

ASSEMBLY MANUAL

MAY 2016

THE TREMOR - TREMOLO EFFECT PEDAL
ORDERCODE: K8110



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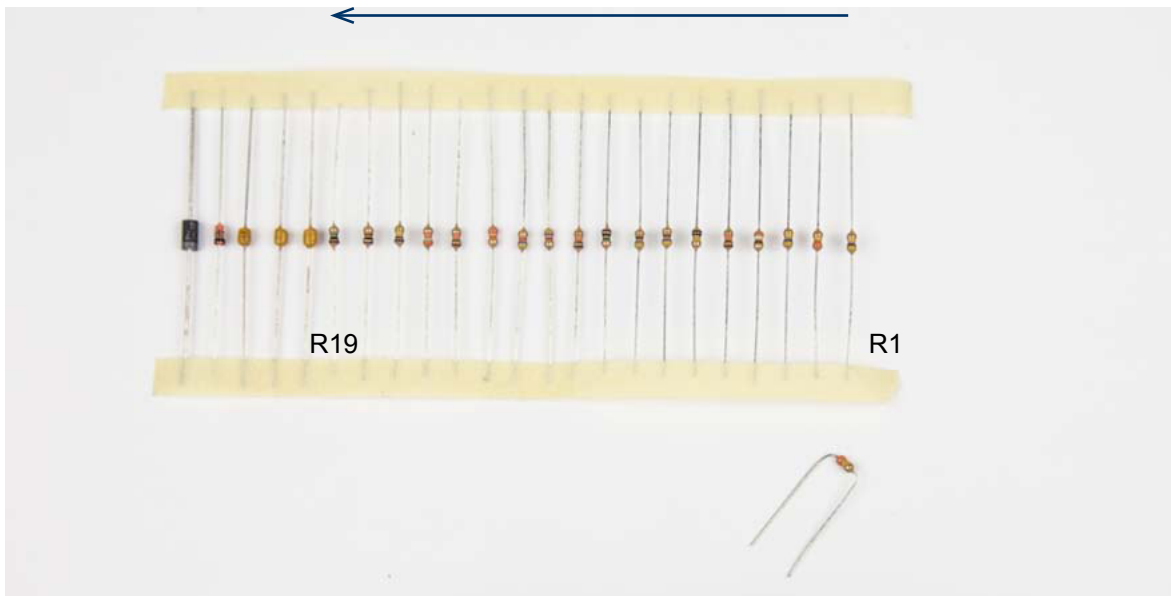
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Let's get started!



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

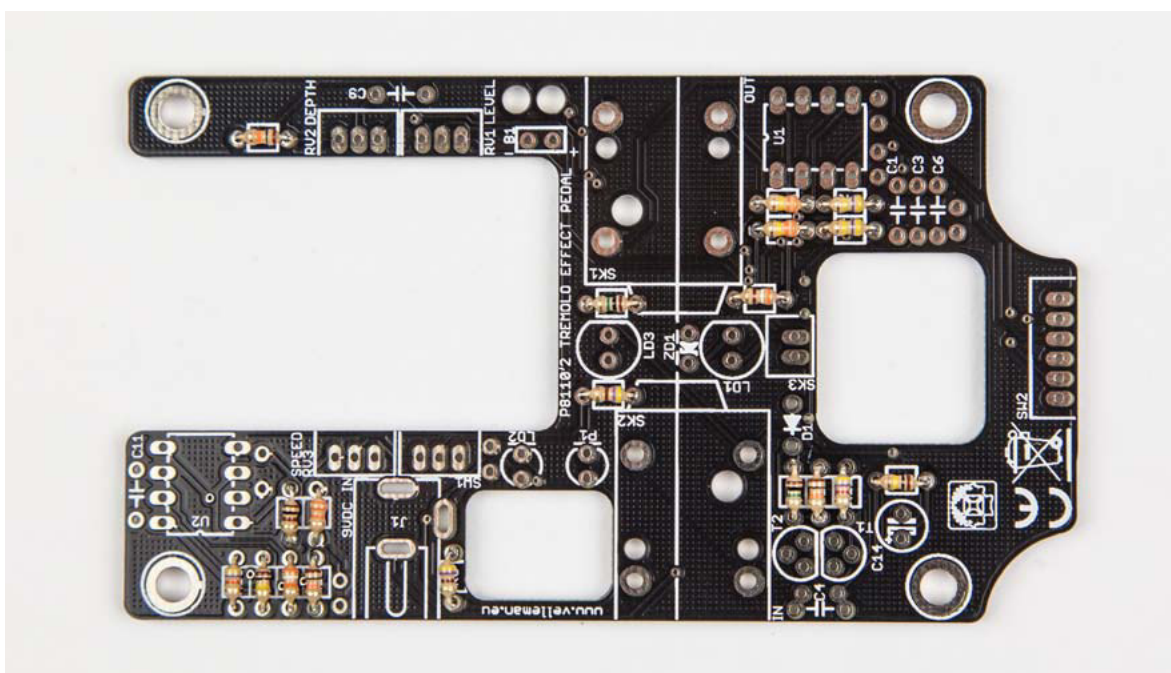
Resistors: R1 to R19



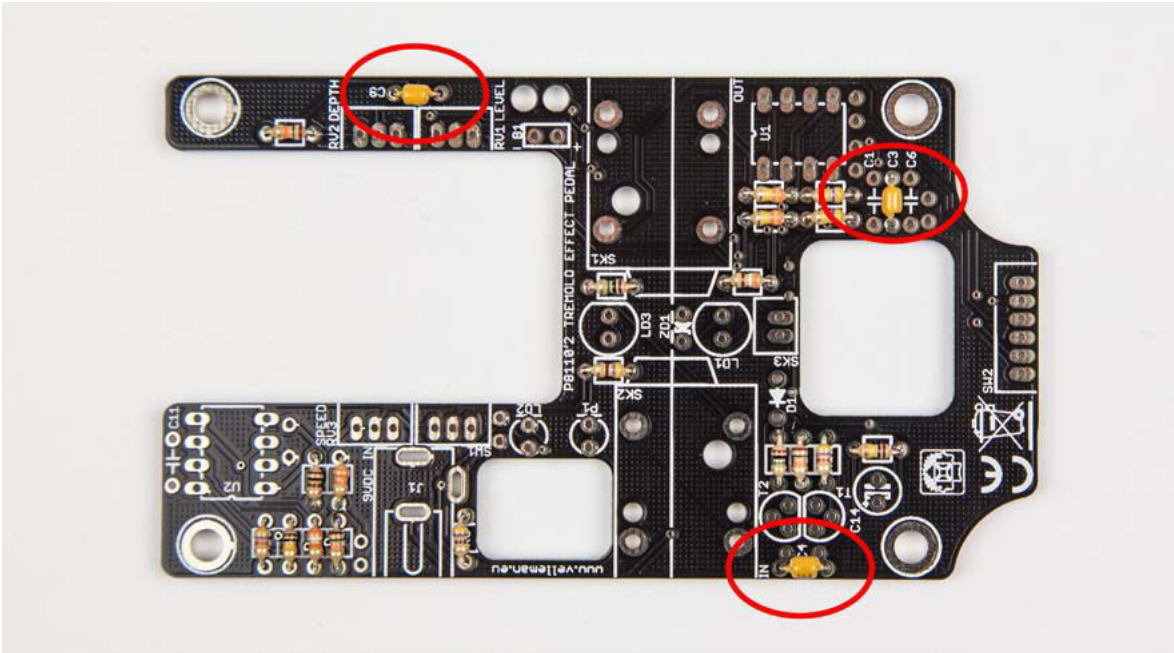
Tape order:

R1:330K
R2:470K
R3:330K
R4:470K
R5:390E
R6:10K
R7:100K
R8:470E
R9:470E
R10:1M
R11:10K

R12:4K7
R13:47K
R14:33K
R15:10K
R16:39K
R17:100K
R18:100E
R19:1M
C3:104
C4:104
C9:104
ZD1:3V3
D1:1N4007

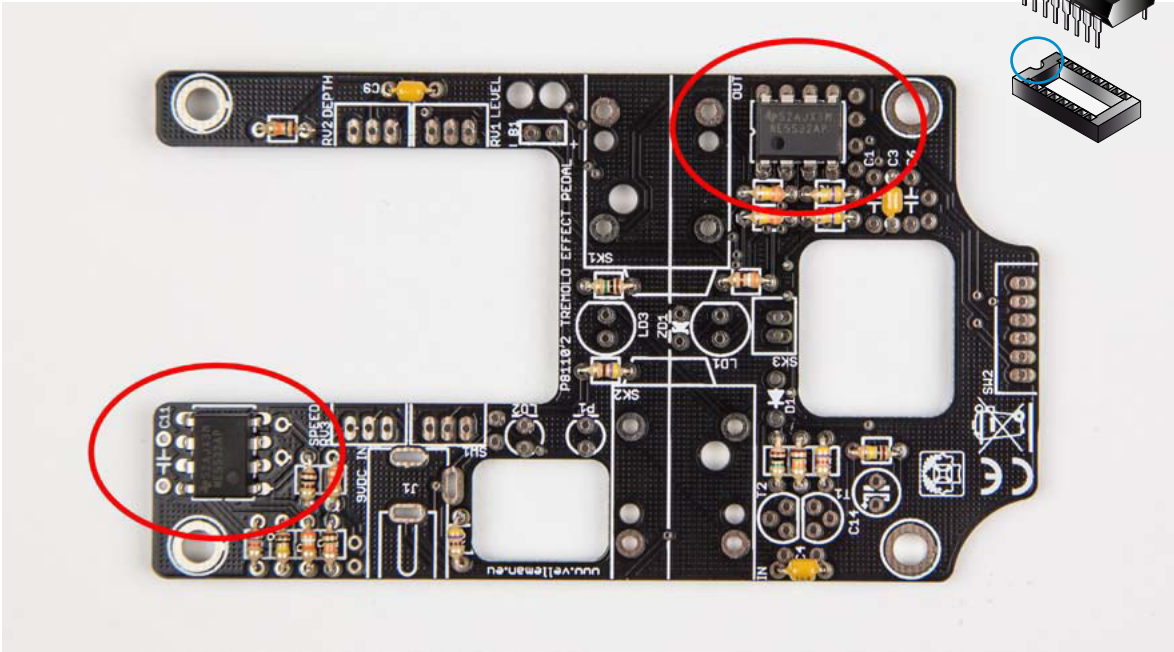


3. 100 µF axial capacitors: C3, C4 and C9

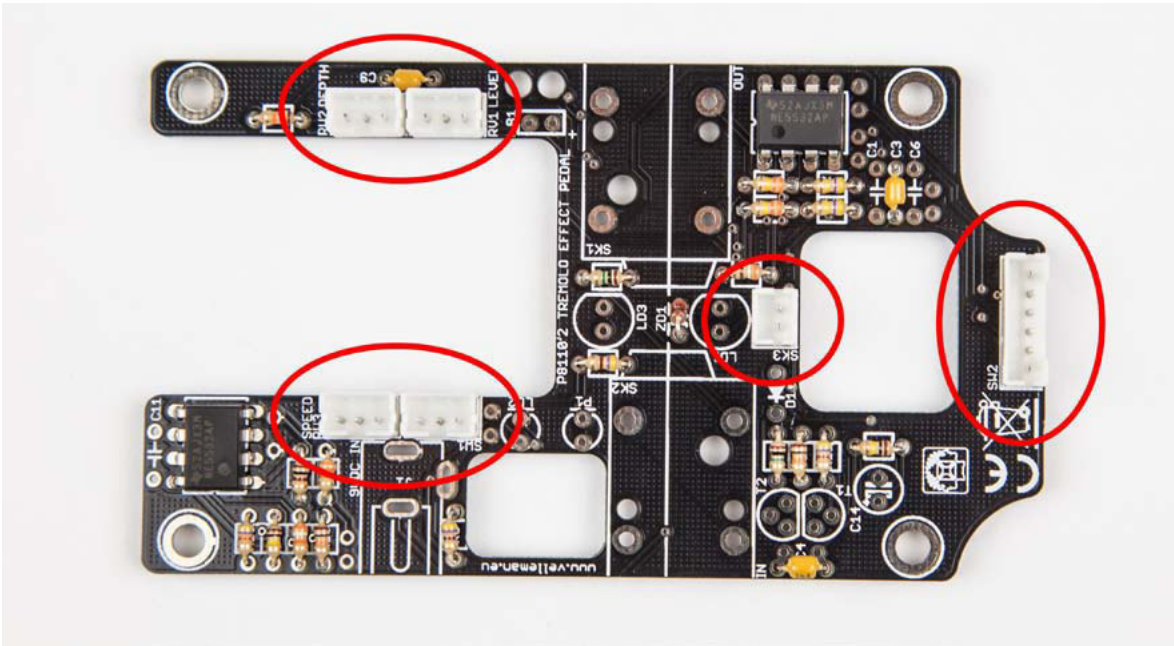


4. 2 x IC: U1 and U2

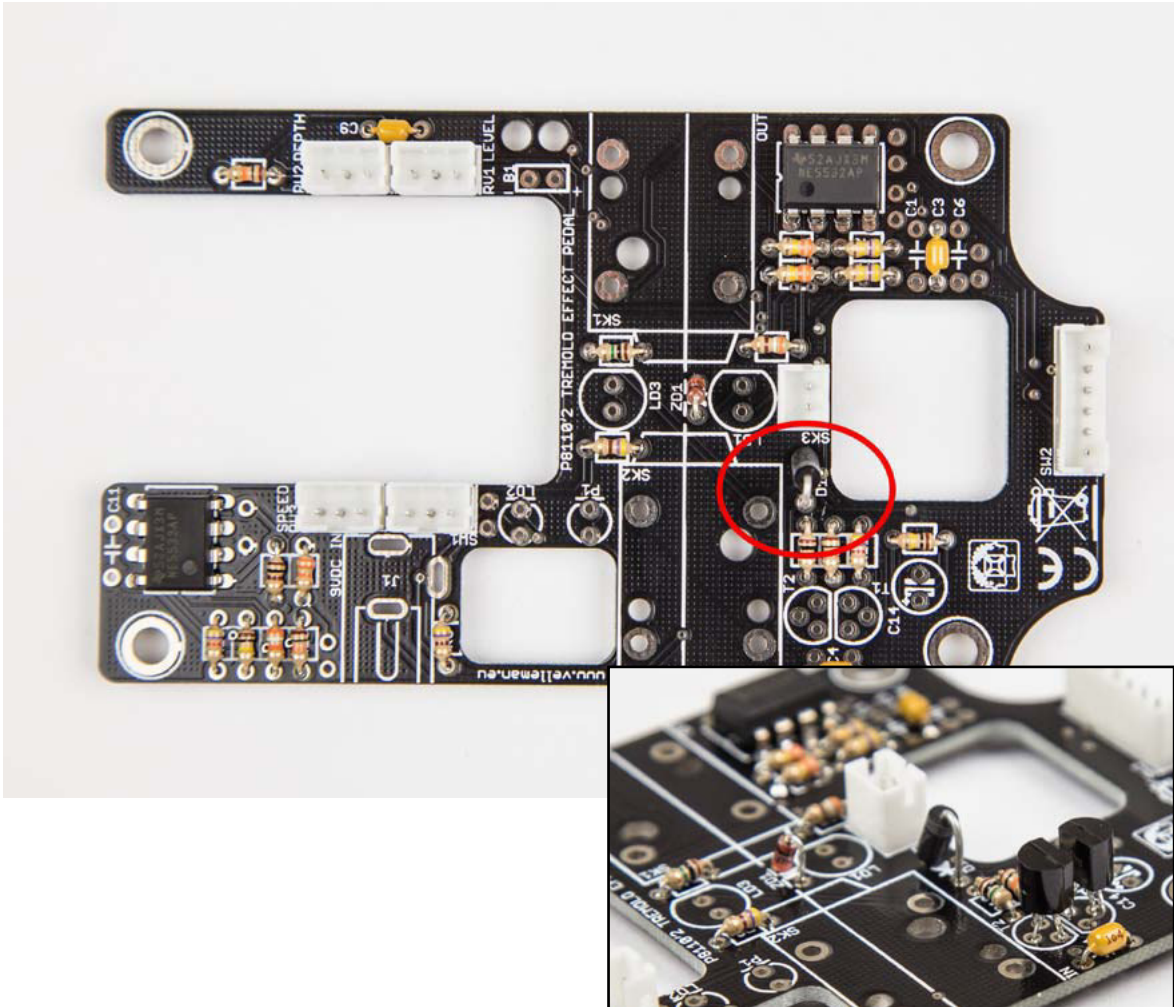
Note the orientation of the IC's!



