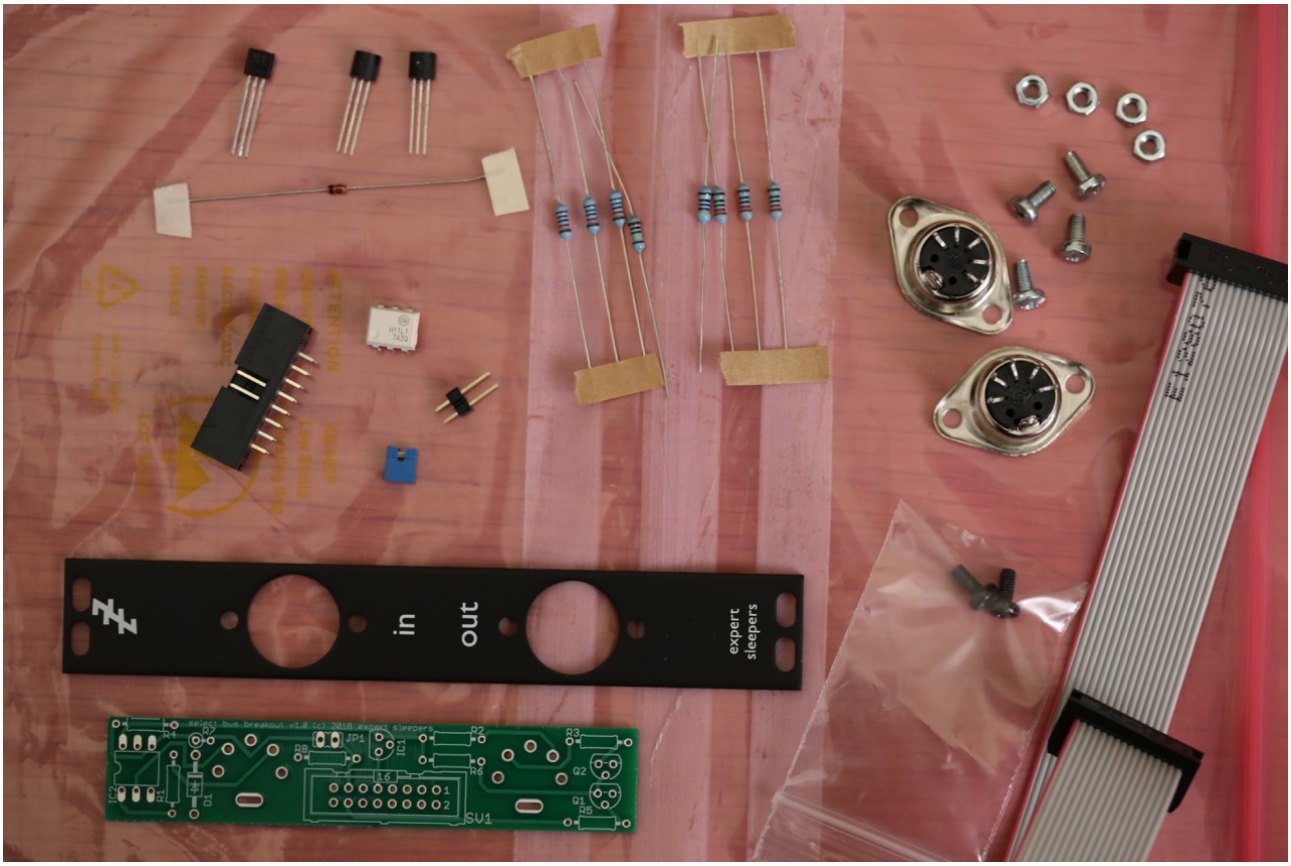
# Select Bus breakout

## Assembly instructions




document v1.2 - Oct 2021

# 1. Check your parts

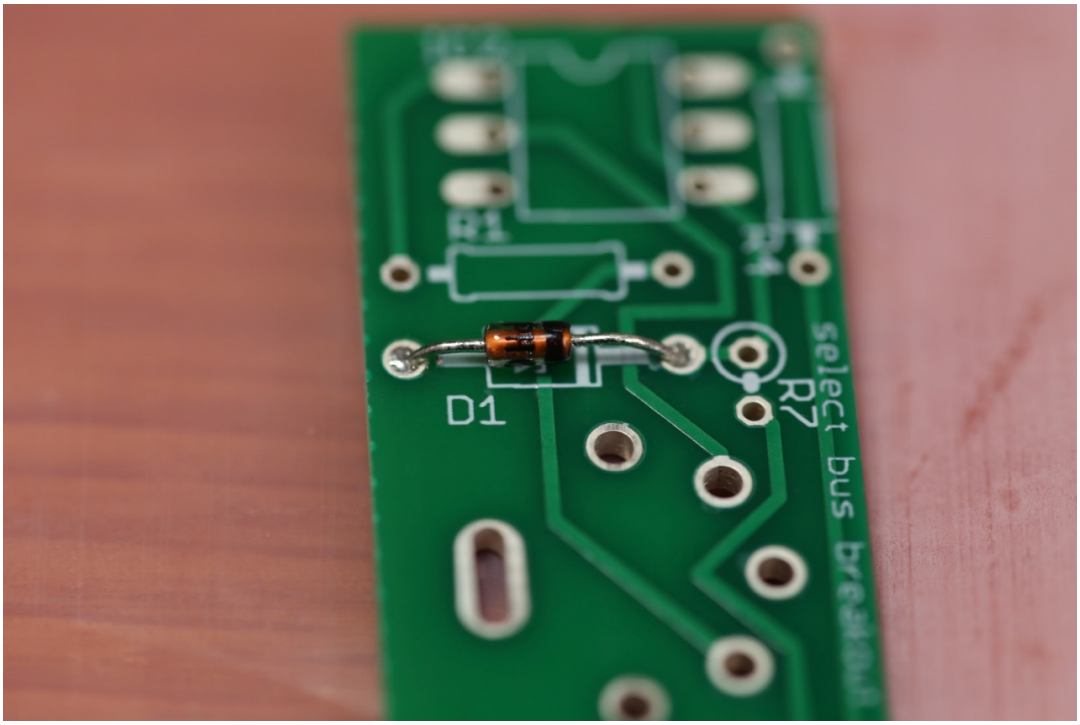
| Part Number | Quantity | Part |
|---|---|---|
| IC1 | 1 | L78L05ACZ (5V regulator) |
| IC2 | 1 | H11L1M (optocoupler) |
| Q1-2 | 2 | 2N7000 (MOSFET transistor) |
| R1-3 | 3 | 220R resistor |
| R4 | 1 | 33K resistor |
| R5, R6 | 2 | 10K resistor |
| R7 | 1 | 680R resistor |
| R8 | 1 | 1M resistor |
| JP1 | 1 | 2 pin header |
| SV1 | 1 | 16 pin boxed header |
| JK1-2 | 2 | 5-pin DIN socket |
| | 1 | PCB |
| | 1 | Front panel |
| | 1 | Power cable (16 way IDC) |
| | 1 | Jumper link |
| | 6 | M3 6mm machine screw |
| | 4 | M3 nut |
| | 1 | 6 pin DIL Socket (optional) |

# 2. Attach the DIN sockets to front panel

Use the M3 nuts and machine screws to attach the sockets to the panel.
**Do this now!** You won't be able to do it after soldering the sockets to the PCB.
Make sure the sockets are rotated correctly, or they won't match up with the PCB.

