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CDM12 CD-Player



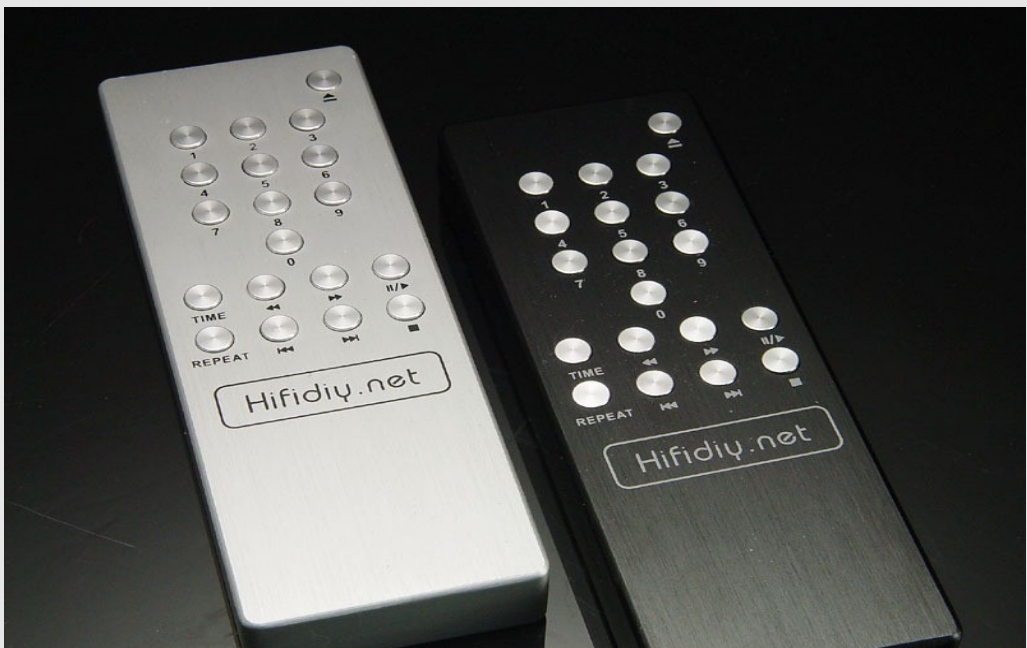
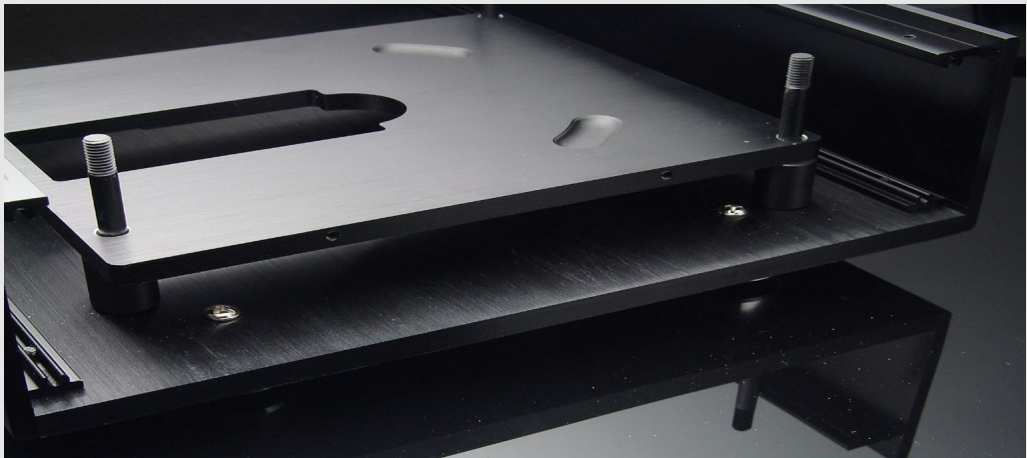
Assembly Manual

2009 Jochen Hammer

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CDM12 CD-Player Kit

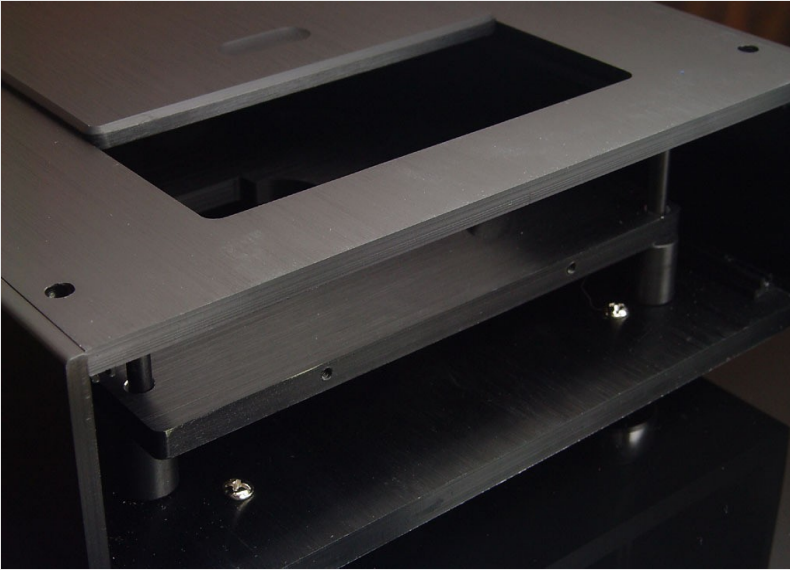




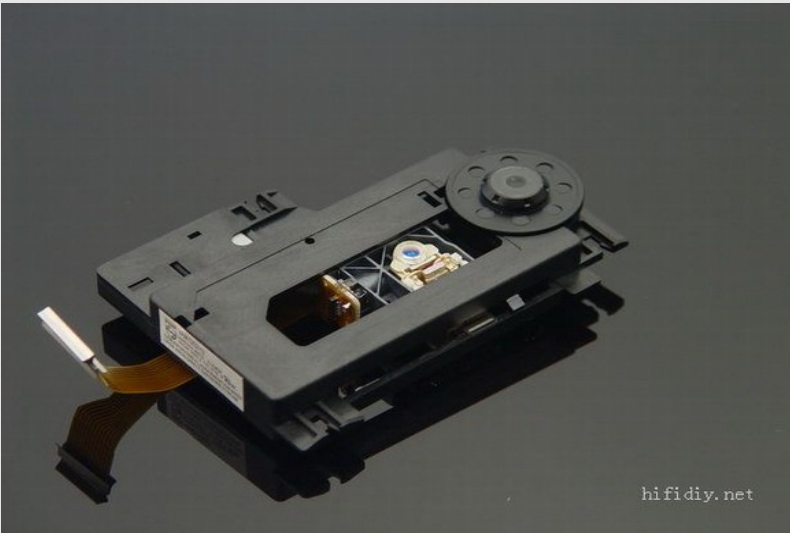
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3-8mm Aluminium
Chassis

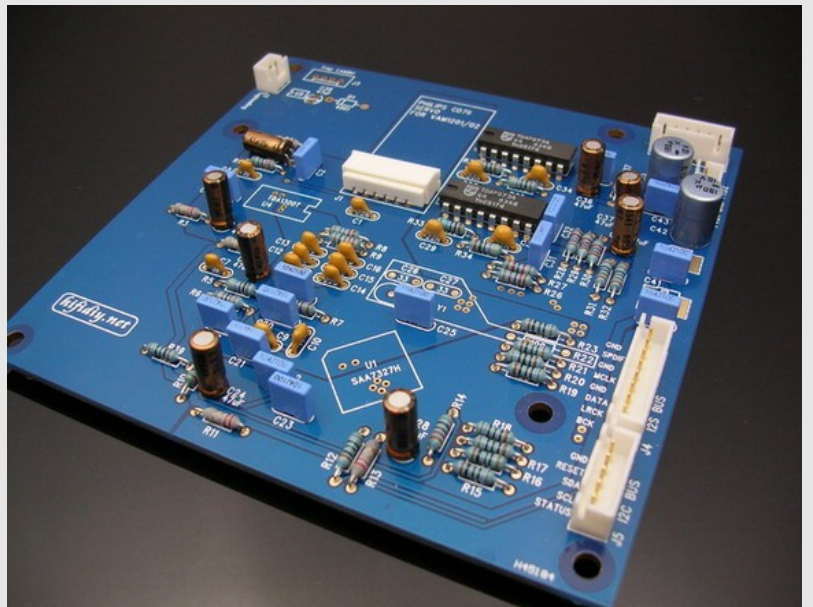


Philips VAM102 Laser
Pickup



High-Precision 3PPM
TXCO

Servo-Board
pre-build and tested

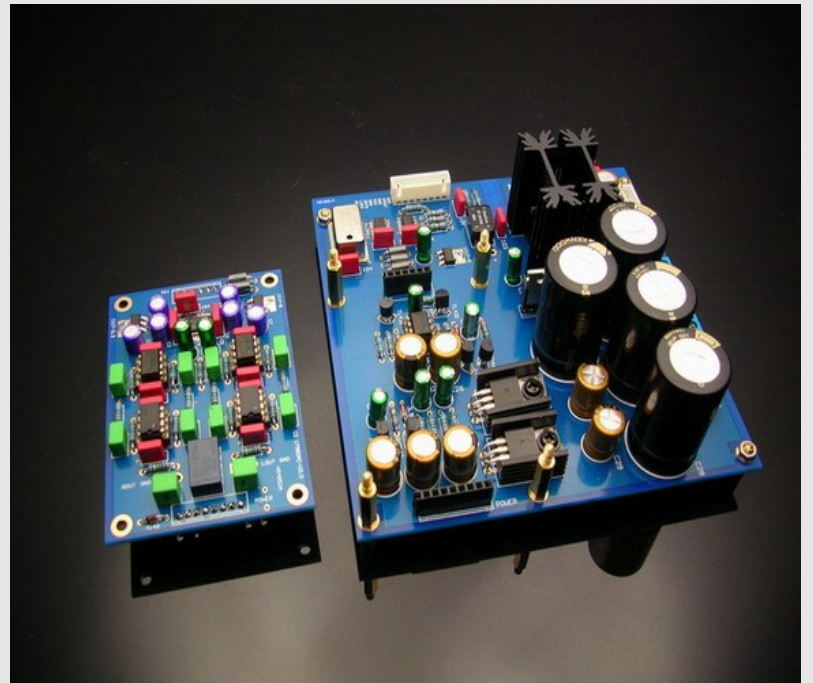


Mainboard with Power-Supply and DAC-Board

TI PCM1798 DAC

Burr-Brown AD604 OPAMP

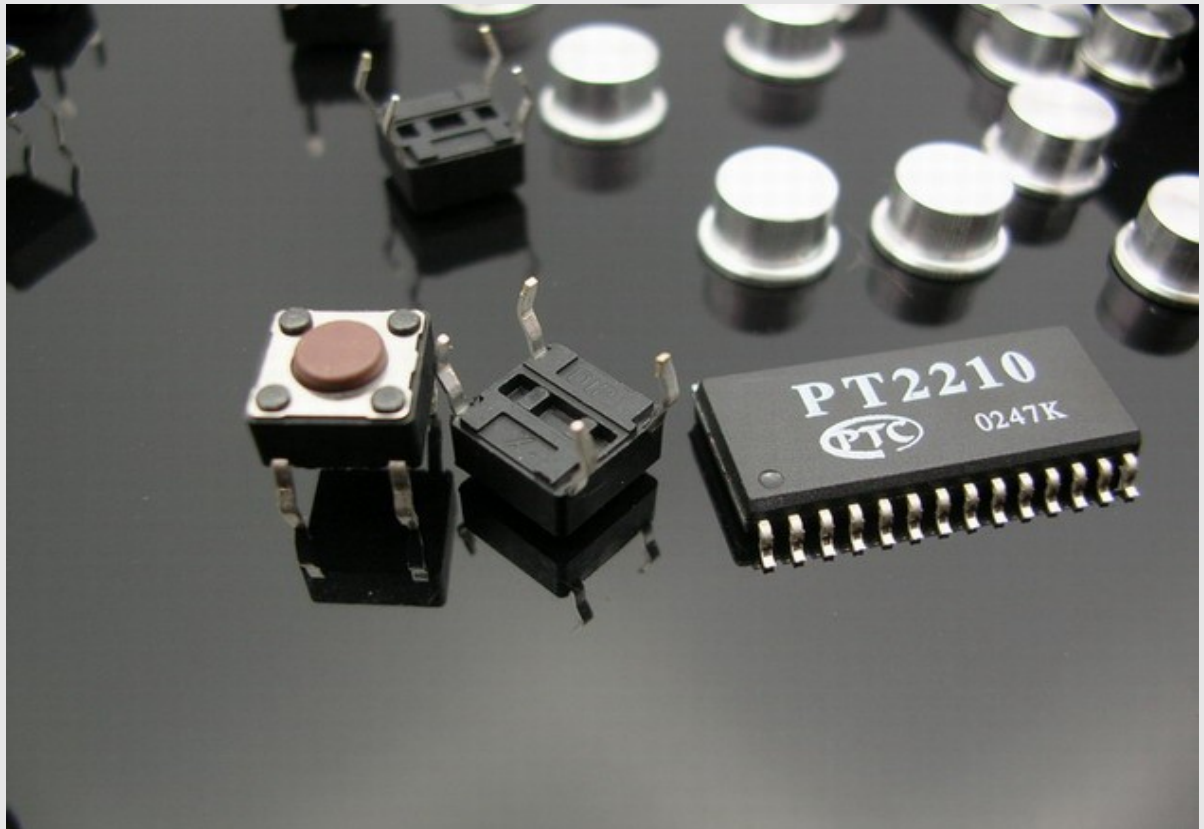
WIMA & Nichicon Capacitors



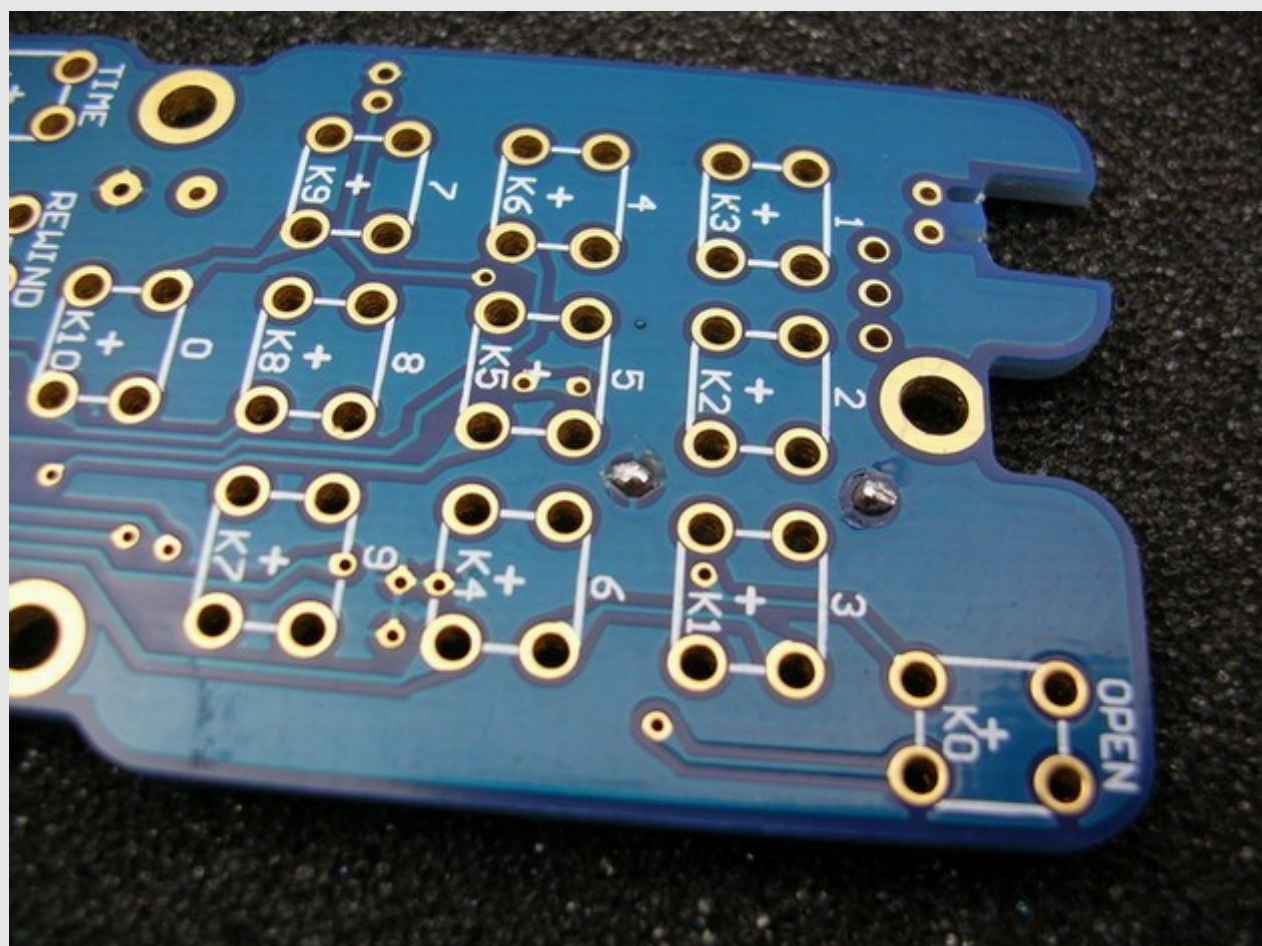
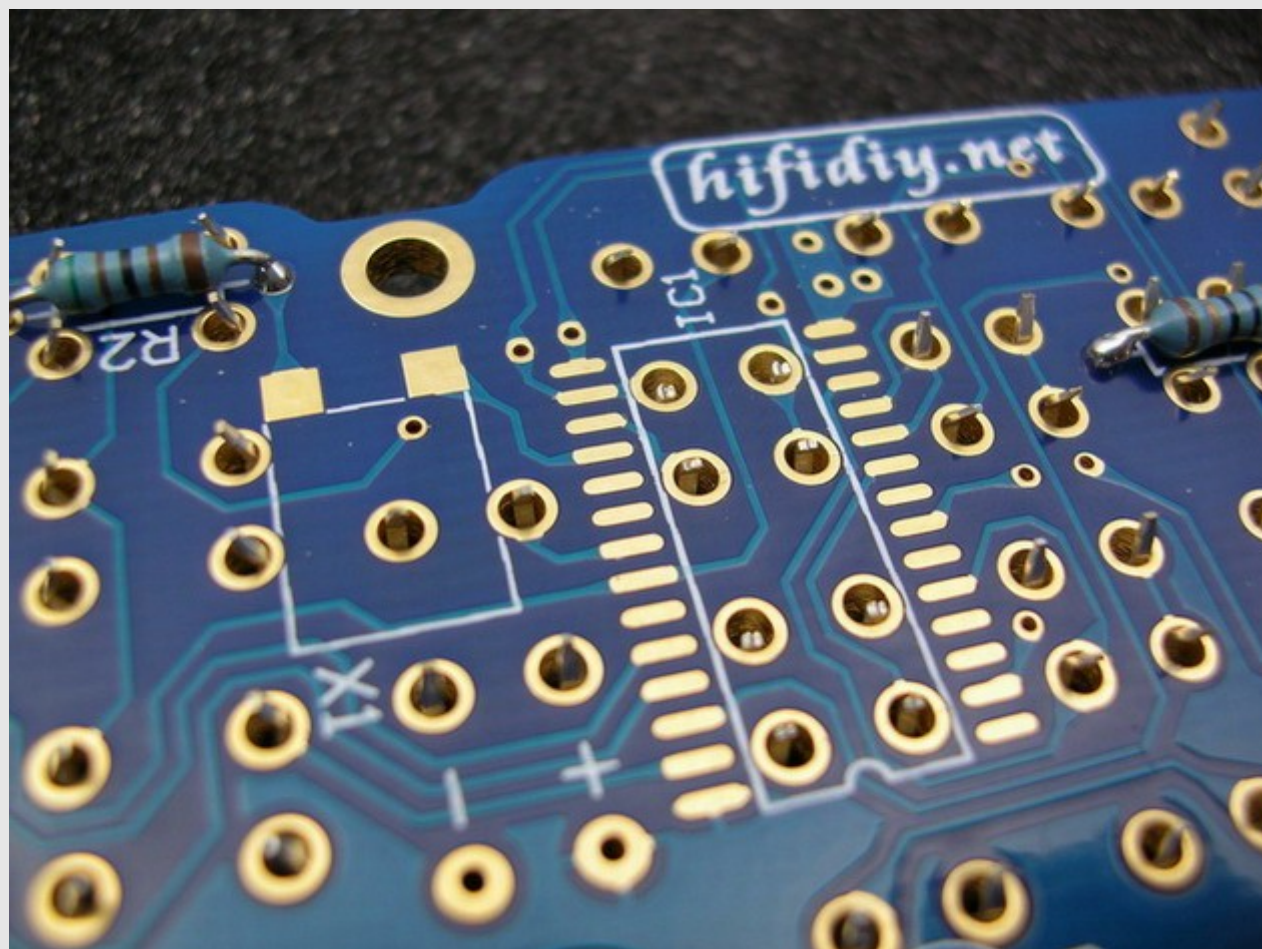
50 Watt R-Core
Transformer