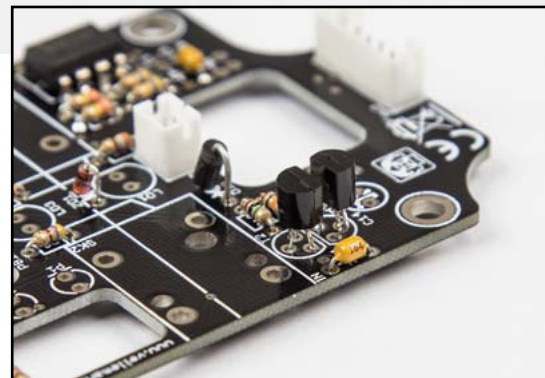
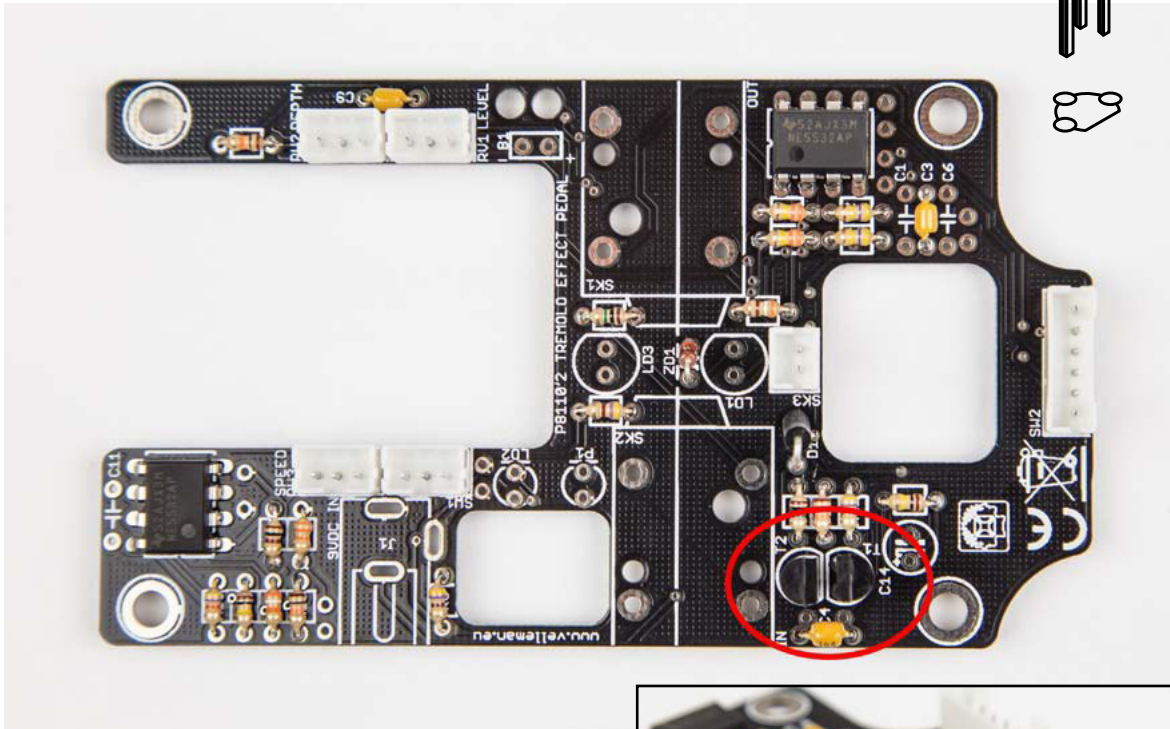
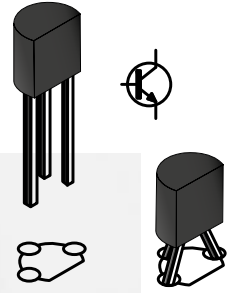
6. Male connectors: SW1; SW2, RV1; RV2 and RV3