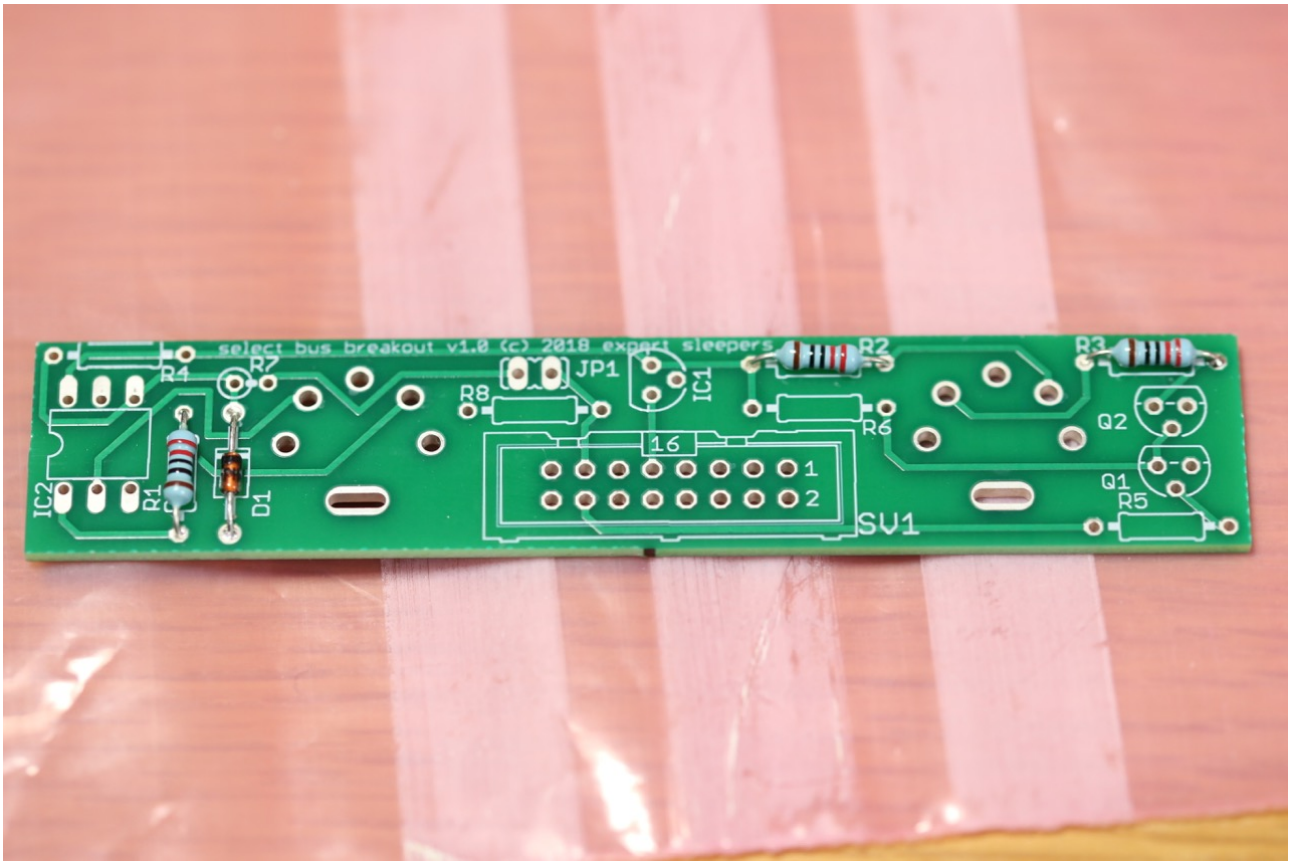

# 3. D1 - leave unpopulated

This module was created quite early in the history of the Select Bus, and the most common electrical implementations have changed somewhat since then. For full compatibility with the latest Dising EX some changes have been made to the build which means the diode at D1 is no longer required and not included in kits anymore.



