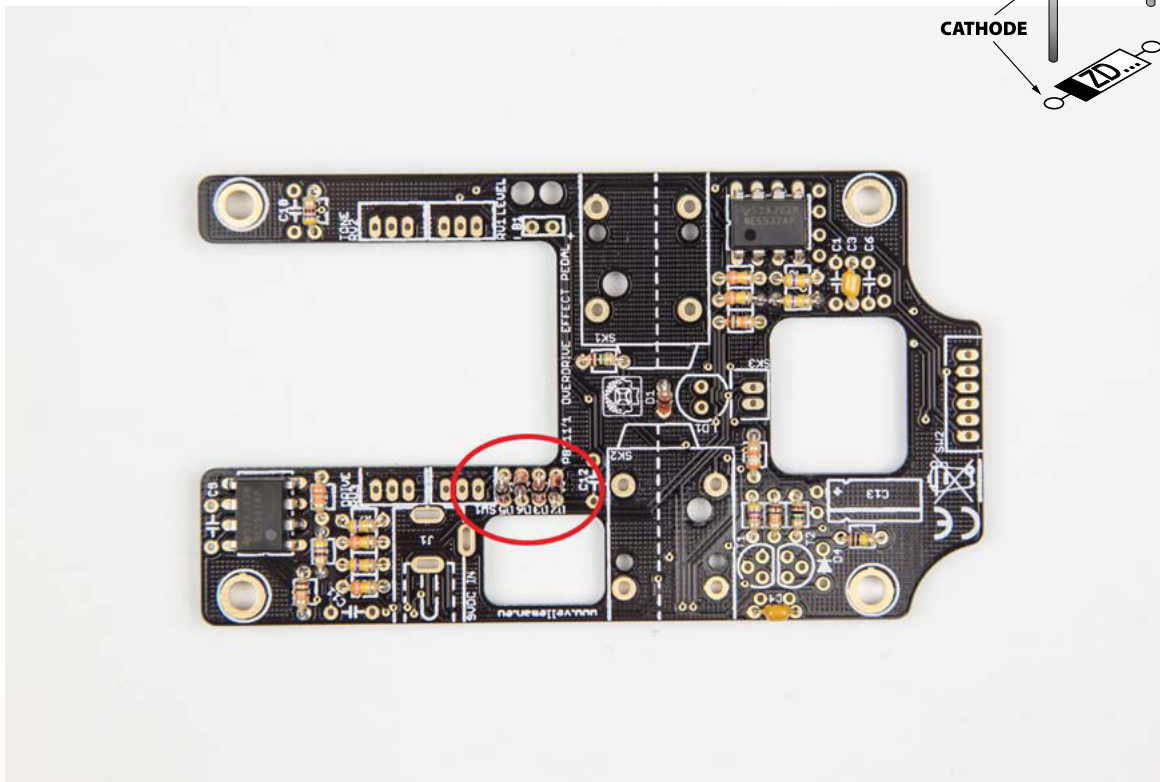
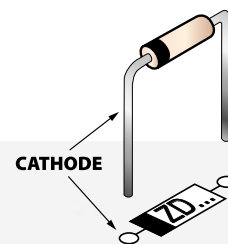
## 5. Zenerdiode: ZD1

Note the orientation of the zenerdiode!



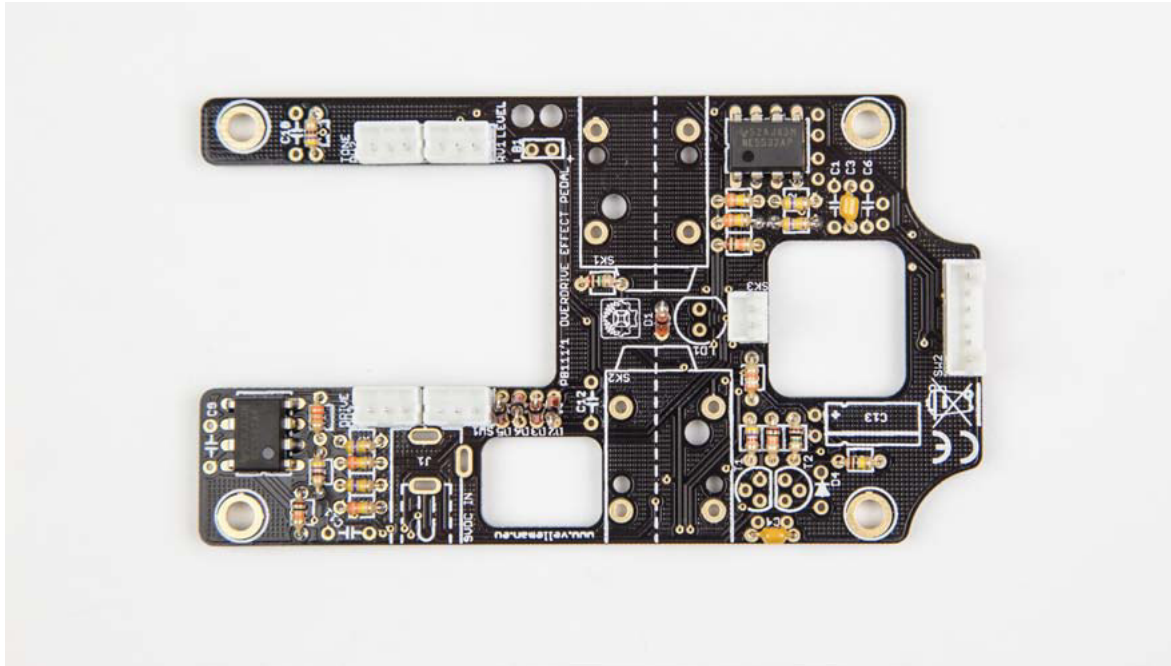
## 6. Diodes: D2, D3, D5 and D6

**Note the orientation of the diode!**



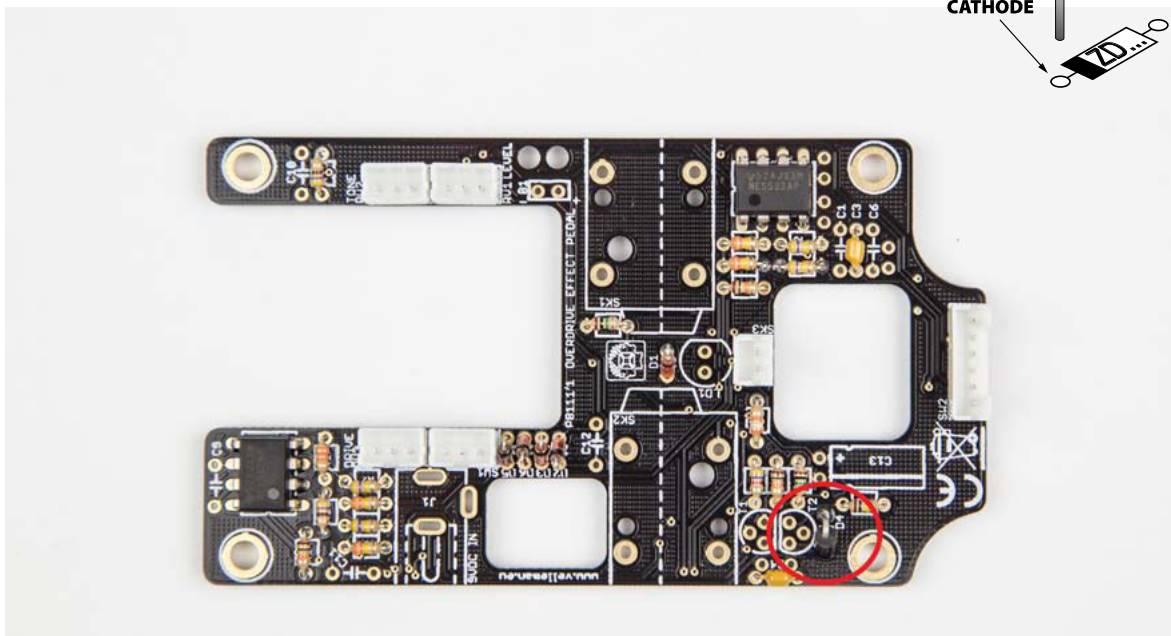
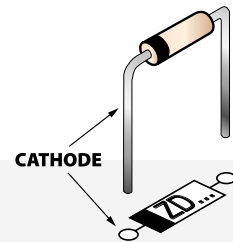


**7. Male connectors: SW1; SW2, RV1; RV2, RV3 and SK3**

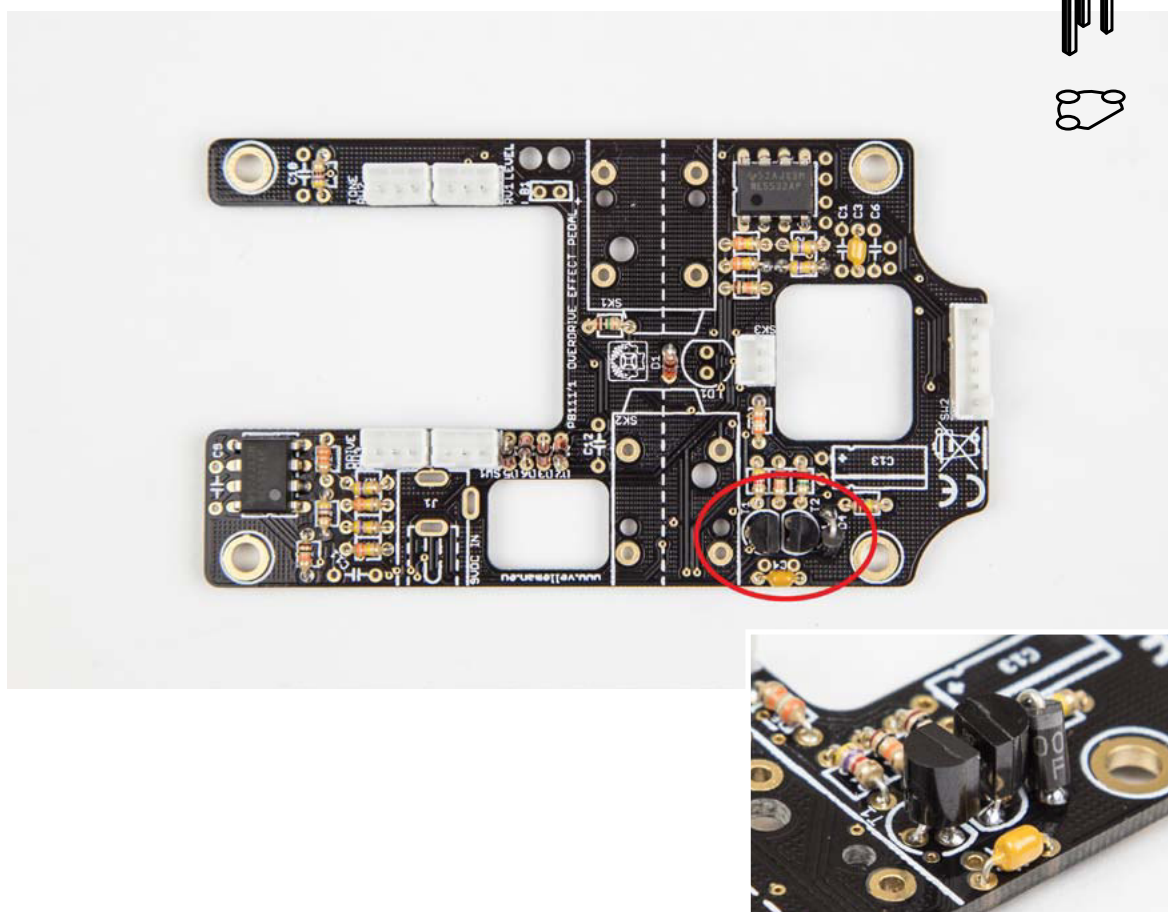
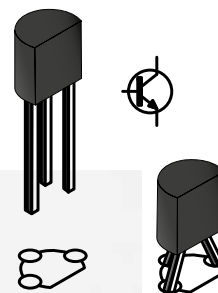