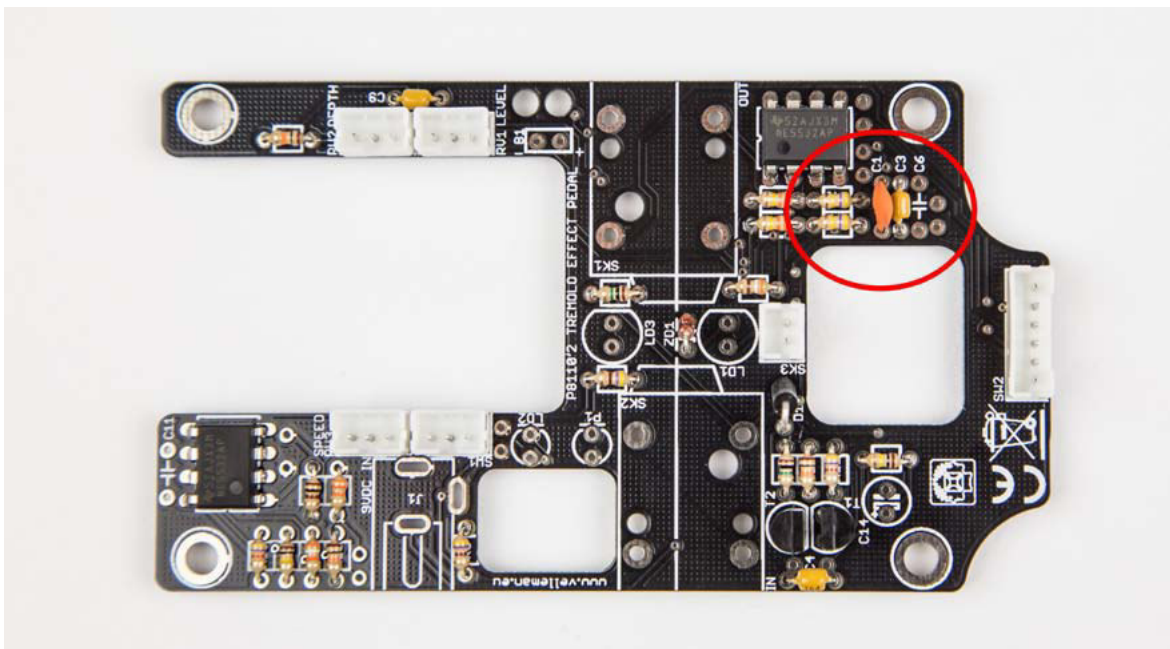
7. Diode: D1



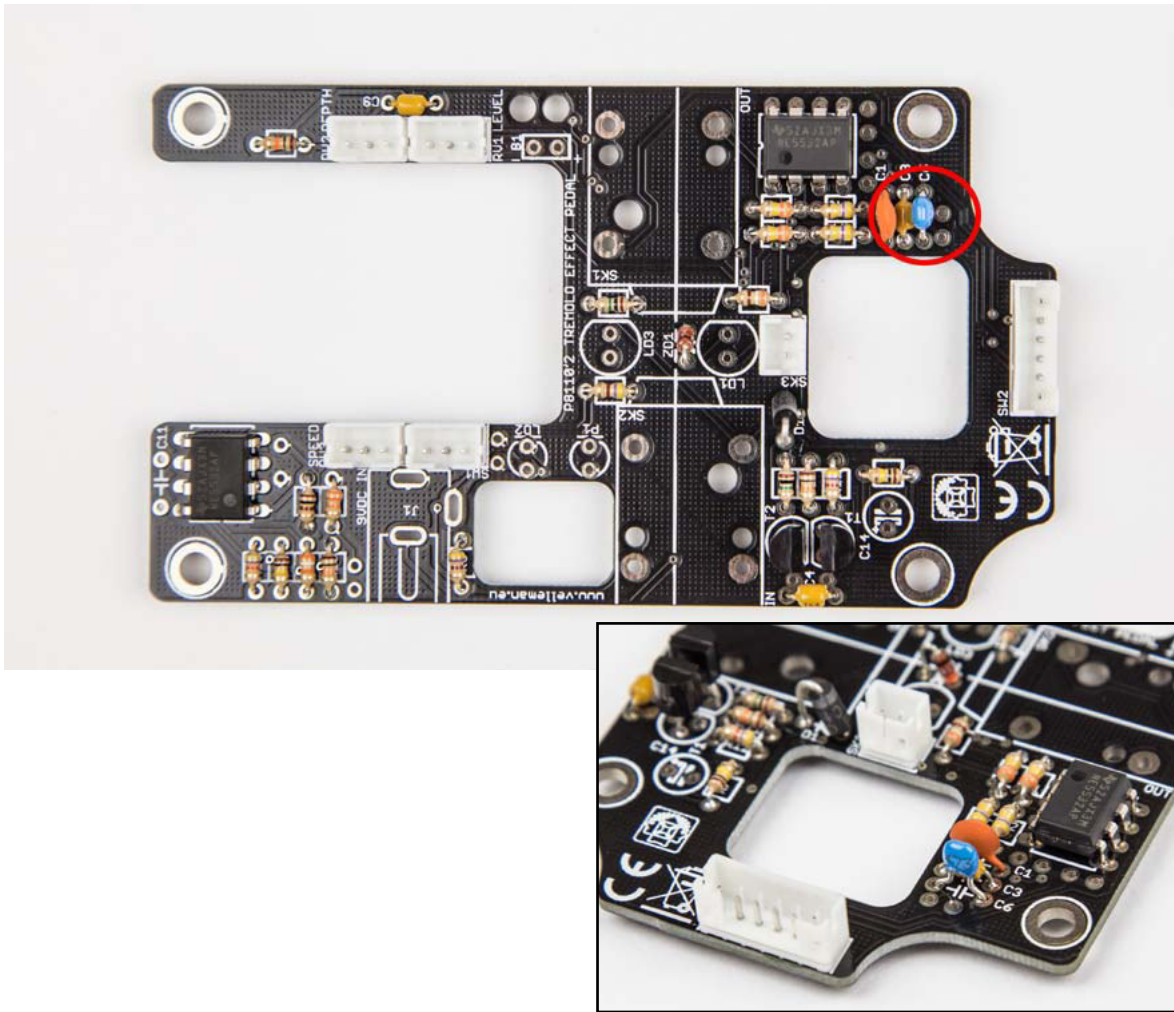
8. **BC547: T1**
BC557: T2



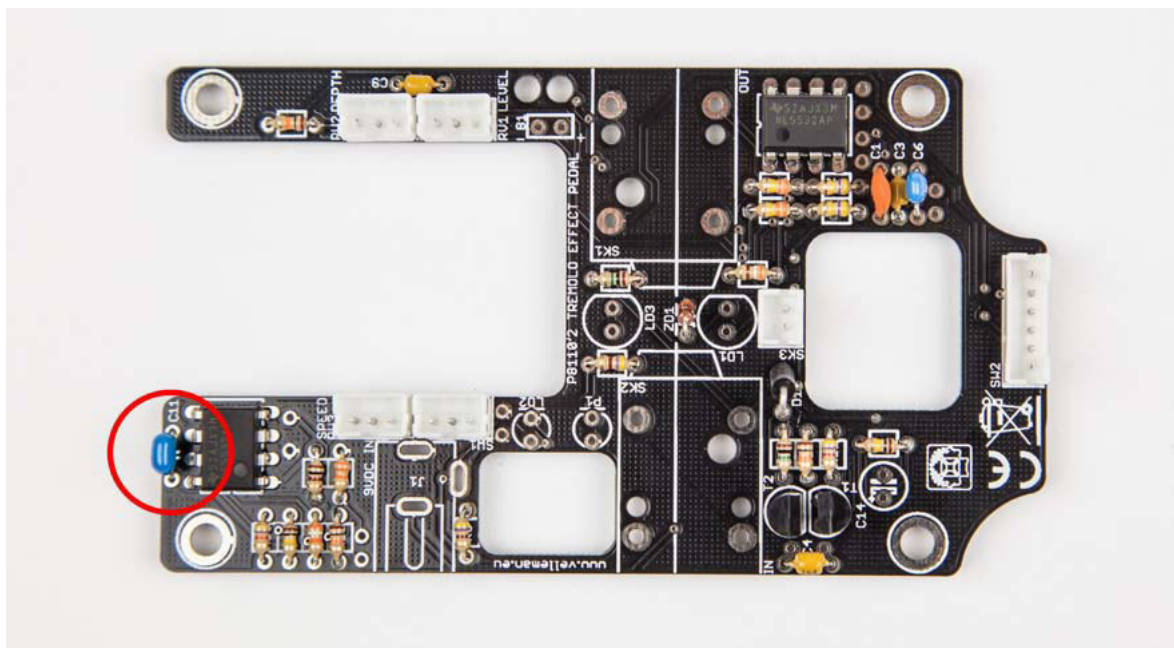
9. **Capacitor 471: C1**



10. Capacitor 473: C6



11. Capacitor 105: C11



12. Follow these steps:

A. Bend the pins of the 3mm white LED as shown in the pictures below.



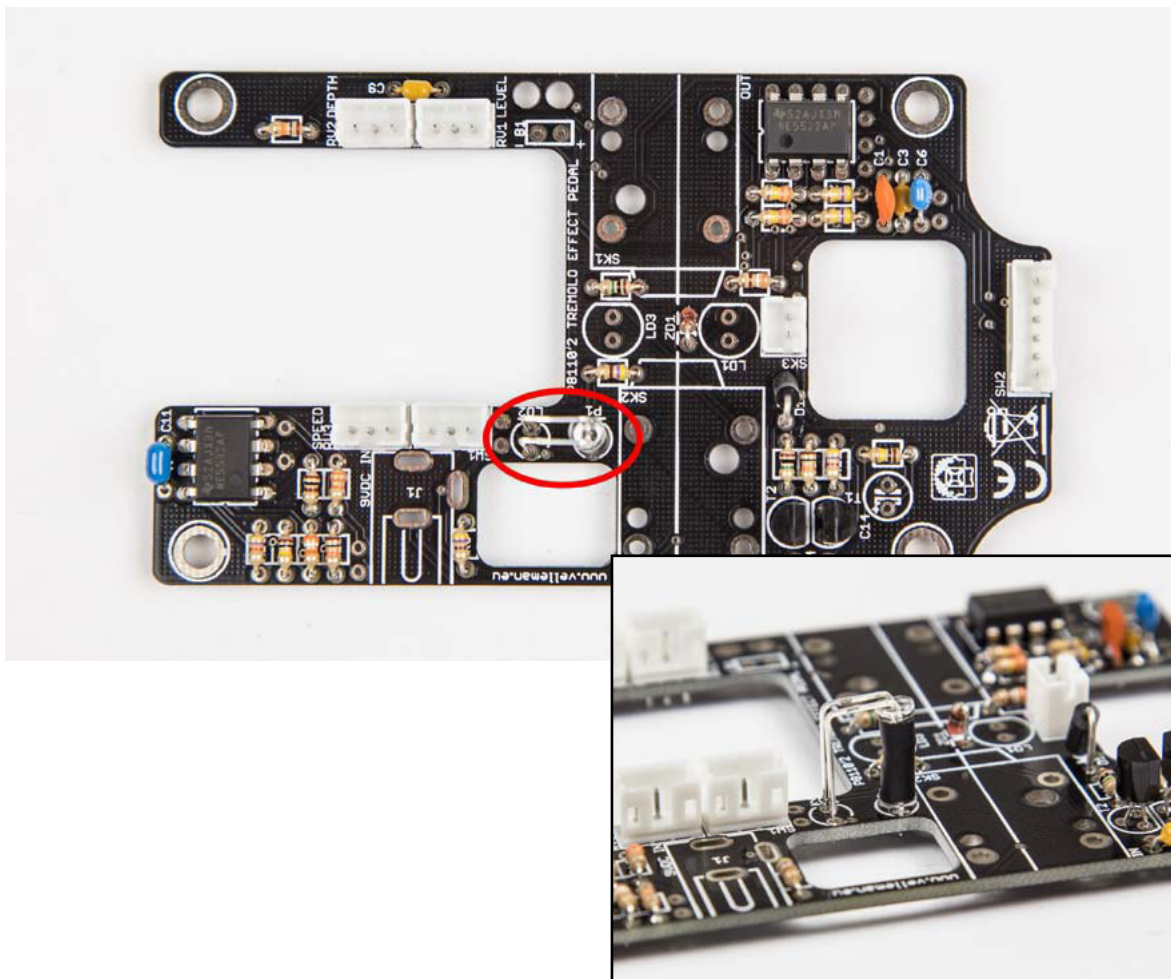
B. Cut a 7mm piece of 2.4mm shrinktube.



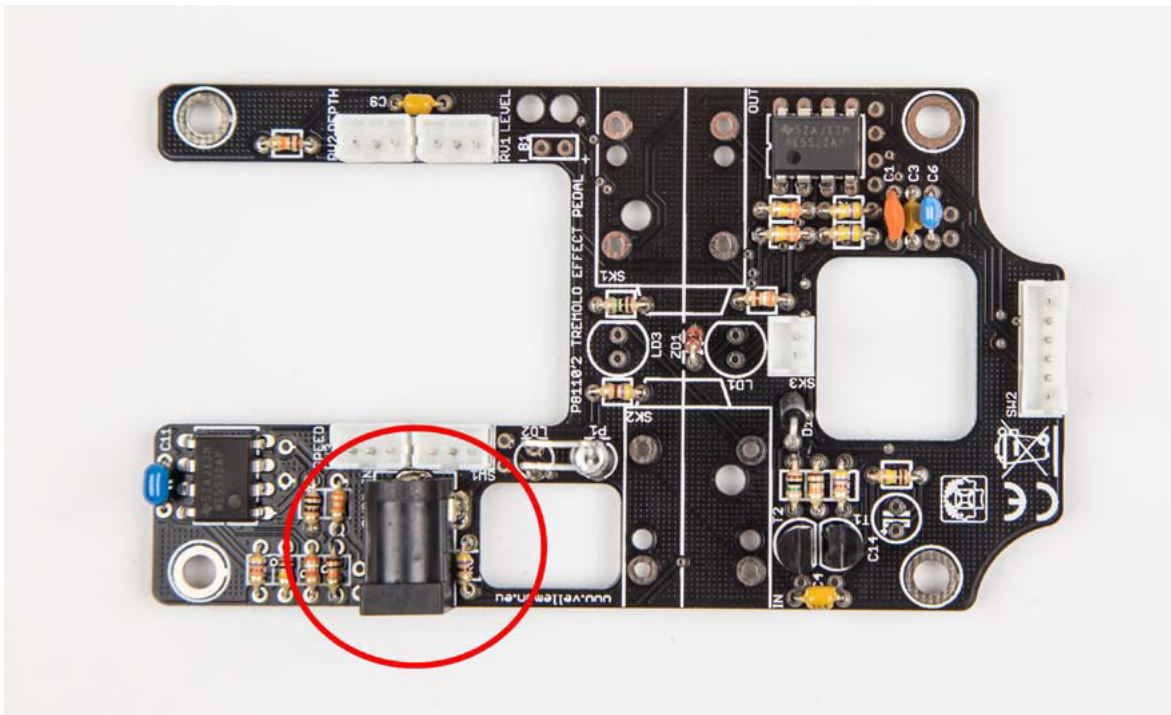
C. Slide both the 3 mm white LED and the 3 mm photo transistor in the shrink tube as shown below. No need to actually shrink the tube. This will act as the lightbridge.



D. Place and solder this assembly in LD2 and P1. **Note the orientation of both cathode pins!**

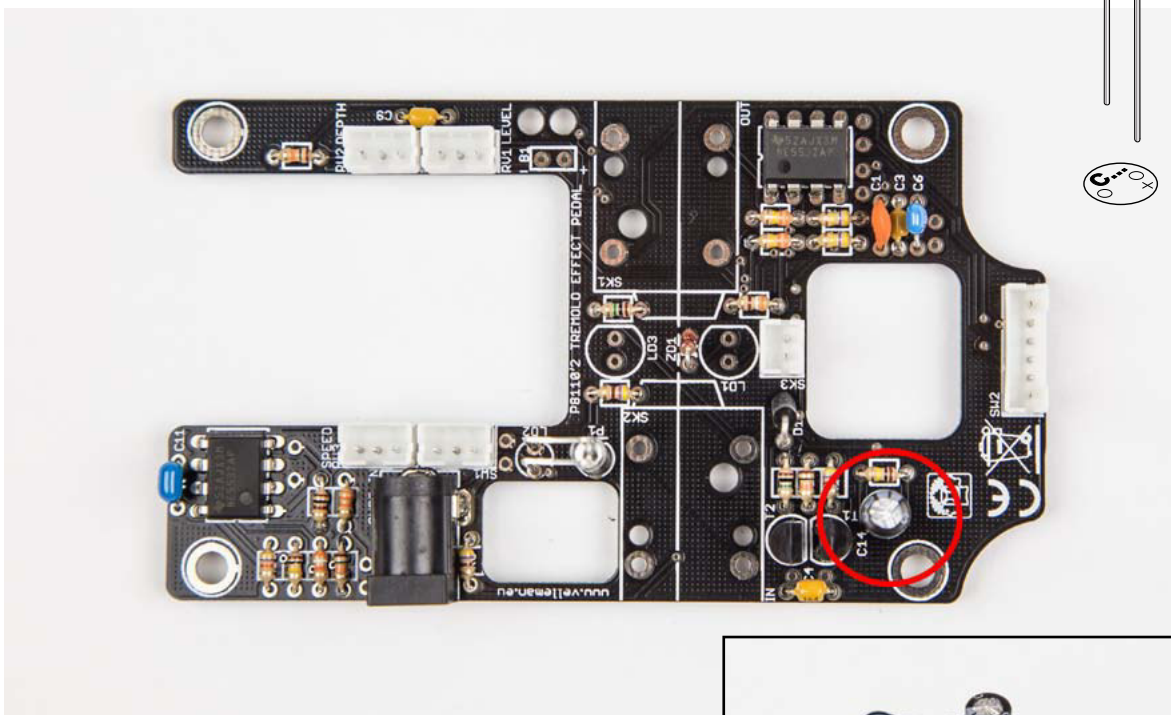


13. DC jack: J1

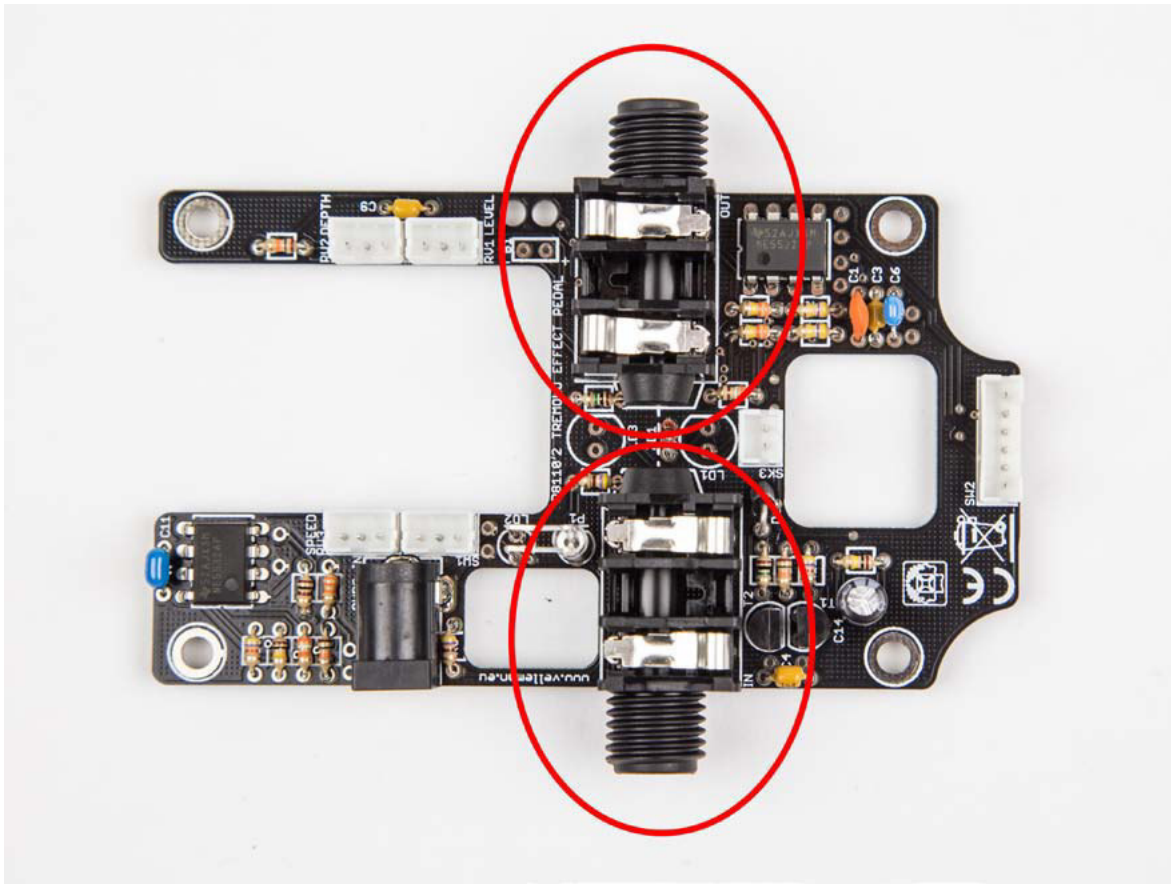


14. Capacitor 10 μ F: C14

Note the polarity!



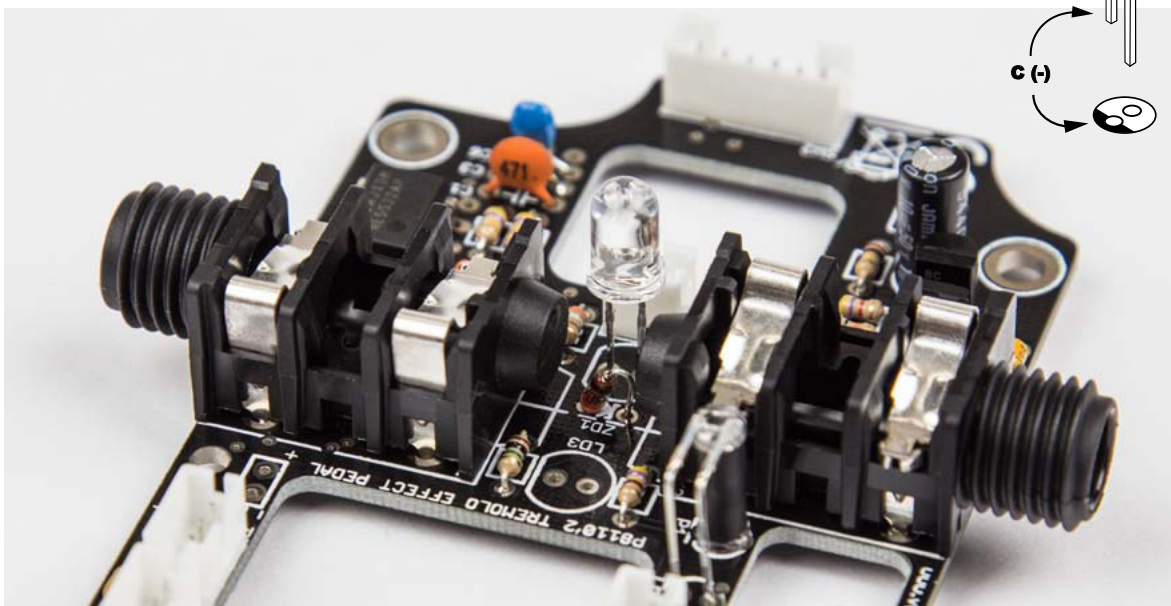
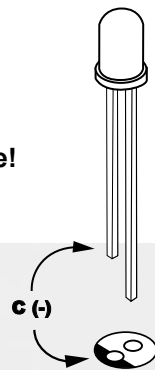
15. 2 x Audio jack: SK1 and SK2