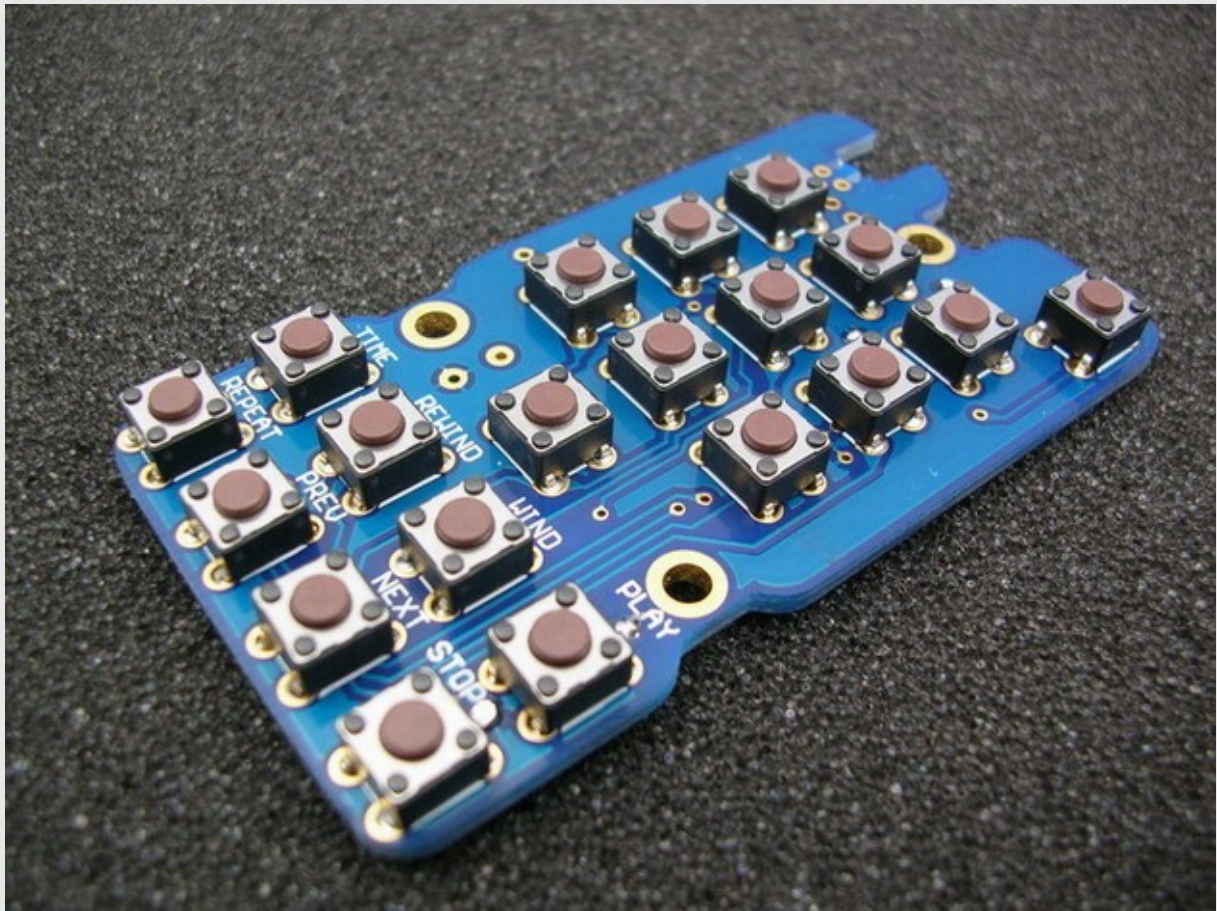
Remote Control



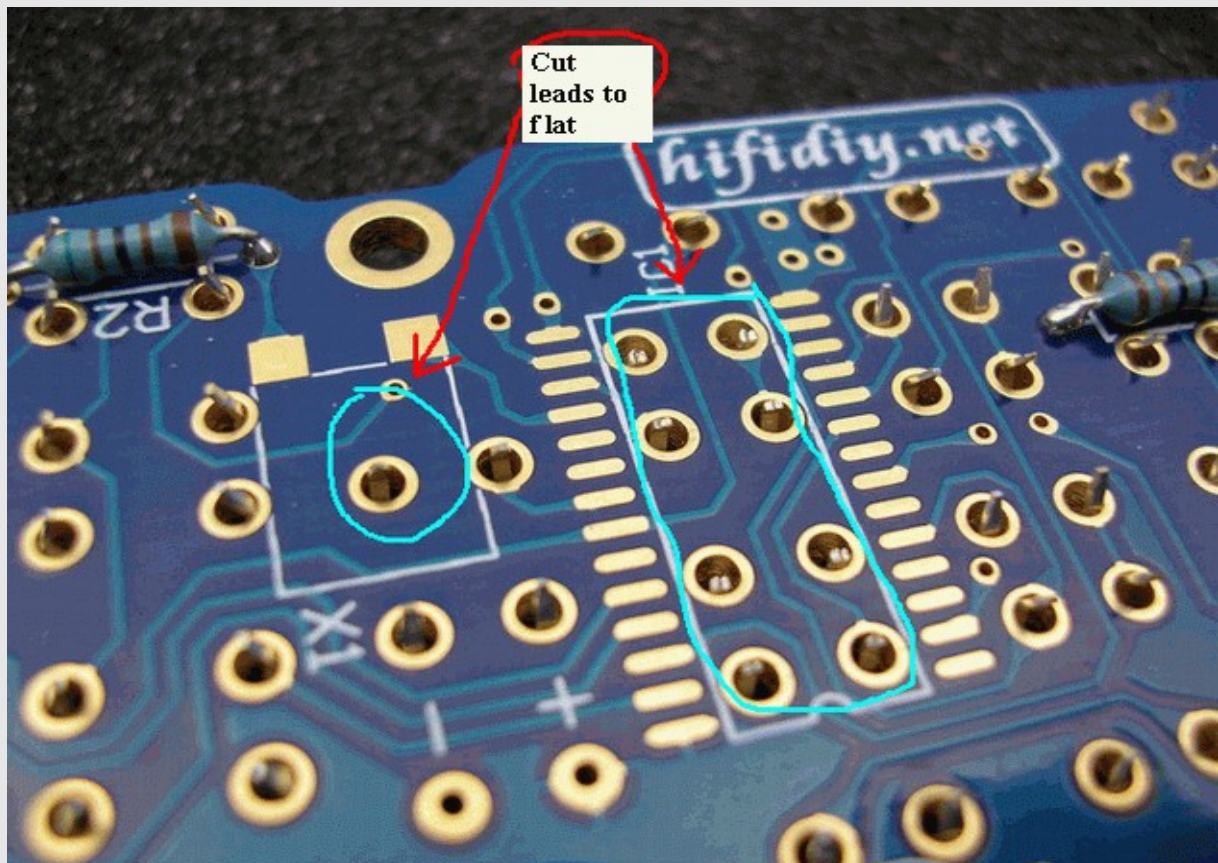
Install resistors R1=10R, R2=5.1K

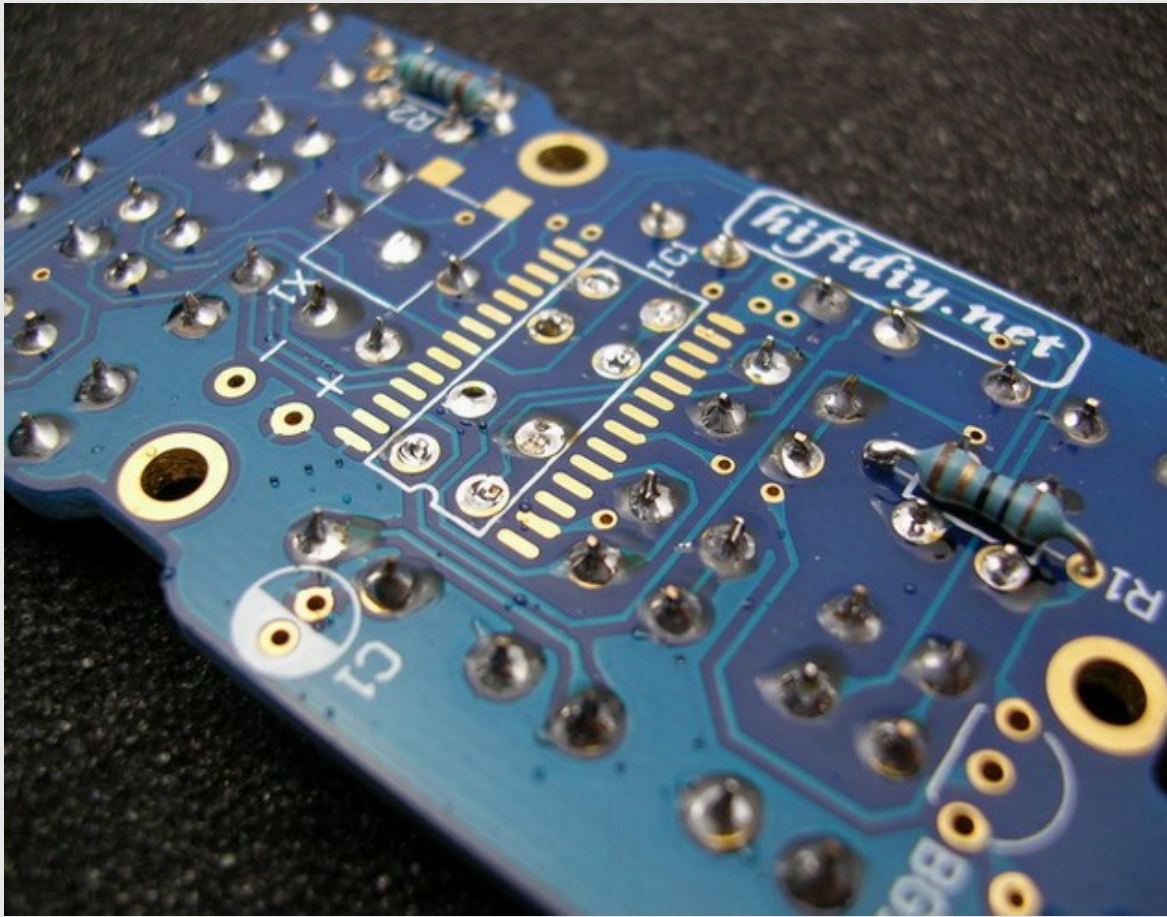


Install touch switches

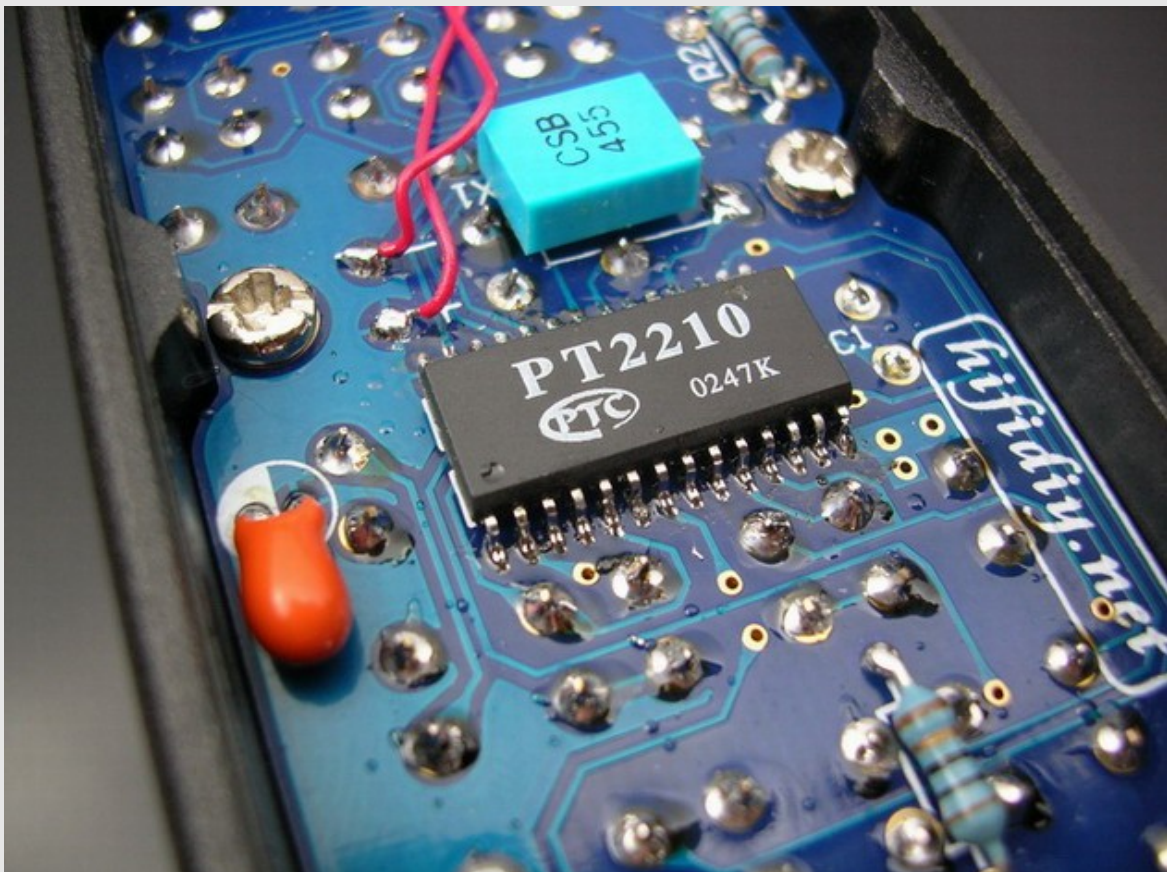


Cut leads allowing to install IC and Crystal

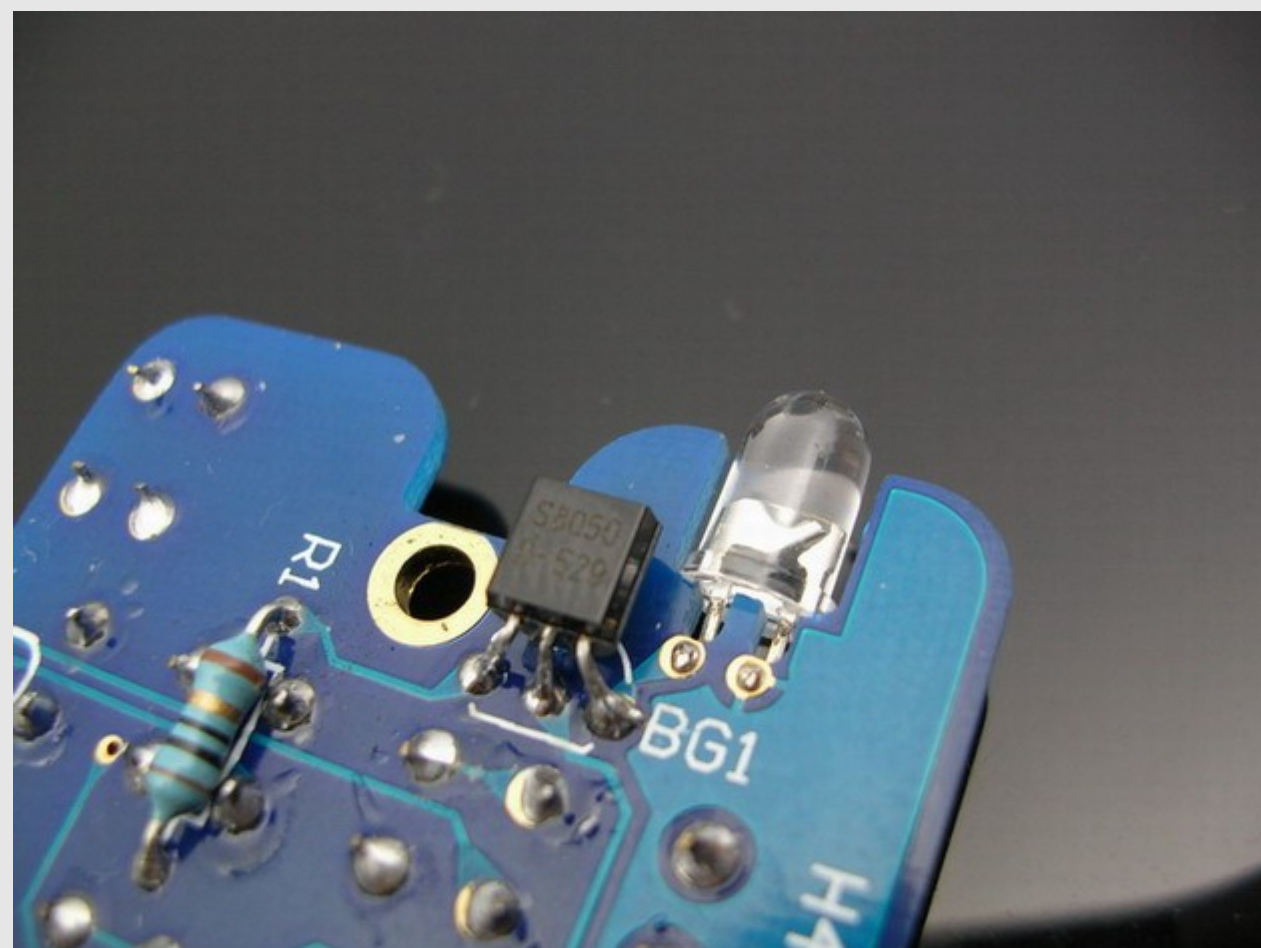
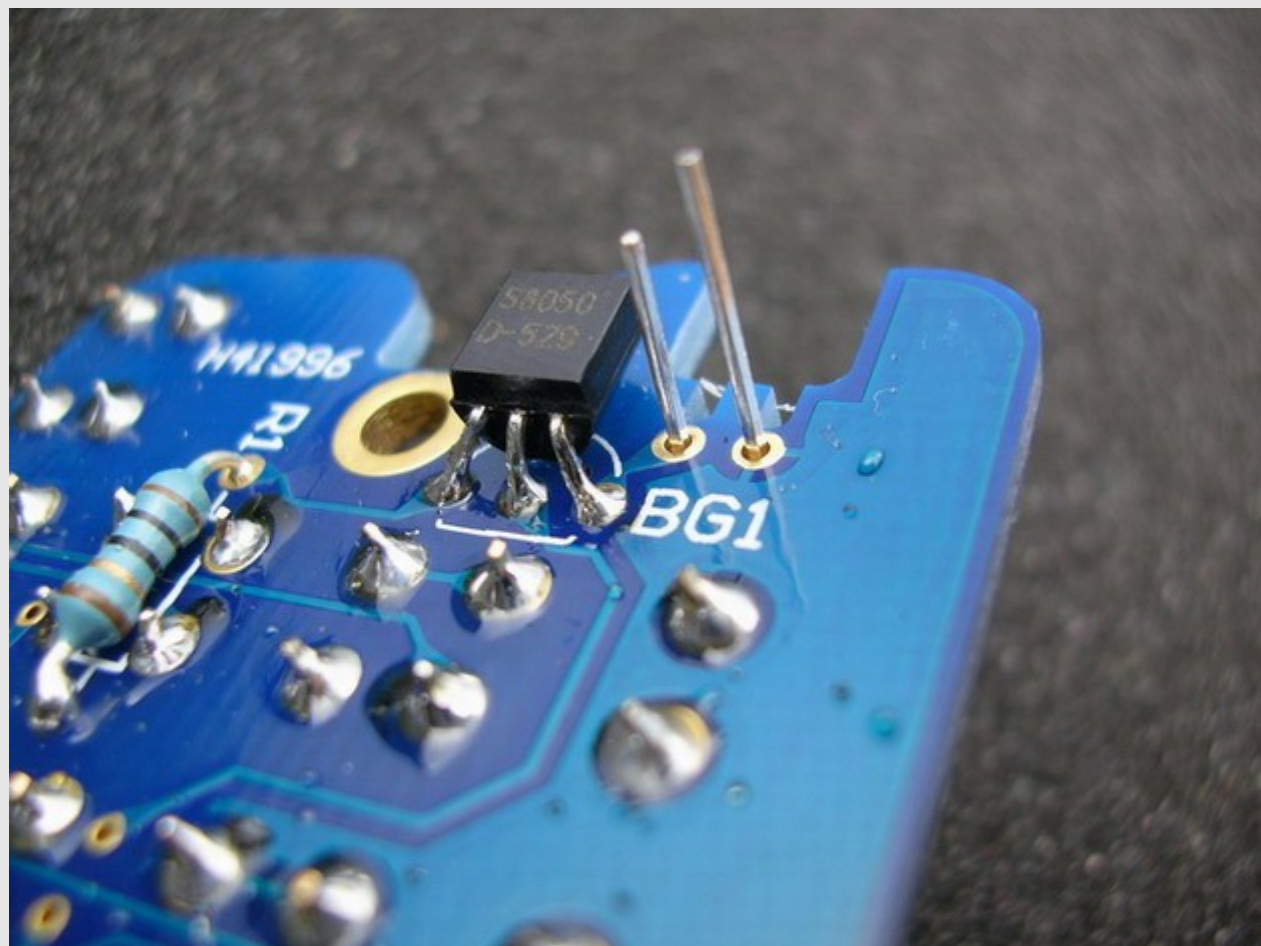