**8. Diode 1N4007: D4**

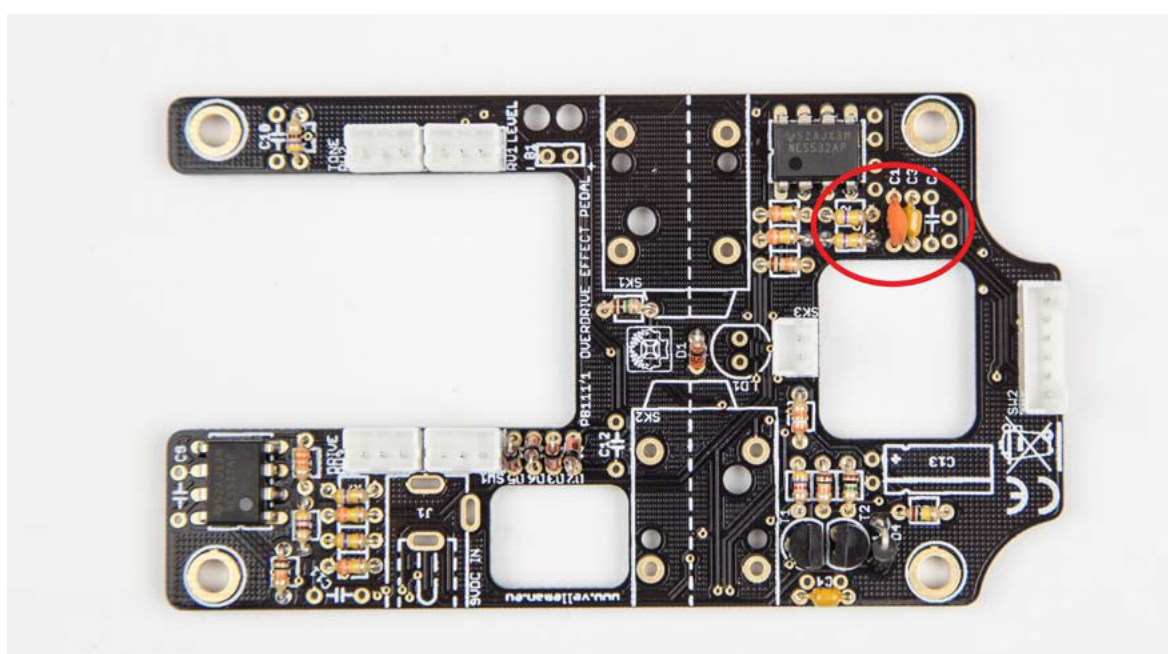
**Note the orientation of the diode!**



9. **BC547: T1**  
**BC557: T2**



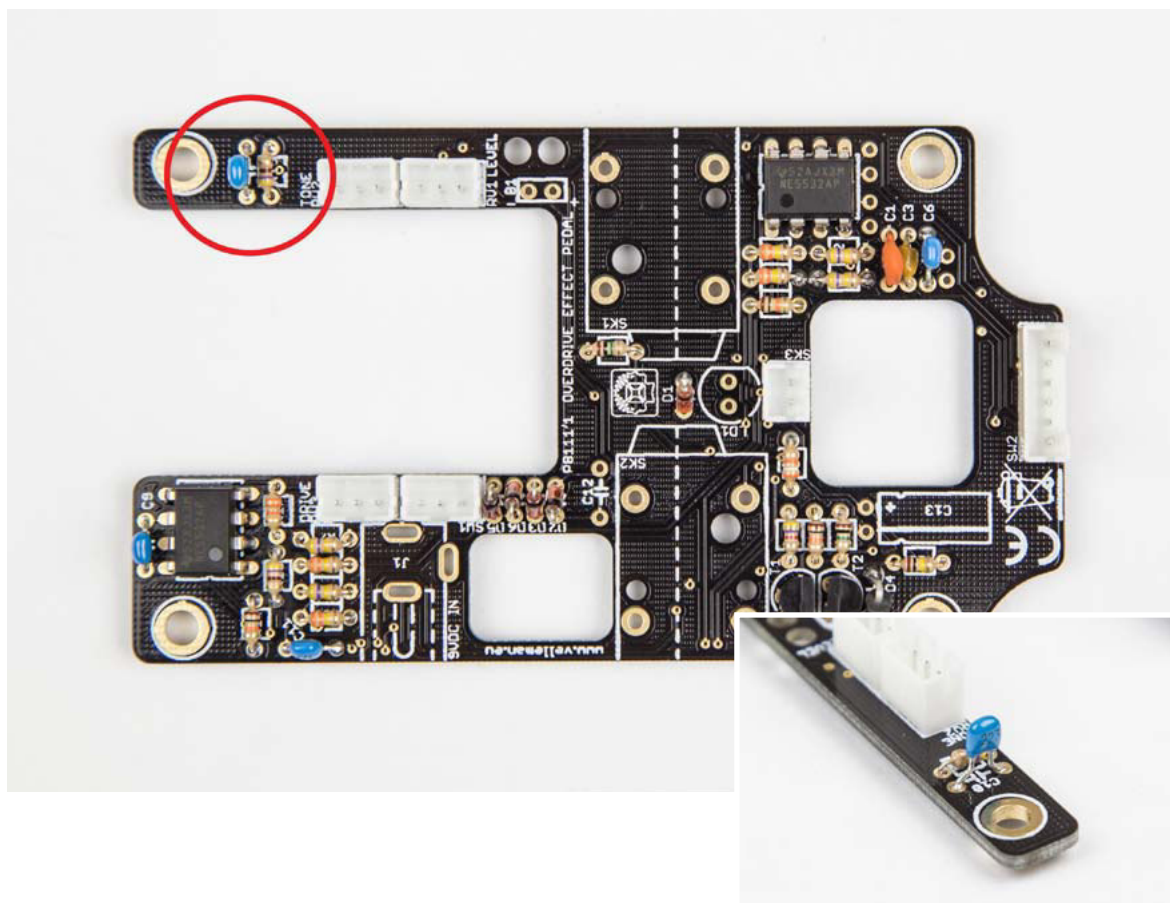
10. **Capacitor 471: C1**



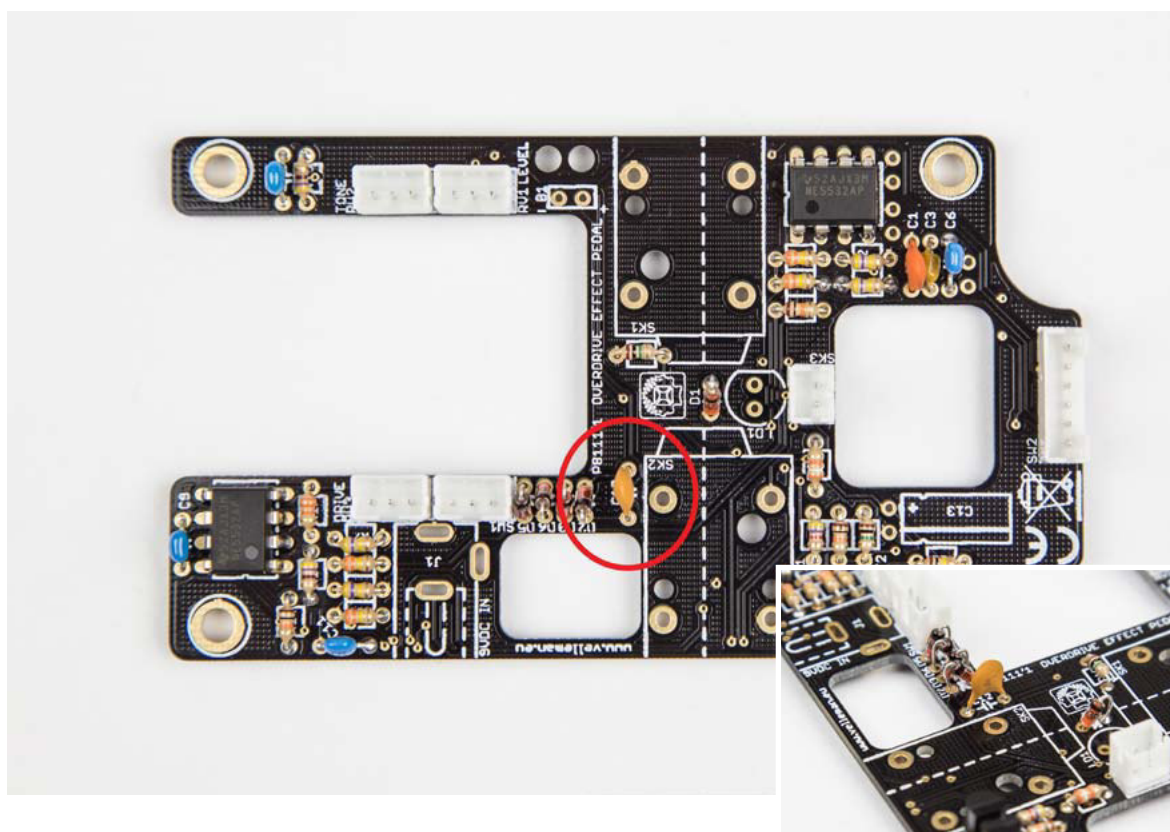


The top photograph shows the complete custom PCB, which is shaped like a stylized 'L'. It features a black PCB with gold-plated through-holes and various electronic components. A red circle highlights a blue capacitor (C1) near the bottom-left corner. The bottom photograph is a close-up of the capacitor and the 555 timer chip (555A J3M NE5532AP) mounted on the board.