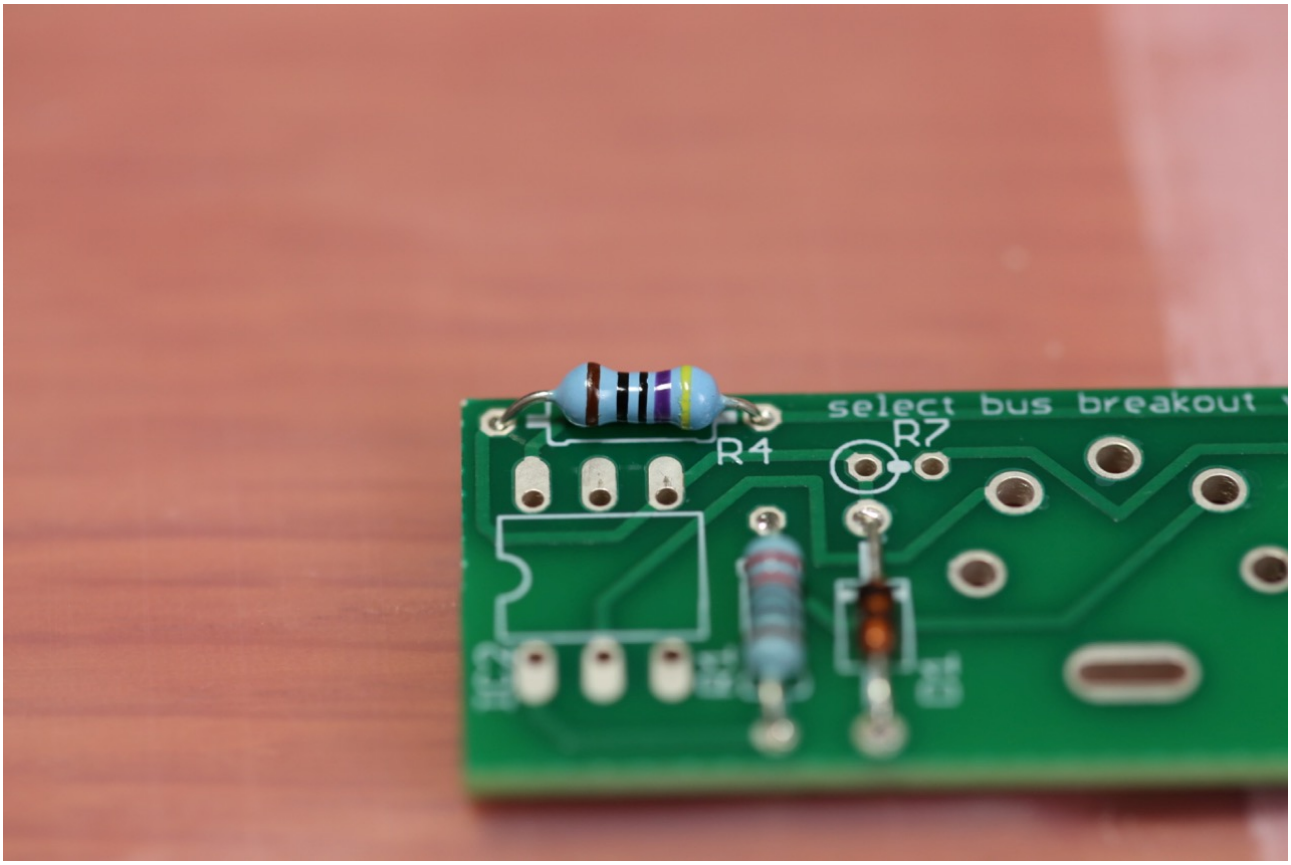

# 4. Insert and solder R1-3

Insert the three 220R resistors (colour code red-red-black-black).



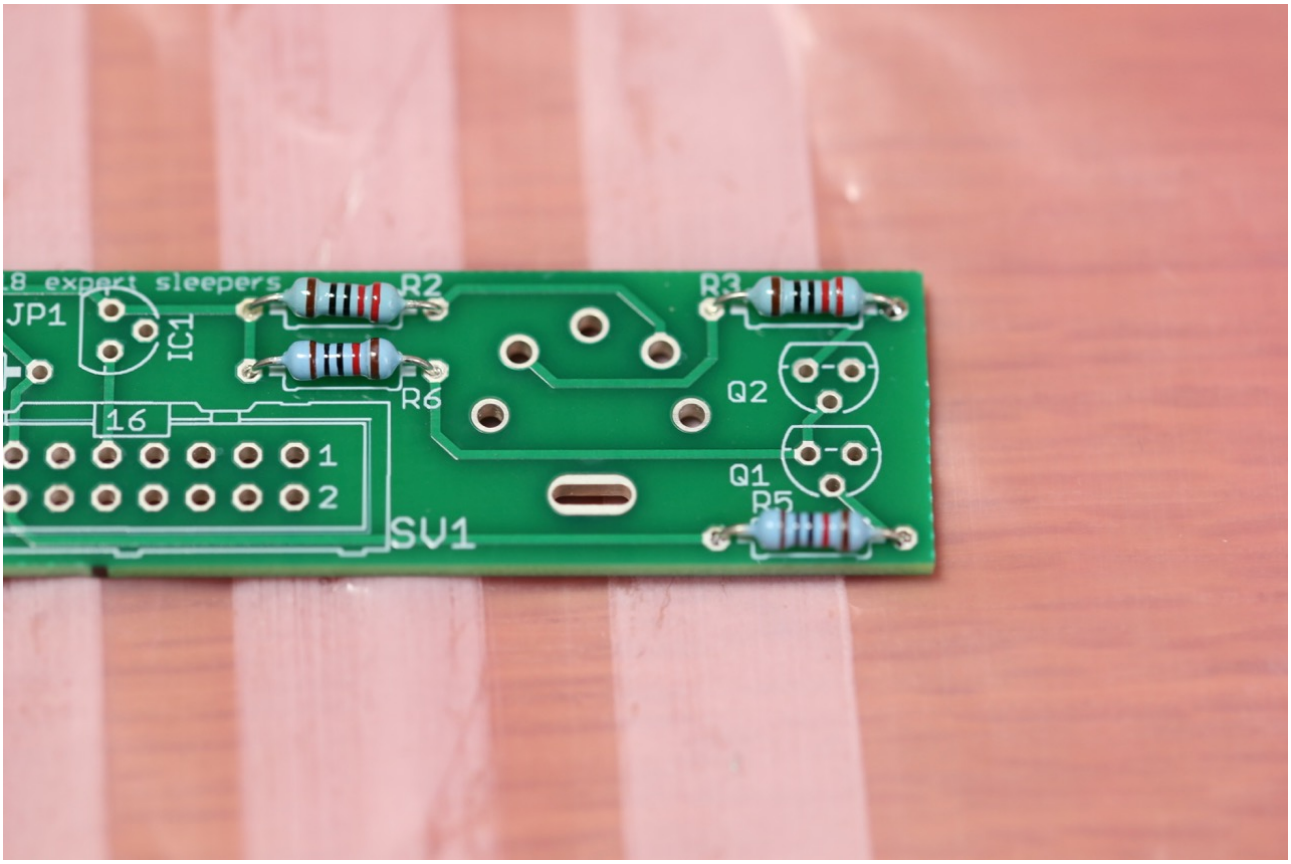
## 5. Insert and solder R4

Insert the 33K resistor (colour code orange-orange-black-red). Note the photo below shows wrong colour bands