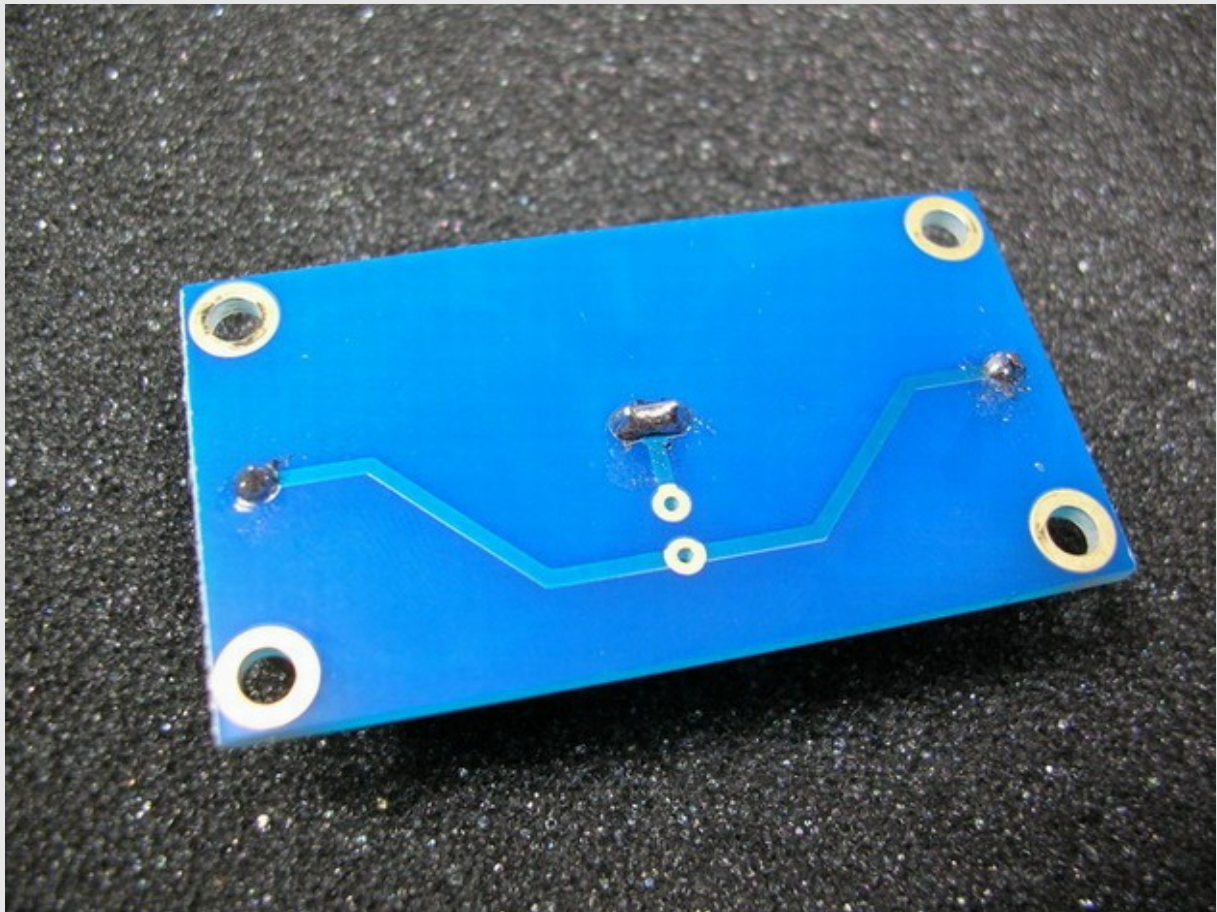
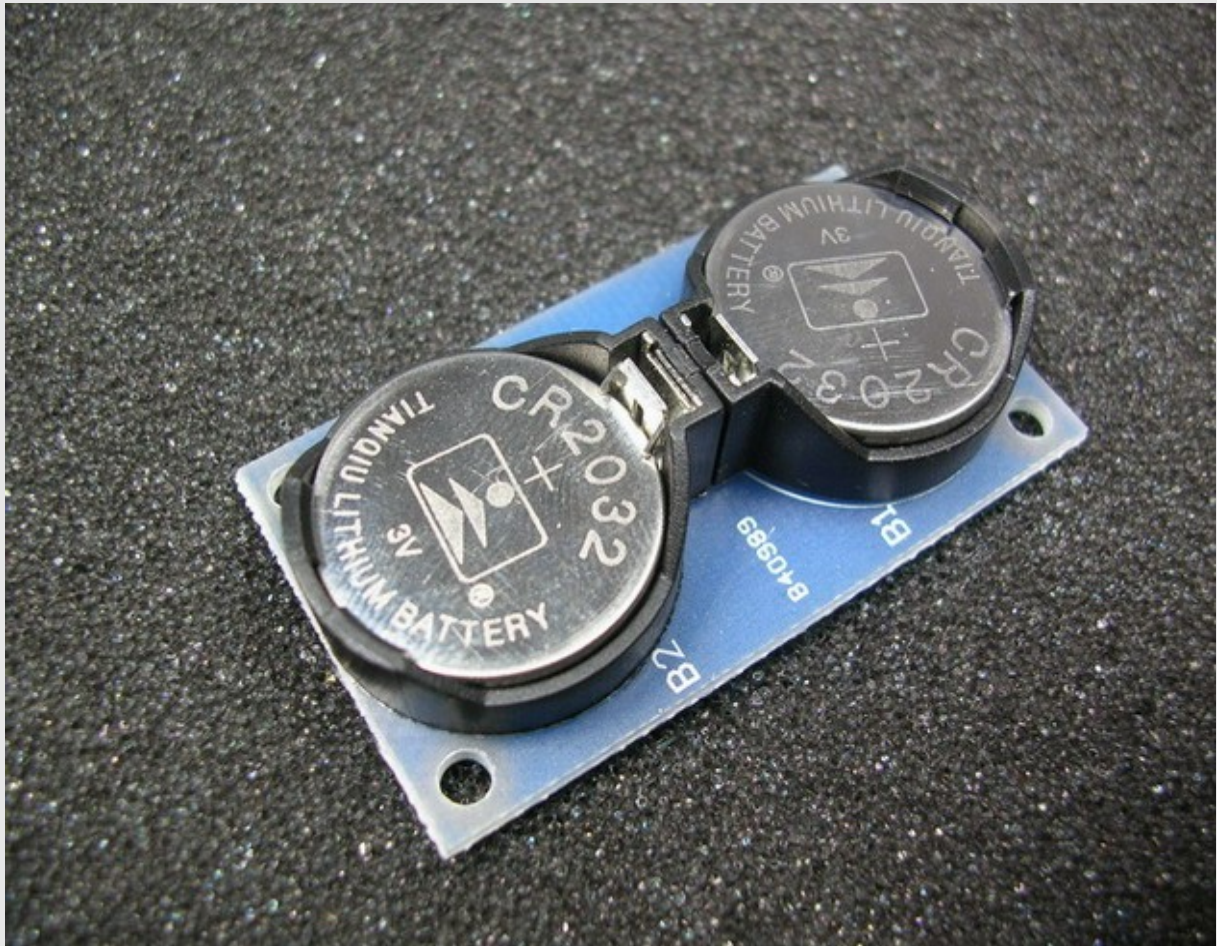
Install IC, Crystal and capacitor



Install Transistor and IR Led



Battery Board assembly



Install keys in chassis



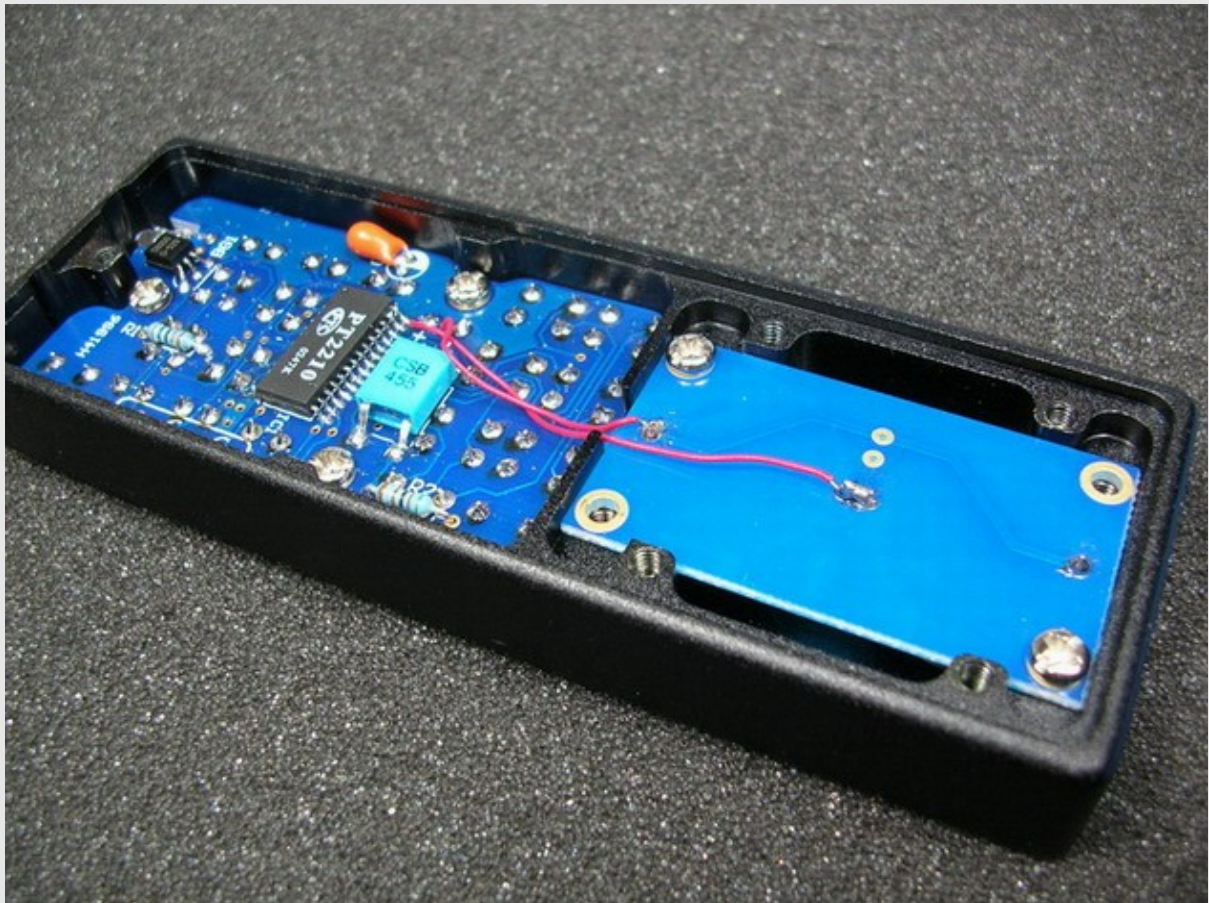
Install PCBs to chassis



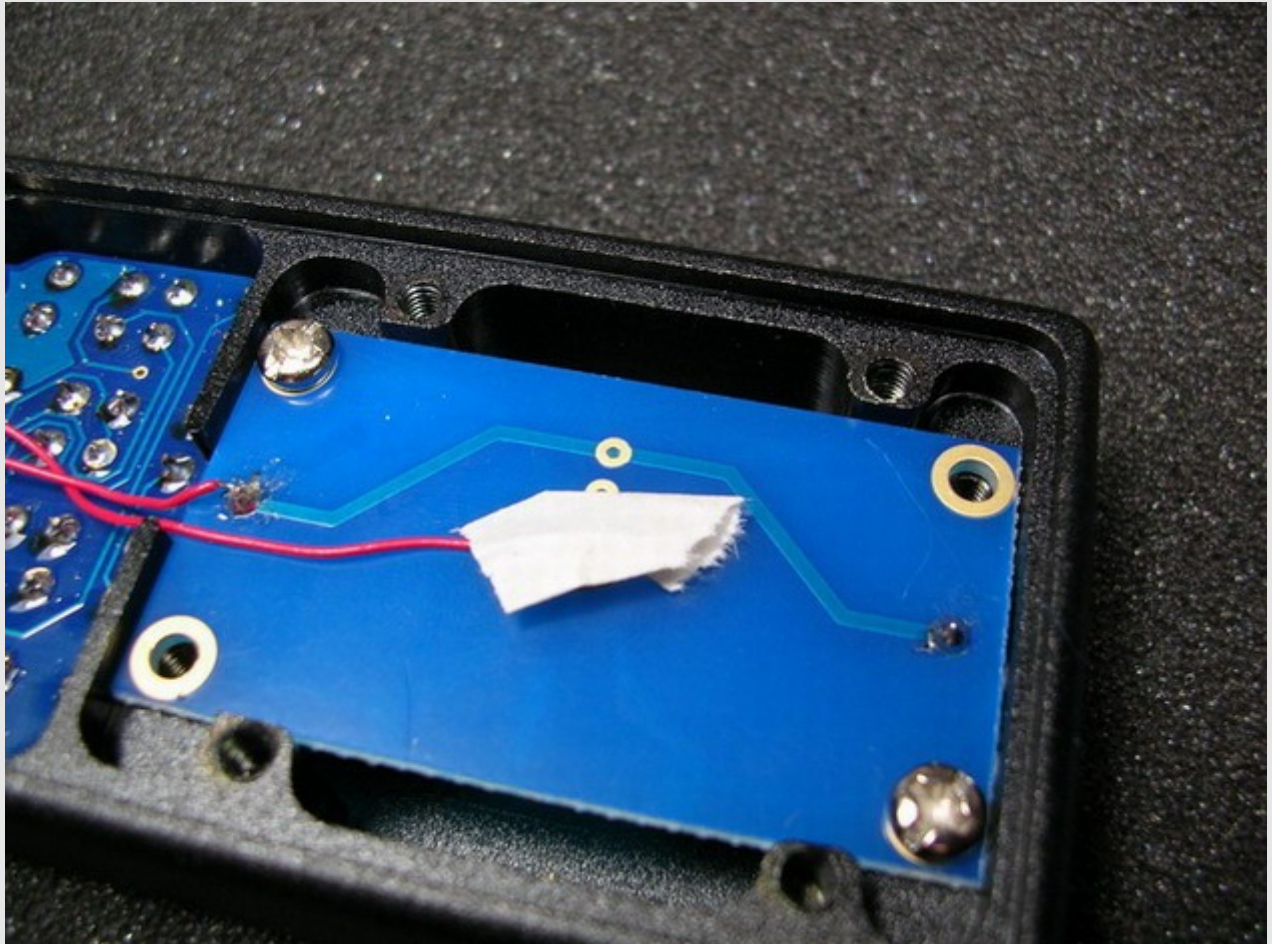
Connect Battery PCB to Remote Control PCB