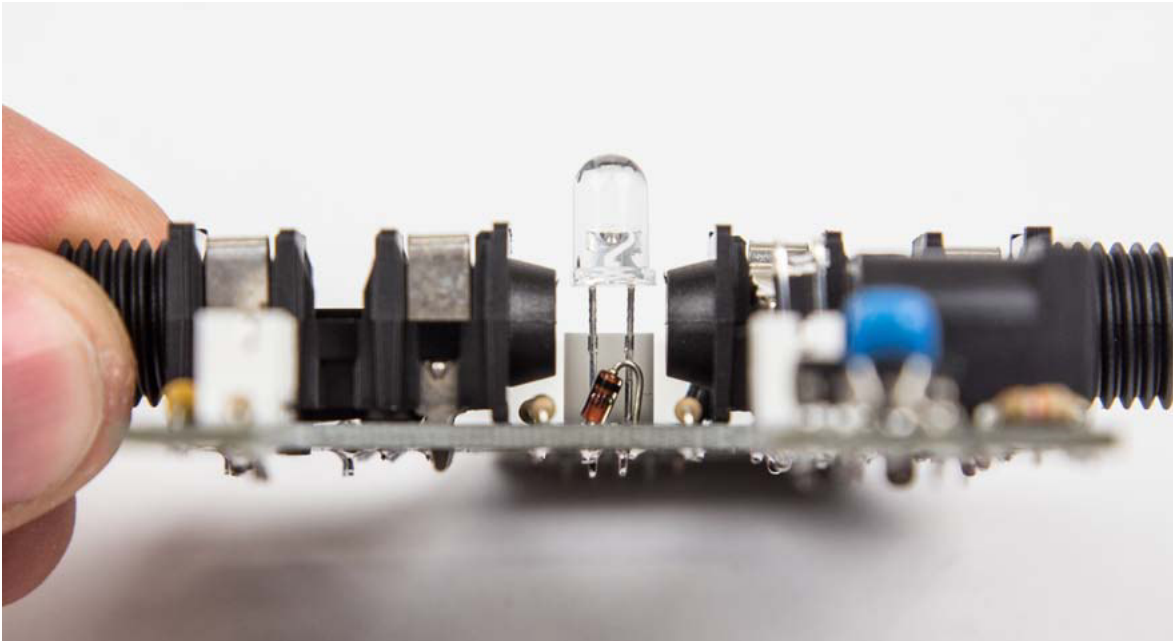


16. 5 mm blue LED: LD1 (do a diode test with a multimeter to find the blue LED)

Note the polarity!

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

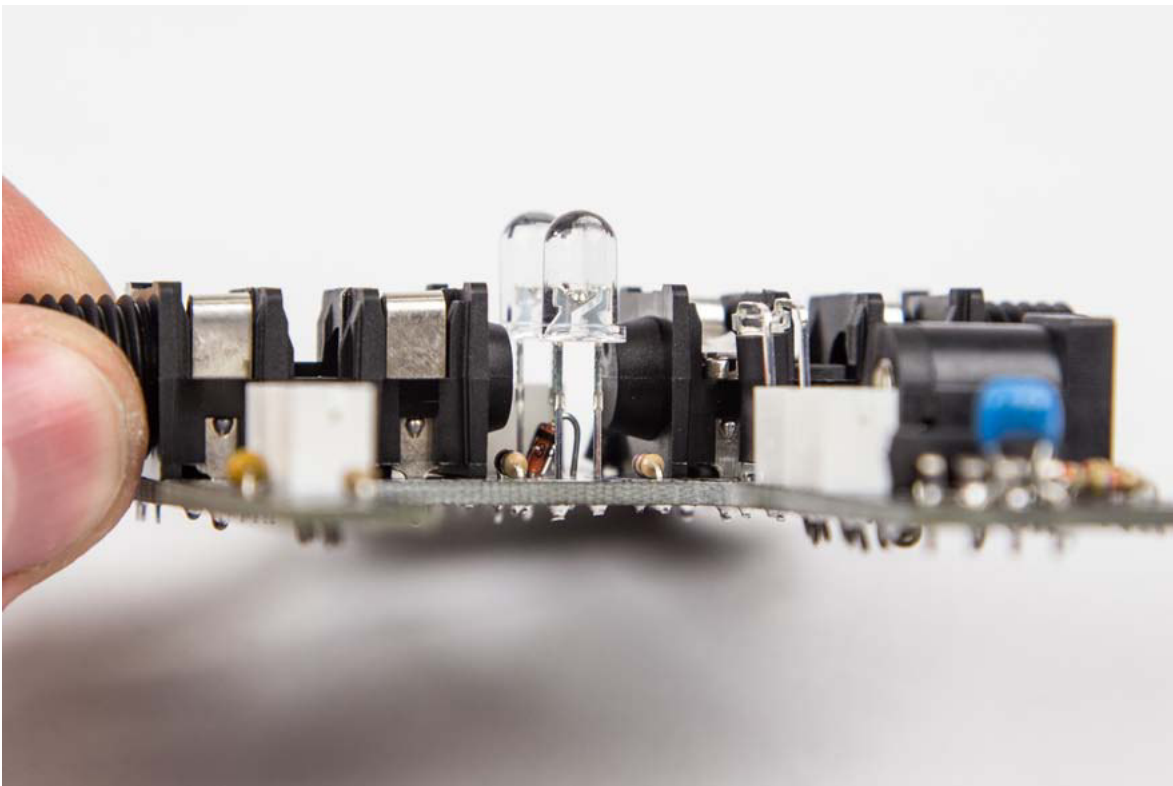




17. **5 mm white LED: LD3** (do a diode test with a multimeter to find the white LED)

Note the polarity!

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

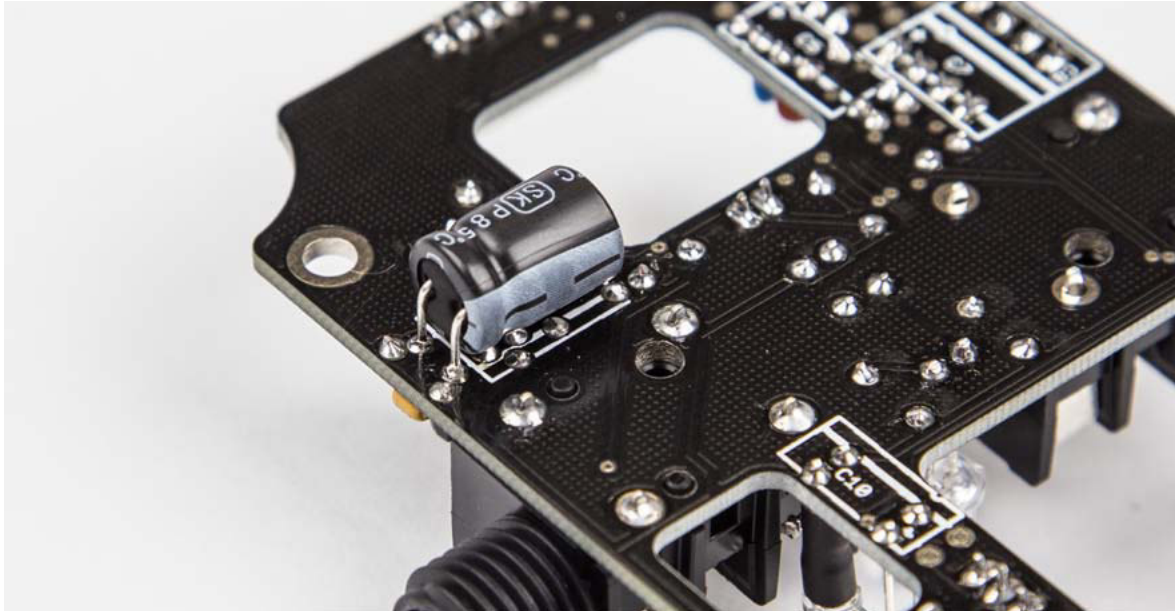


Turn the PCB around!

18. Capacitor 220 μ F: C2

Note the polarity!

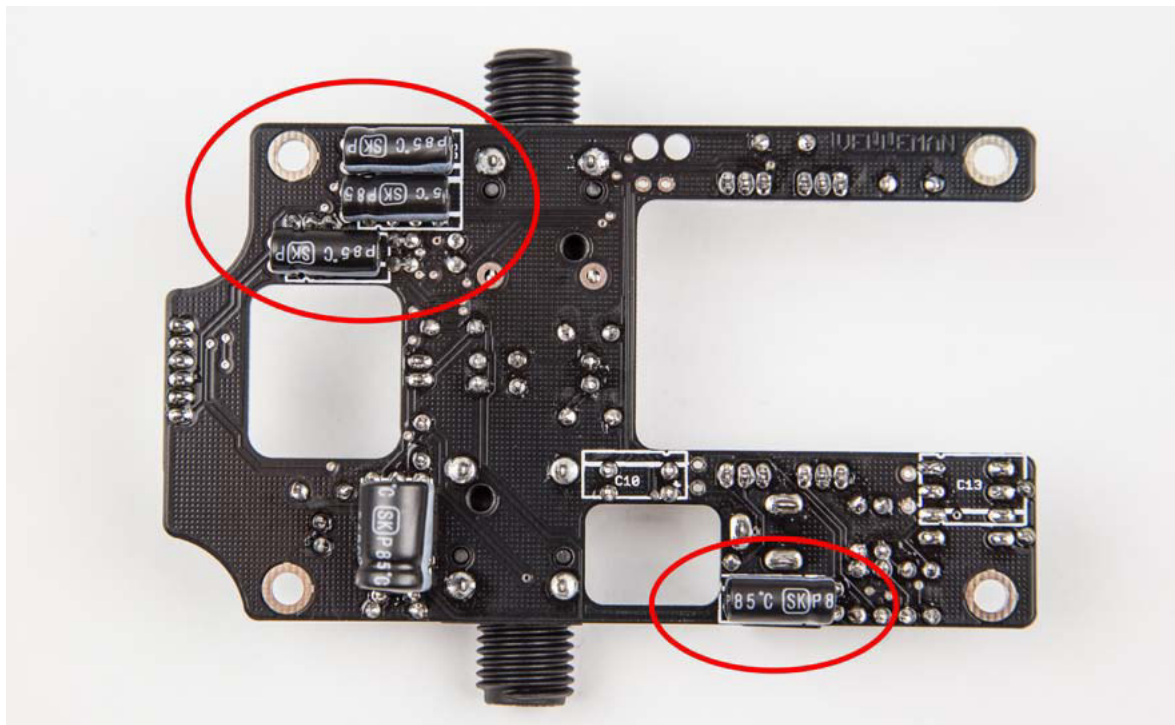
Solder on the bottom side of the PCB!



18. Capacitor 10 μ F: C5, C7, C8, C12

Note the polarity!

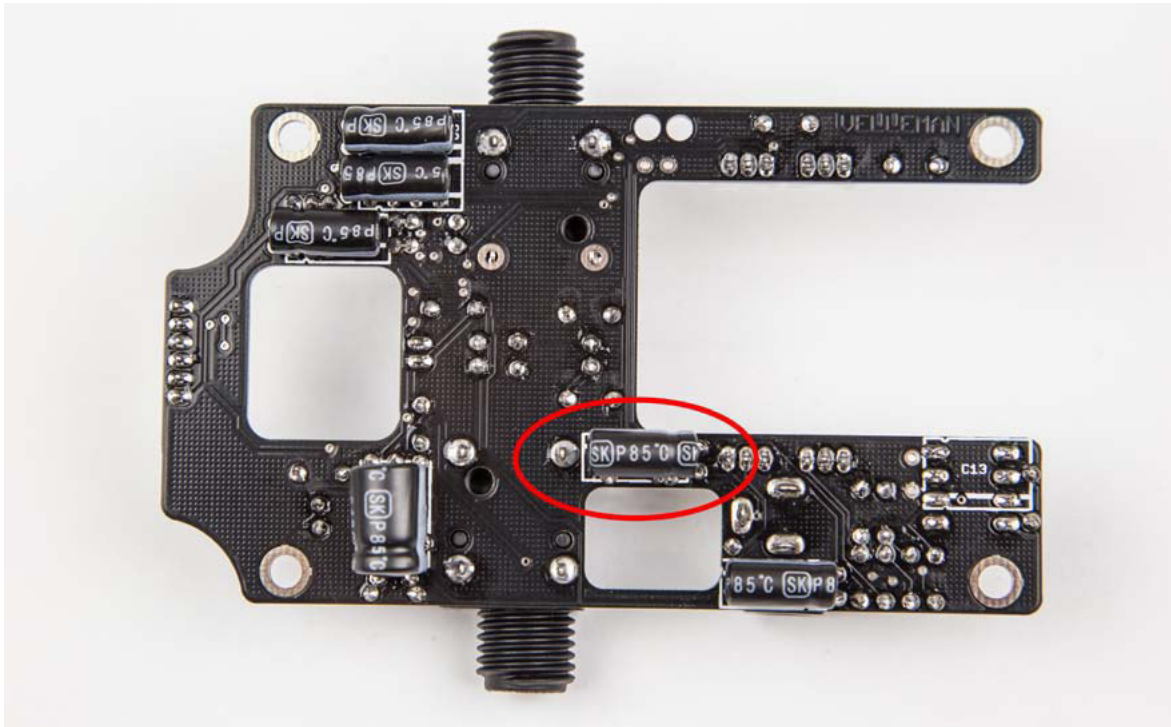
Solder on the bottom side of the PCB!



20. Capacitor 47 μF : C10

Note the polarity!