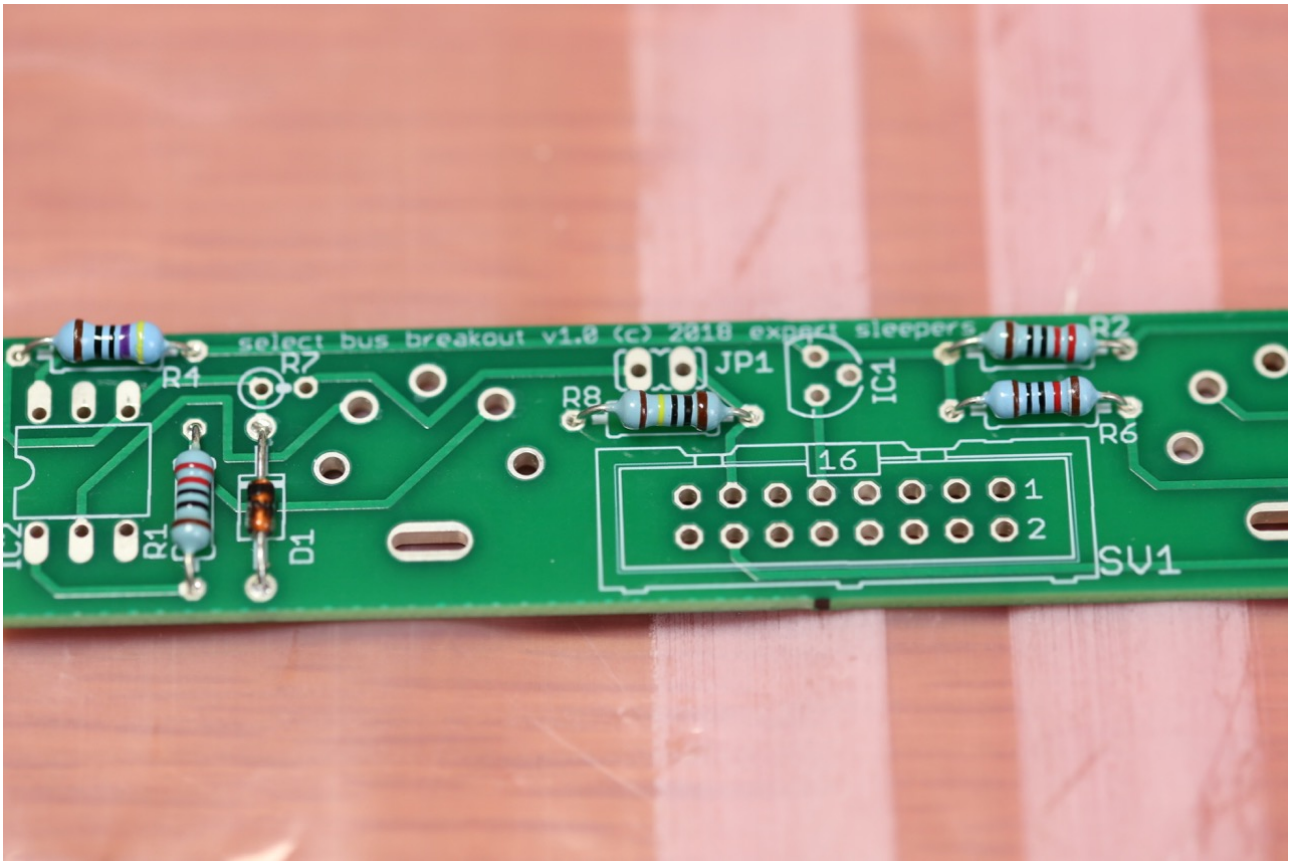

## 6. Insert and solder R5-6

Insert the two 10K resistors (colour code brown-black-black-red).



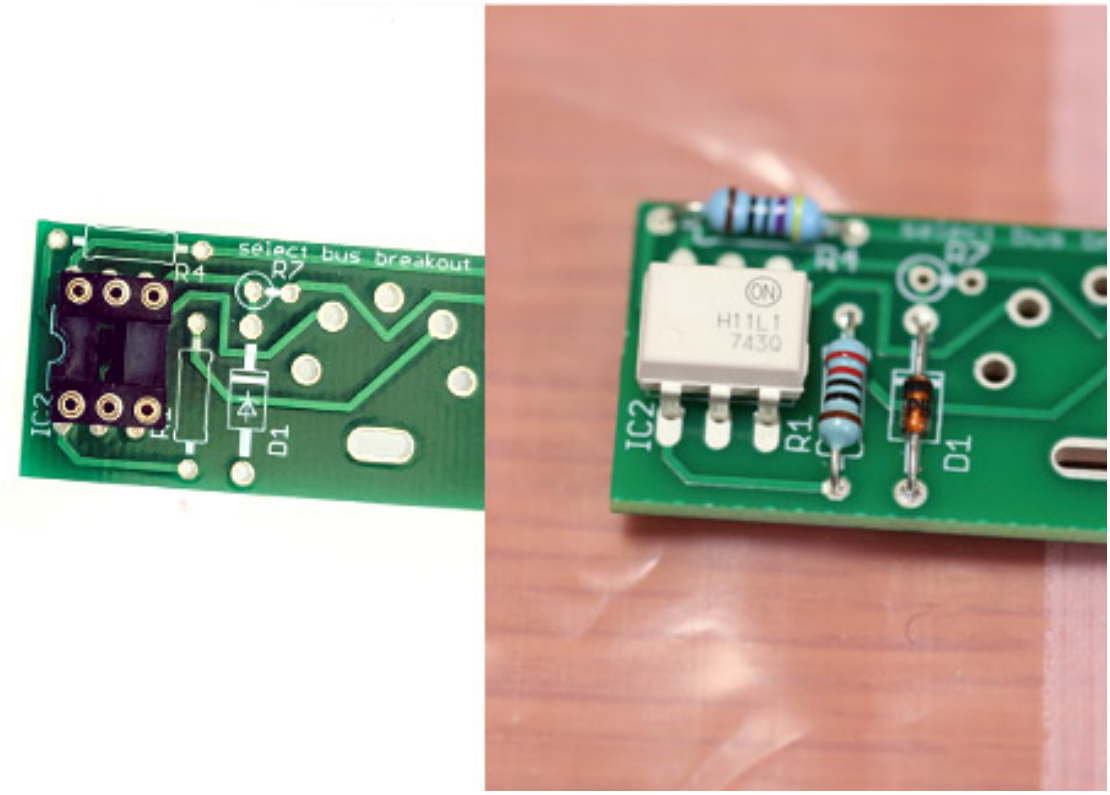
# 7. Insert and solder R8

Insert the 1M resistor (colour code brown-black-black-yellow).