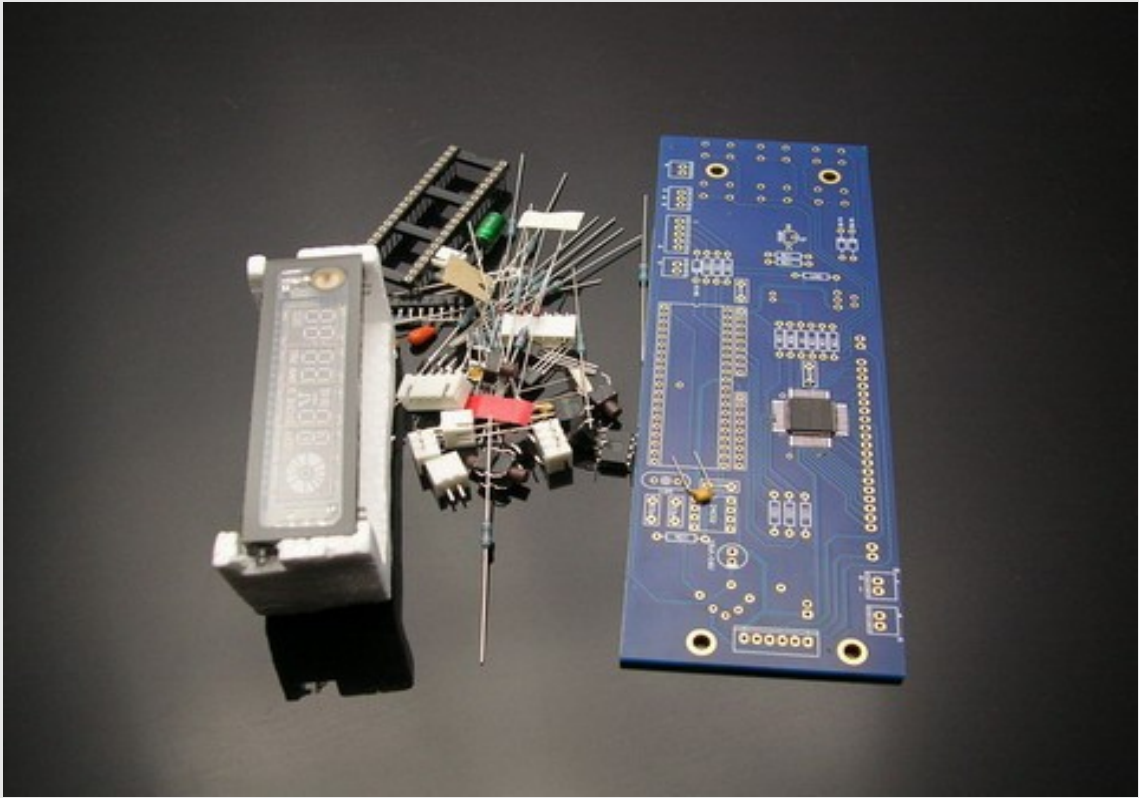
Test: Measure DC voltage at IR Led and press a key.



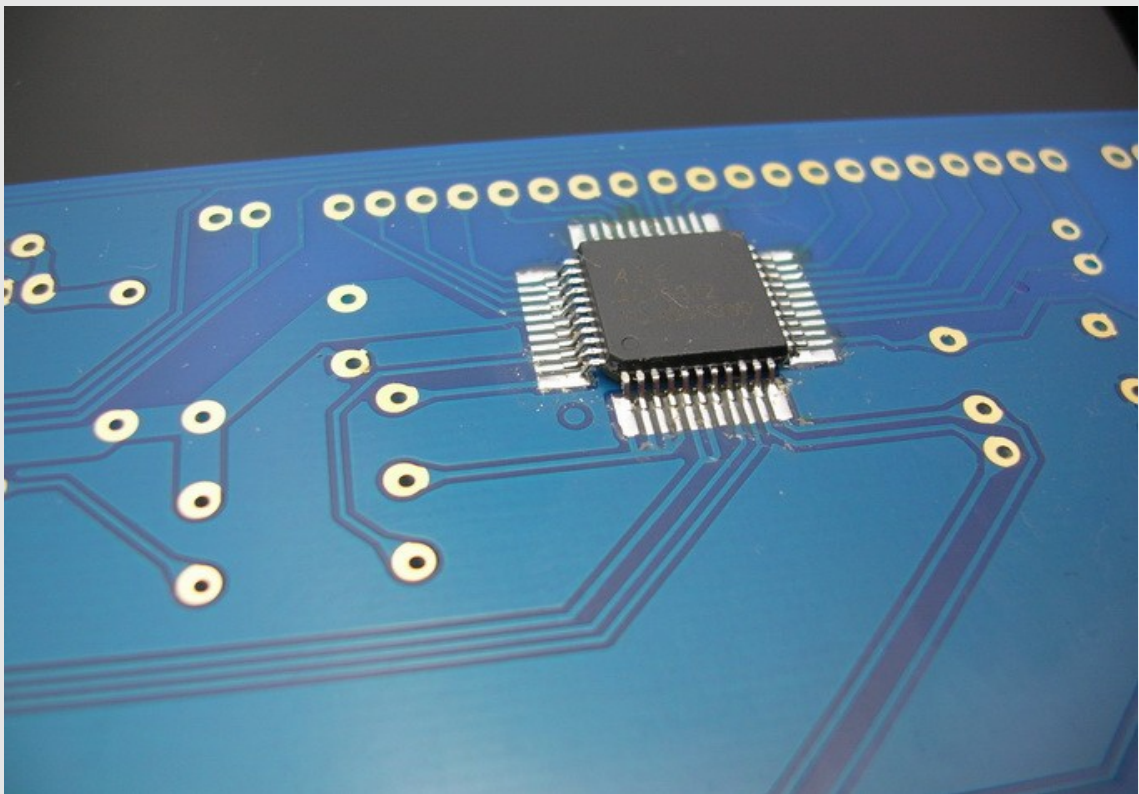
Isolate battery connector



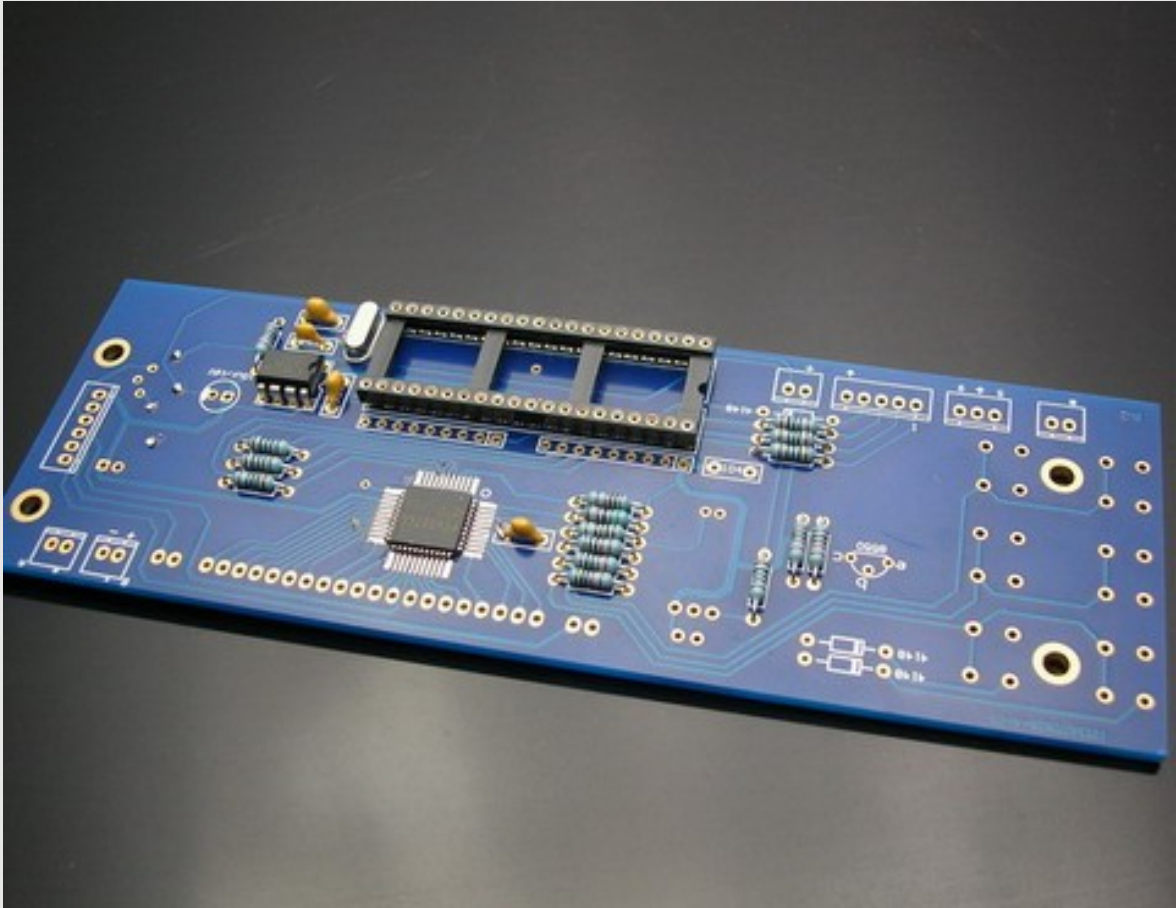
Display Board



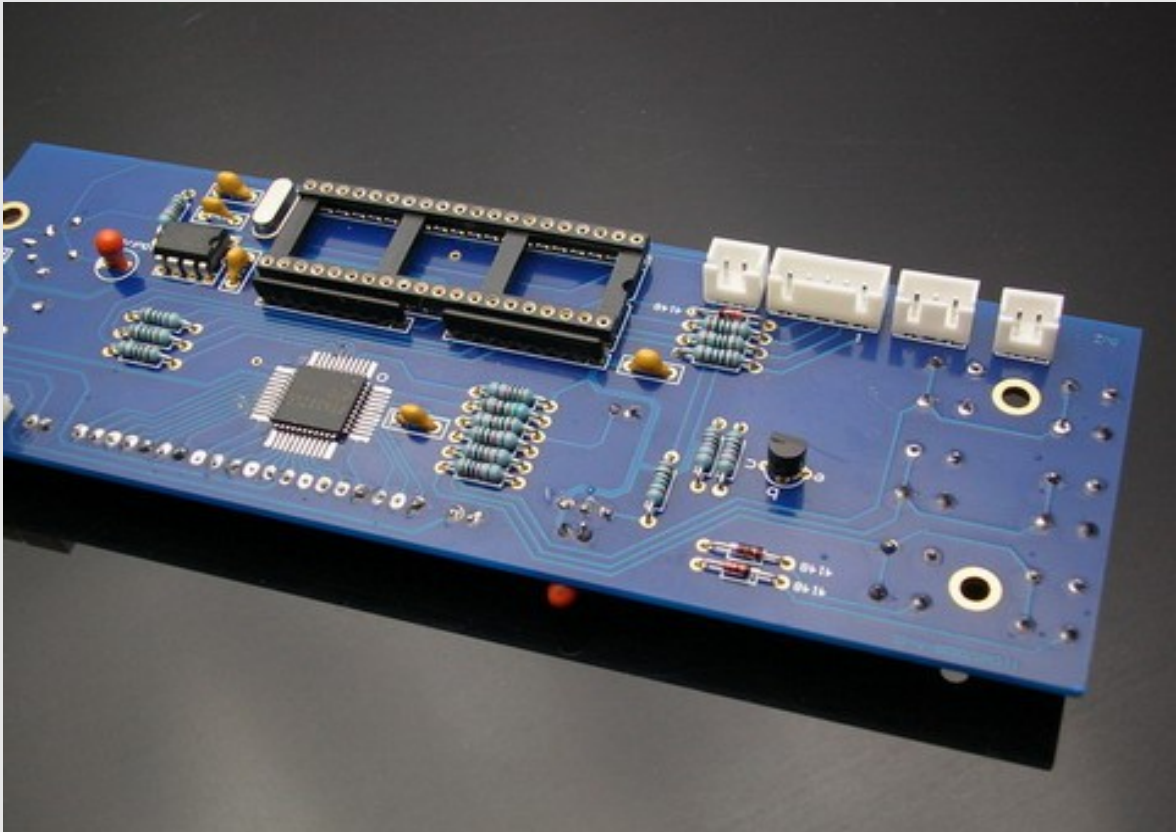
Install Display IC - note the marking on the PCB