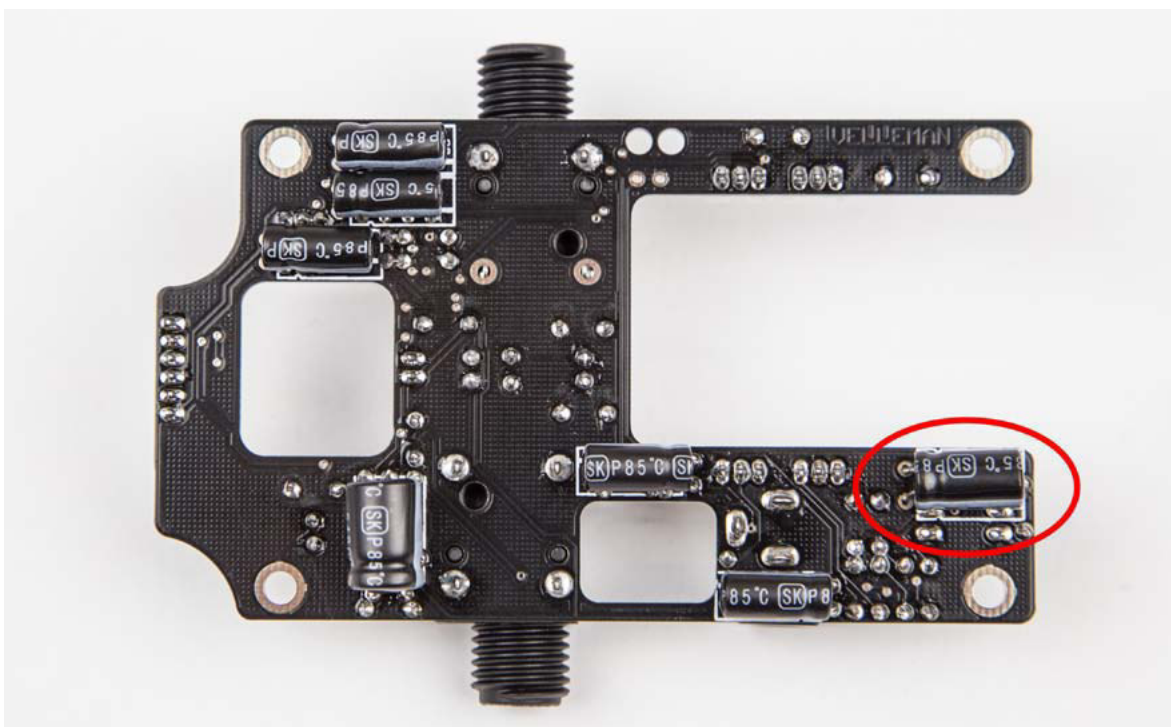
Solder on the bottom side of the PCB!



21. Capacitor 100 μF : C13

Note the polarity!

Solder on the bottom side of the PCB!



22. Trim the leads on the 9 V snapt to 5 cm.

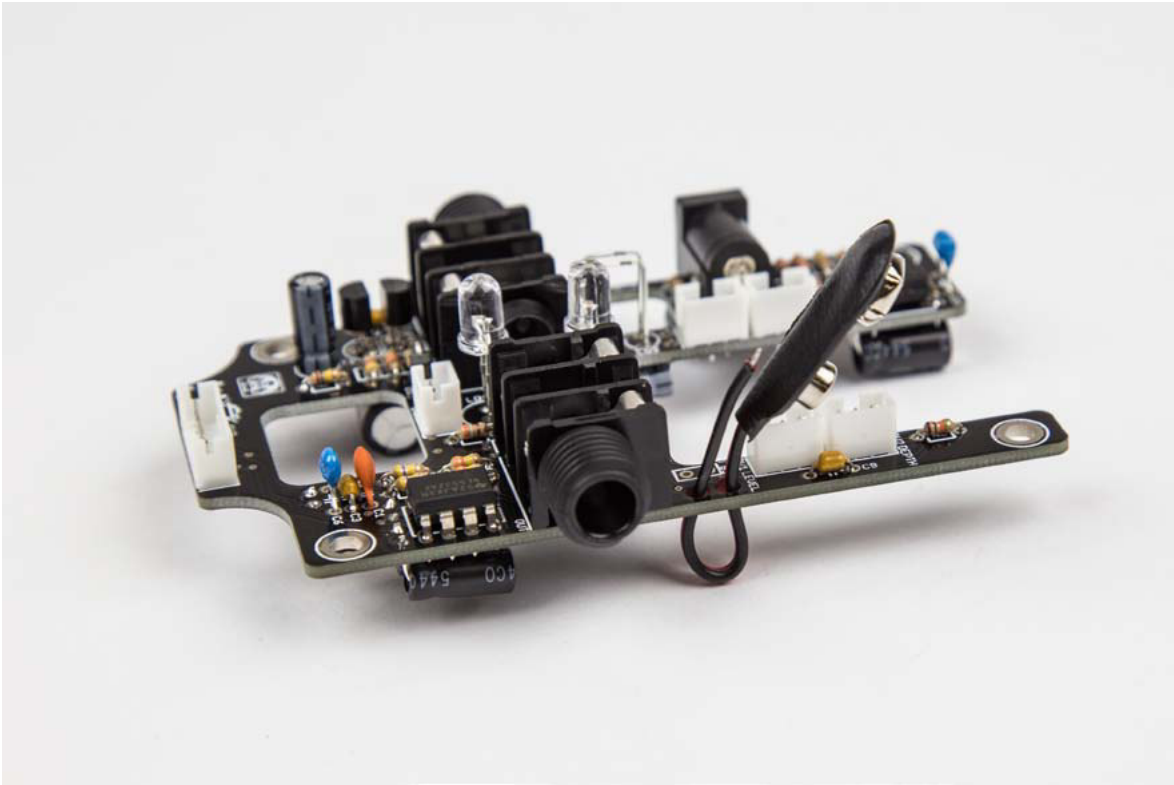
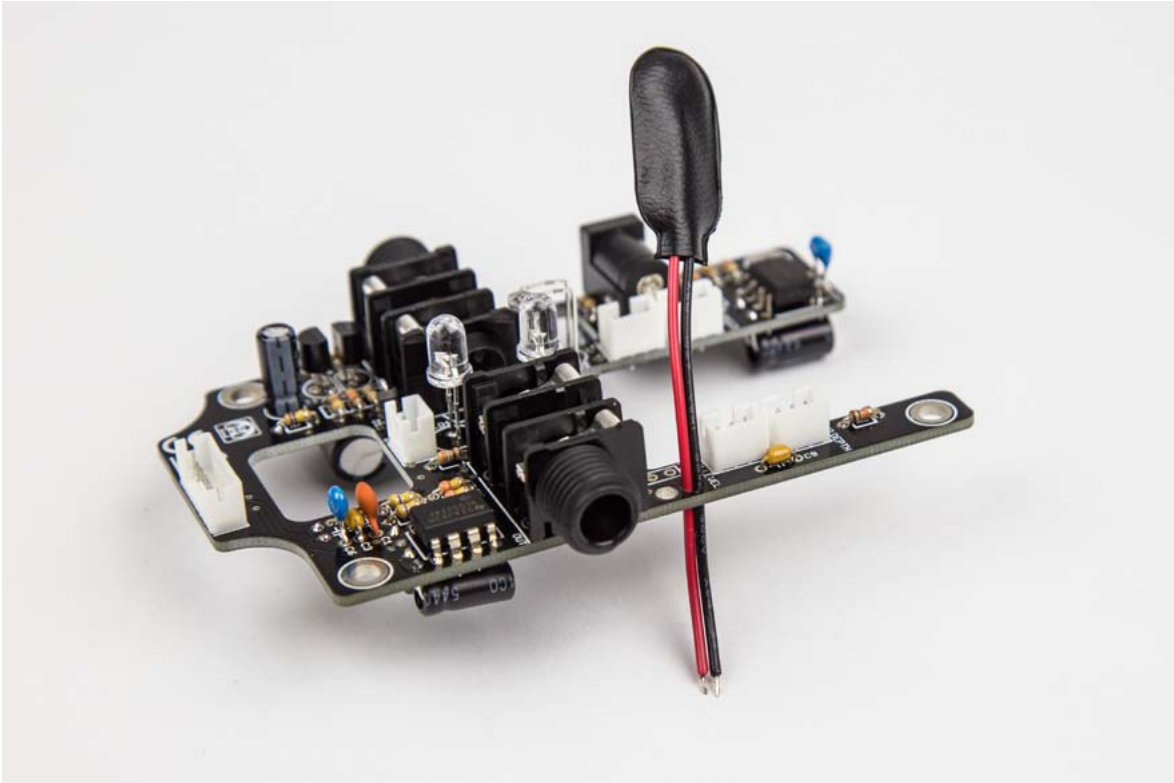


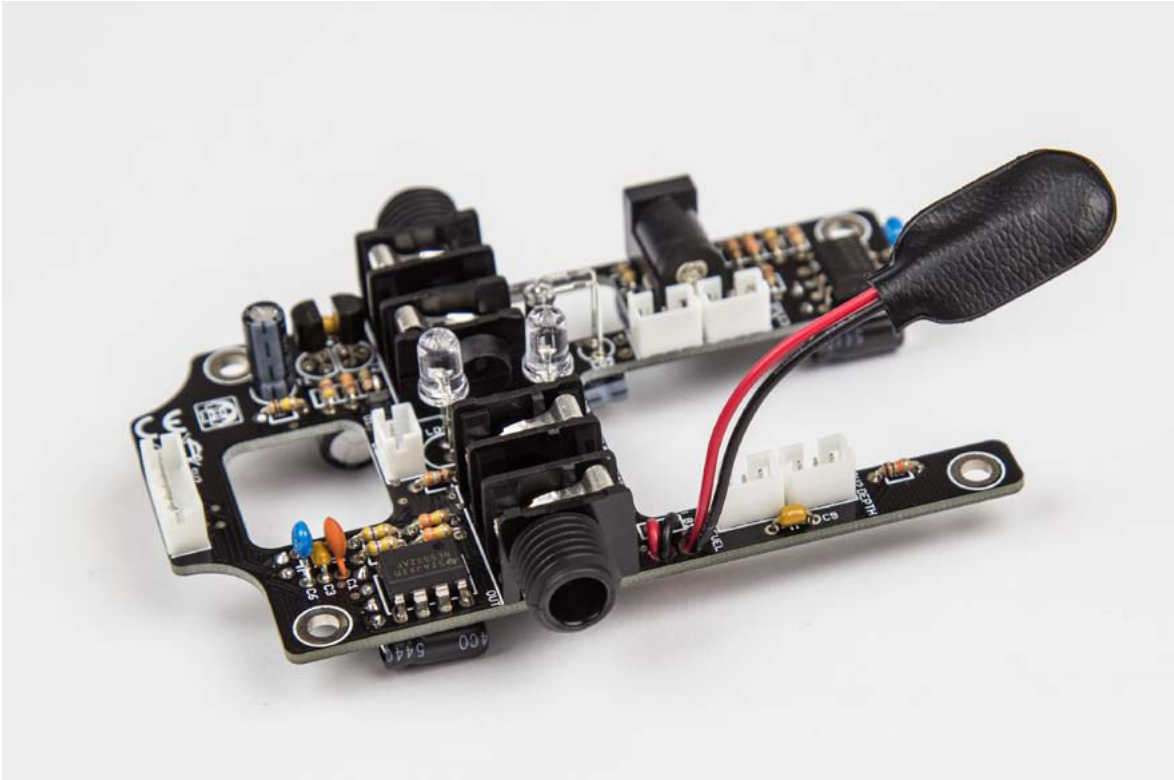
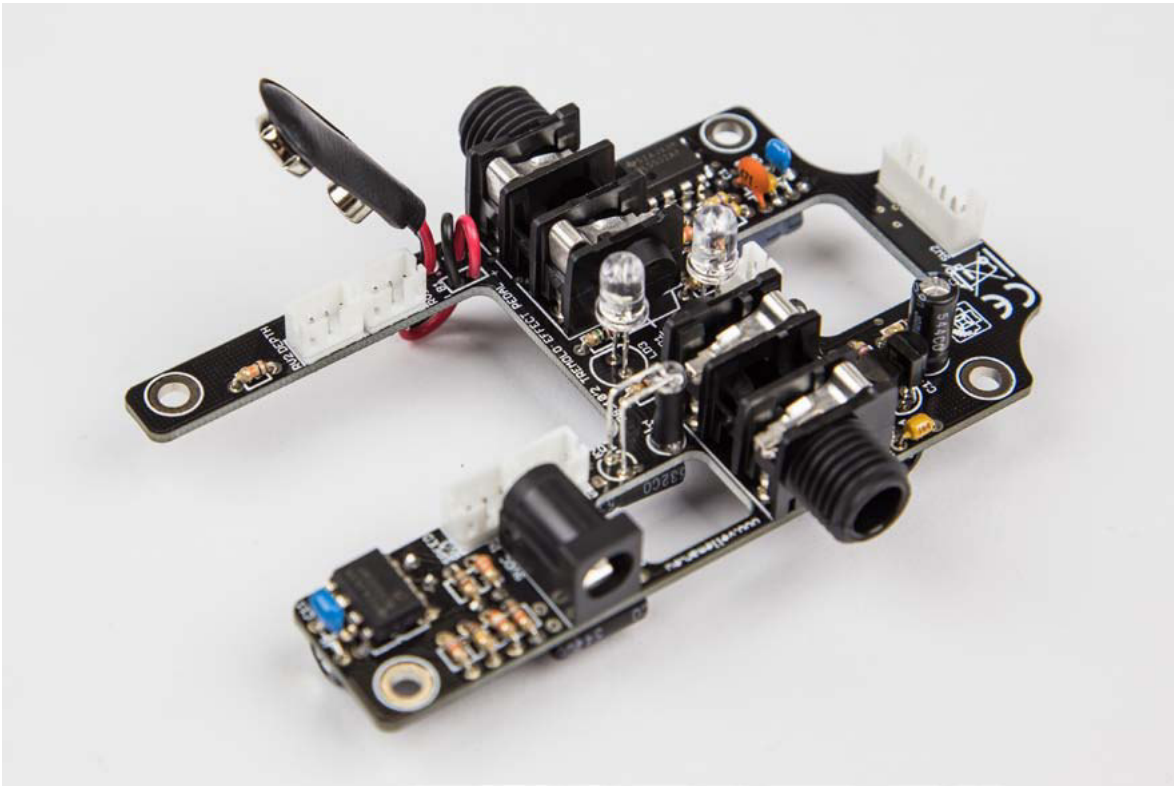
22. Strip and tin both wires