13. Capacitor 223: C10

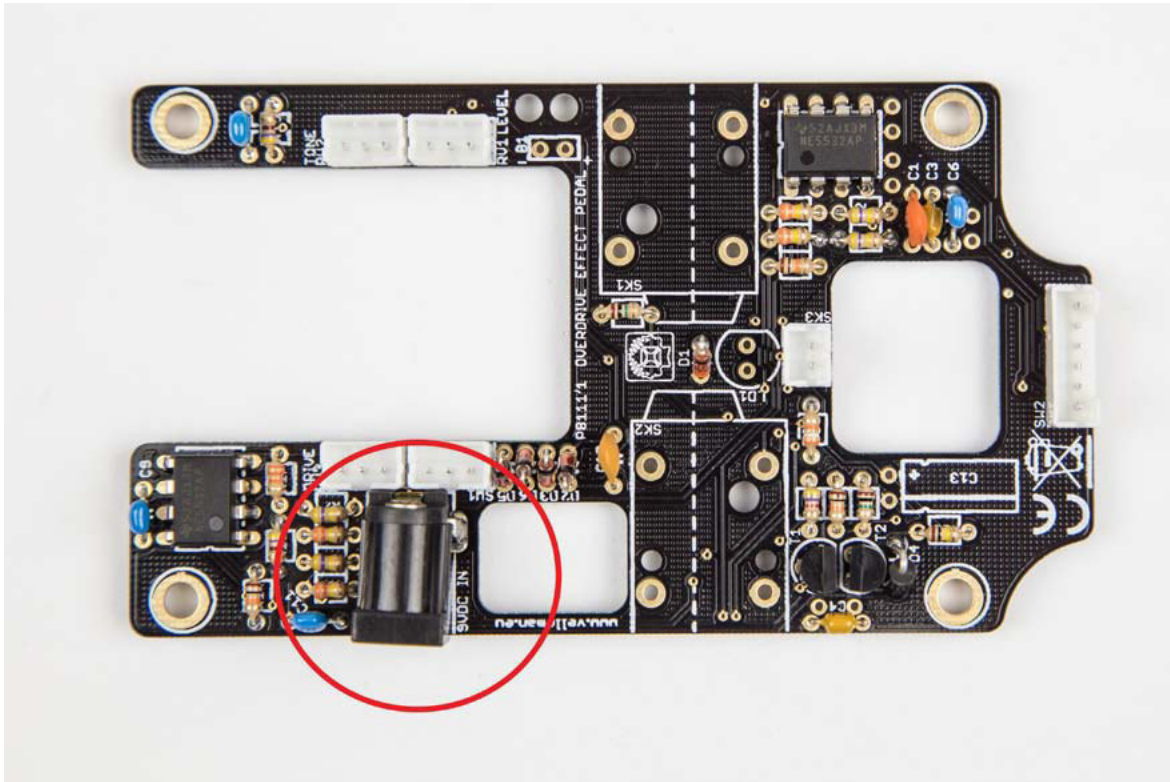


14. Capacitor 47: C12



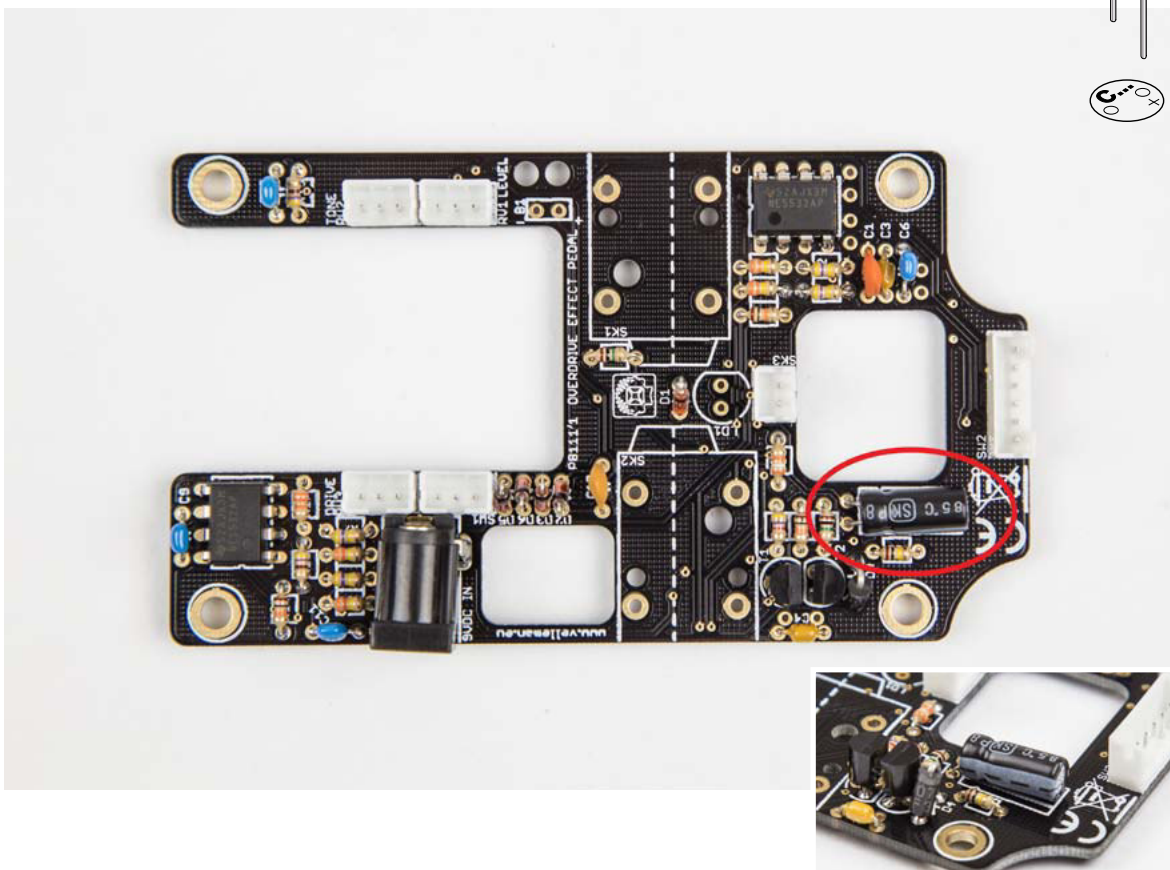


15. **DC jack:** J1 SVDC IN

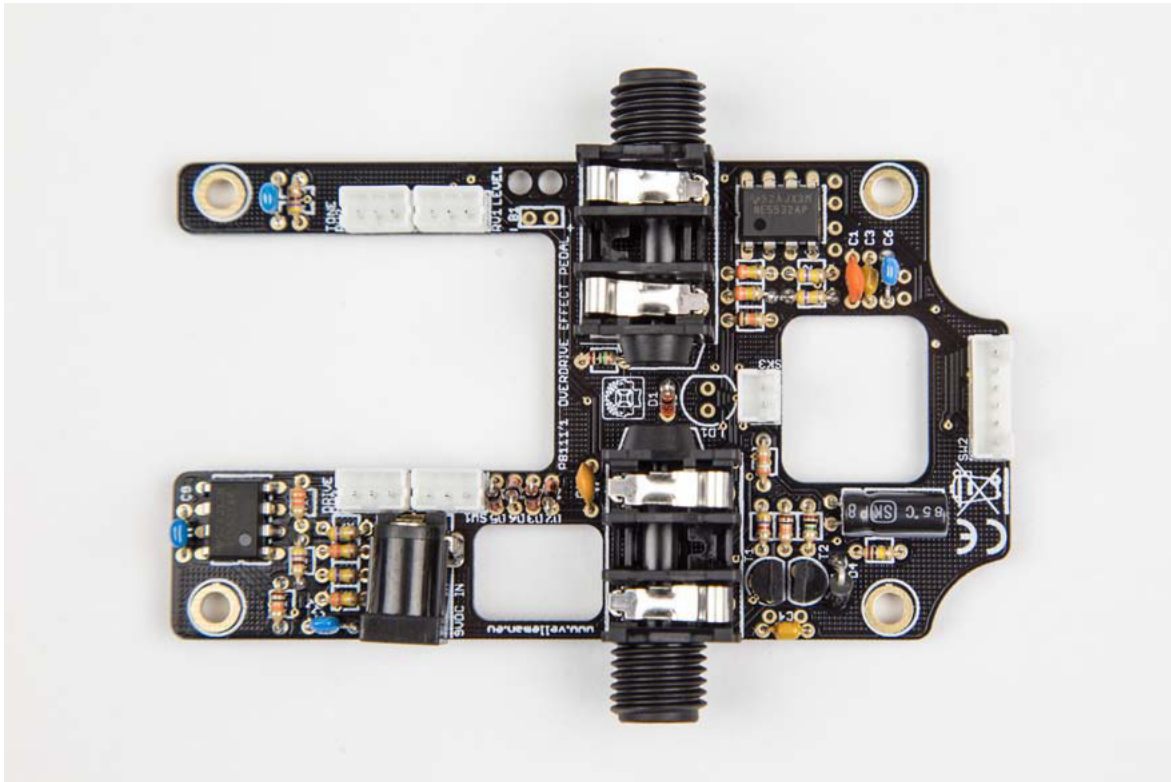


16. **Capacitor 10  $\mu$ F:** C13

**Note the polarity!**



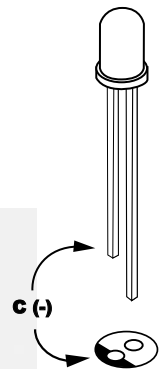
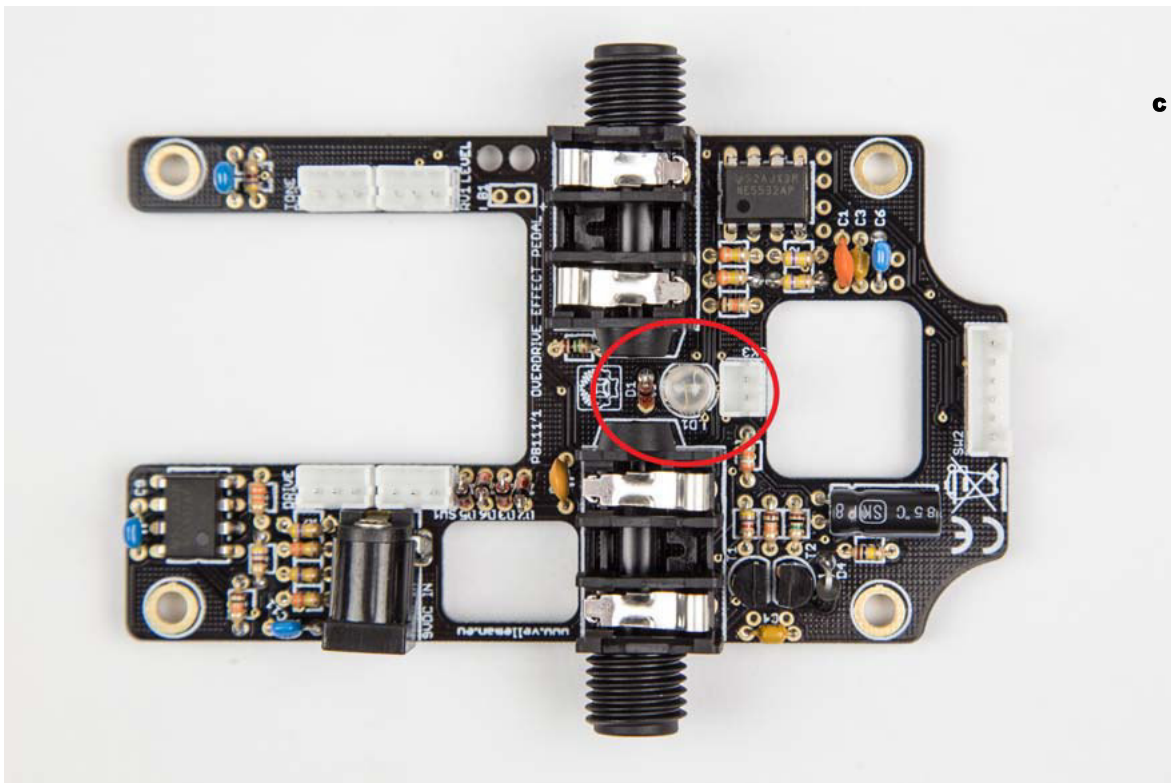
17. **2 x Audio jack:** SK1 and SK2

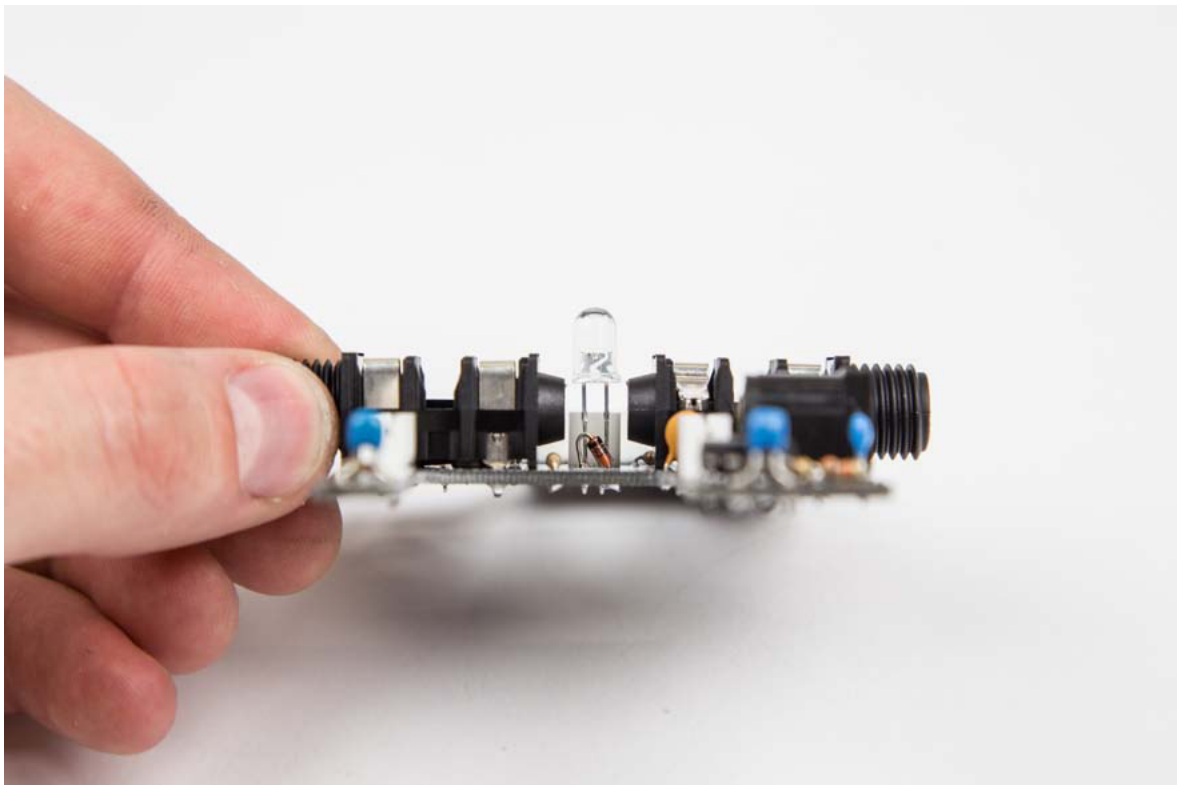
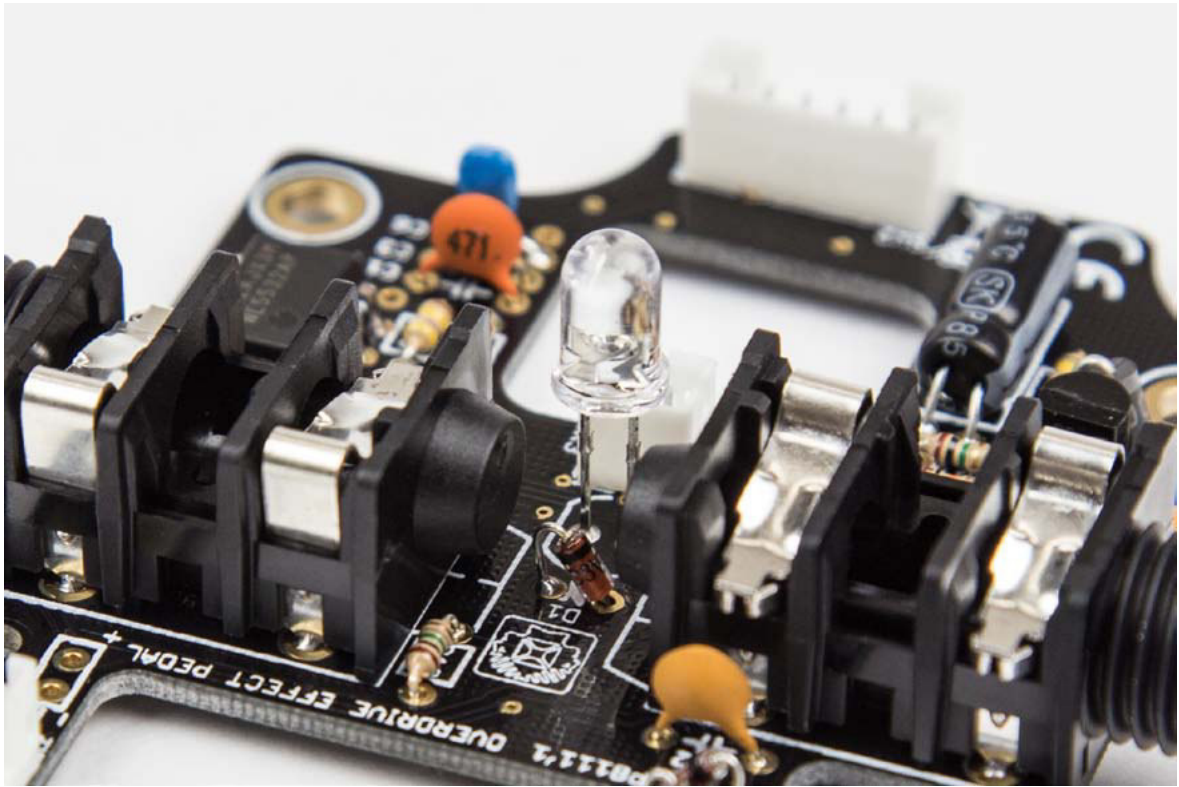


18. **5 mm blue LED:** LD1 (do a diode test with a multimeter to find the blue LED)

**Note the polarity!**

**Make sure it stands out about 12 mm from the PCB, as shown in the picture!**



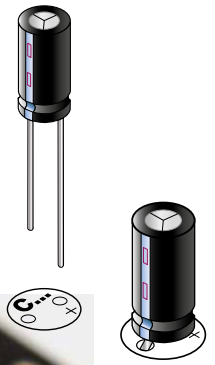
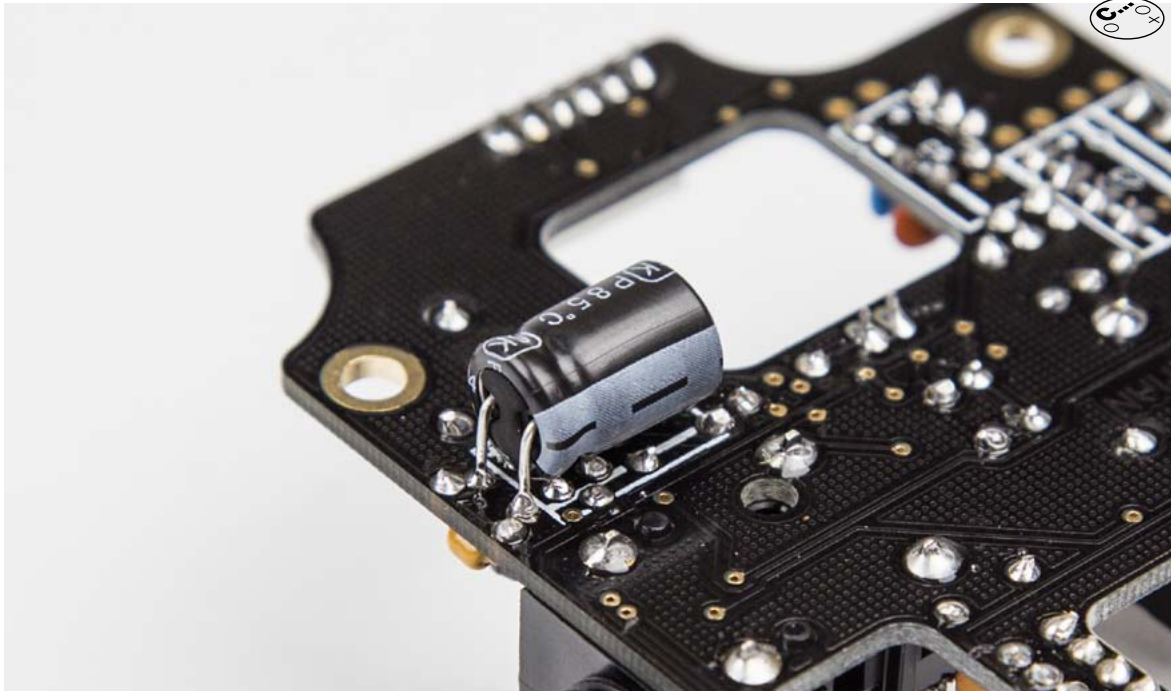




19. Capacitor 220  $\mu$ F: C2

**SOLDER ON BOTTOM SIDE OF PCB!**

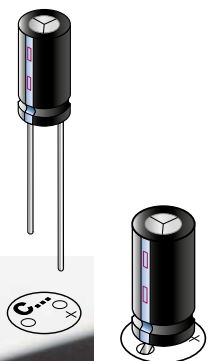
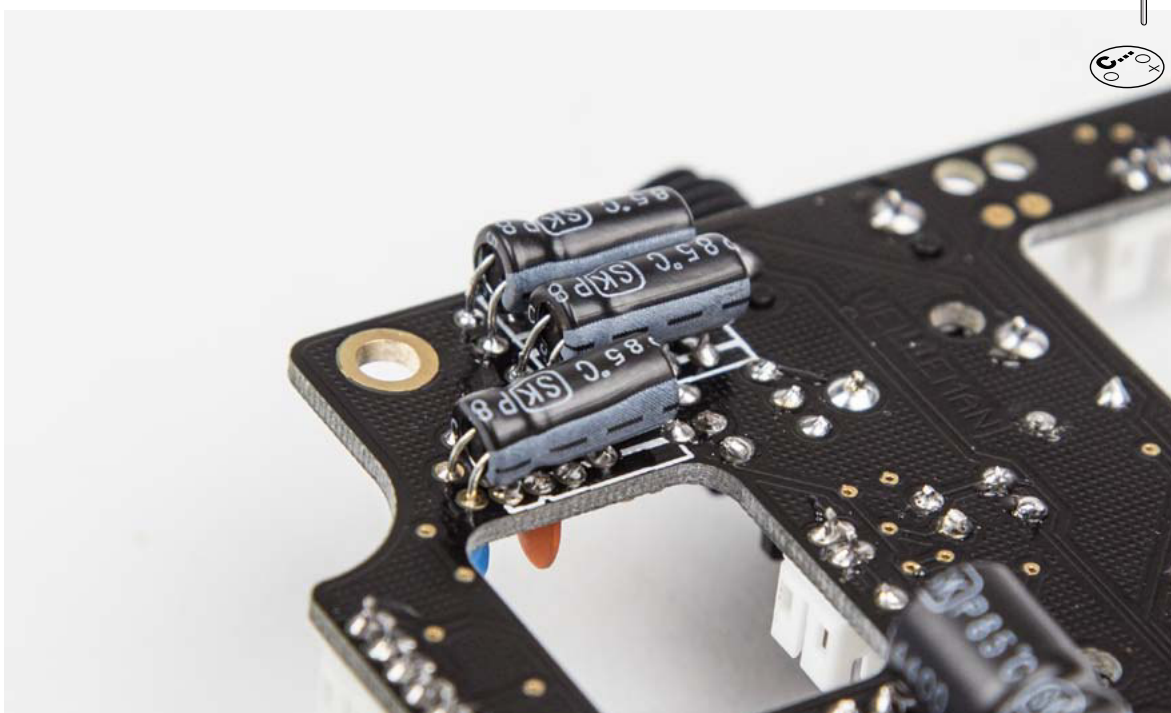
**Note the polarity!**