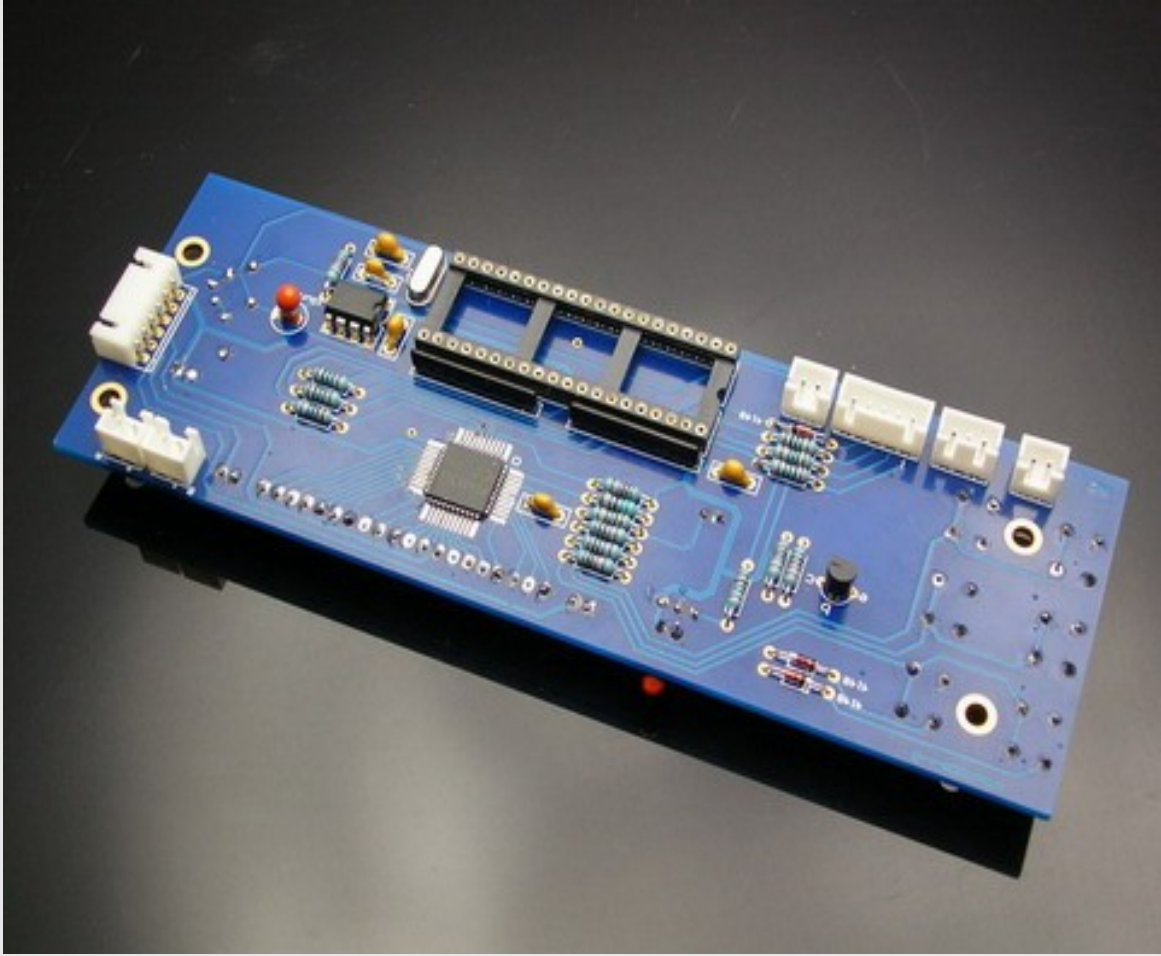


Install Resistors, IC socket and small components

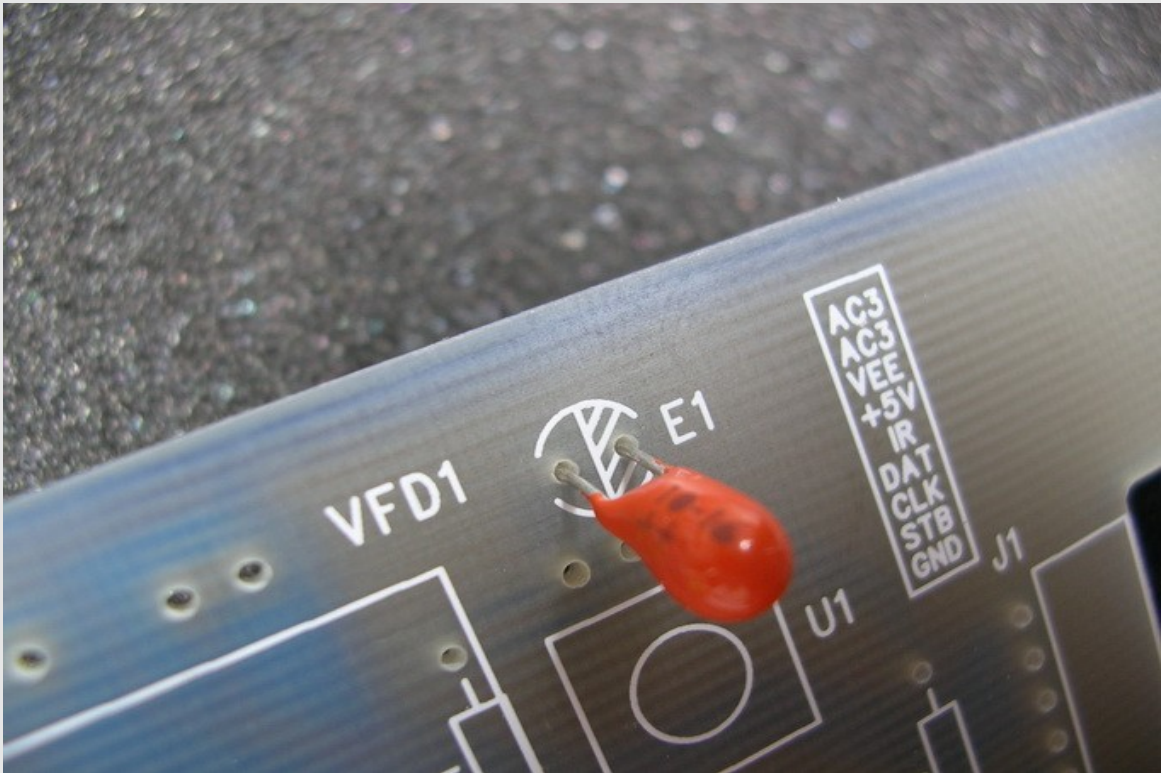


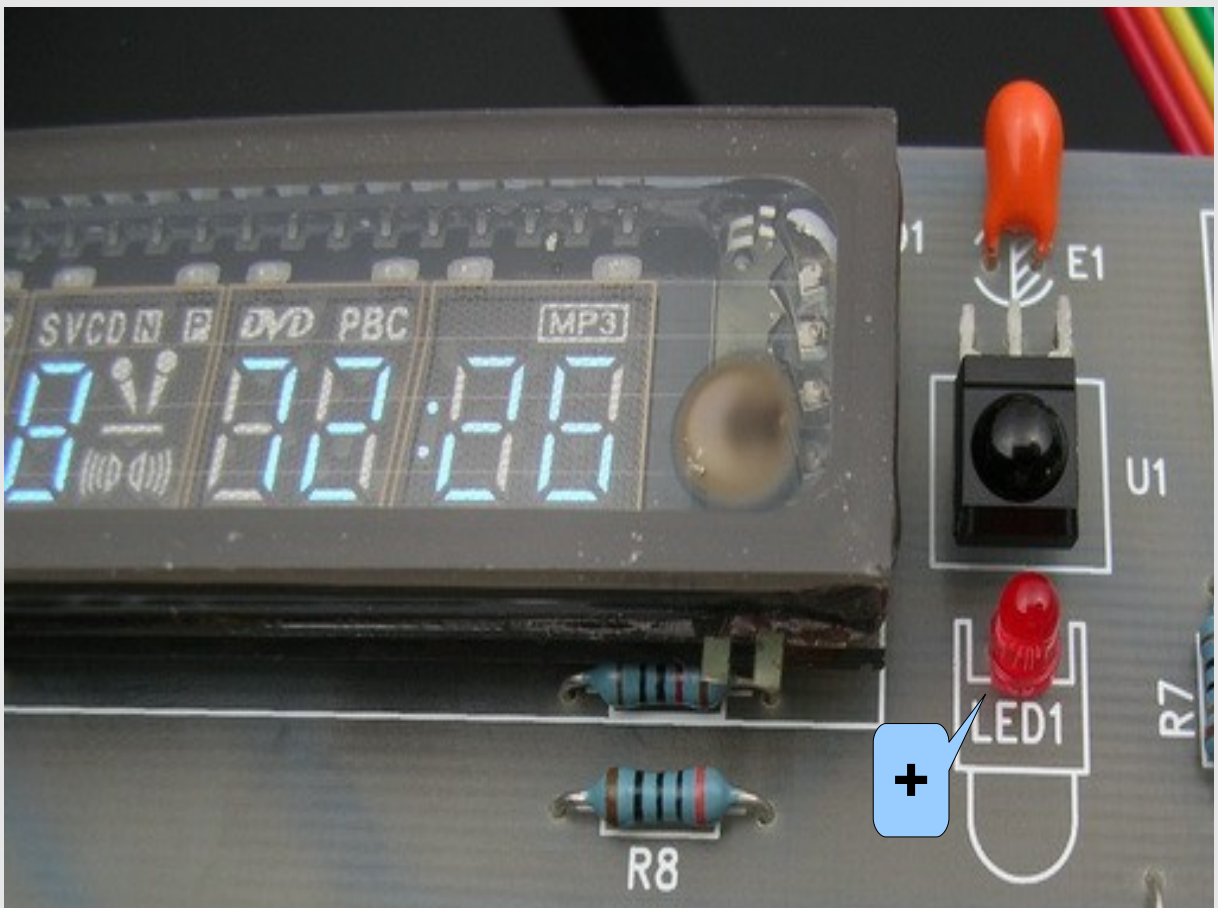
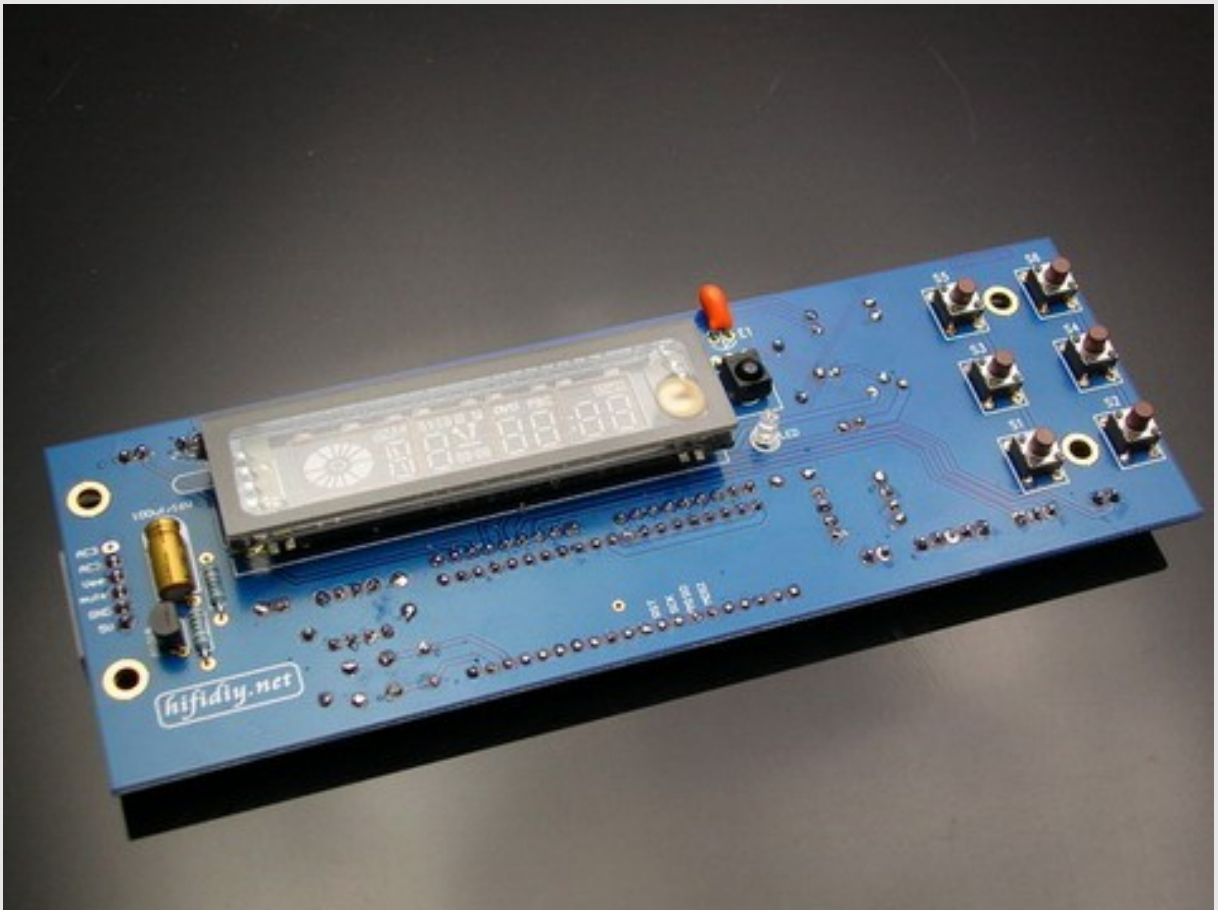
Install Capacitors, Transistors and Connectors

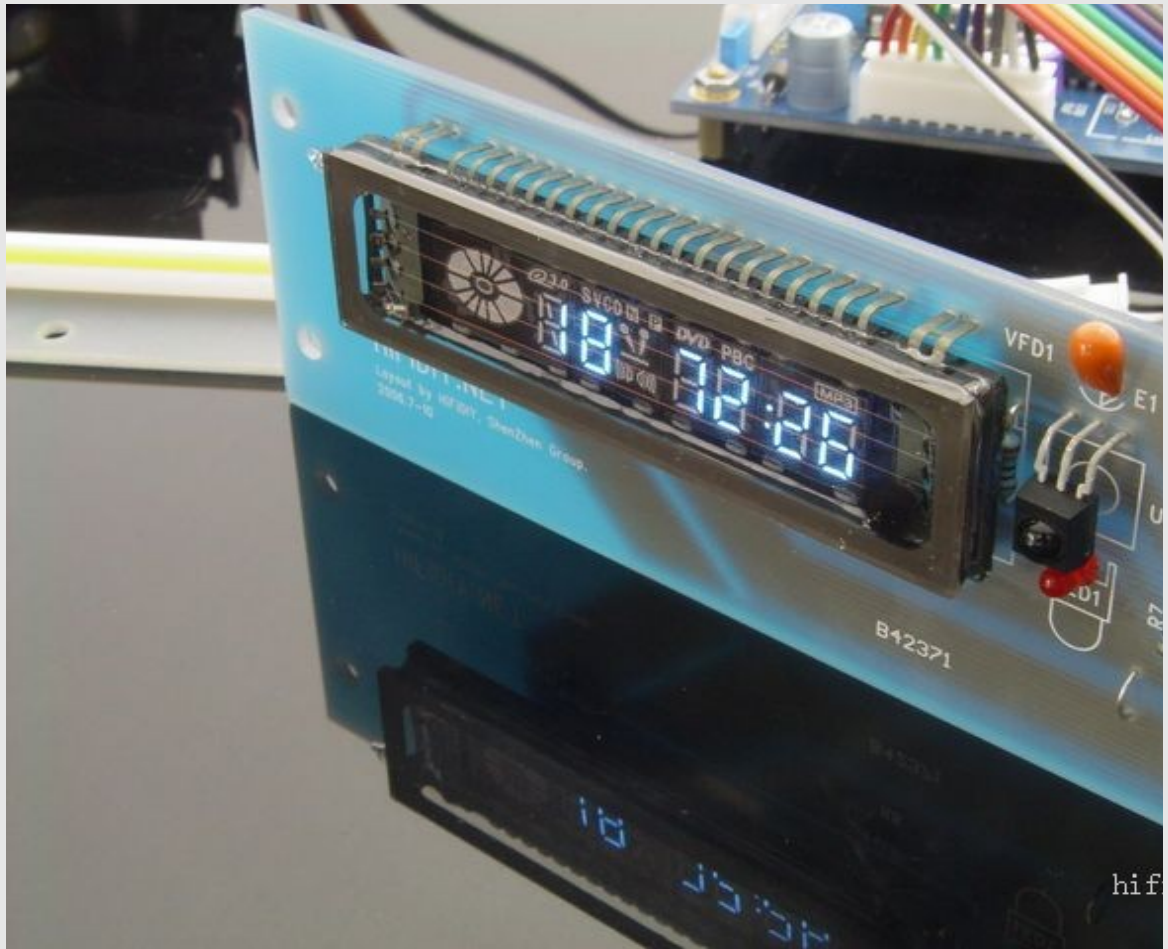




Note polarity

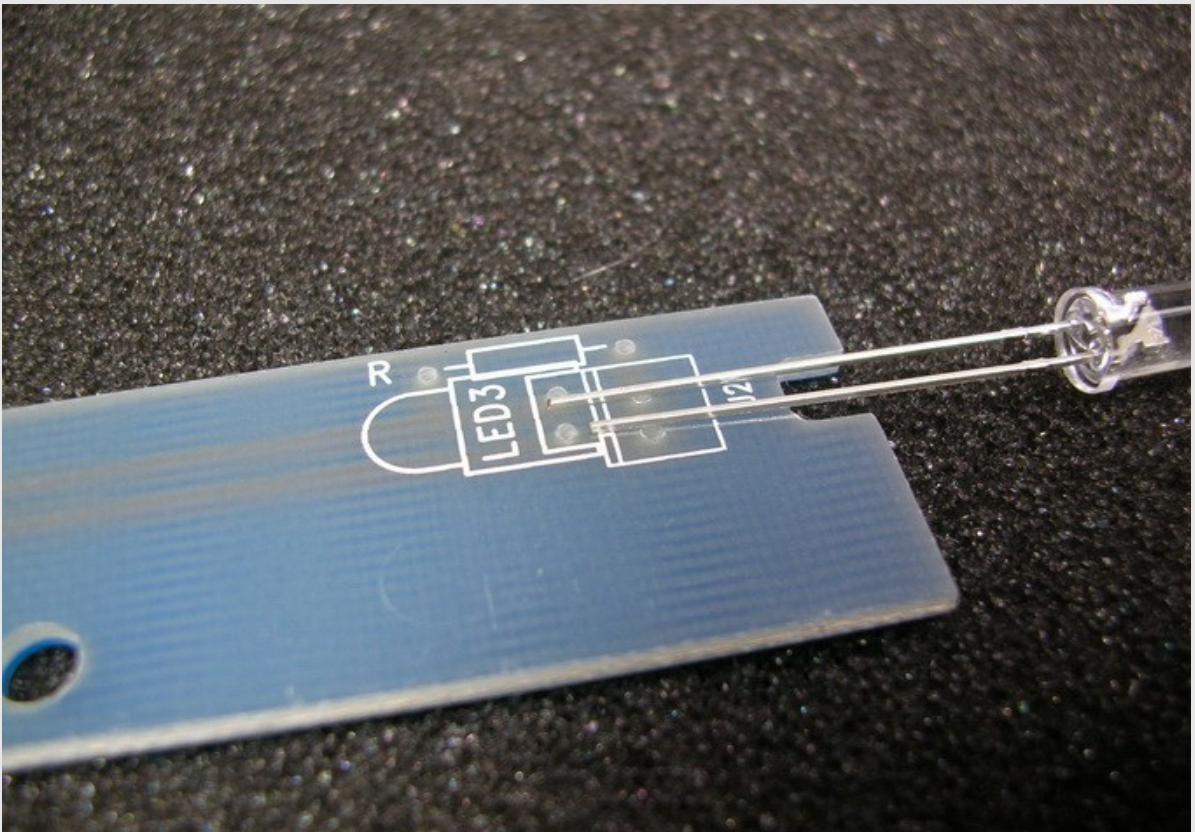
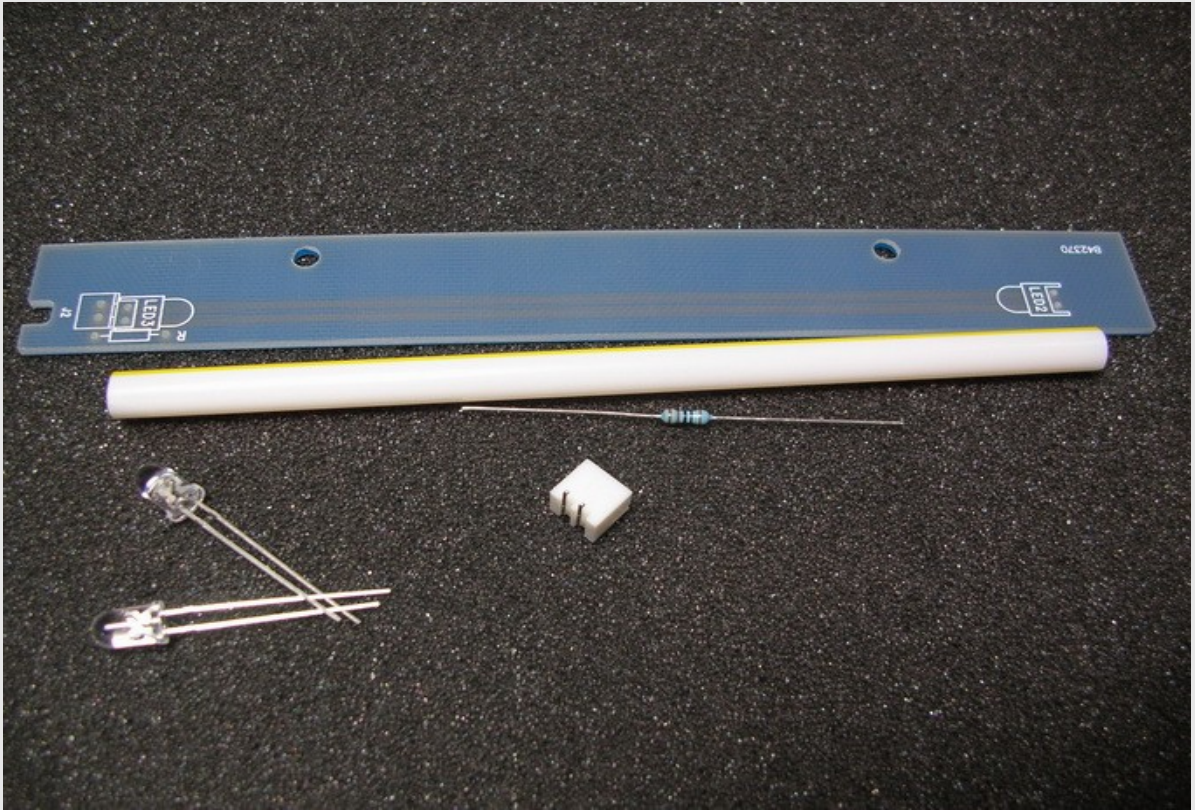