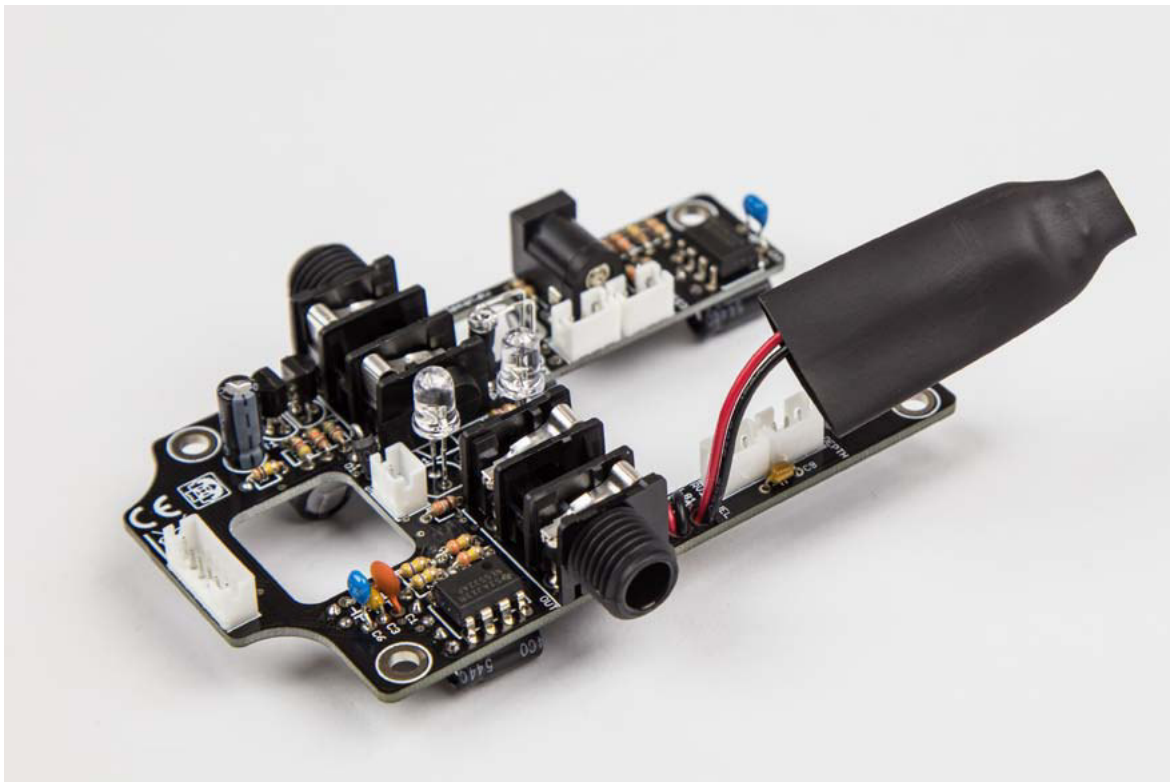
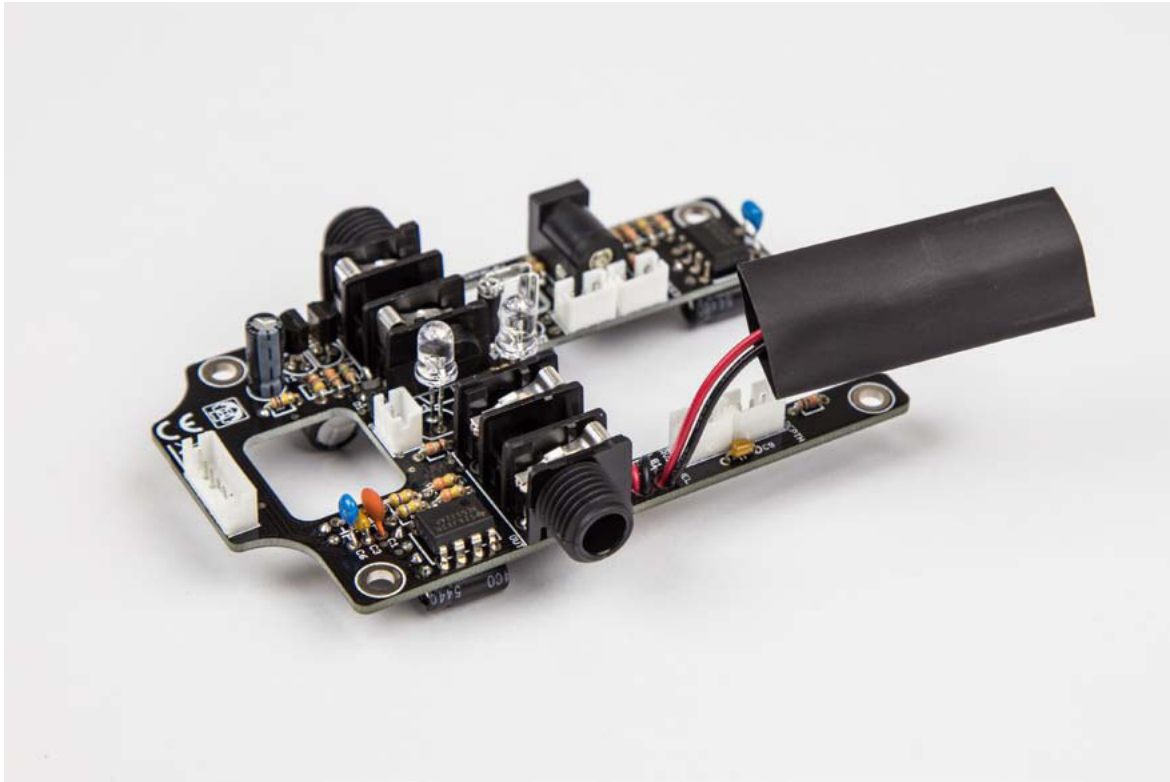
23. Place and solder the 9 V snap to the PCB as shown in the images below.

Note the polarity! RED = +, BLACK = -





23. 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.**



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



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

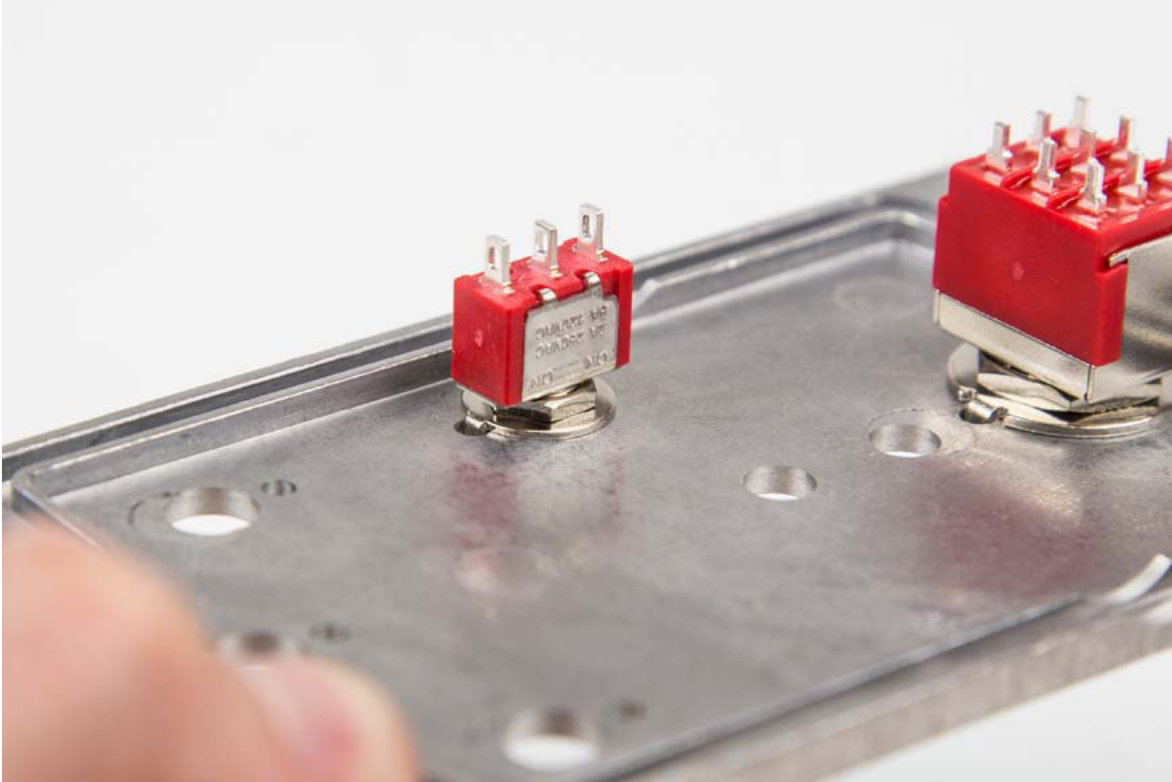


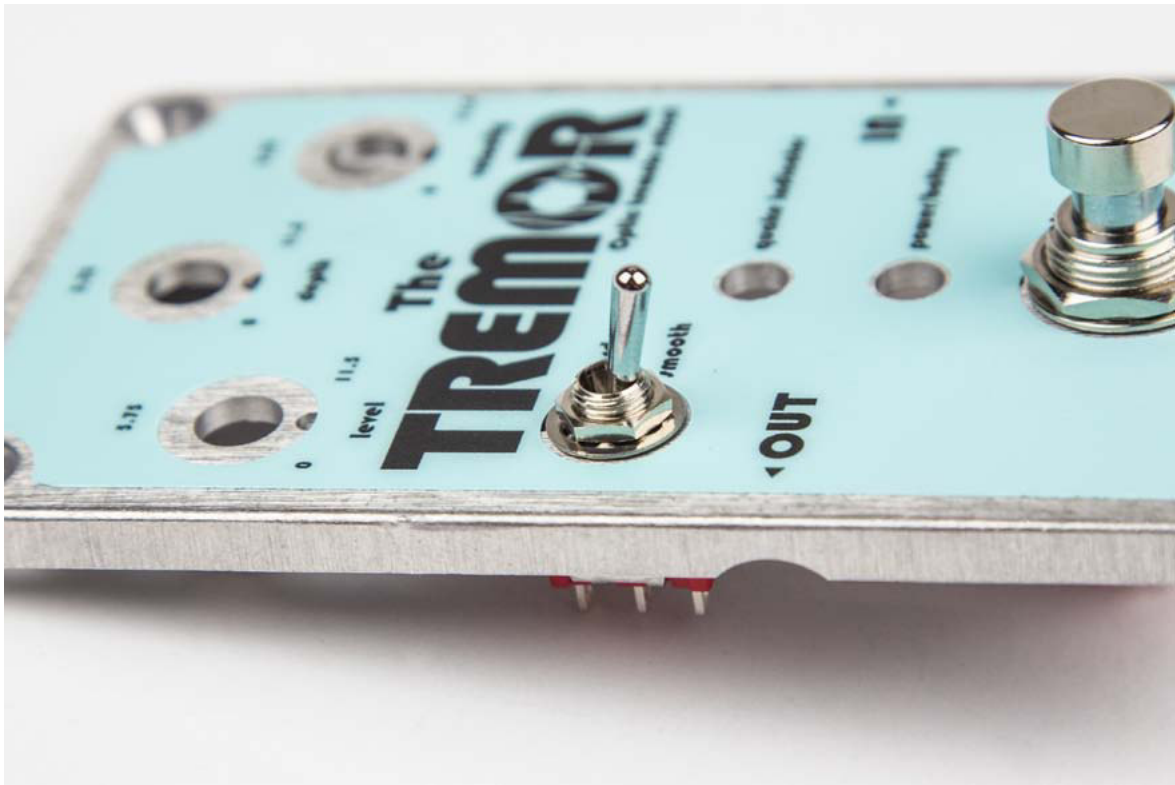
26. Install the footswitch as shown in the images below.





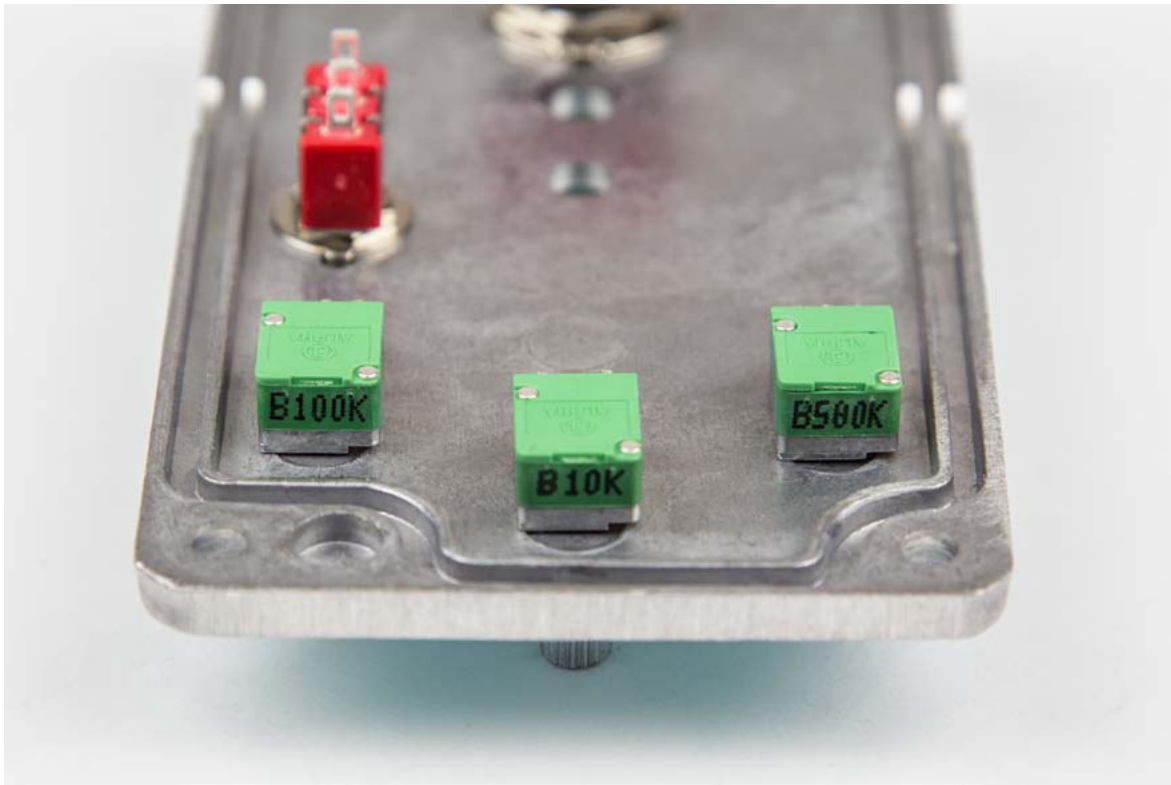
27. Install the selector switch as shown in the images below.