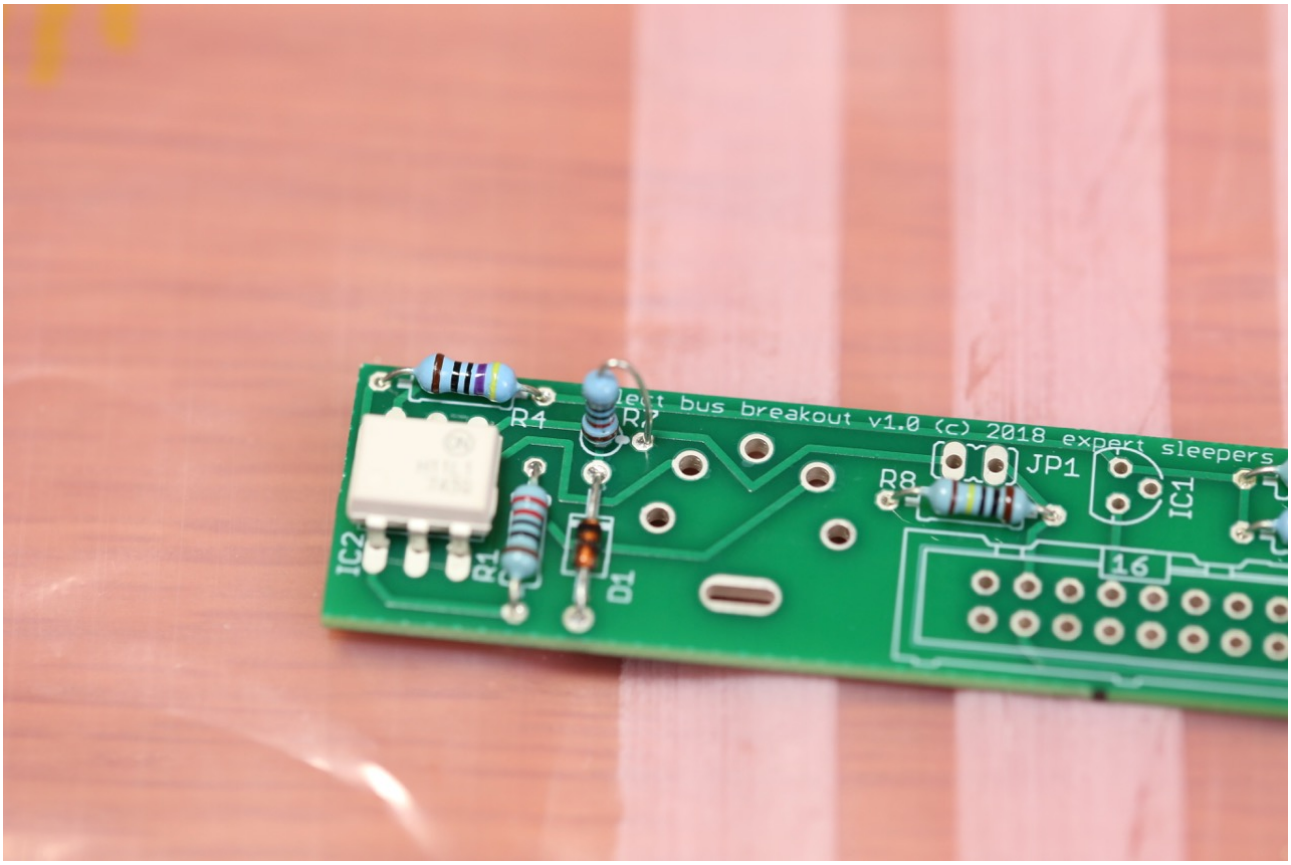

# 8. Insert and solder IC2

Insert the optocoupler. Optional: If you don't feel confident in your soldering you can solder the 6 Pin DIL socket first and then insert the optocoupler into the socket. Note: Orientation is vital.



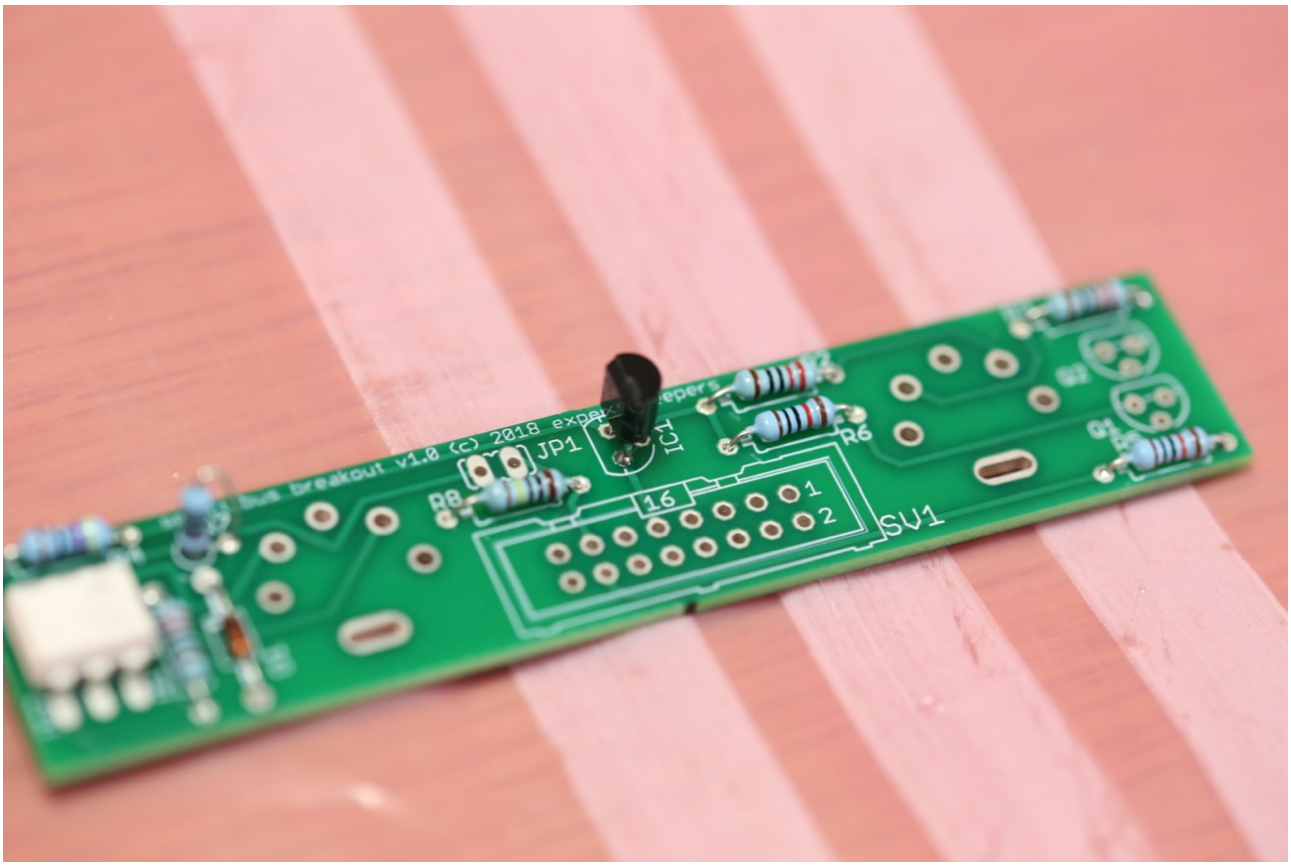
# 9. Insert and solder R7

Insert the 680R resistor upright (colour code blue-grey-black-black). Note the photo below shows wrong colour bands