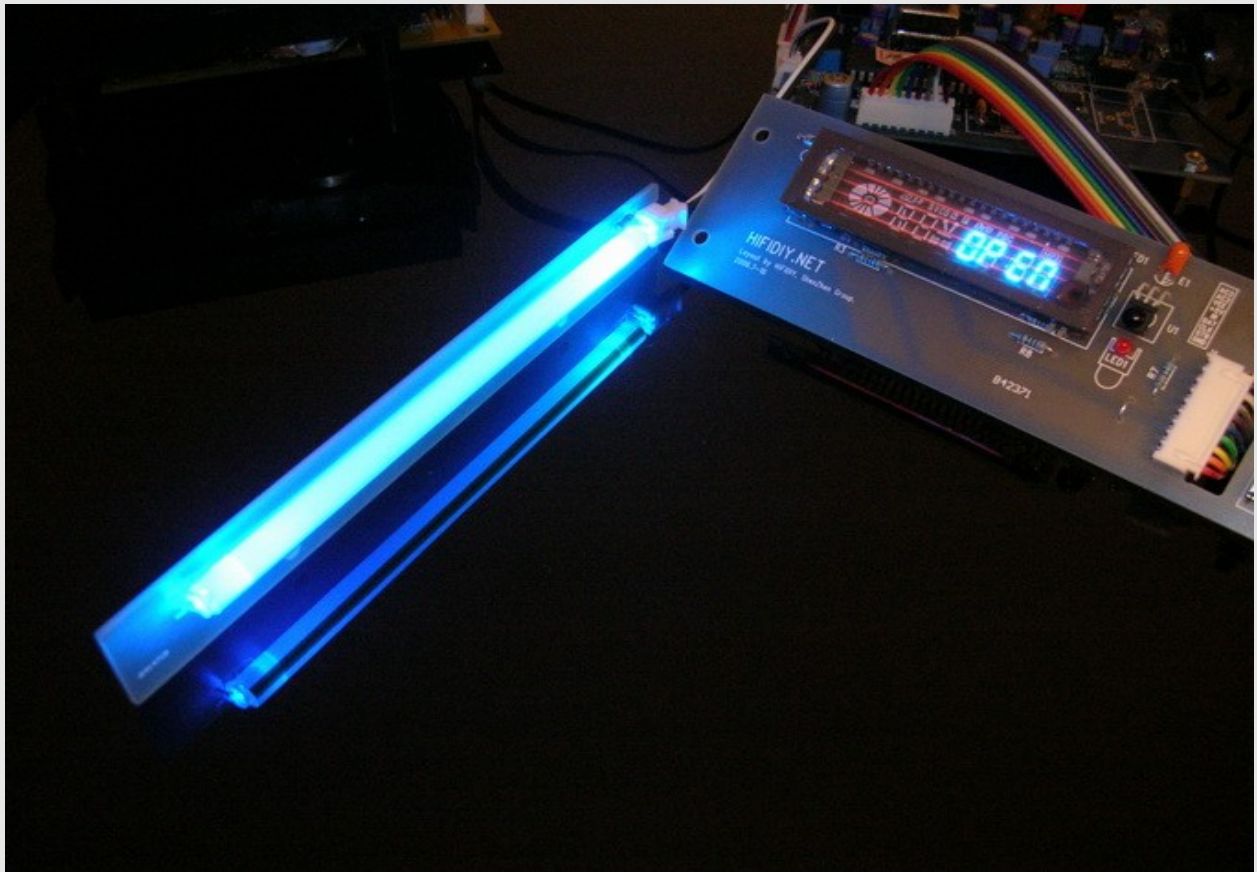
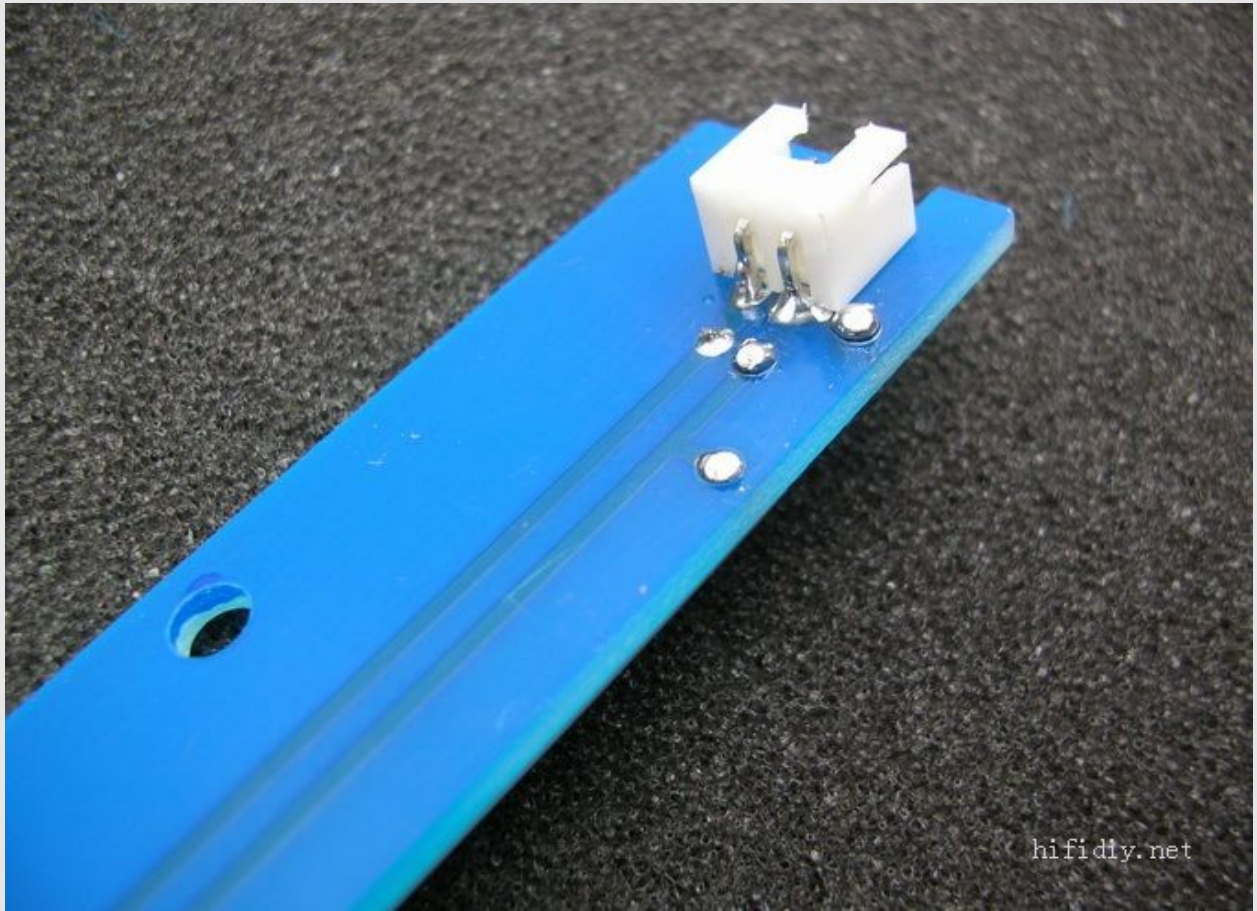


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LED Board

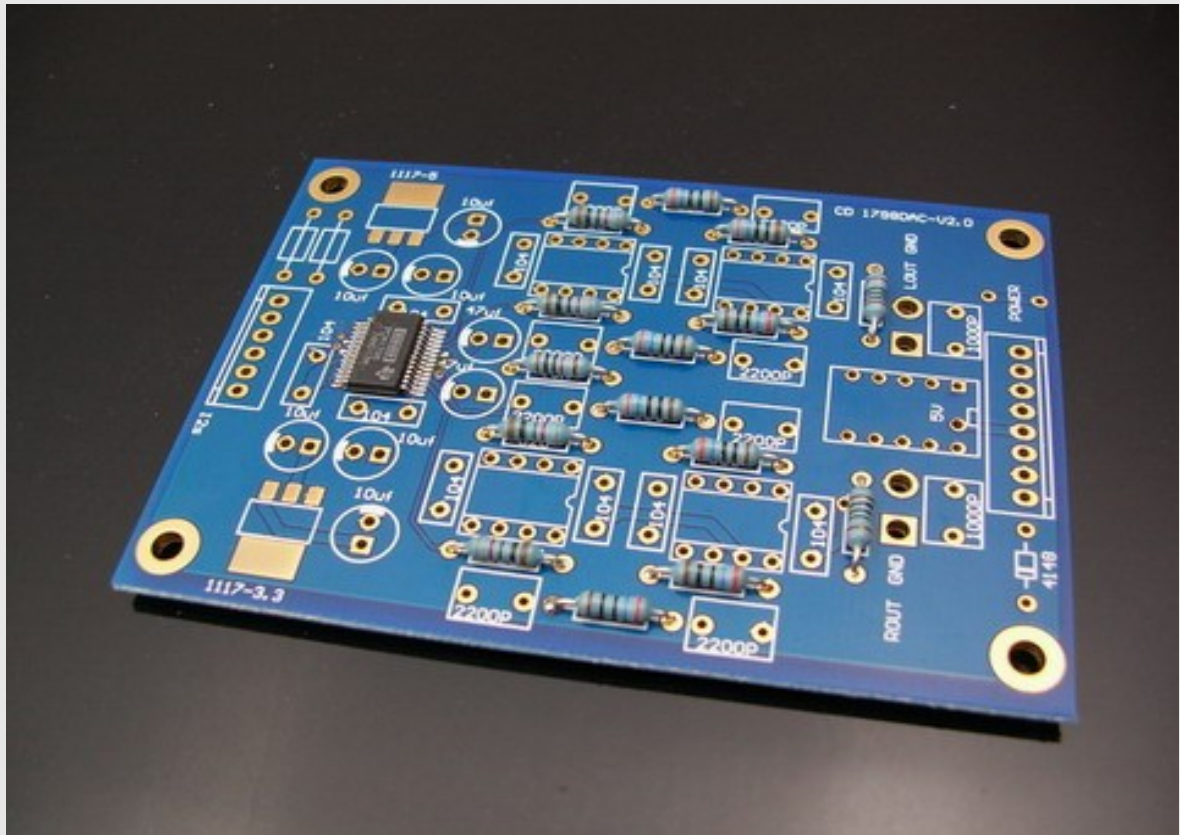




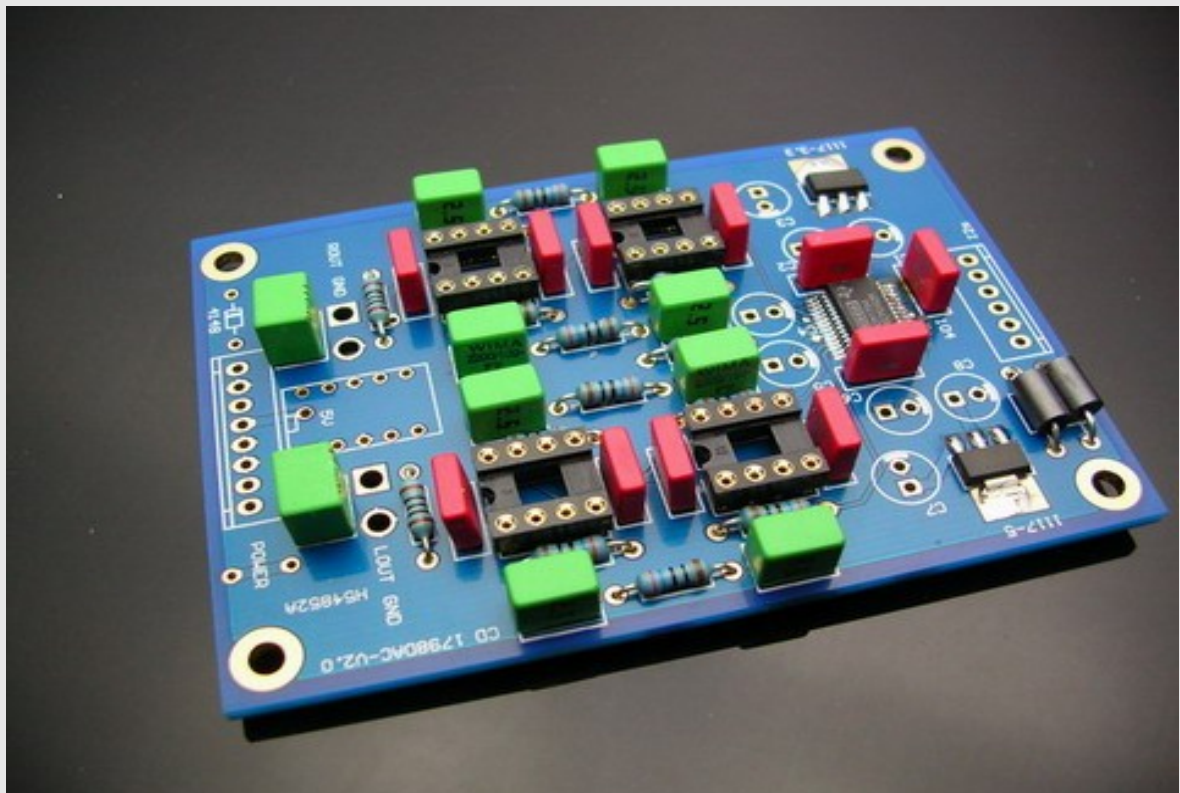


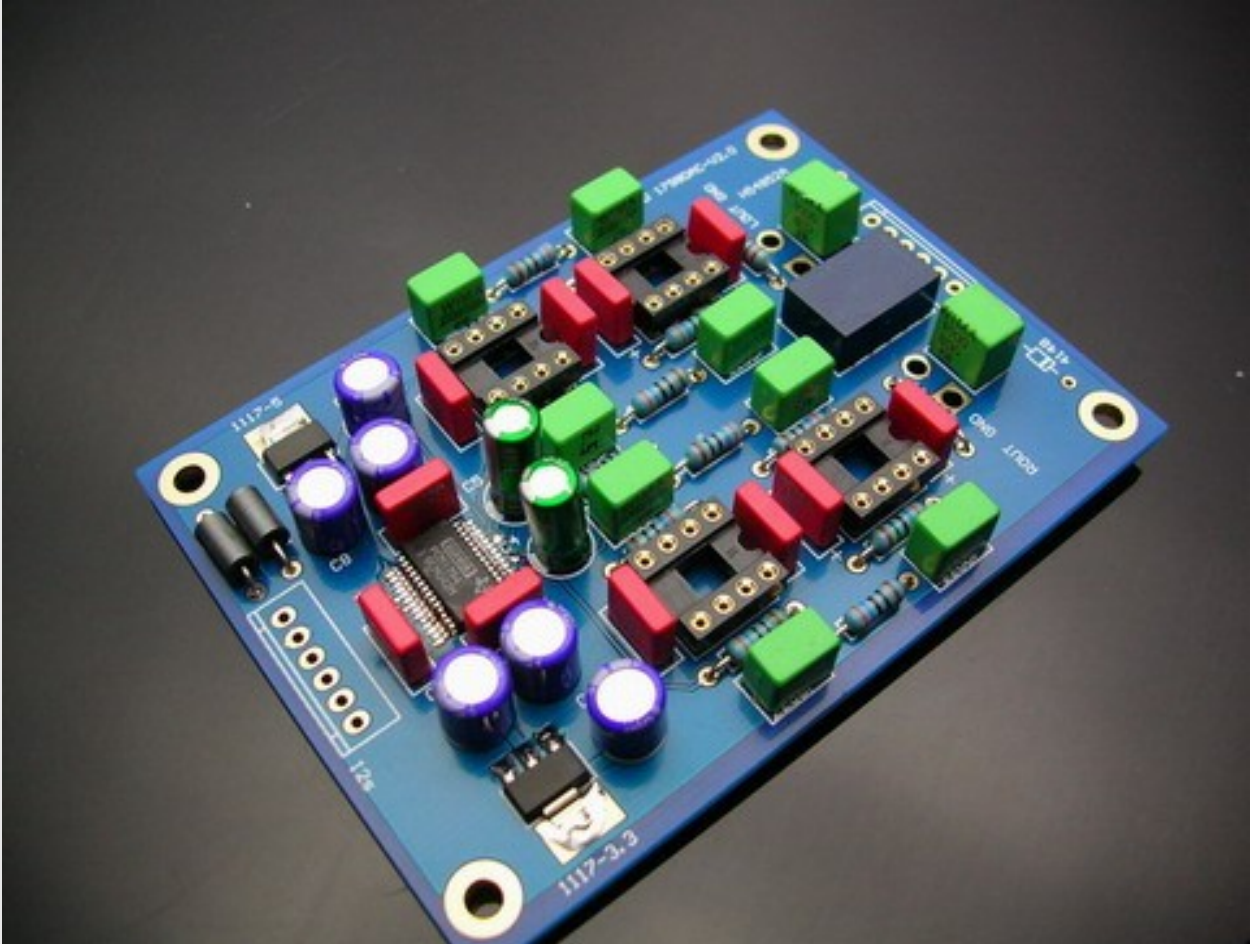
DAC Board

Install DAC and resistors

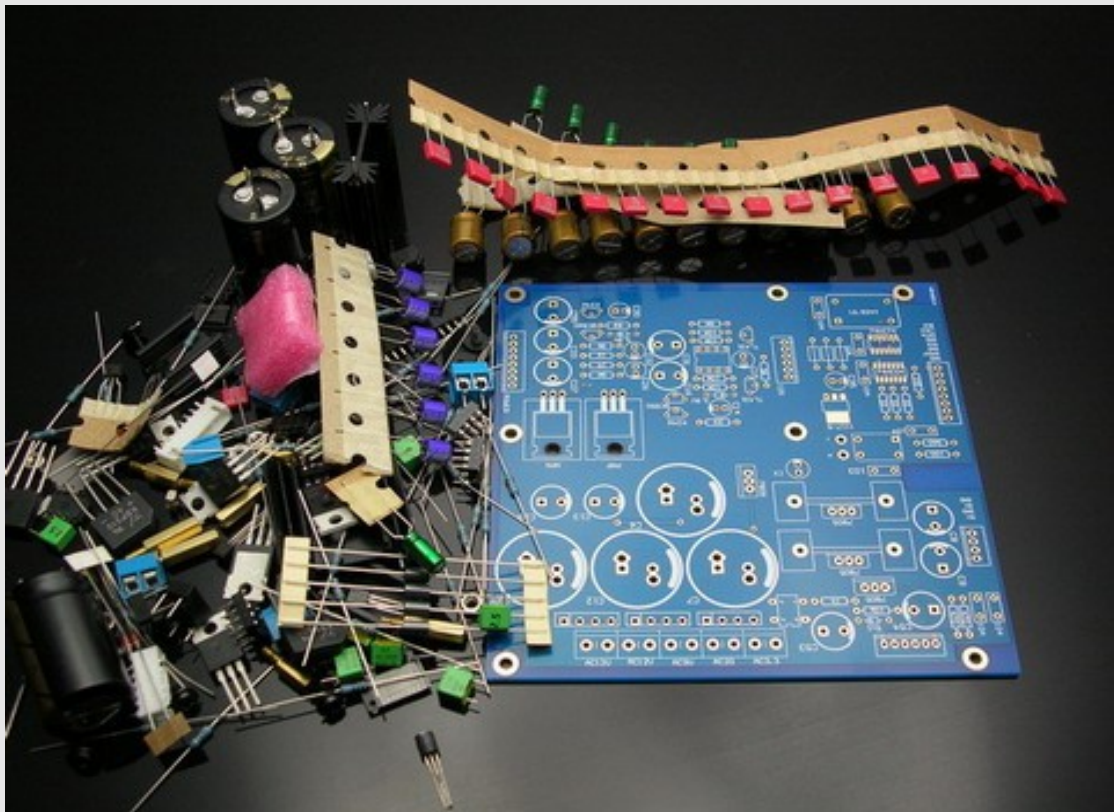
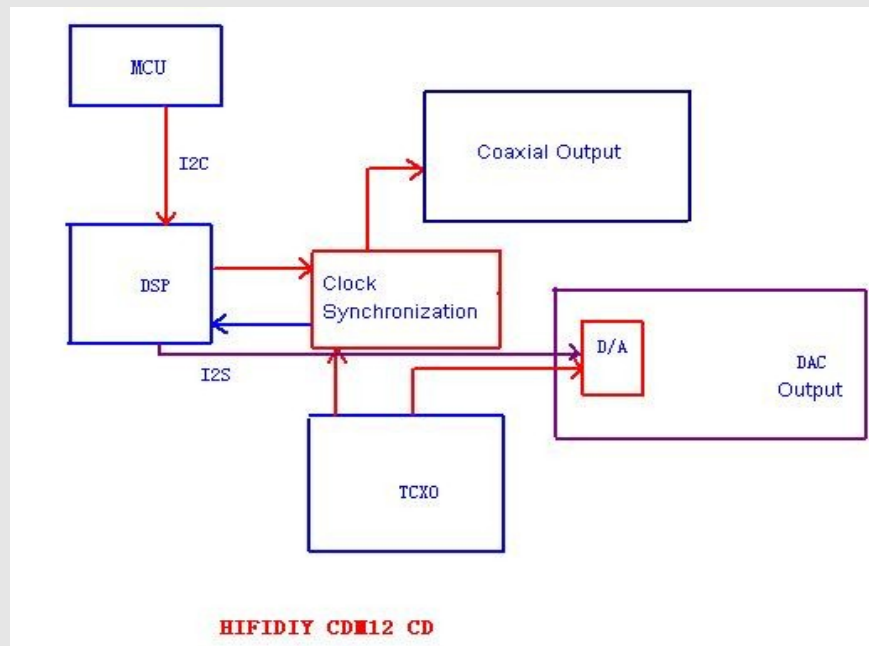