20. Capacitor 10  $\mu$ F: C7, C8 and C12

**SOLDER ON BOTTOM SIDE OF PCB!**

**Note the polarity!**





21. Trim the leads on the 9 V snap to 5 cm.

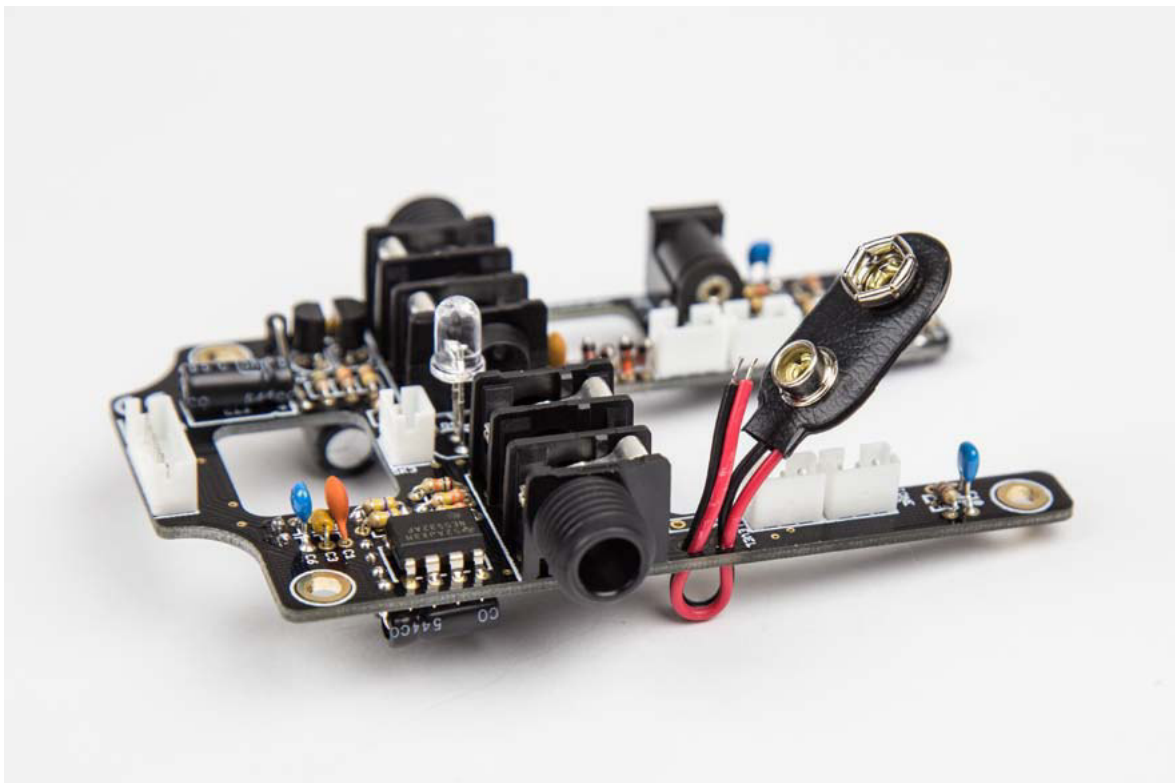
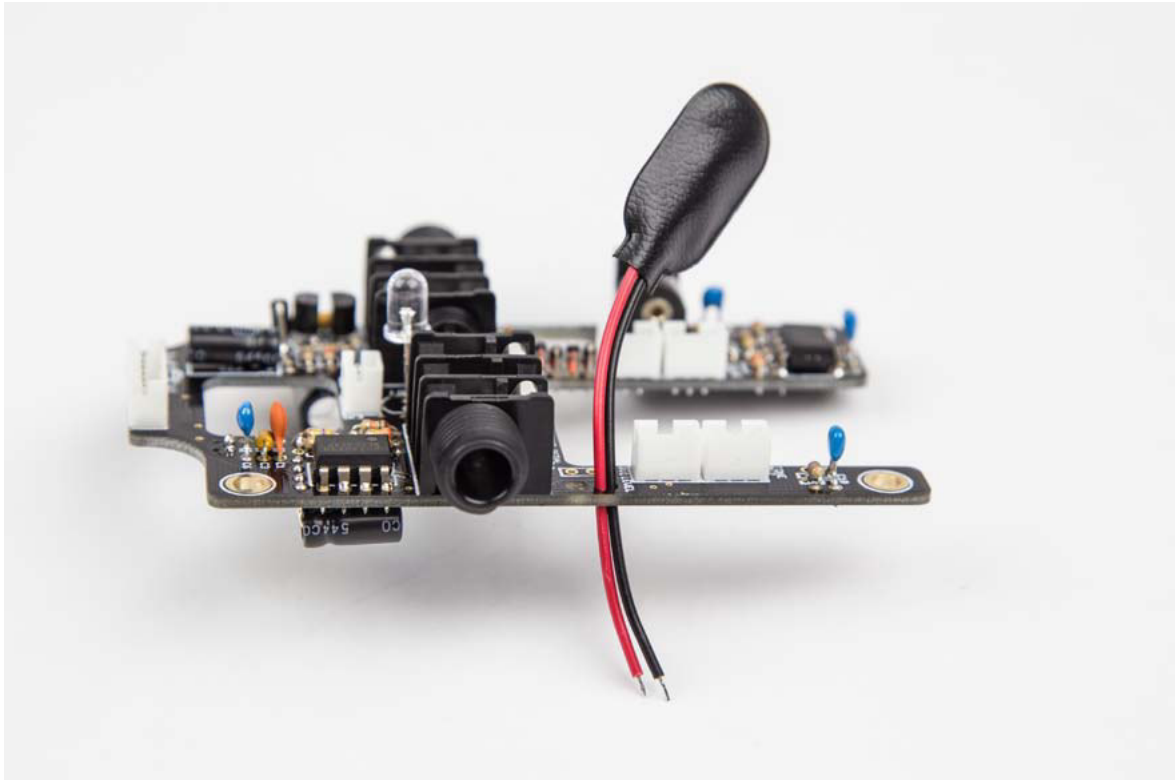


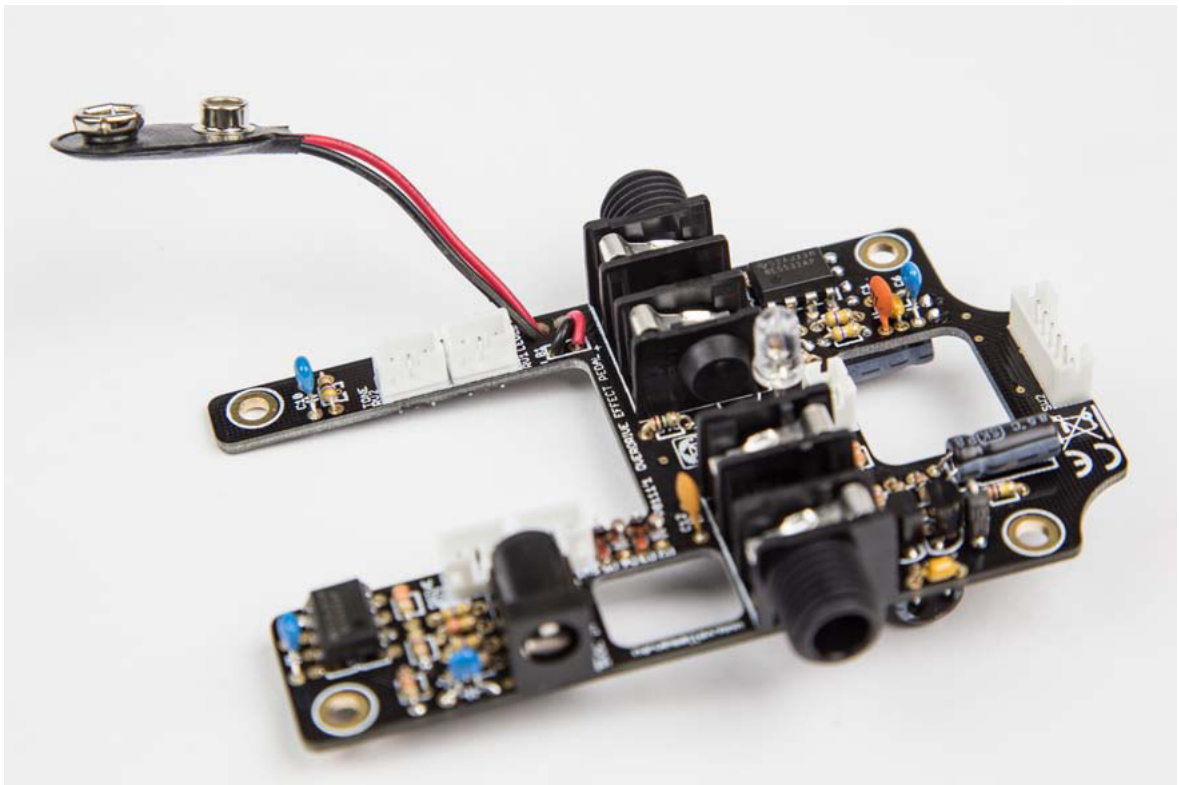
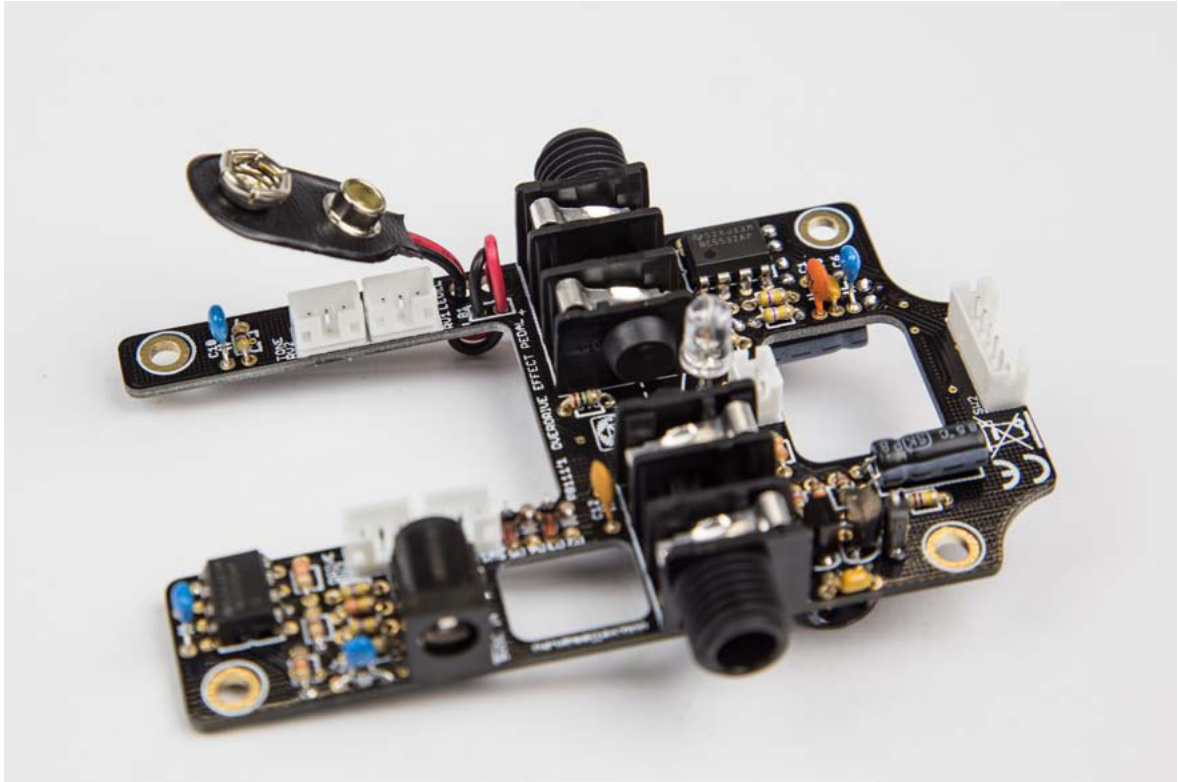
22. Strip and tin both wires



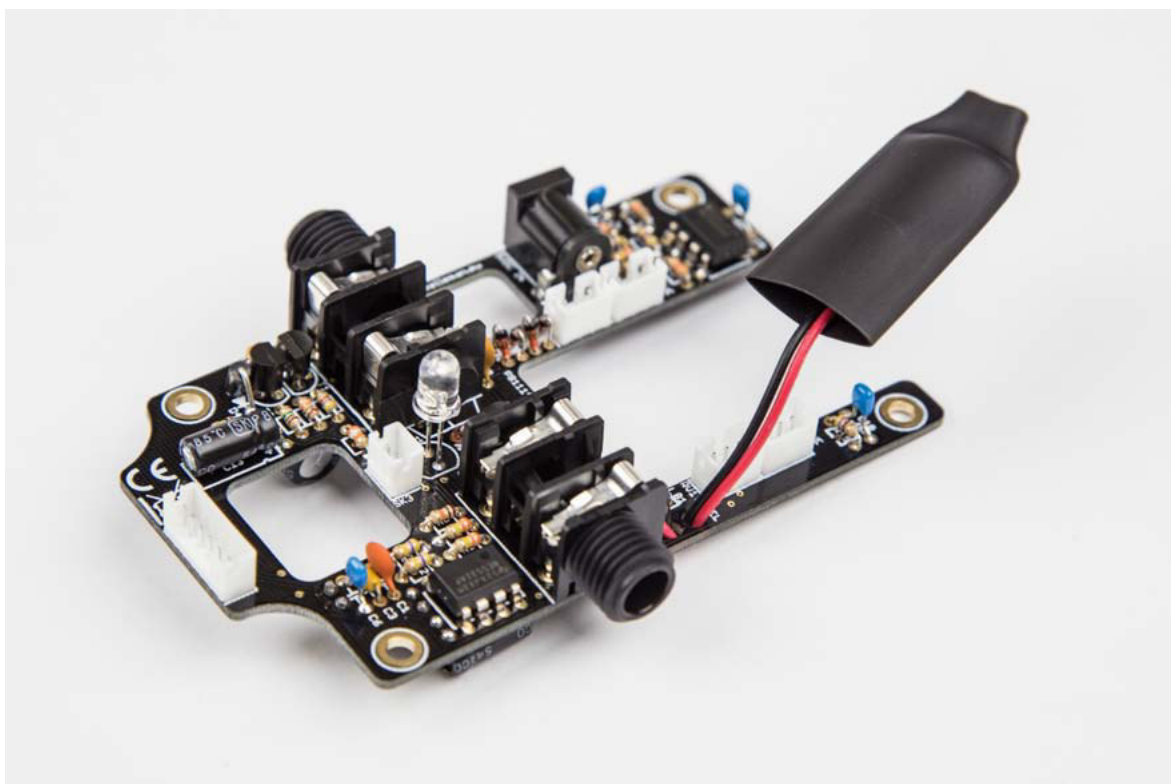
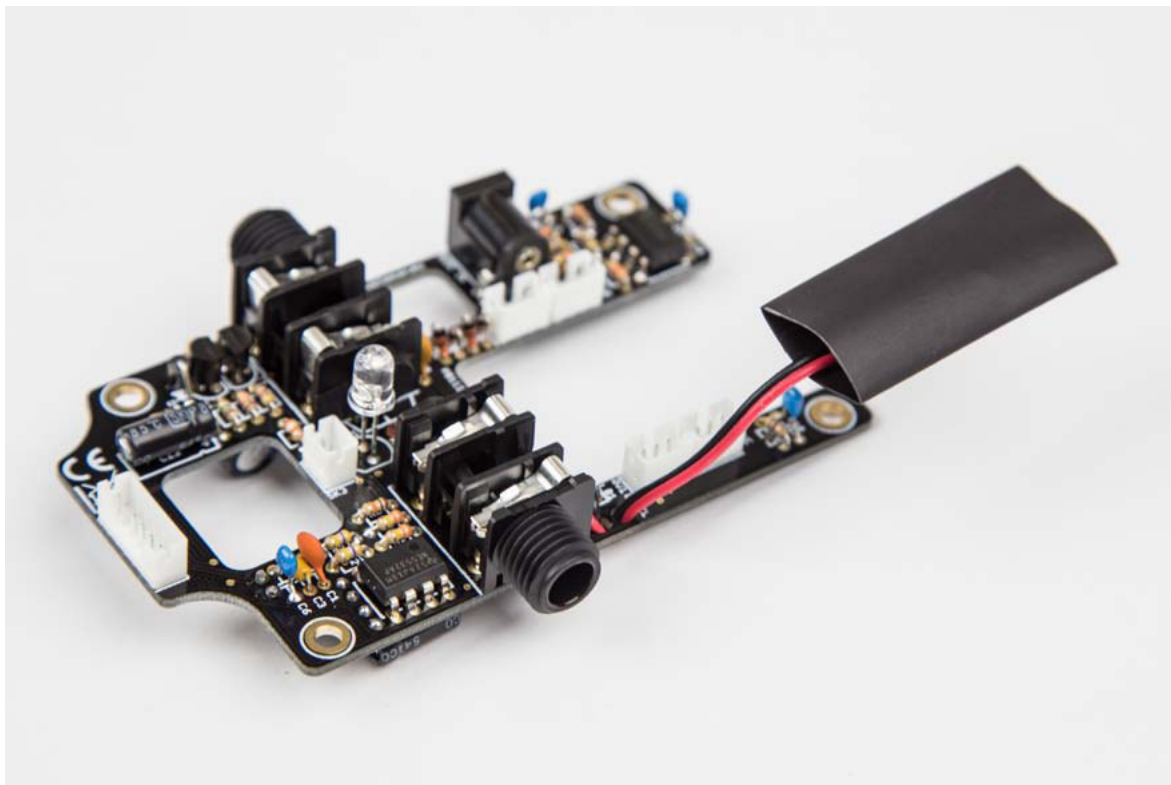
23. Place and solder the 9 V snap to the PCB as shown in the images below.