28. Install the 2 potentiometers as shown in the images below. Note the placement of the different values!





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



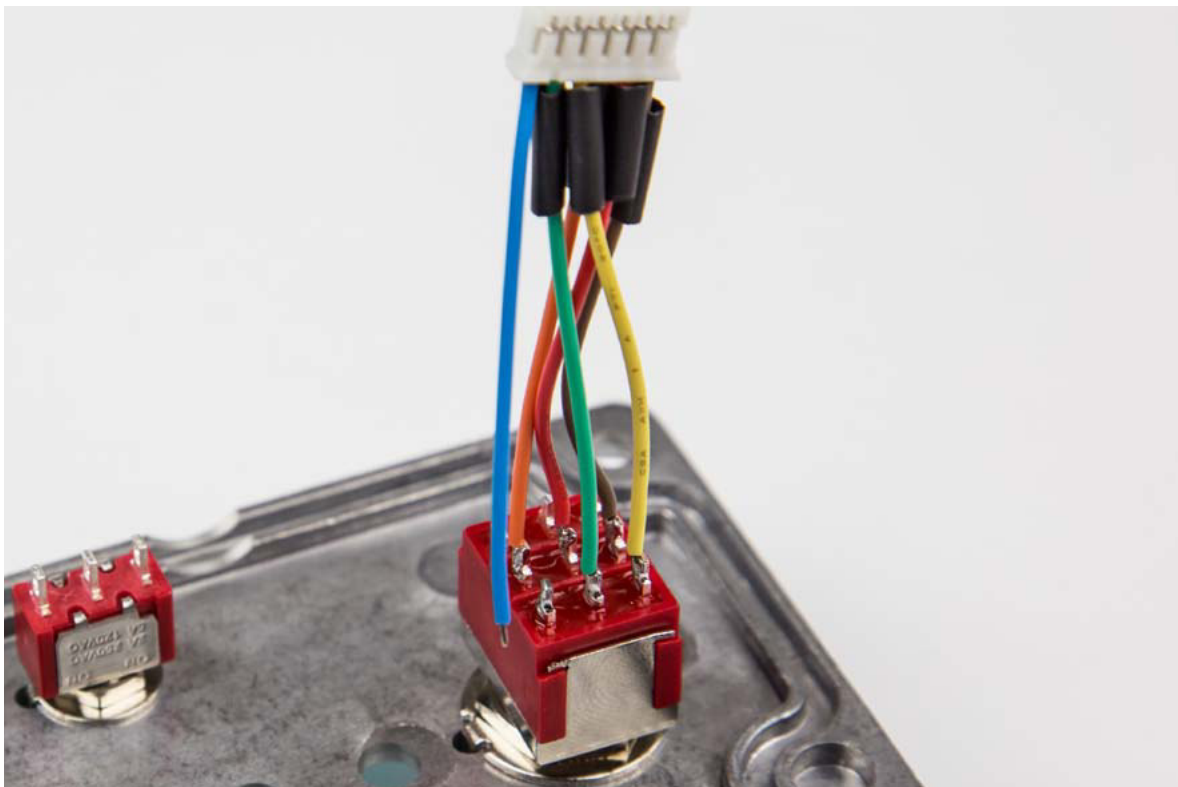
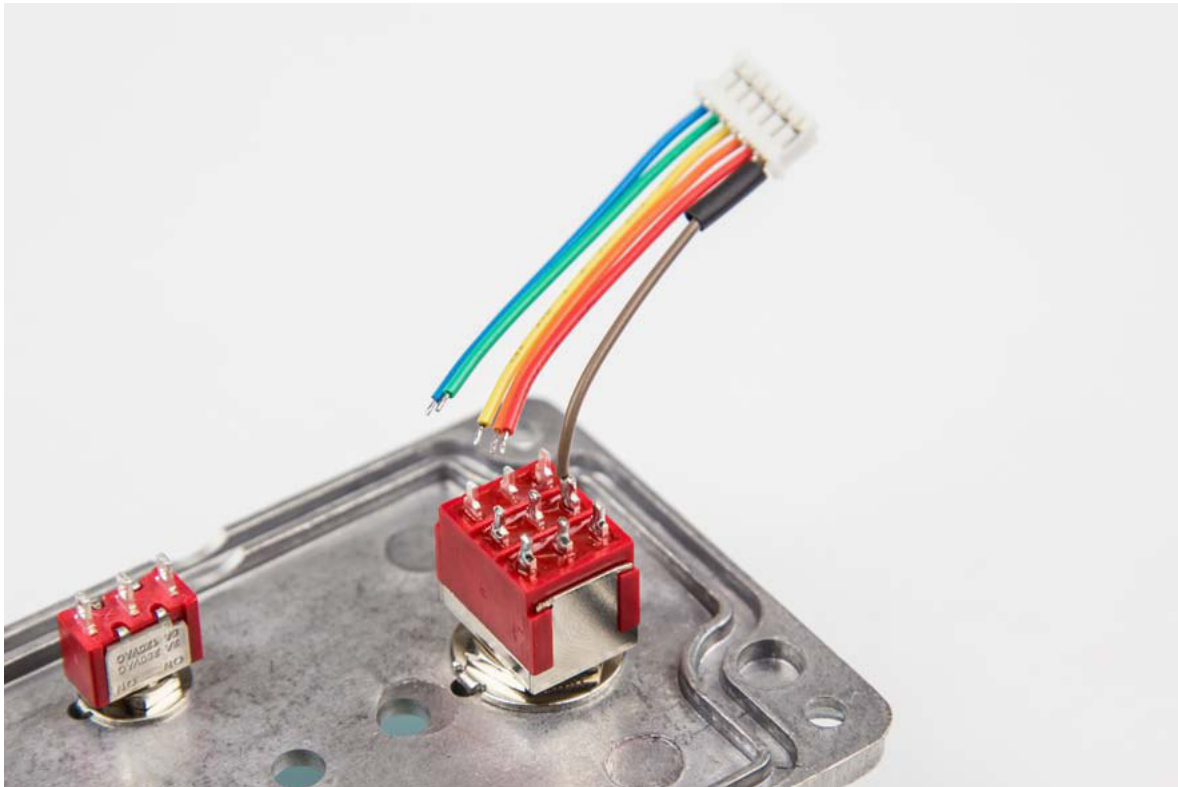
30. Strip and tin the wires.

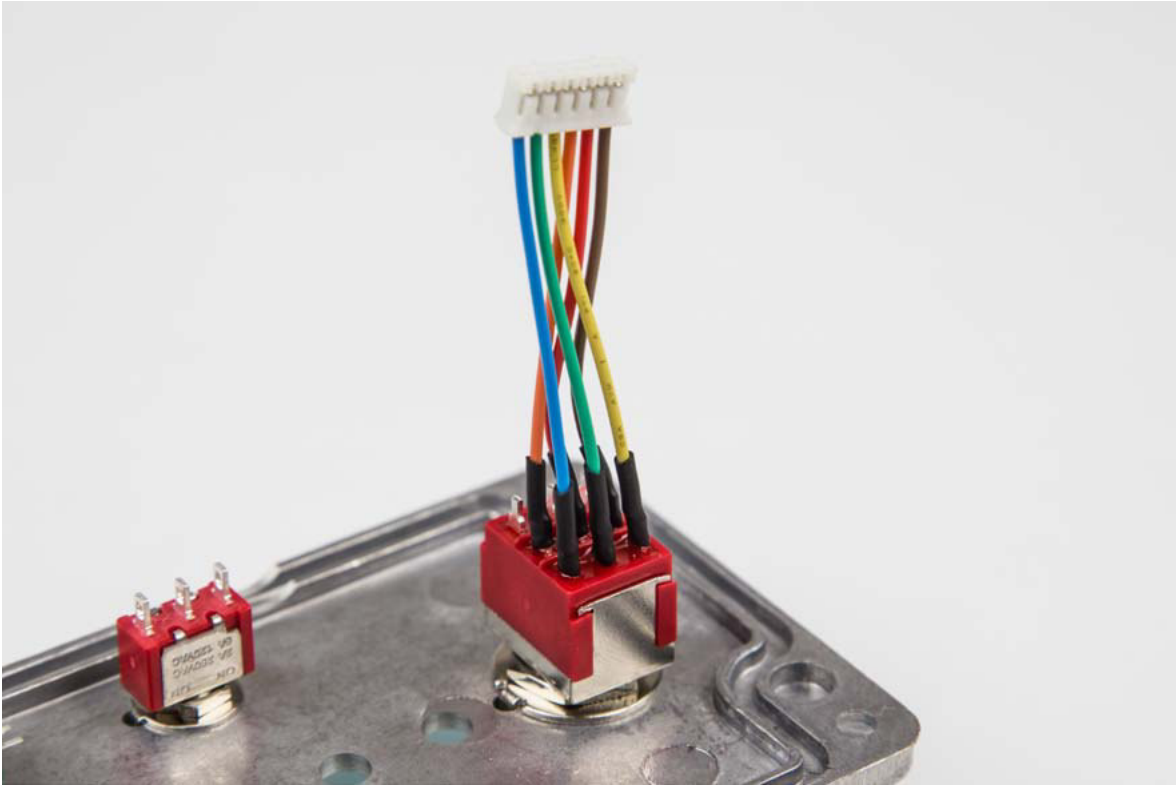


31. Cut 6 x 7 mm pieces of the 2.4 mm shrinktube.

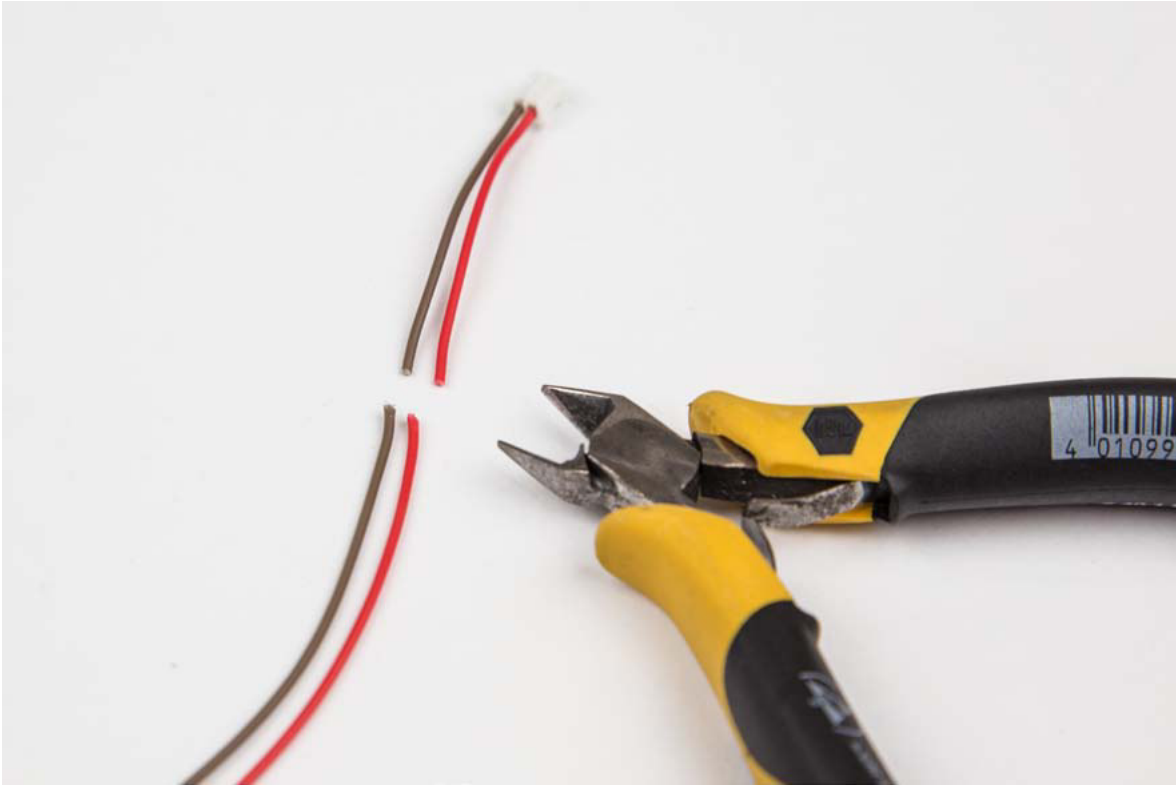


32. Solder the wires to the footswitch as shown below. **Do not forget the shrinktube pieces and note the colors.**





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



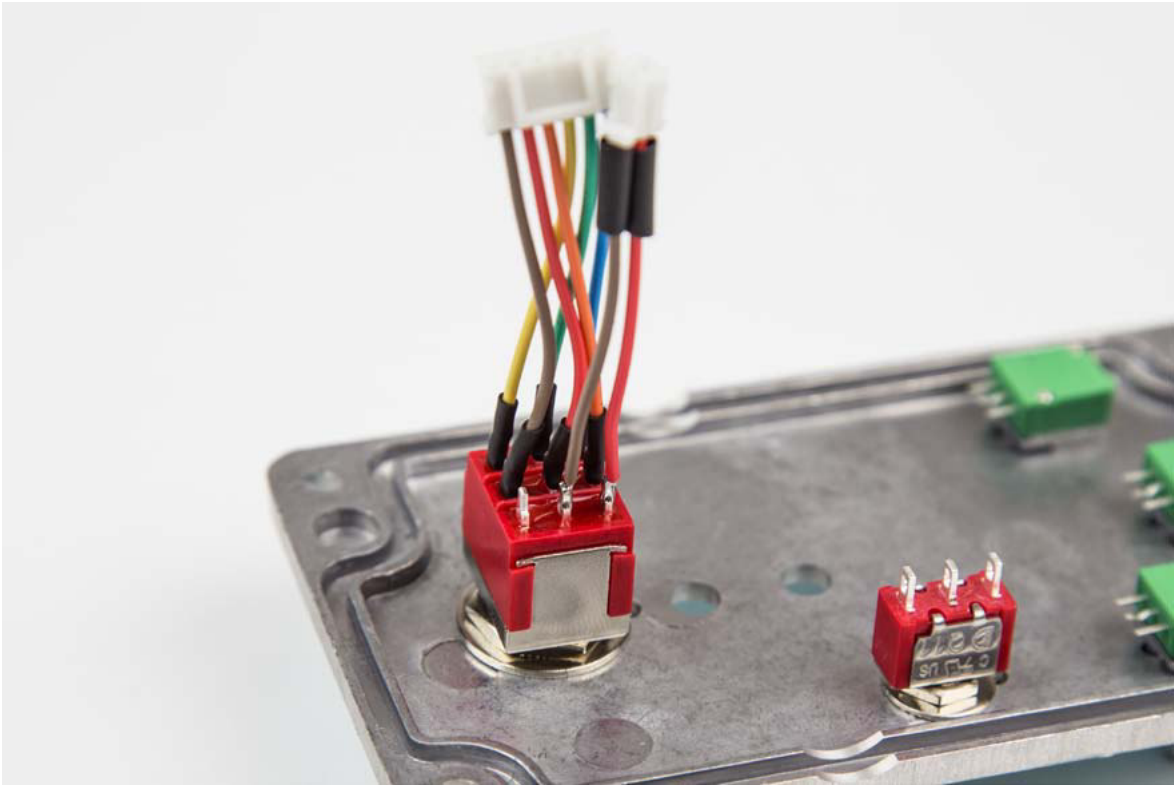
34. Strip and tin the wires.