Install Capacitors and IC sockets

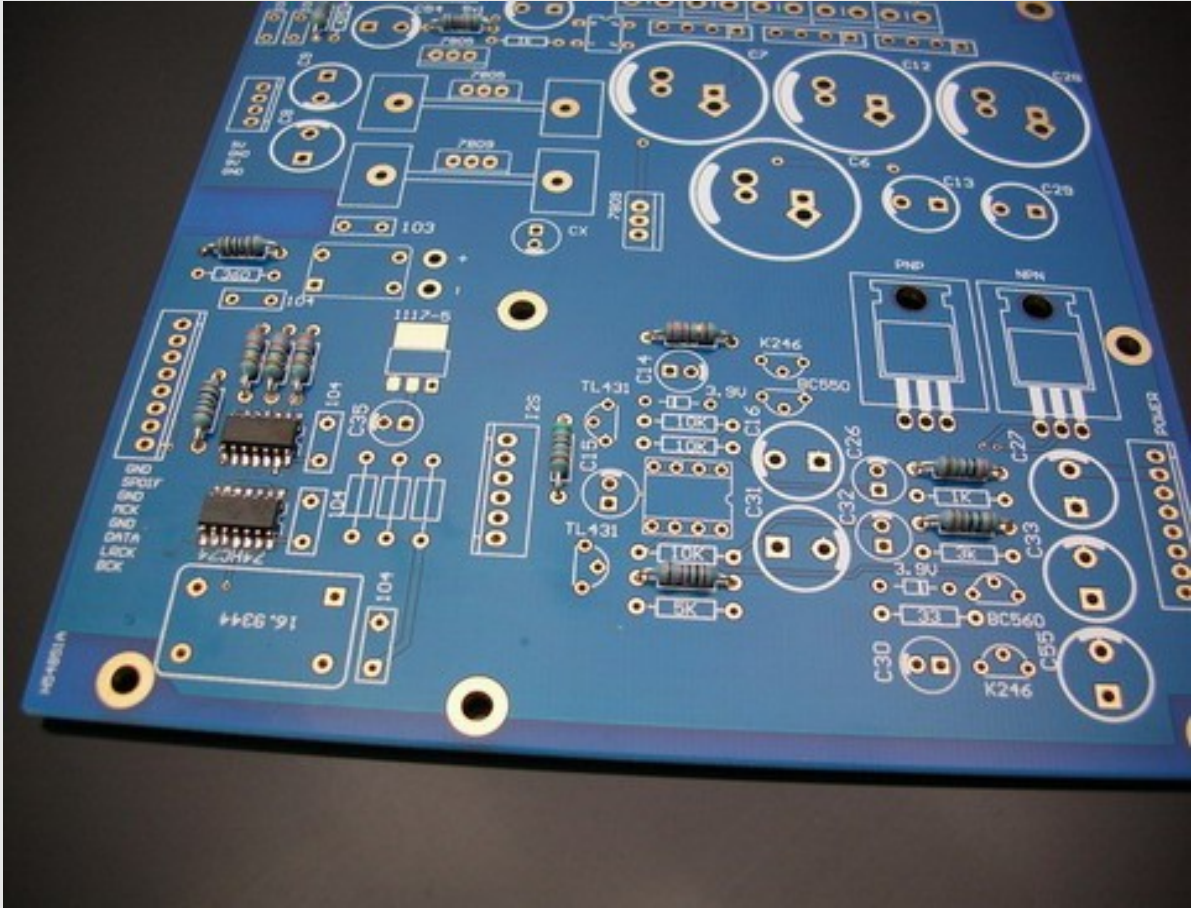




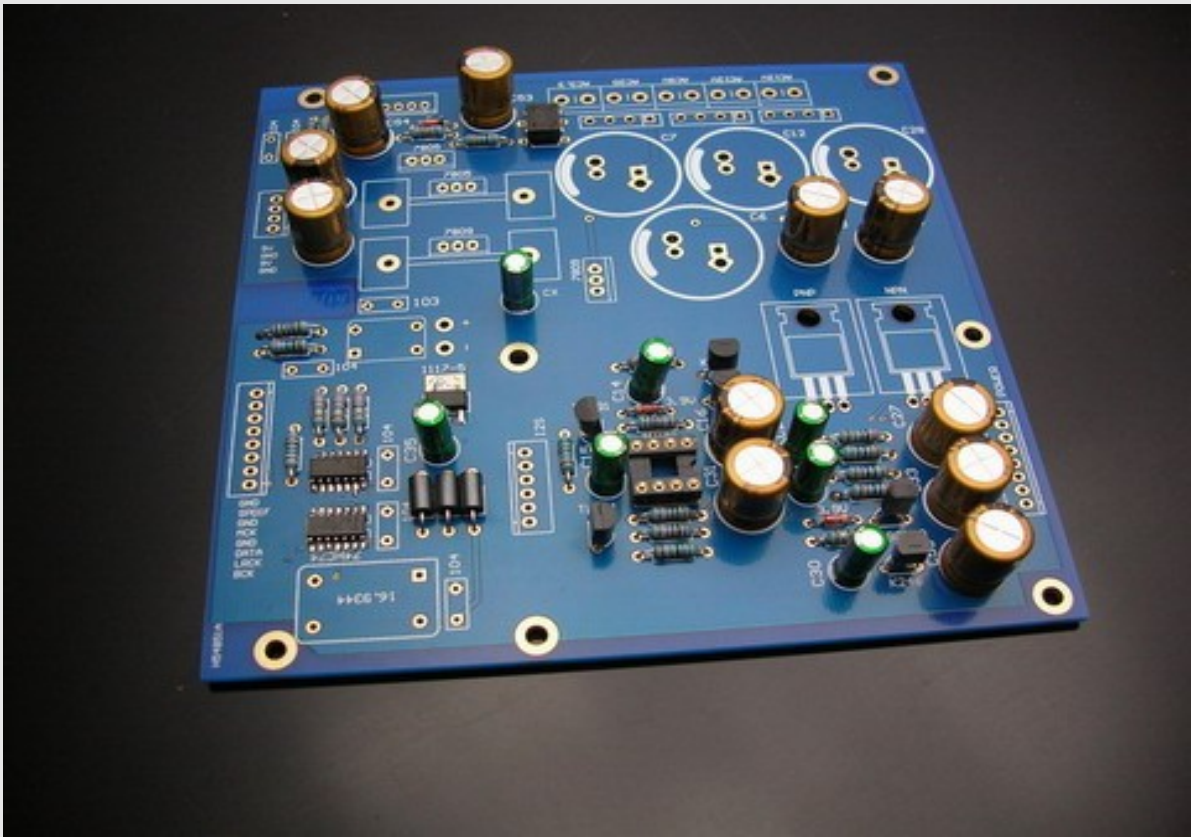
Main Board



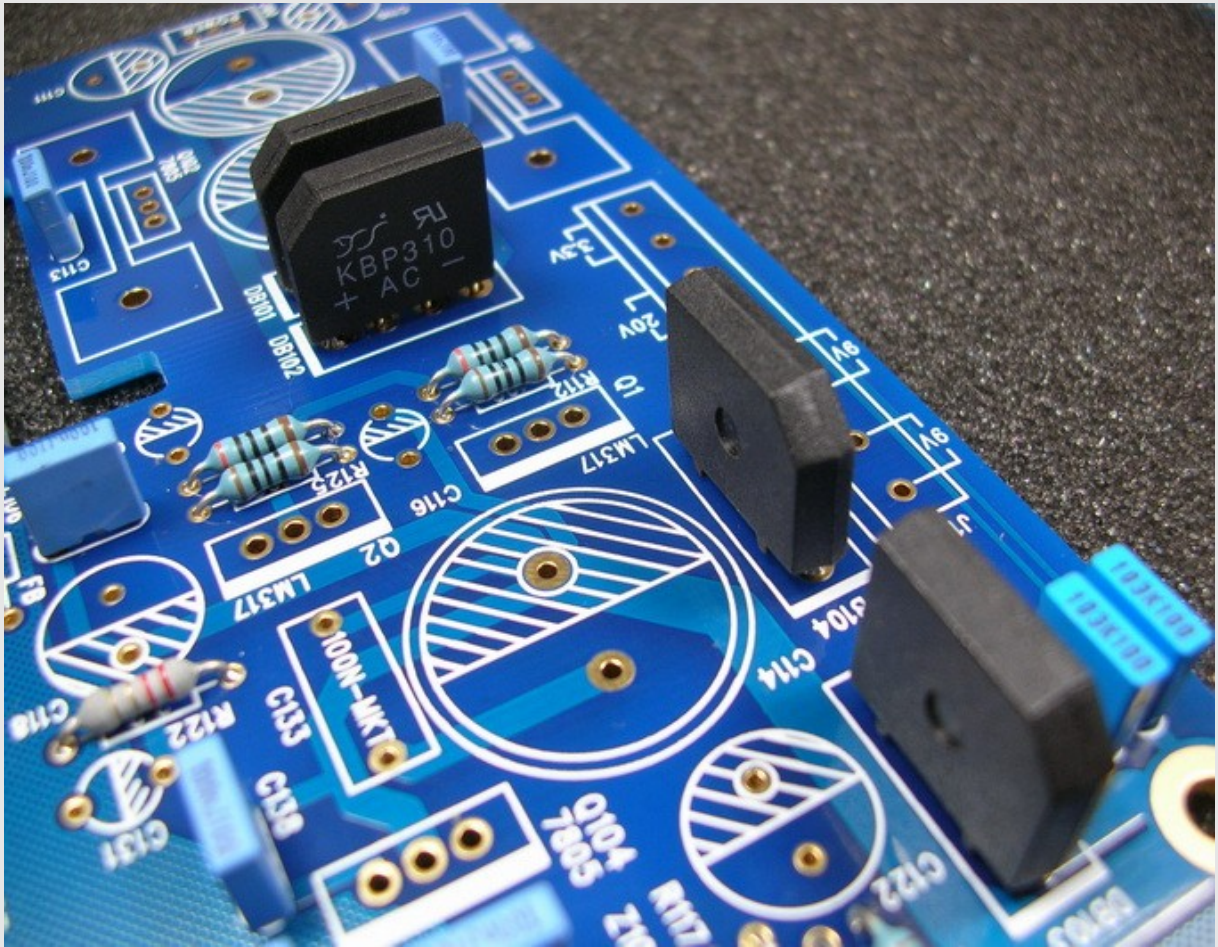
Install SMD devices and Resistors



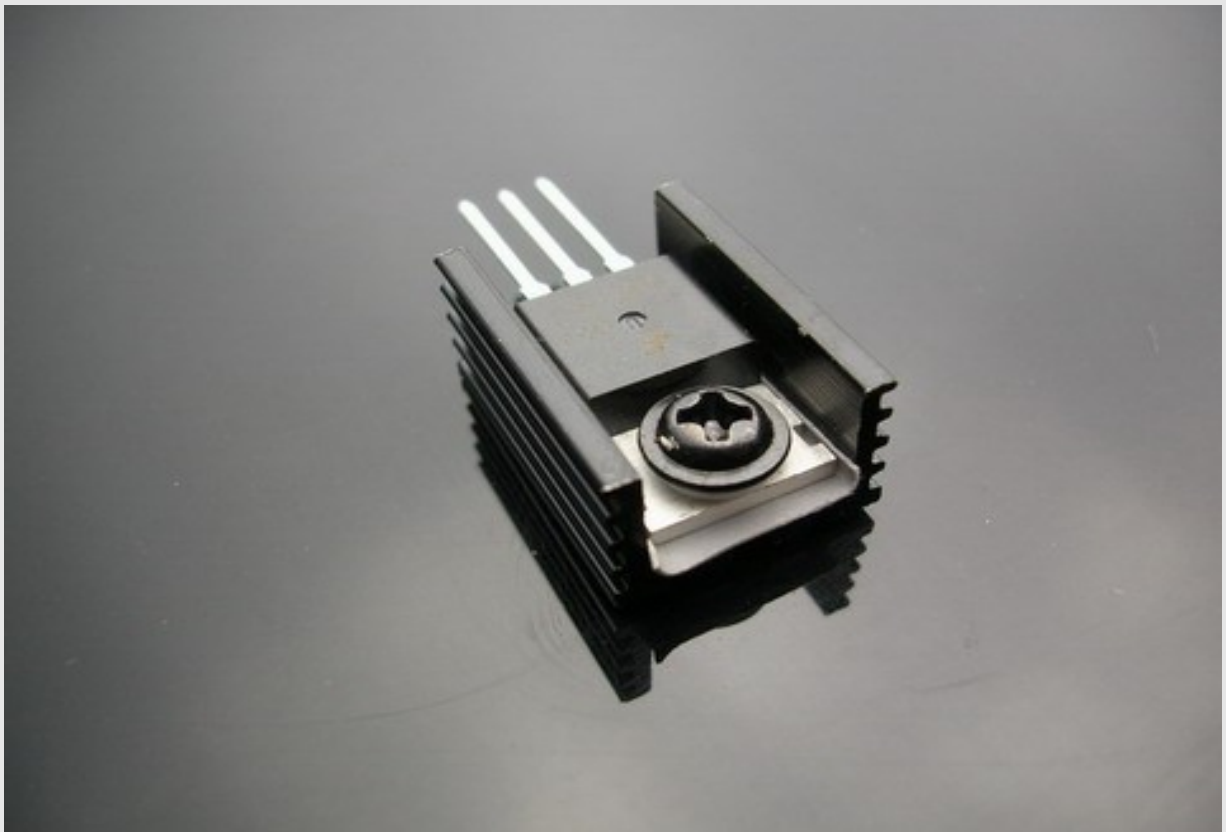
Install Capacitors, Transistors and IC socket