**Note the polarity! RED = +, BLACK = -**





24. Slide 4,5 cm of the biggest shrinktube over the connector. **When no battery is used in the pedal this cover should always be used.**





25. Place the finished board into the pedal casing and tighten it down with the supplied screws.

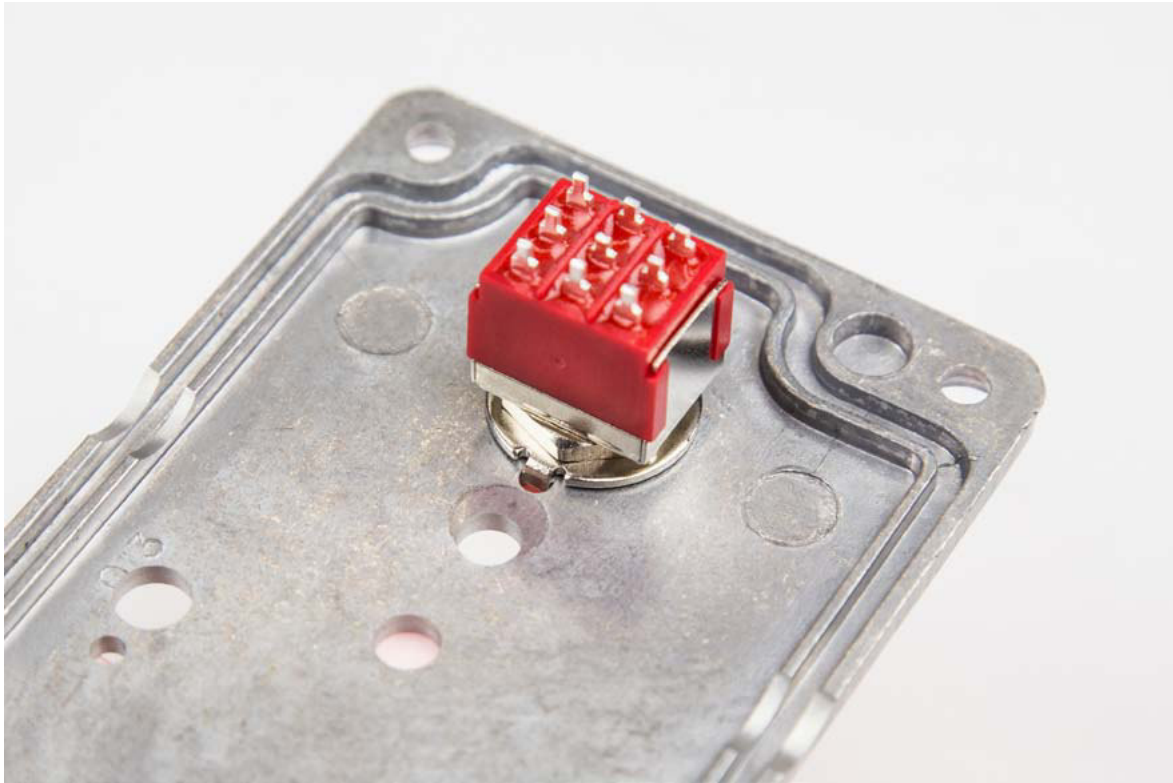


26. Shorten all the pins on the footswitch by 1.5 - 2 mm.

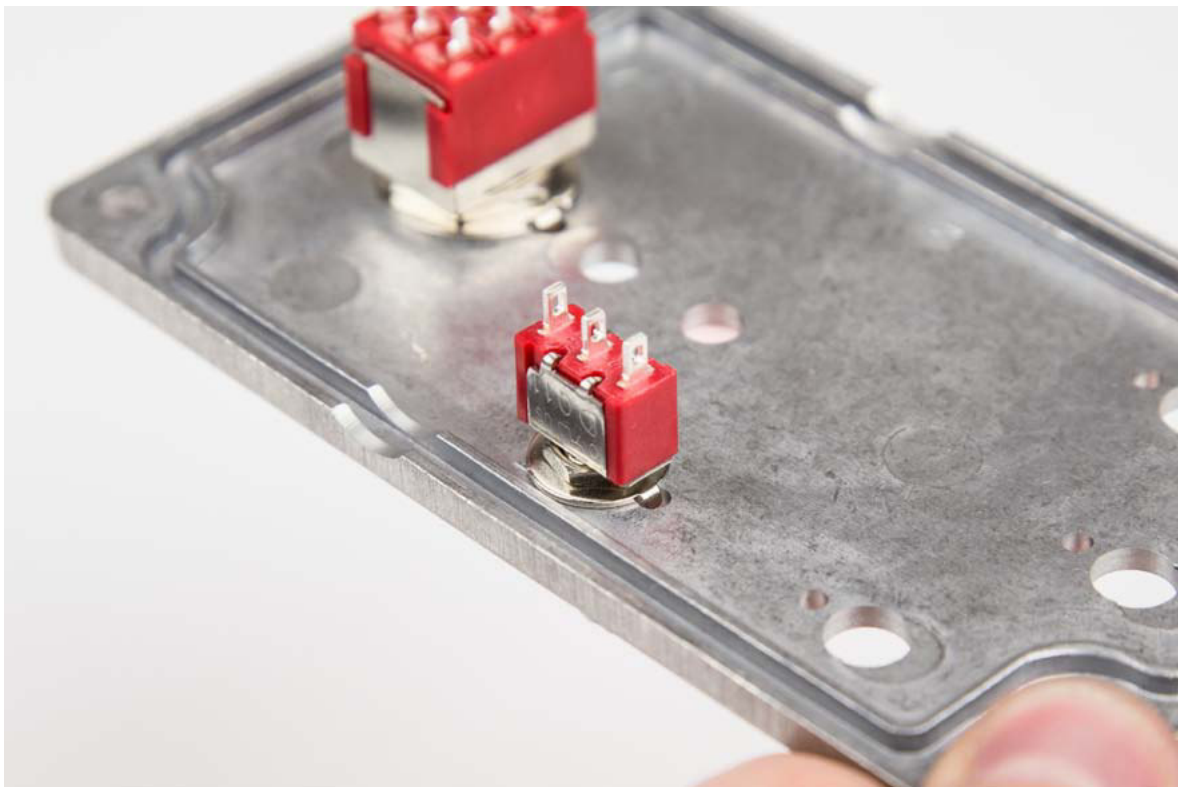


27. Install the footswitch as shown in the images below.





28. Install the selector switch as shown in the images below.