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



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



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



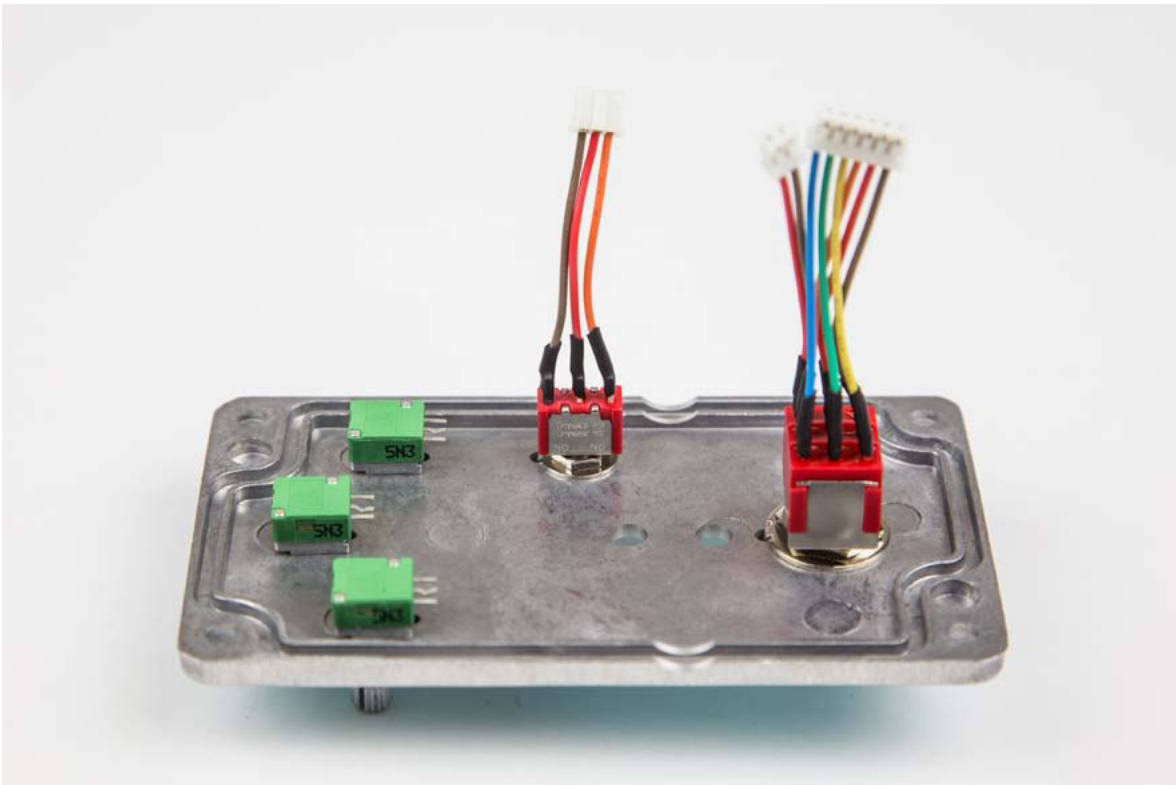
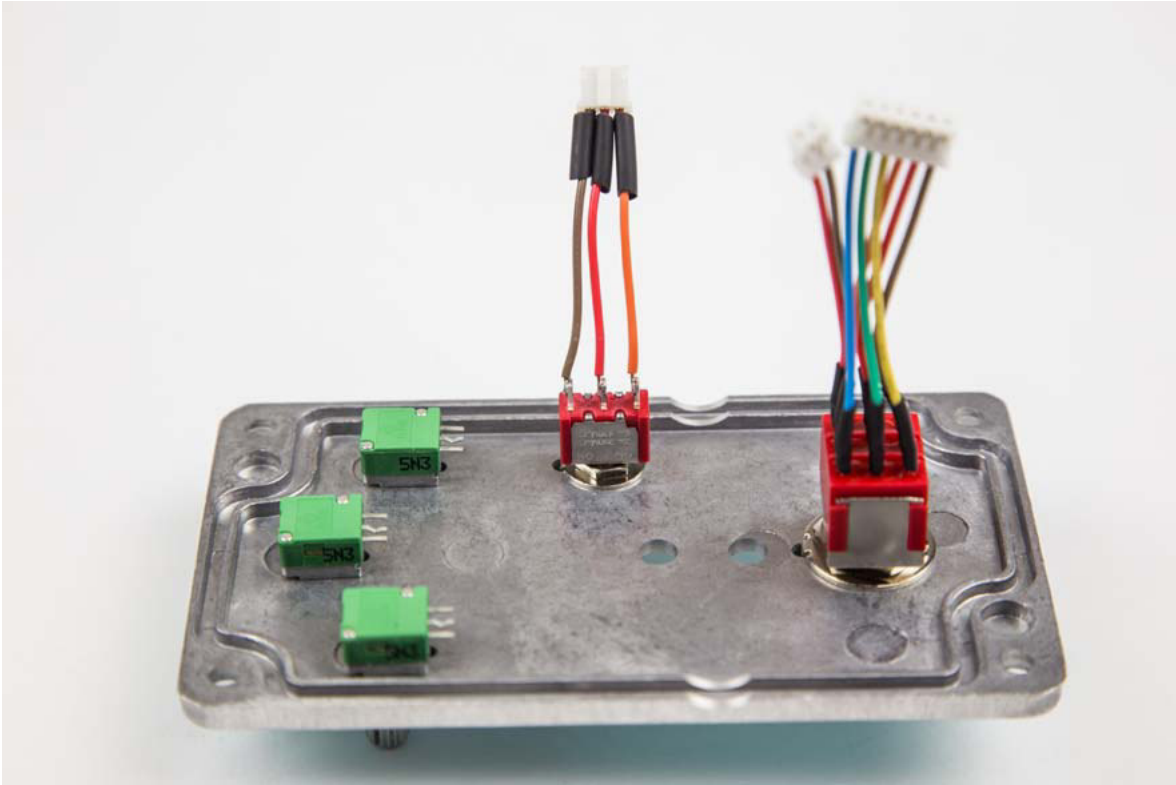
38. Strip and tin the wires.



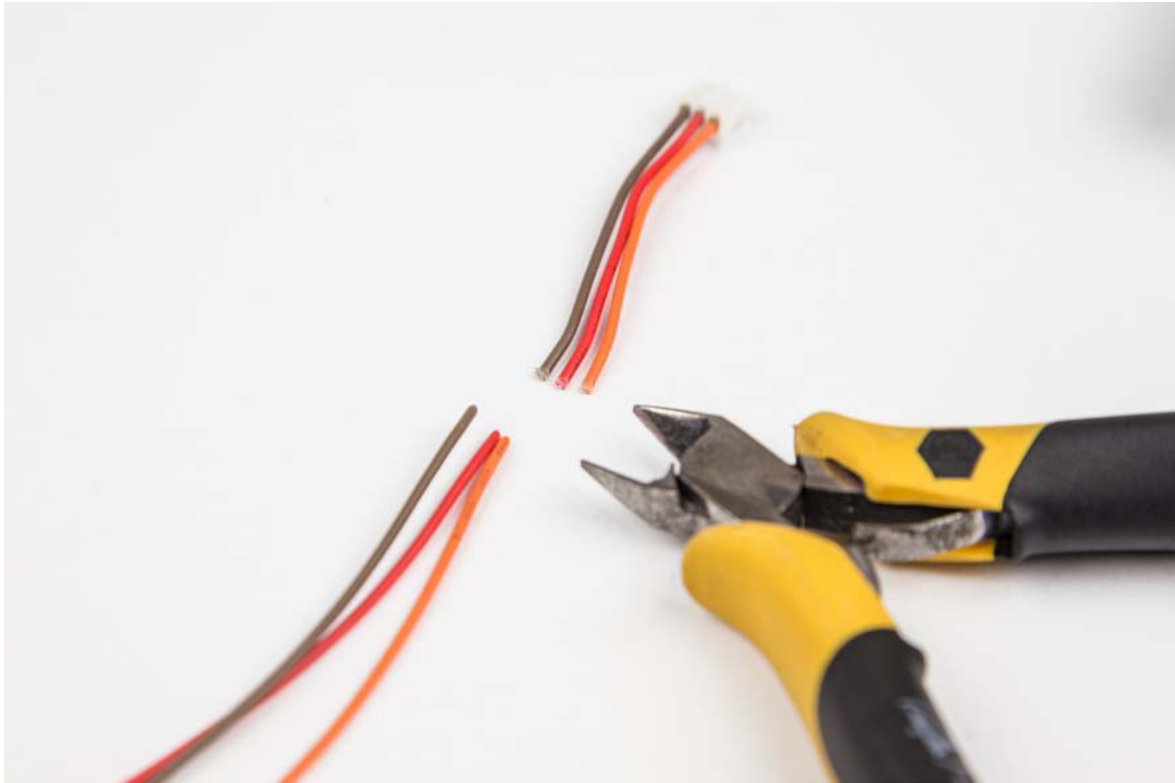
39. Cut 3 x 7 mm pieces of the 2.4 mm shrinktube.



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



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



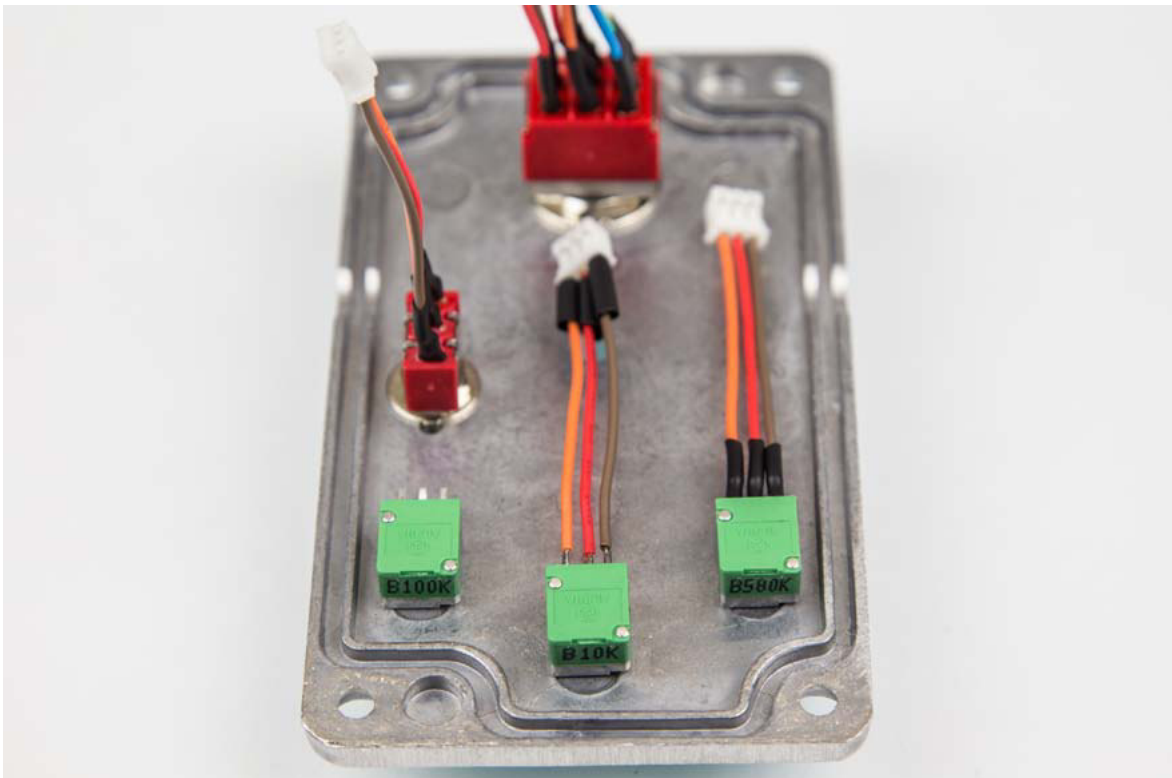
42. Strip and tin the wires of both connectors.



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



44. Solder the wires to the 500K and the B10K potentiometer as shown below. Do not forget the shrinktube pieces and note the colors.



45. Trim the leads of one of the 3 wire female connector to 7 cm.



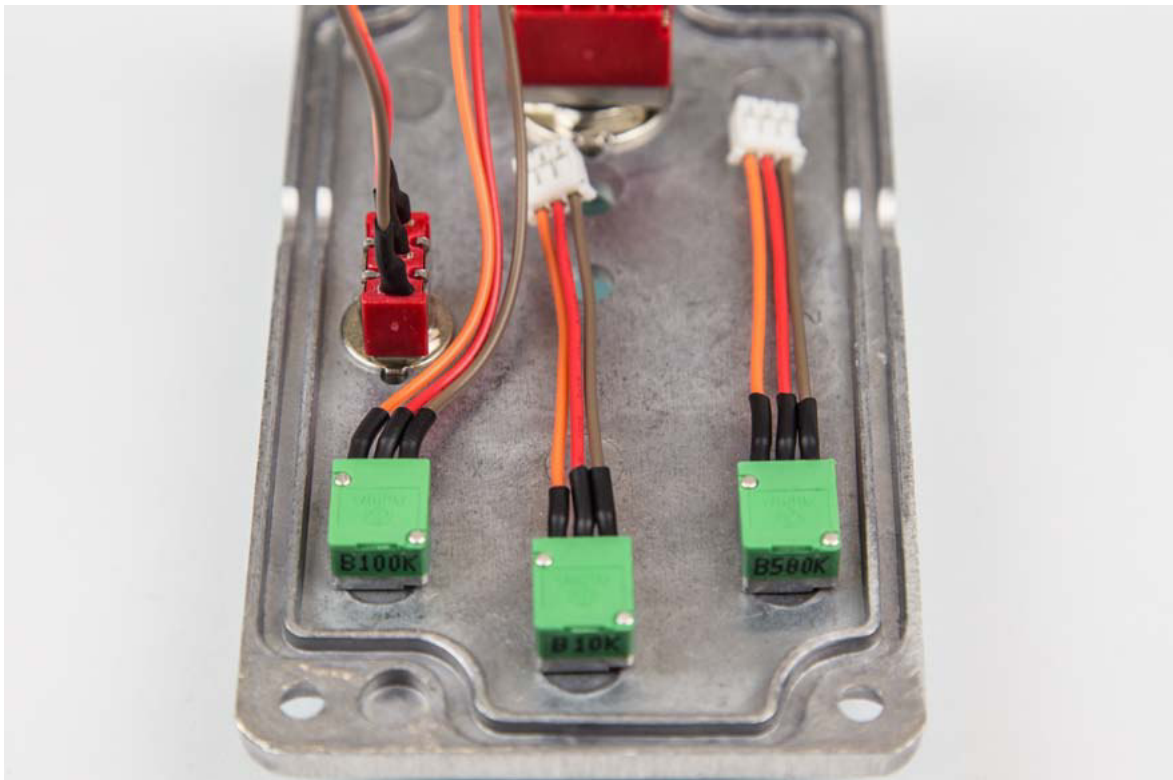
46. Strip and tin the wires of the connector.



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



48. Solder the wires to the B100K potentiometer as shown below. **Do not forget the shrinktube pieces and note the colors.**



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



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





Plug in your gear and play!



VellemanProjects



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vellemanprojects.com

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