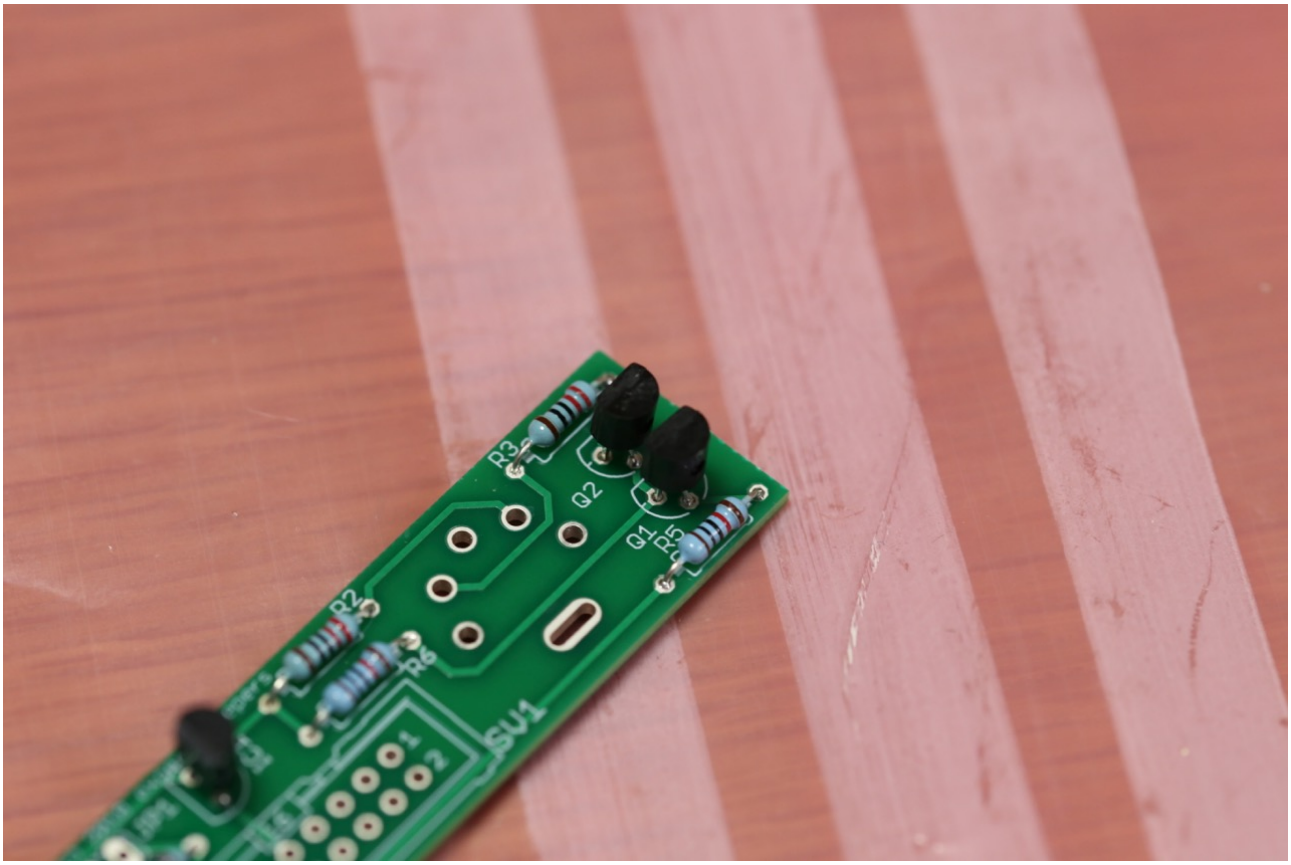

# 10. Insert and solder IC1

Insert the voltage regulator. Note the flat surface of the case aligns with the shape on the PCB.



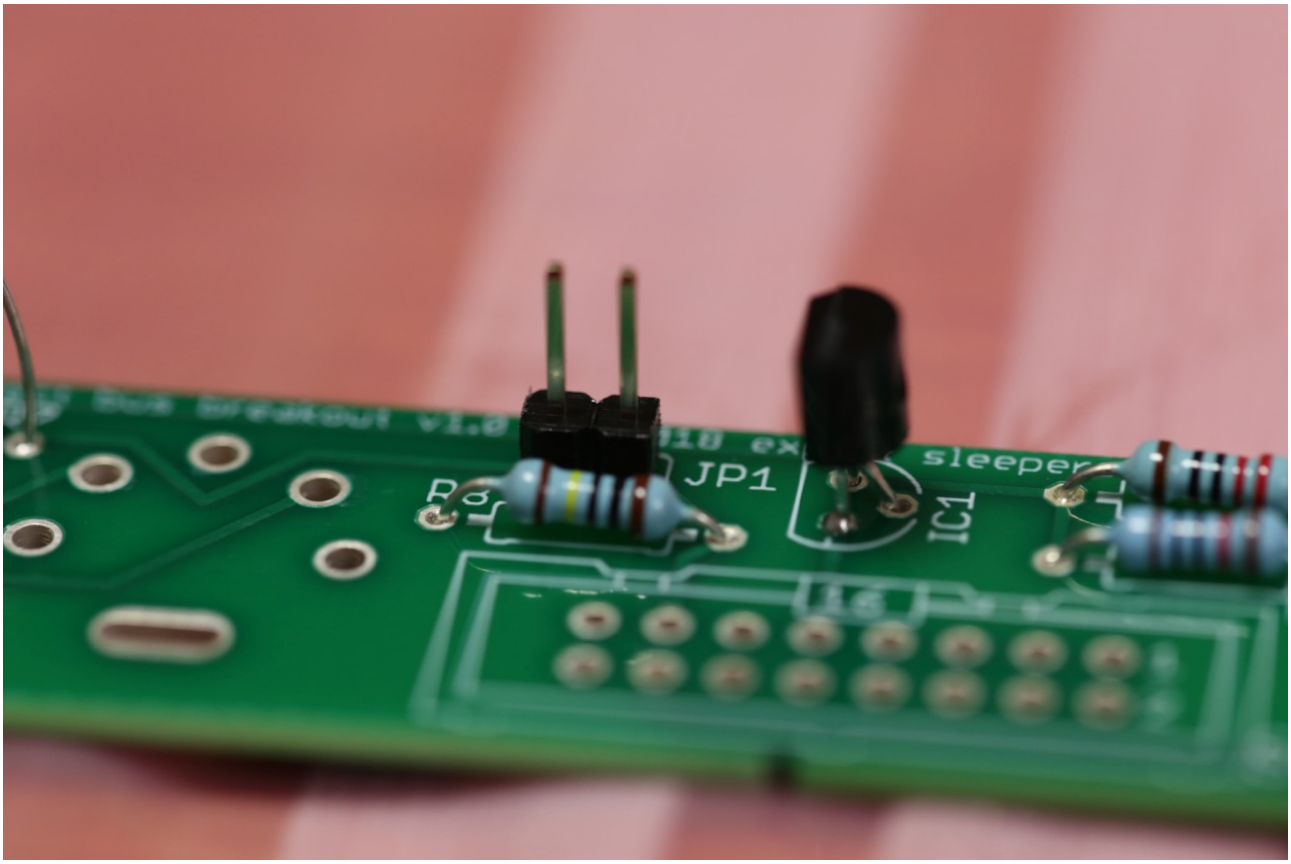
## 11. Insert and solder Q1-2

Insert the transistors. Note the flat surfaces of the cases align with the shapes on the PCB.