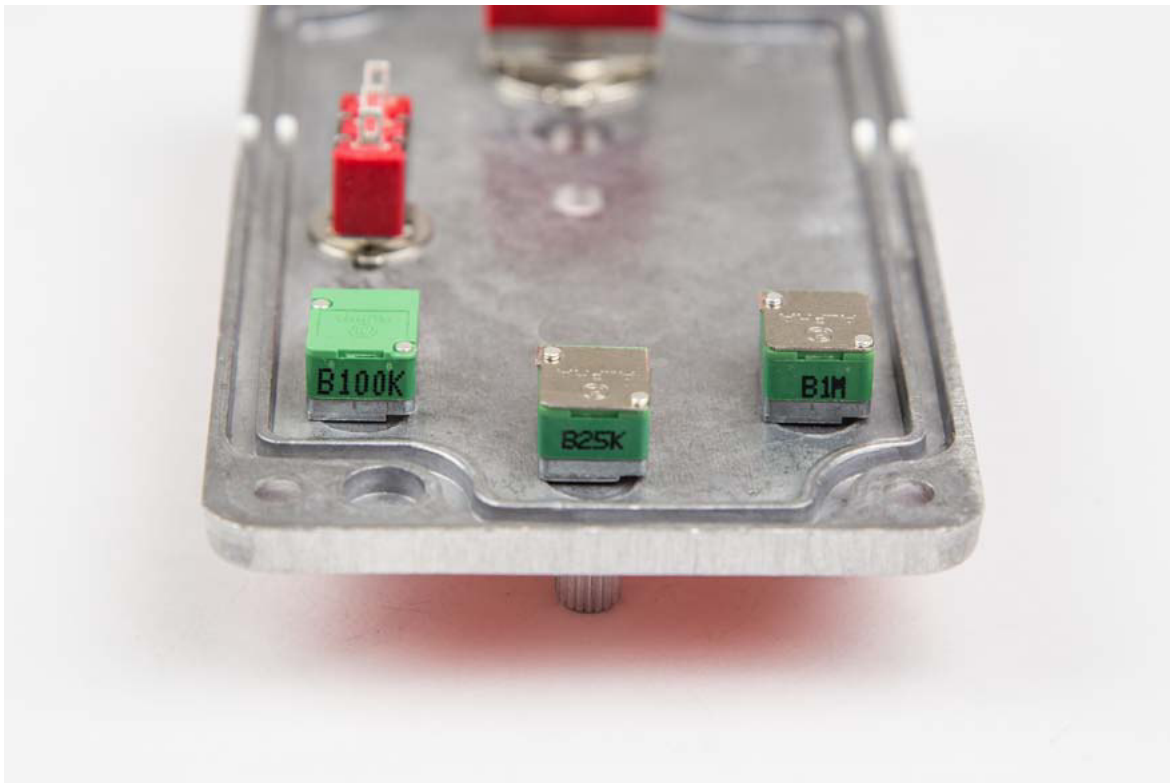




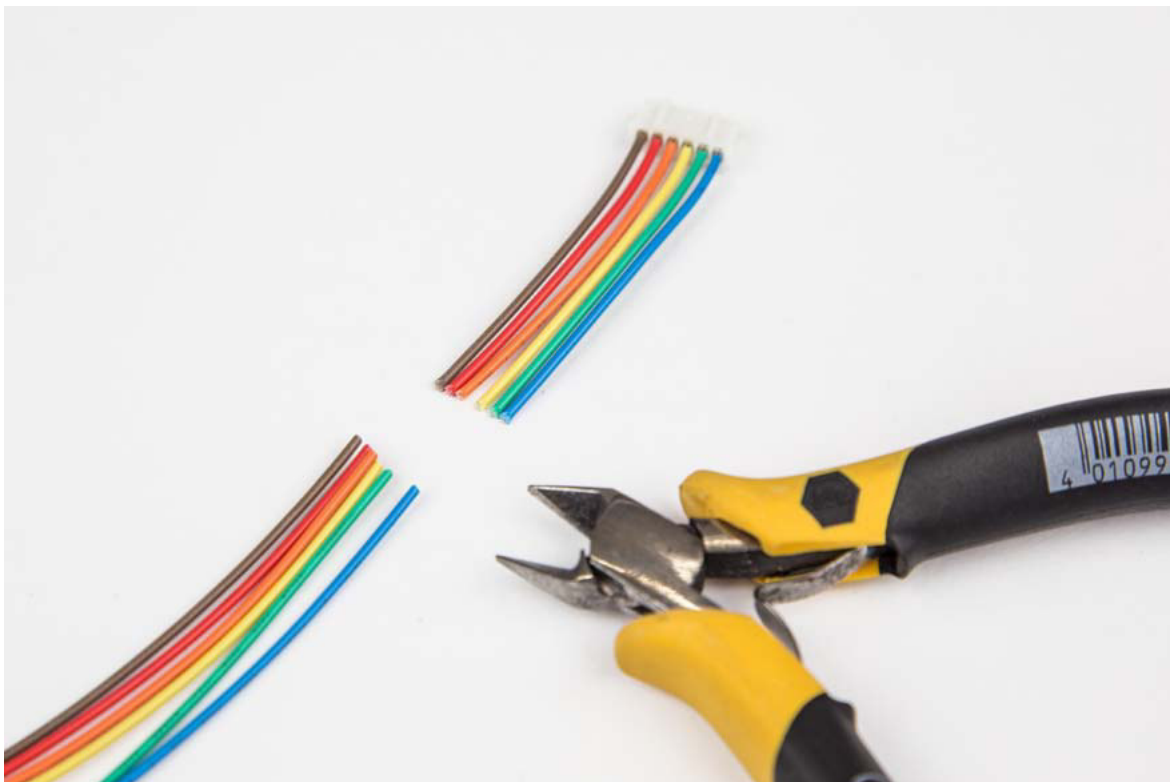


29. Install the 3 potentiometers as shown in the images below. Note the placement of the different values!





30. Trim the leads of the 6 wire female connector to 4.5 cm.



31. Strip and tin the wires.

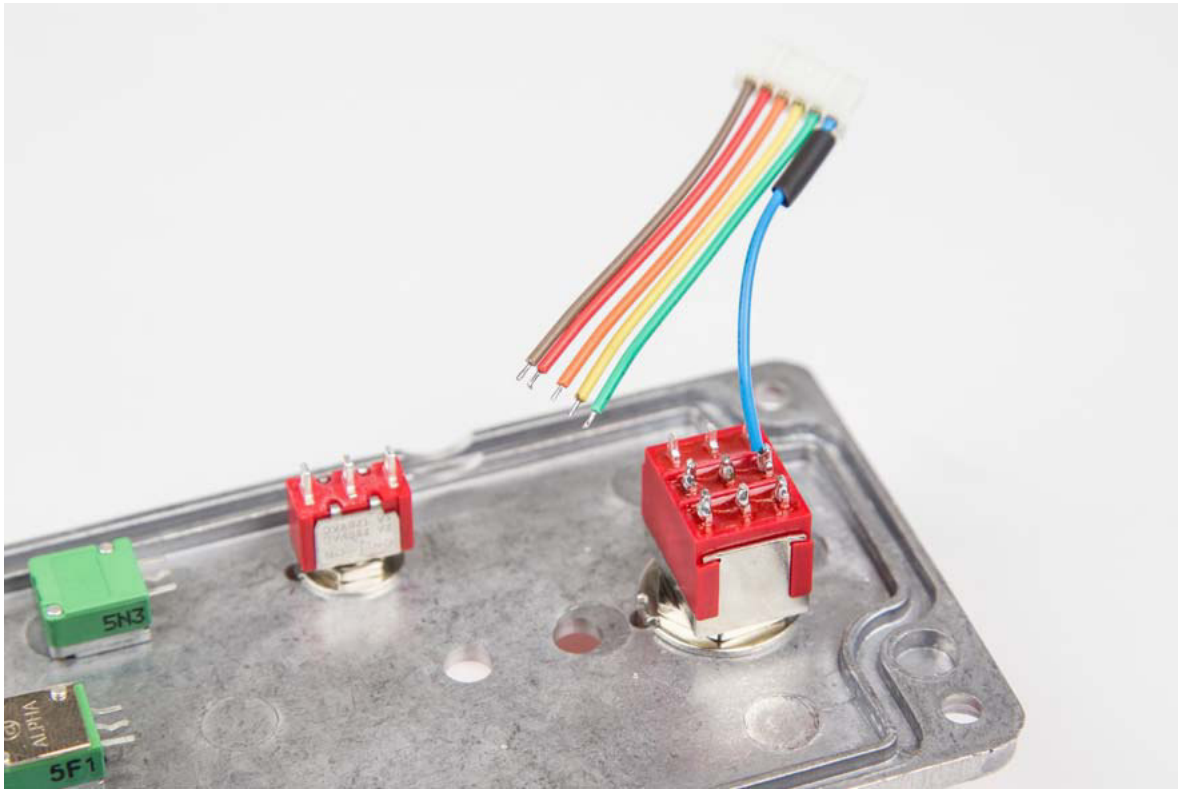


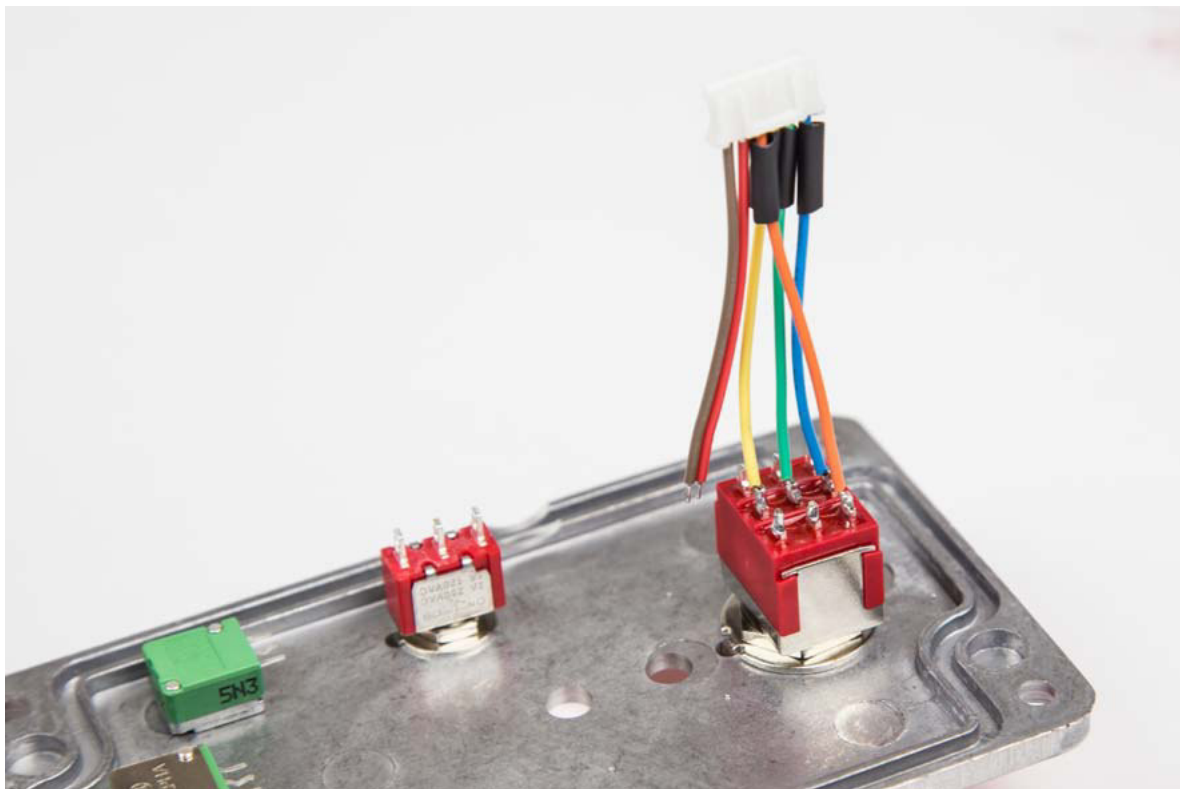
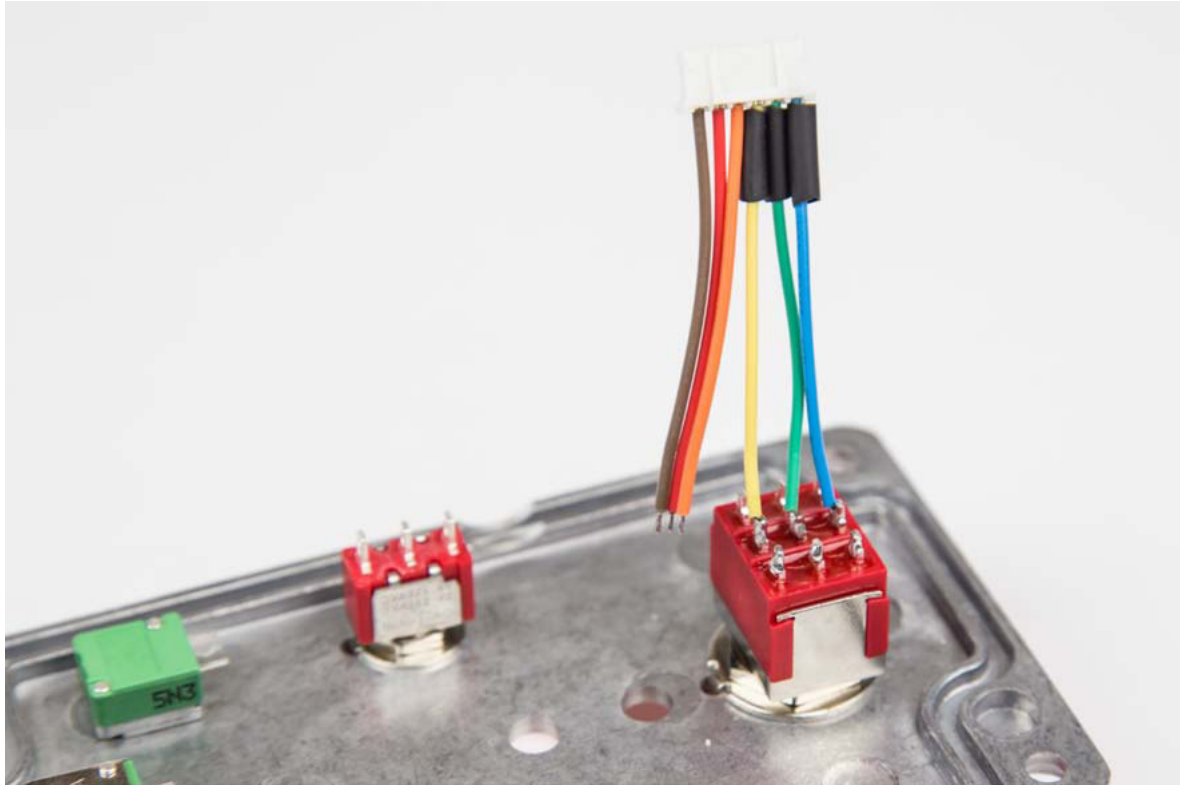
32. Cut 6 x 7 mm pieces of the 2.4 mm shrinktube.

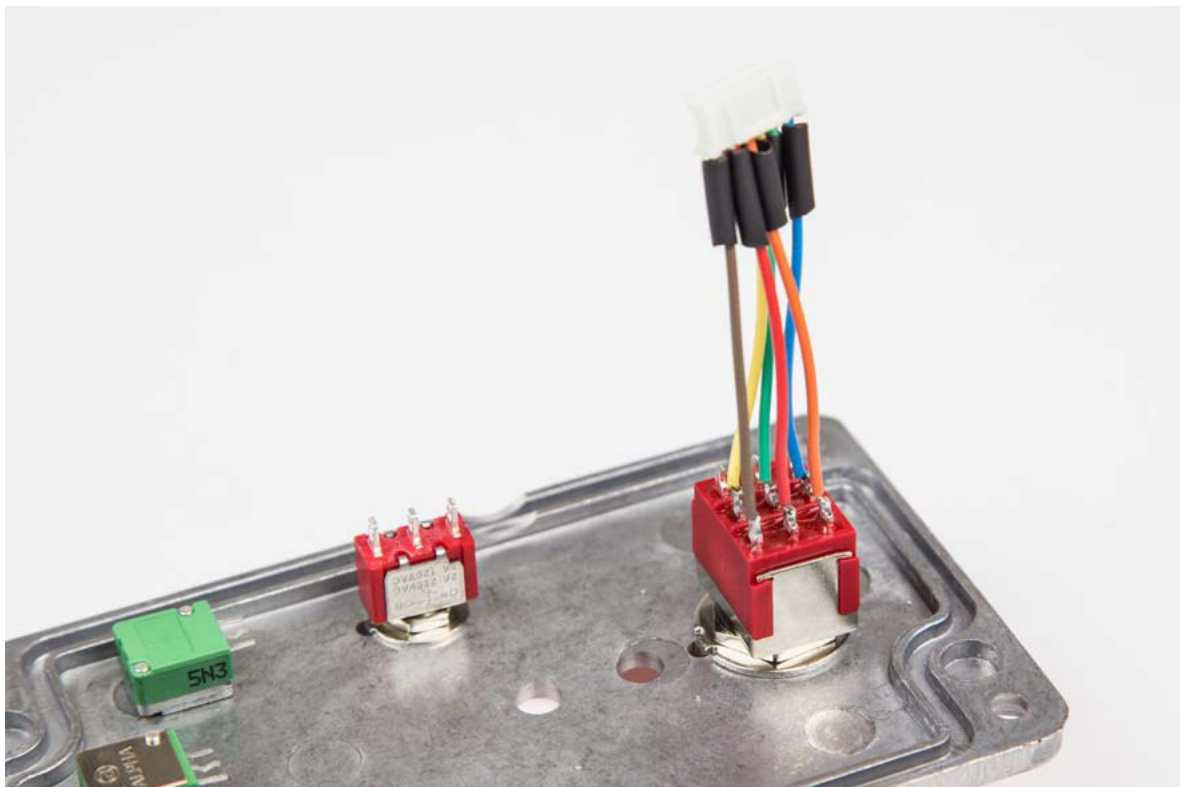
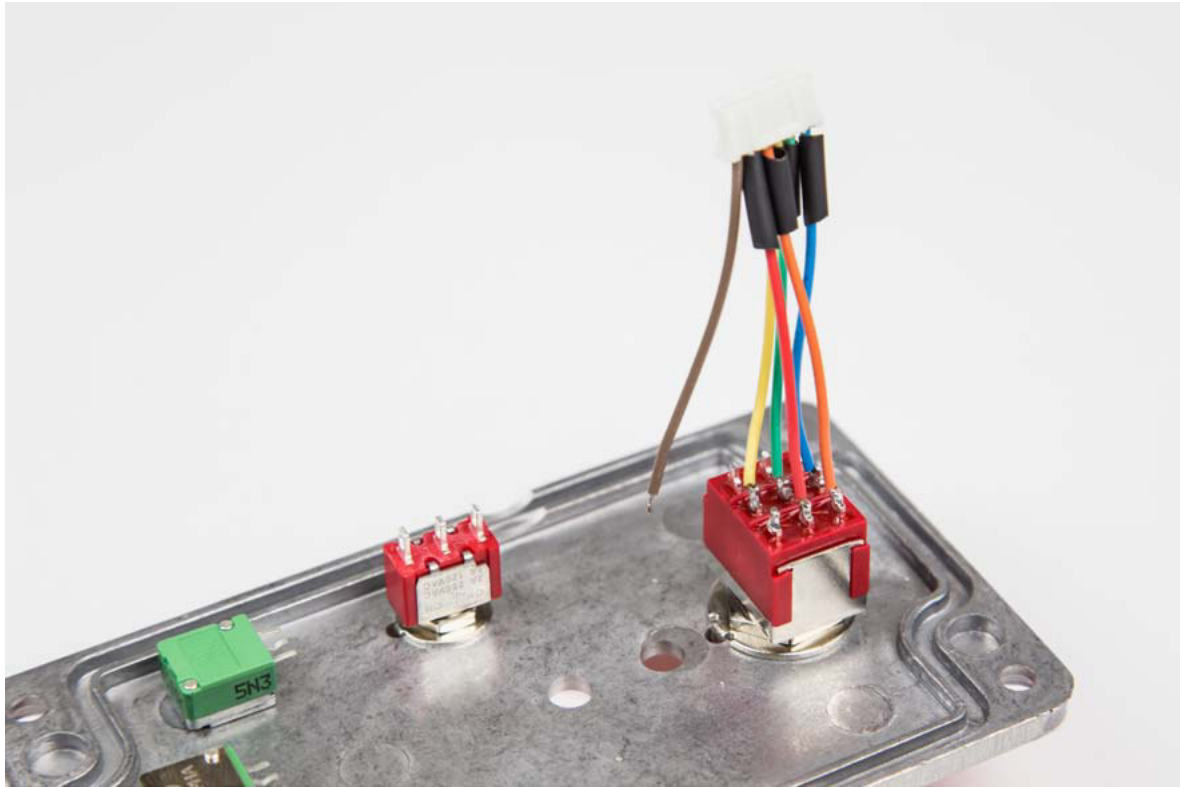


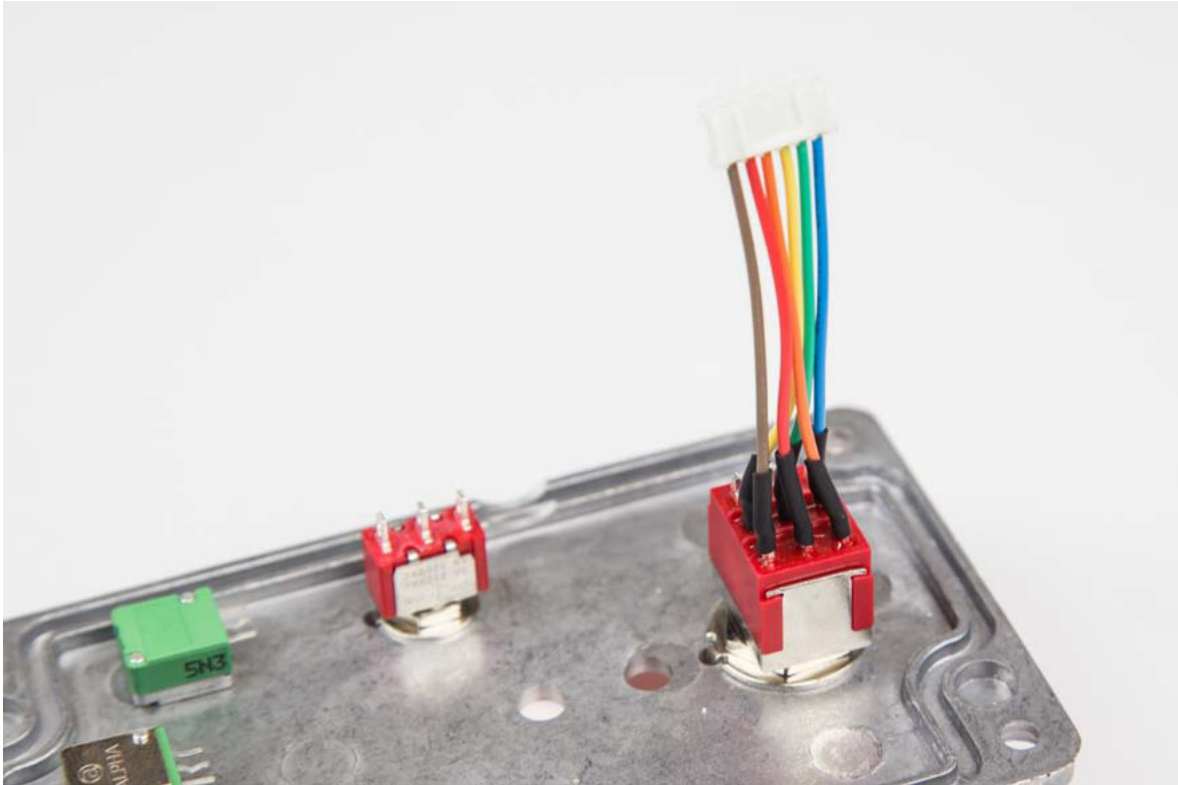


33. Solder the wires to the footswitch as shown below. **Do not forget the shrinktube pieces and note the colors.**

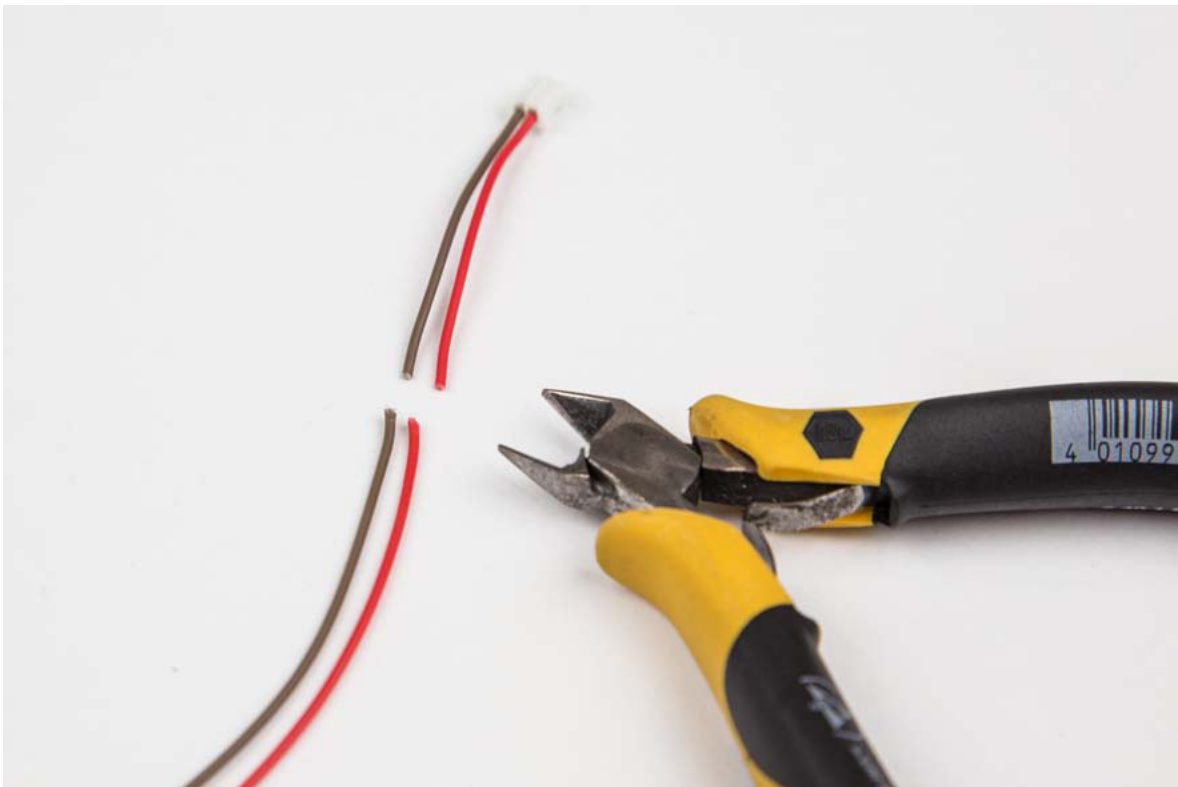








34. Trim the leads of the 2 wire female connector to 4.5 cm.





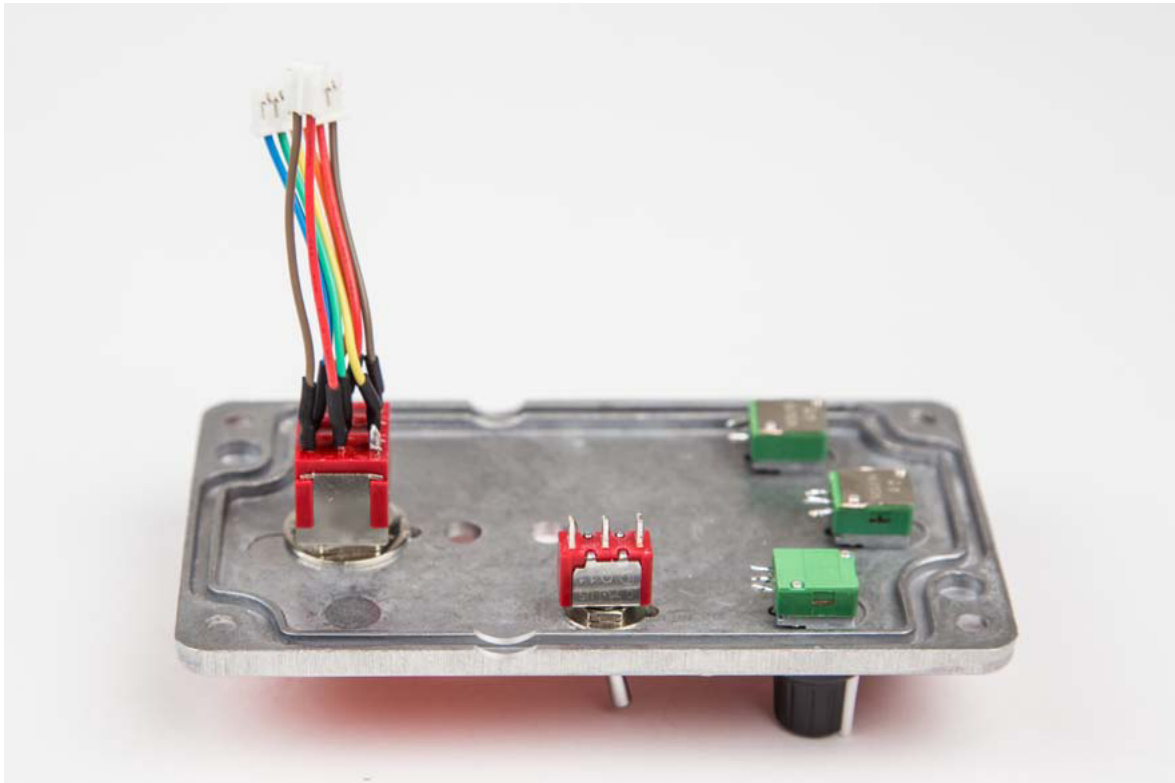
35. Strip and tin the wires.



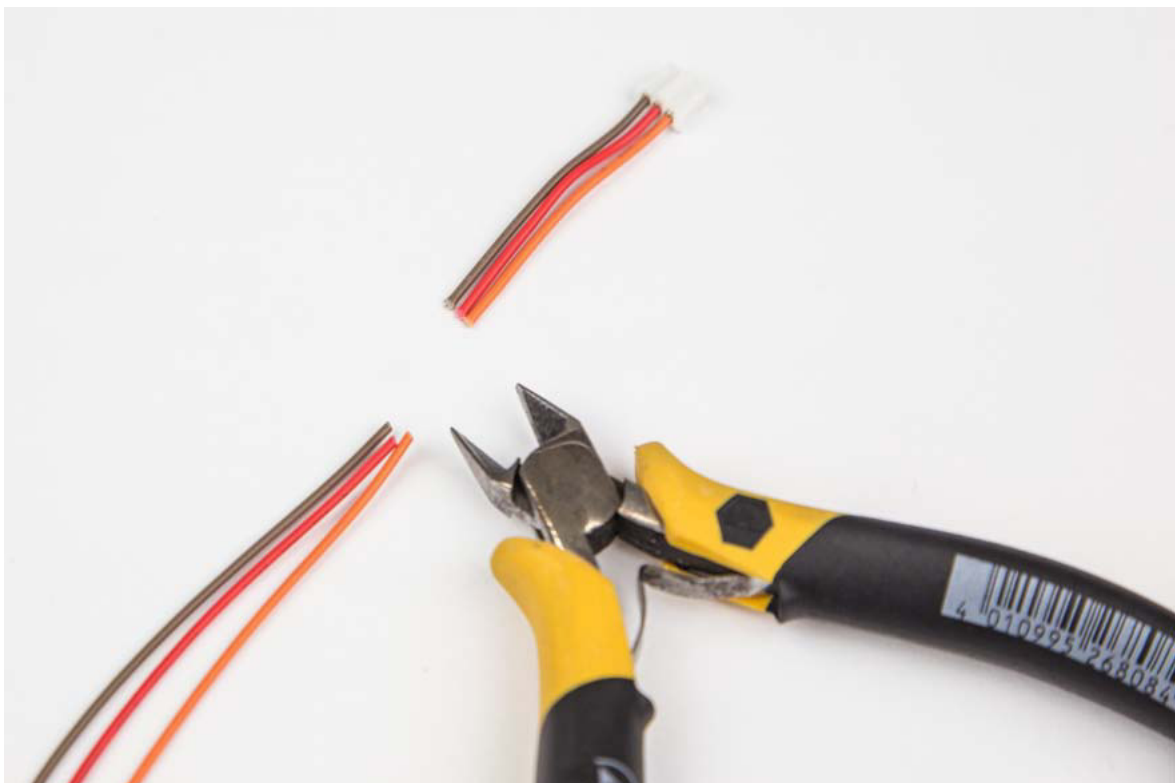
36. Cut 2 x 7 mm pieces of the 2.4 mm shrinktube.



37. Solder the wires to the footswitch as shown below. **Do not forget the shrinktube pieces and note the colors.**



38. Trim the leads of one of the 3 wire female connector to 4.5 cm.



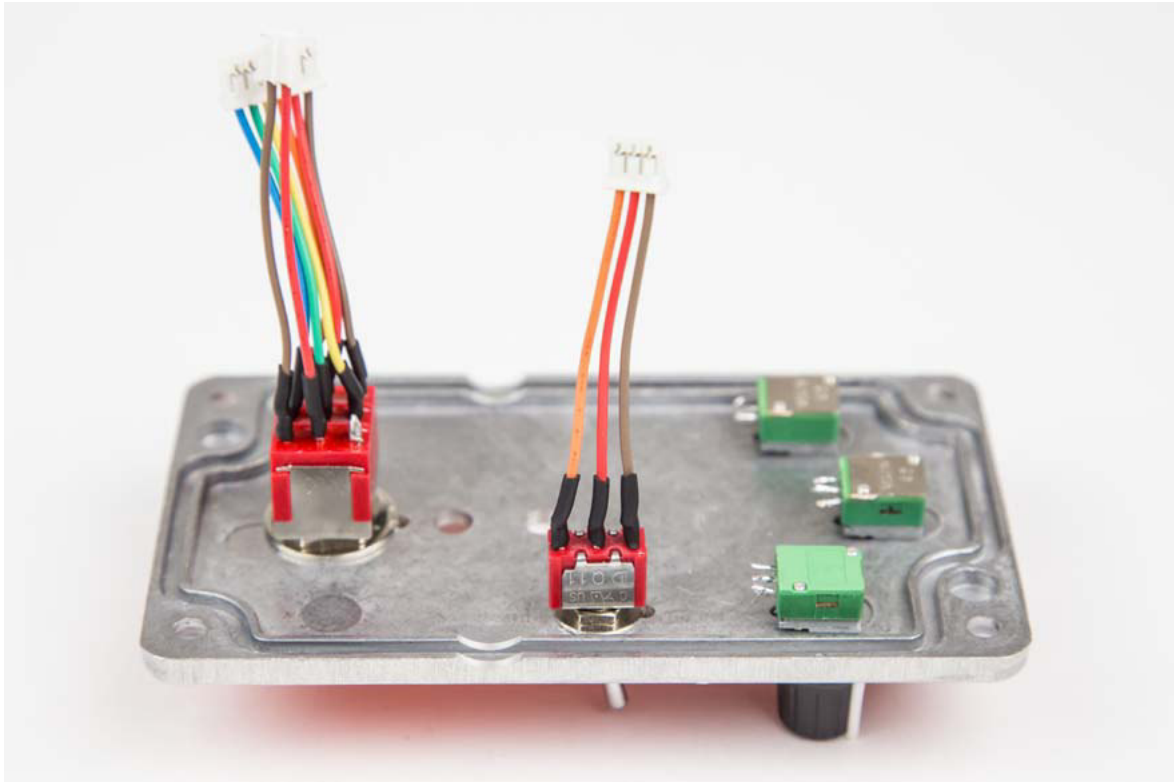
39. Strip and tin the wires.