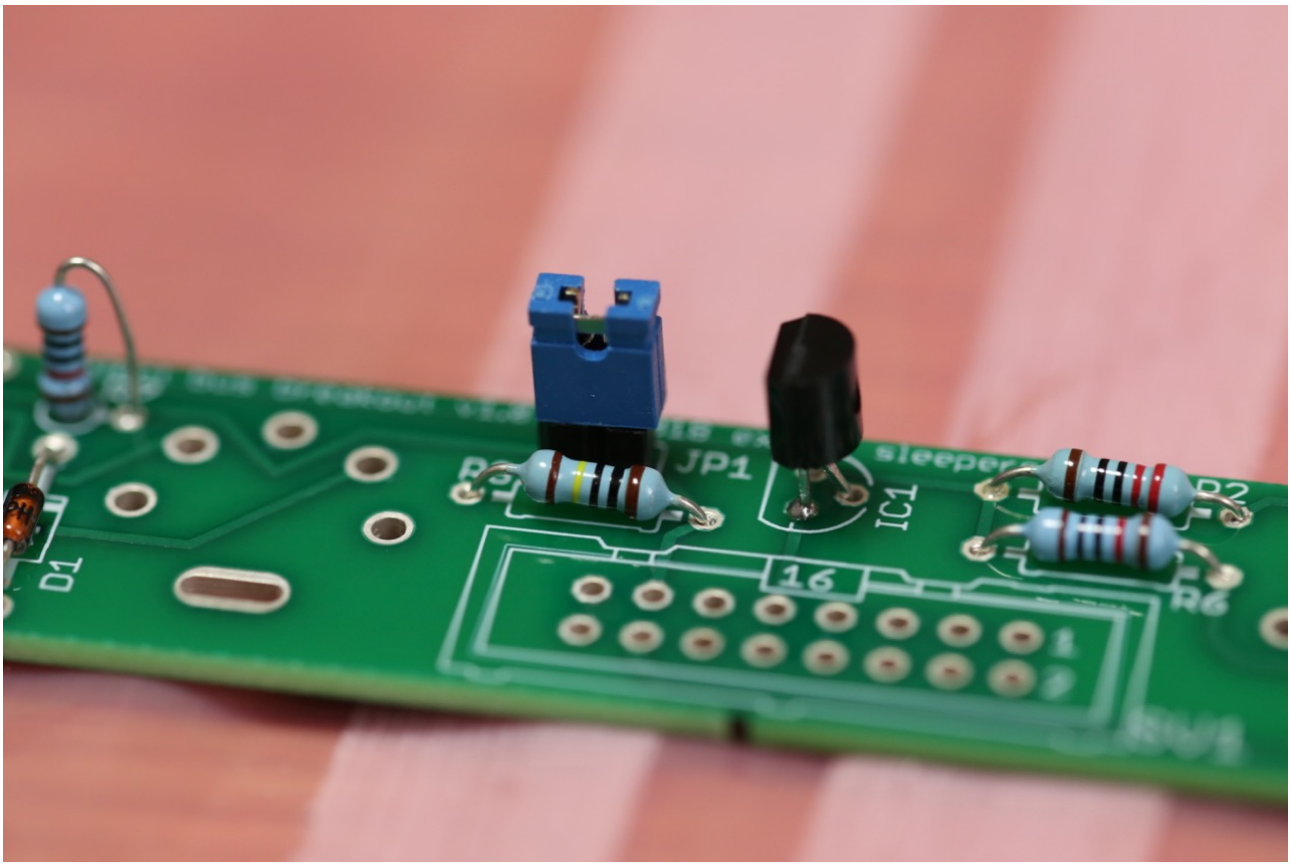

## 12. Insert and solder JP1.

Insert the 2 pin header.



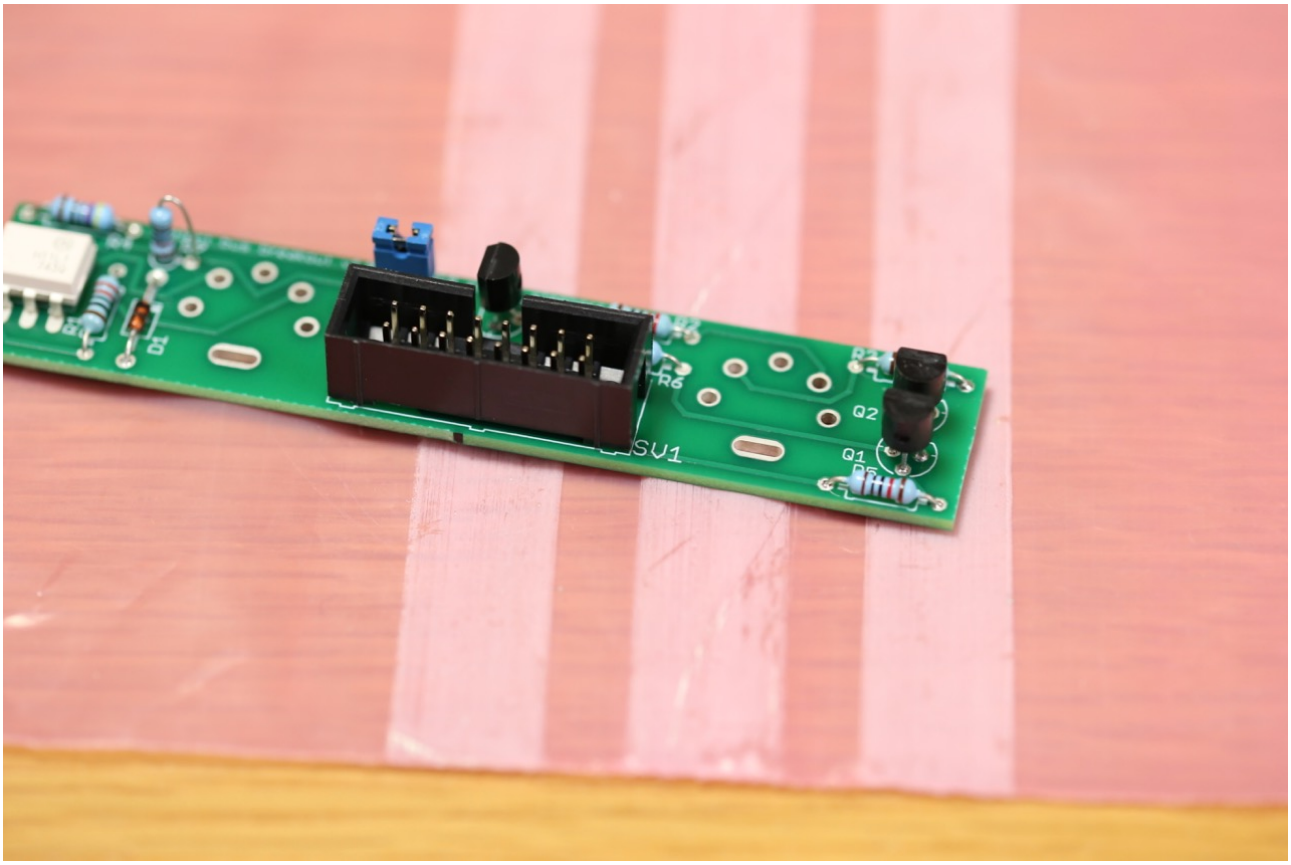
## 13. Fit the jumper link

Attach the jumper to JP1, if the module is to drive the Select Bus.