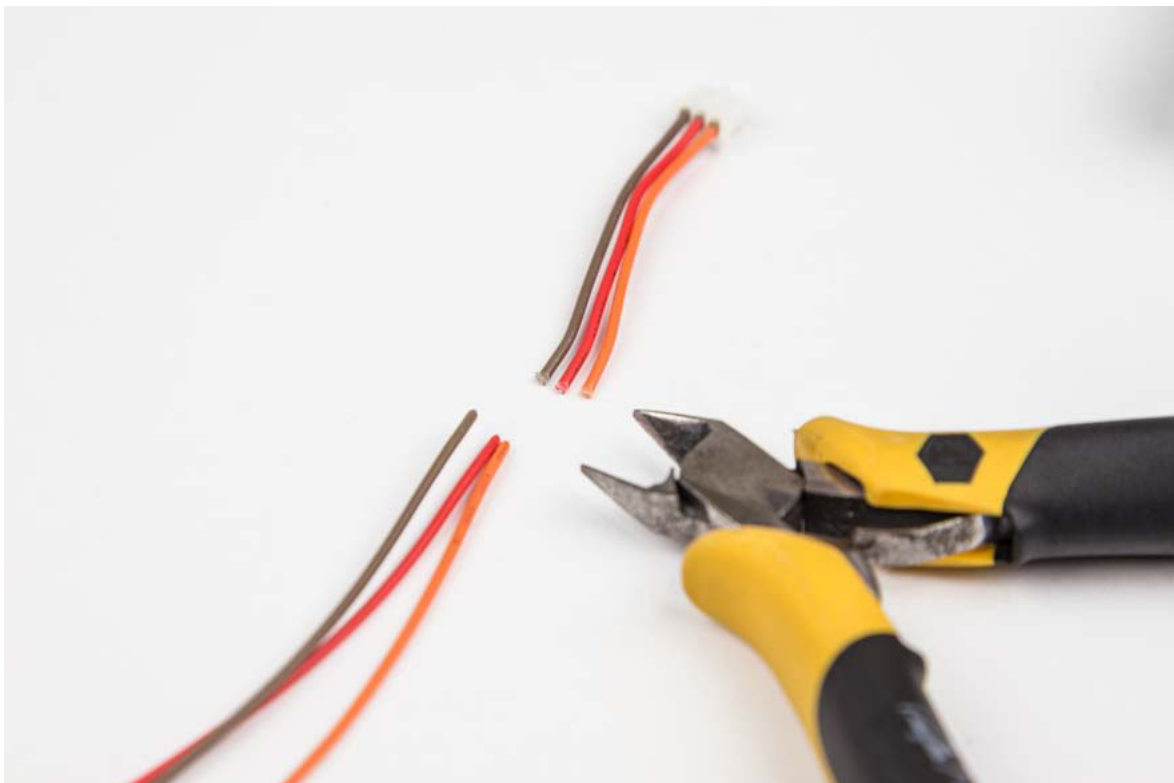
40. Cut 3 x 7 mm pieces of the 2.4 mm shrinktube.



41. Solder the wires to the selector switch as shown below. **Do not forget the shrinktube pieces and note the colors.**



42. Trim the leads of two of the 3 wire female connector to 5 cm.





43. Strip and tin the wires of both connectors.



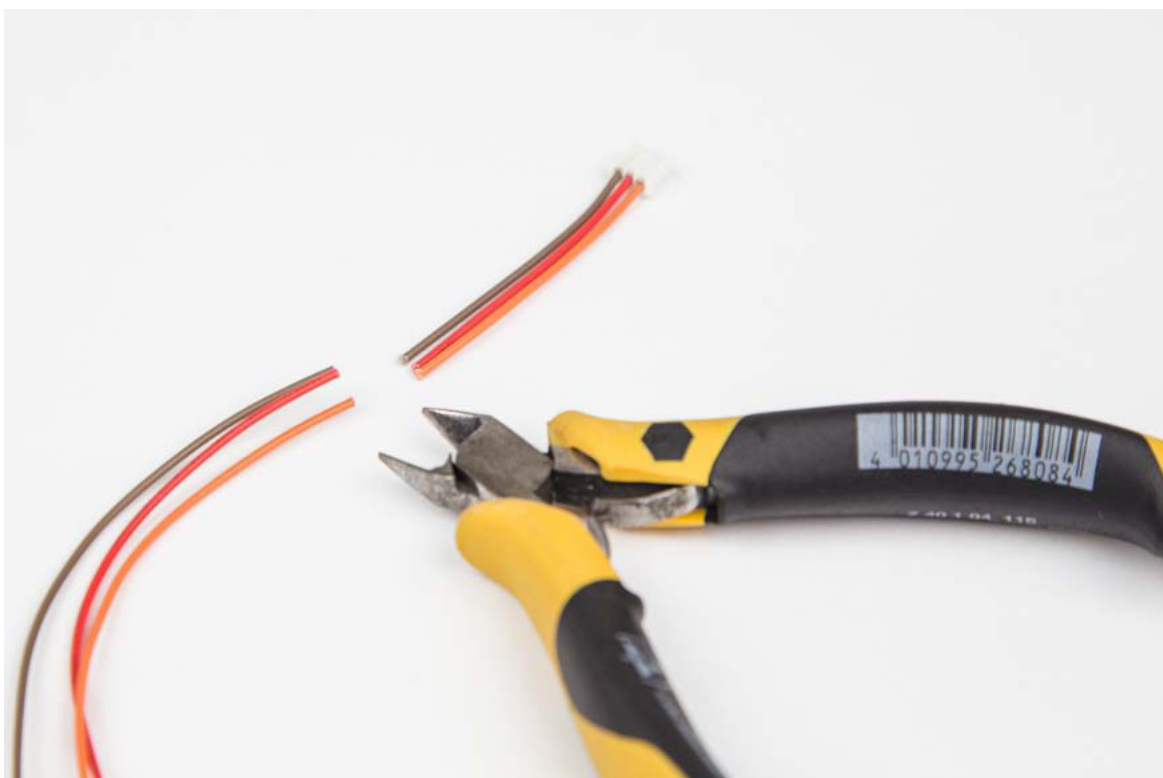
44. Cut 6 x 7 mm pieces of the 2.4 mm shrinktube.



45. Solder the wires to the 1M potentiometer as shown below. **Do not forget the shrinktube pieces and note the colors.**



46. Trim the leads of one of the 3 wire female connector to 5 cm.



47. Strip and tin the wires of the connector.



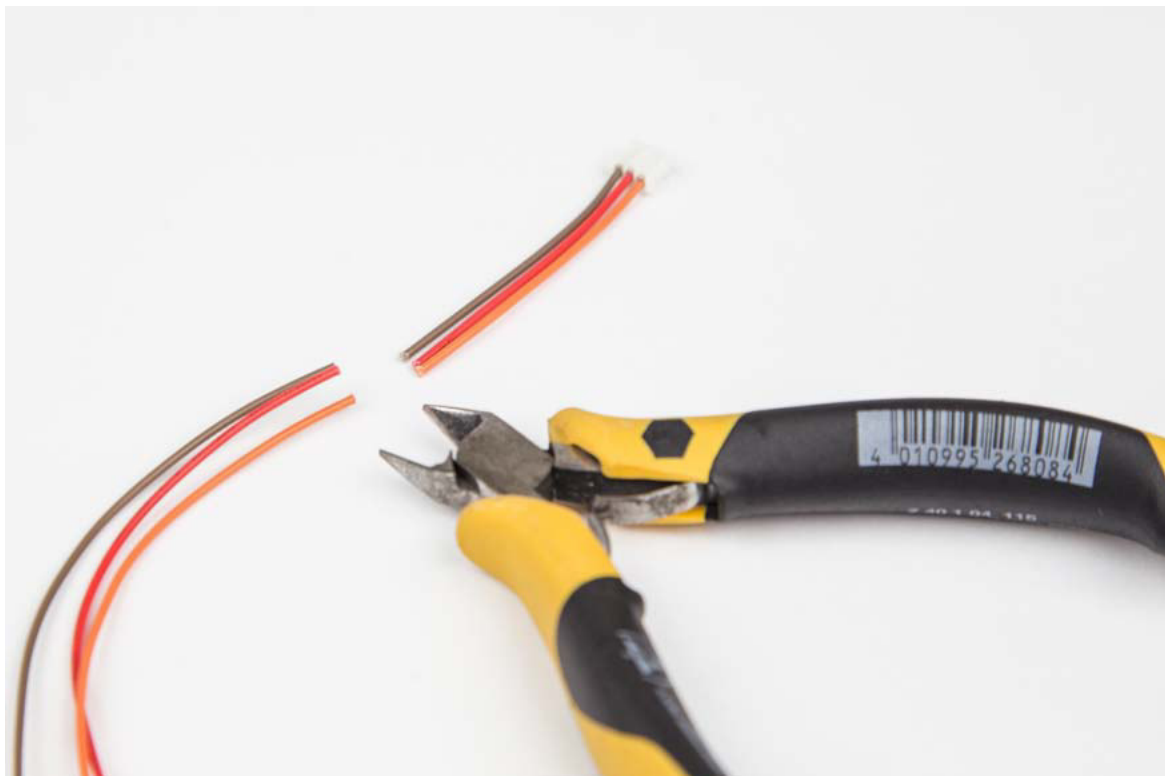
48. Cut 3 x 7 mm pieces of the 2.4 mm shrinktube.



49. Solder the wires to the 25K potentiometer as shown below. **Do not forget the shrinktube pieces and note the colors.**



50. Trim the leads of one of the 3 wire female connector to 5 cm.





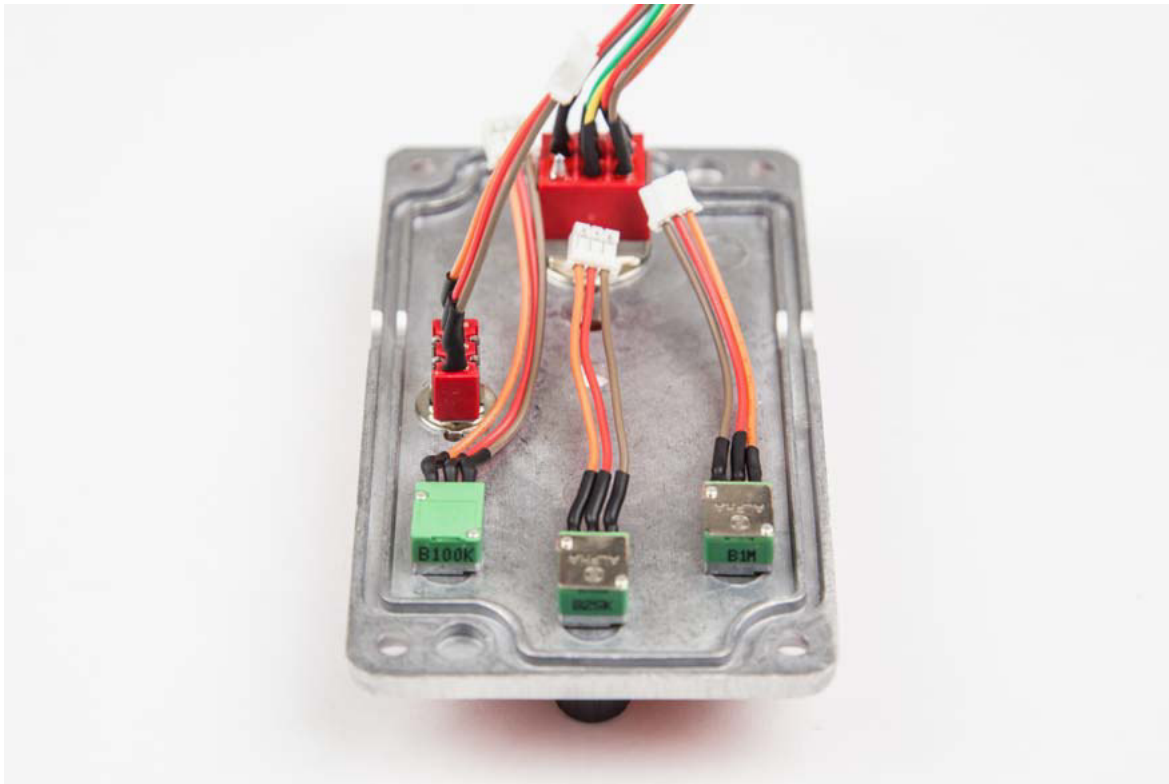
51. Strip and tin the wires of the connector.



52. Cut 3 x 7 mm pieces of the 2.4 mm shrinktube.



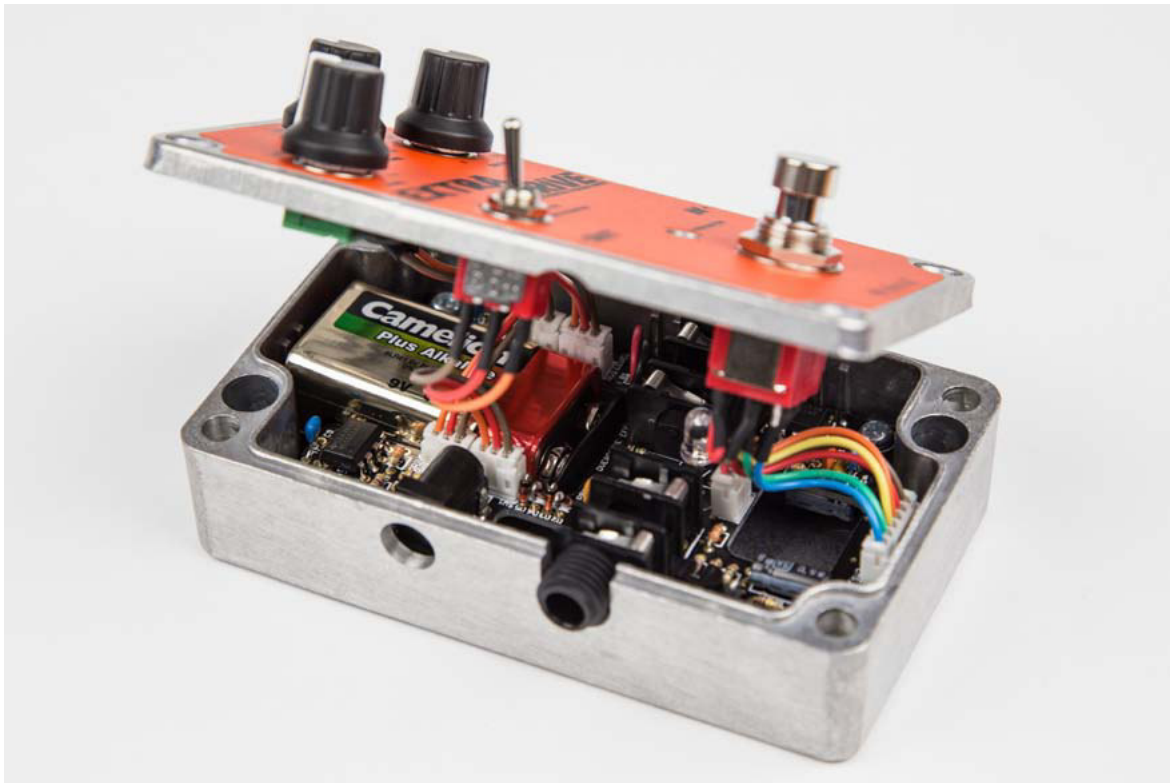
53. Solder the wires to the 100K potentiometer as shown below. **Do not forget the shrinktube pieces and note the colors.**



54. Slide the 3 knobs on top of the potentiometers.



55. Plug all the connectors onto their correct plug and close the enclosure.



velleman®



VellemanProjects



@Vel\_Projects

VELLEMAN nv - Legen Heirweg 33, Gavere (Belgium)  
vellemanprojects.com

ORDERCODE: K8111

REVISION: HK8111