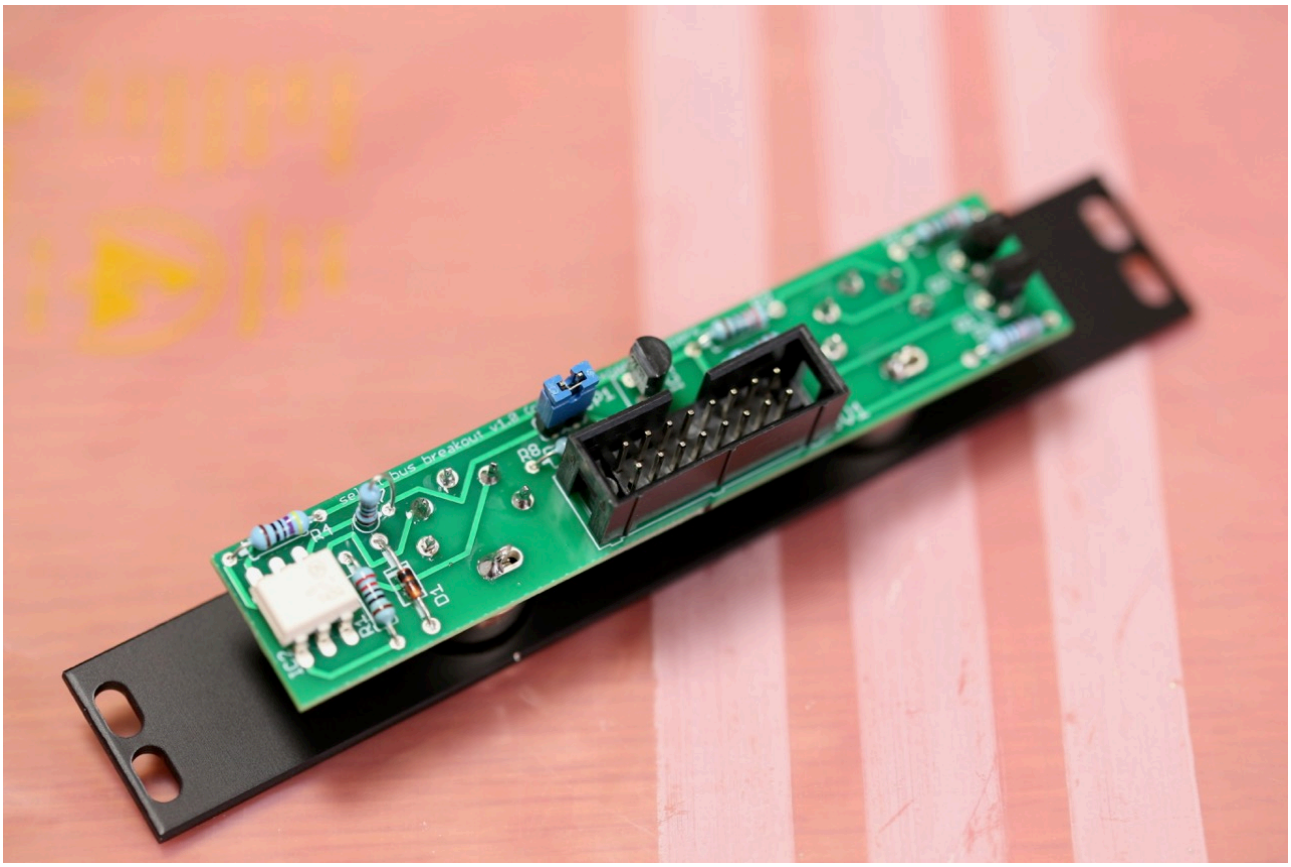


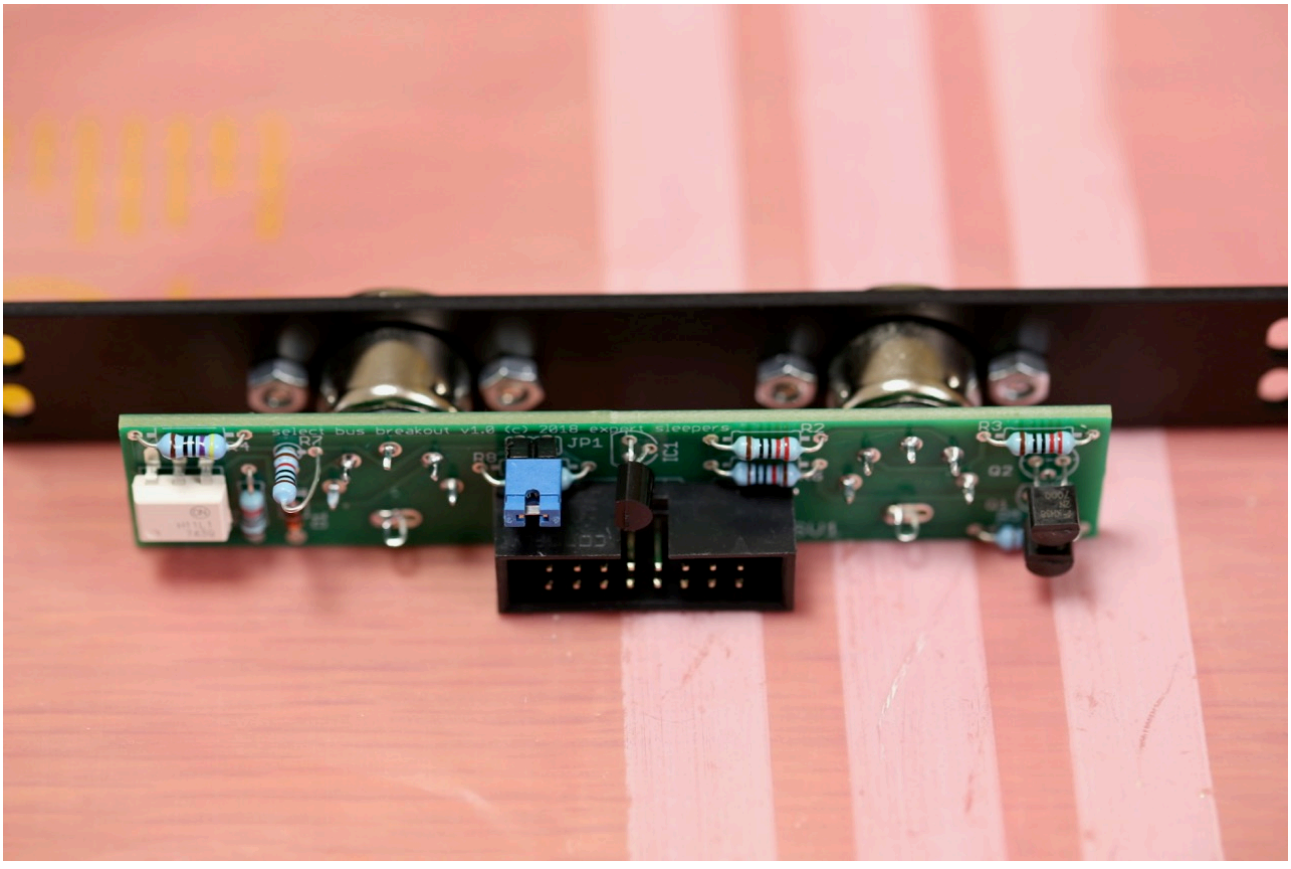

## 14. Insert and solder SV1

Insert the 16 way header. Note the orientation of the keying hole.



# 15. Solder the DIN sockets to the PCB





Solder the two DIN sockets to the PCB.

## 16. You’re done!