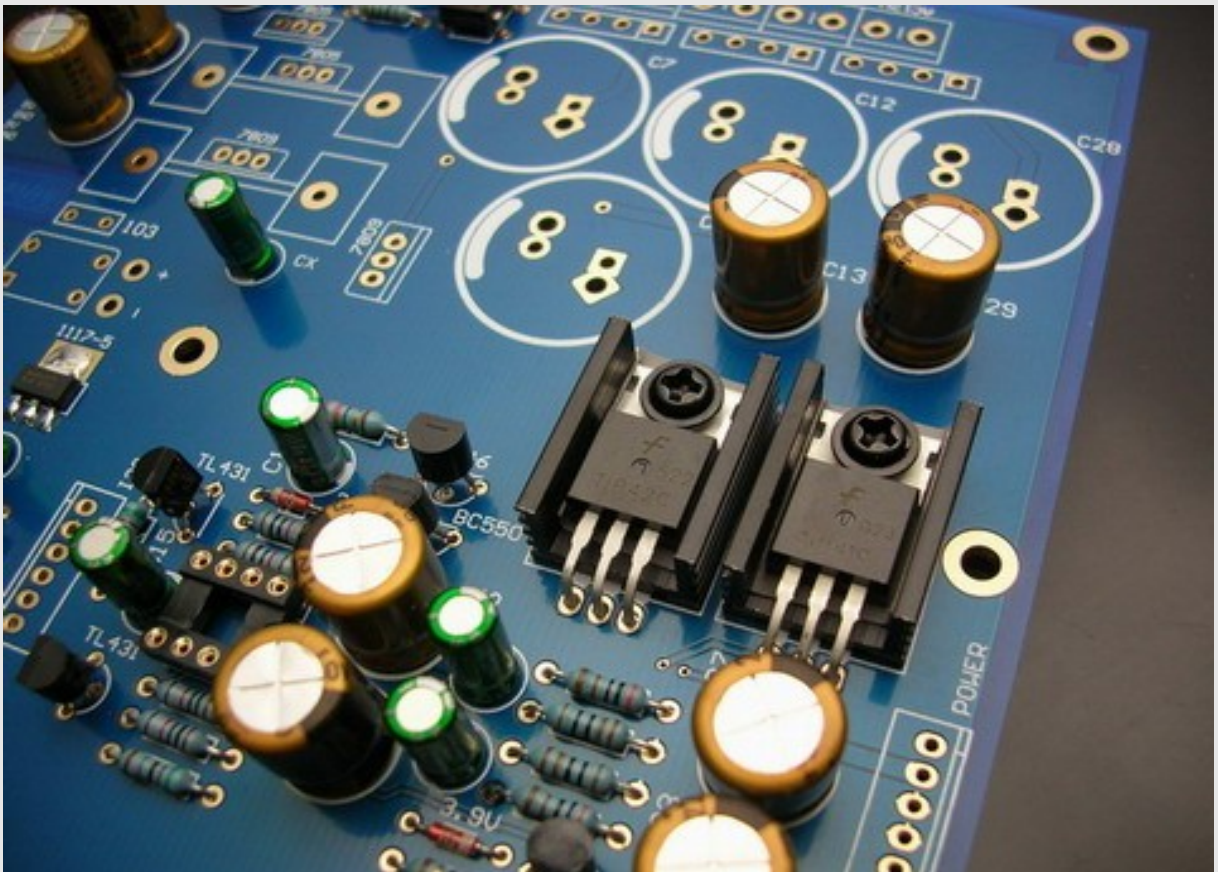


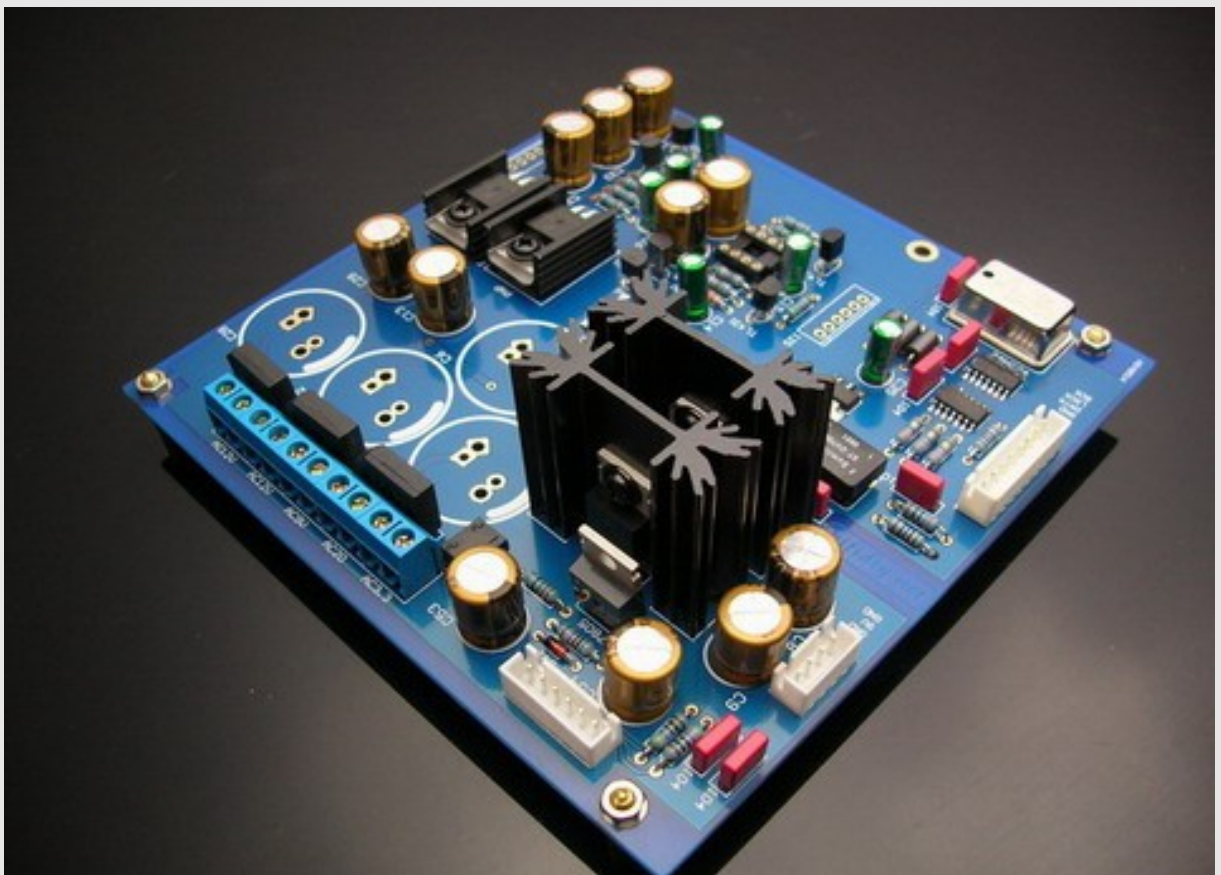
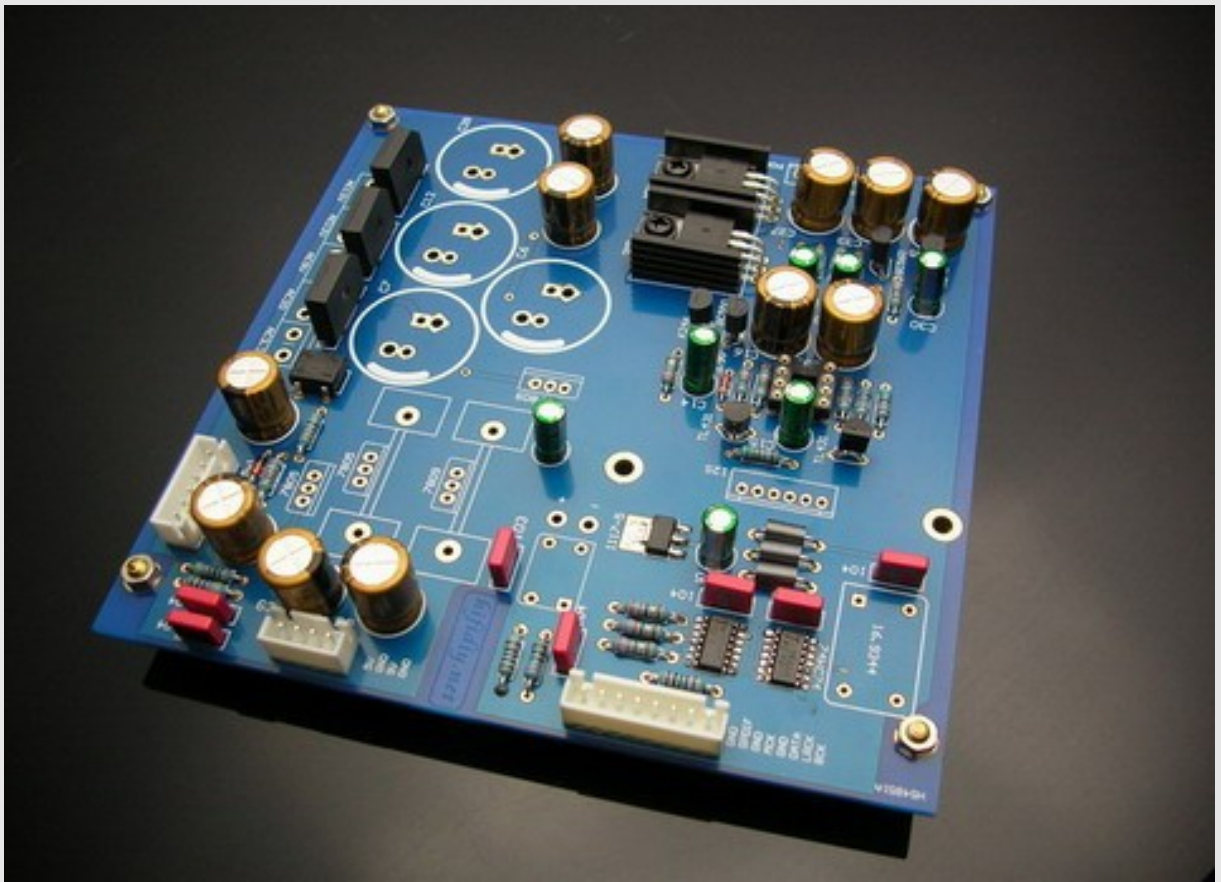
Install Rectifiers



Assembly Power Transistors

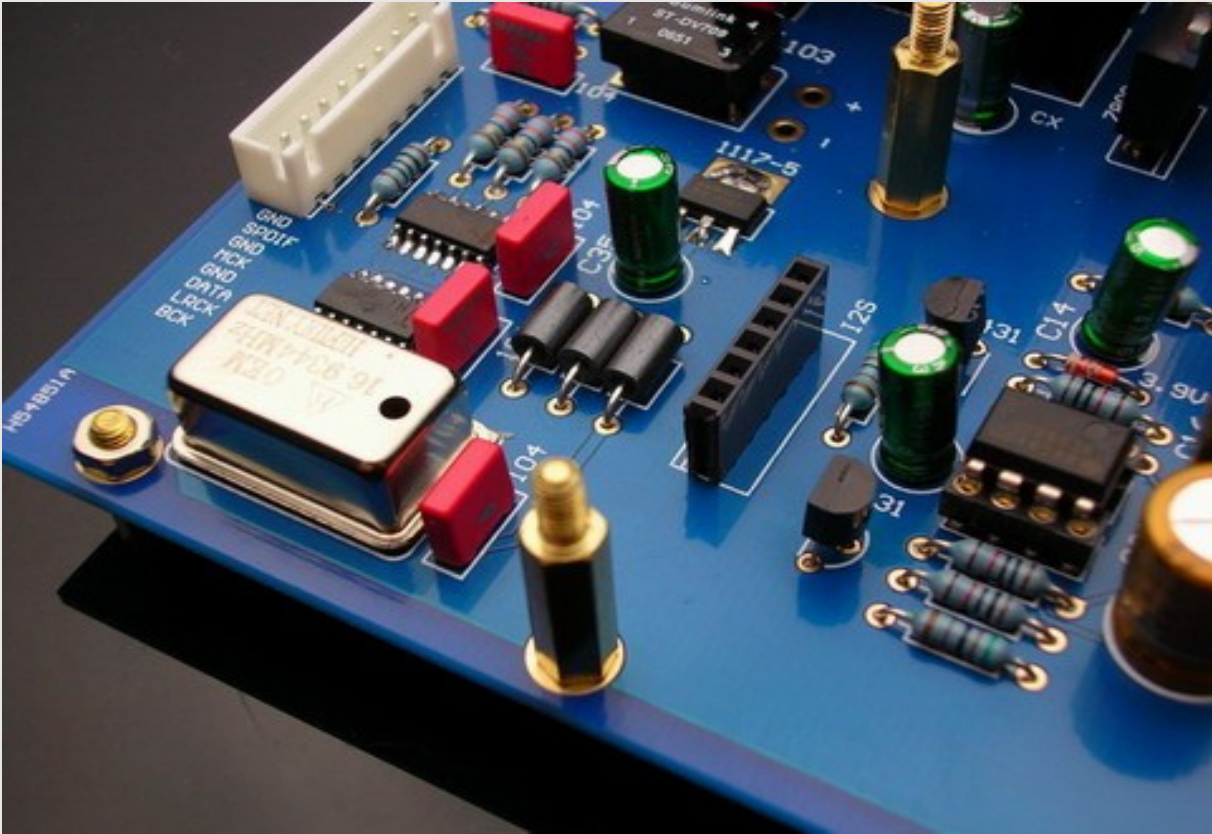


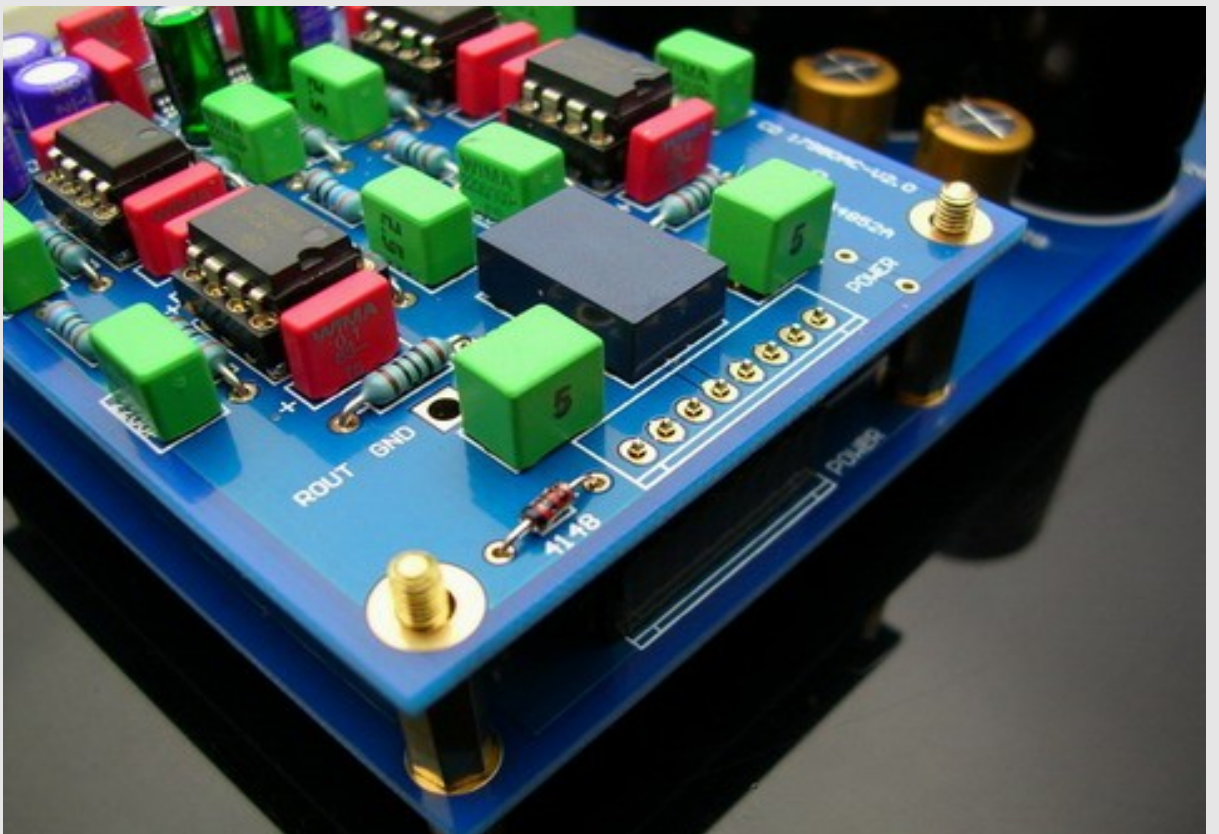
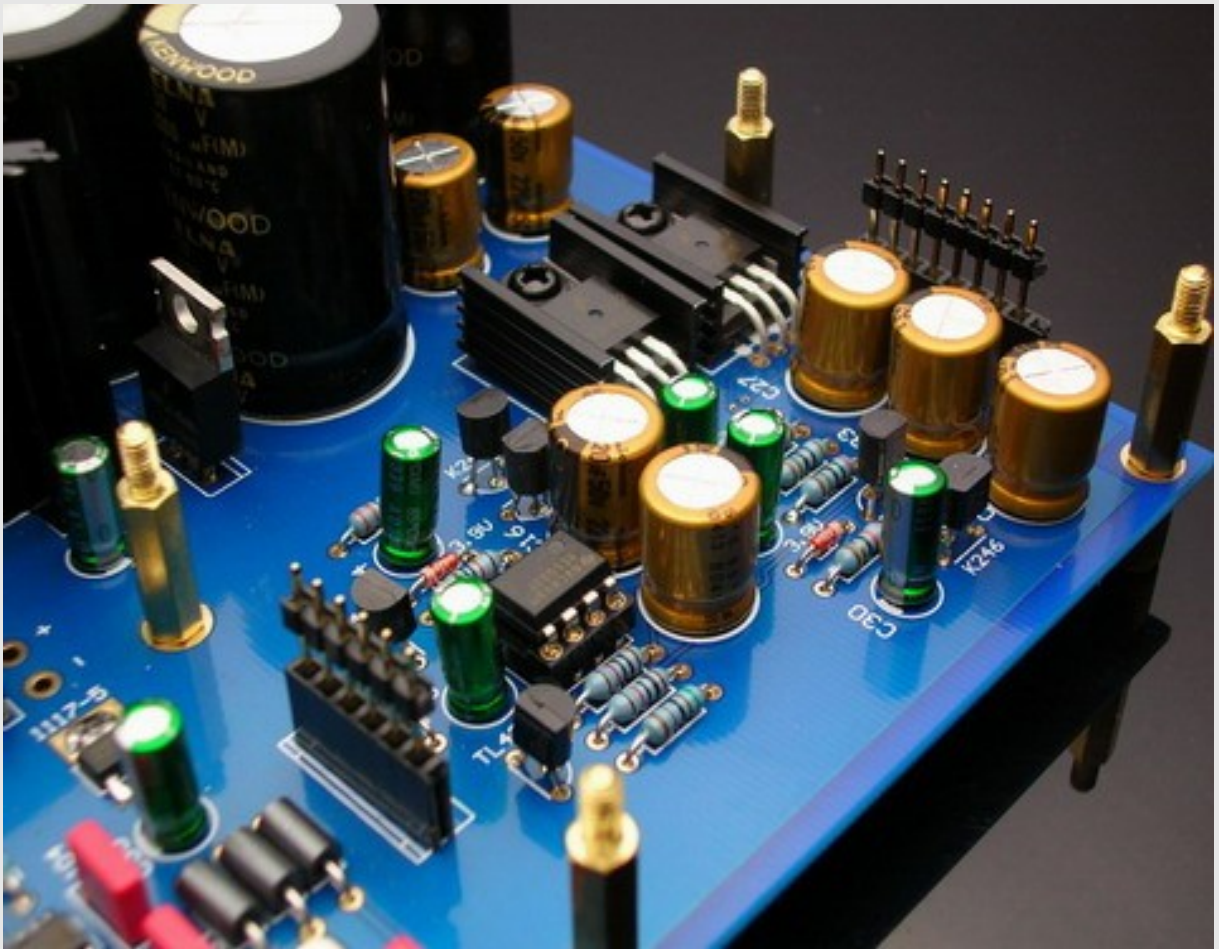


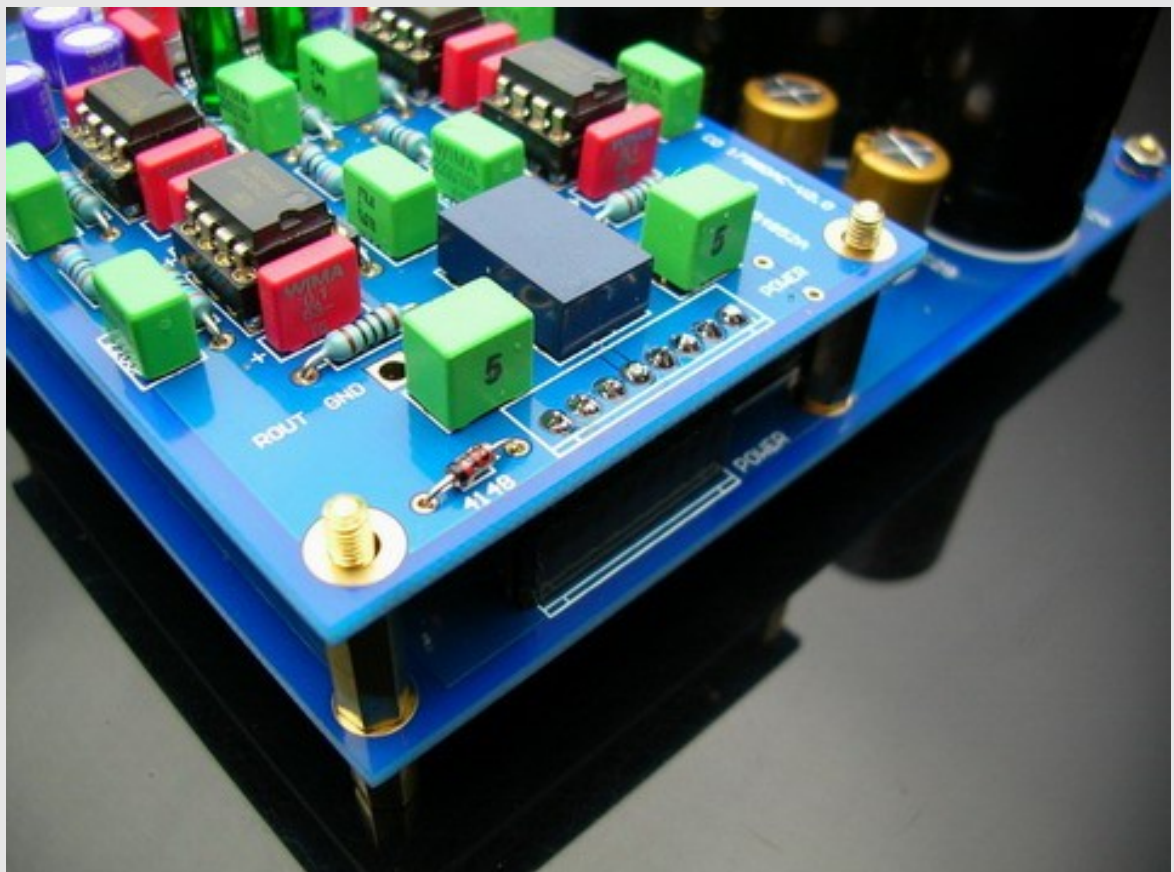
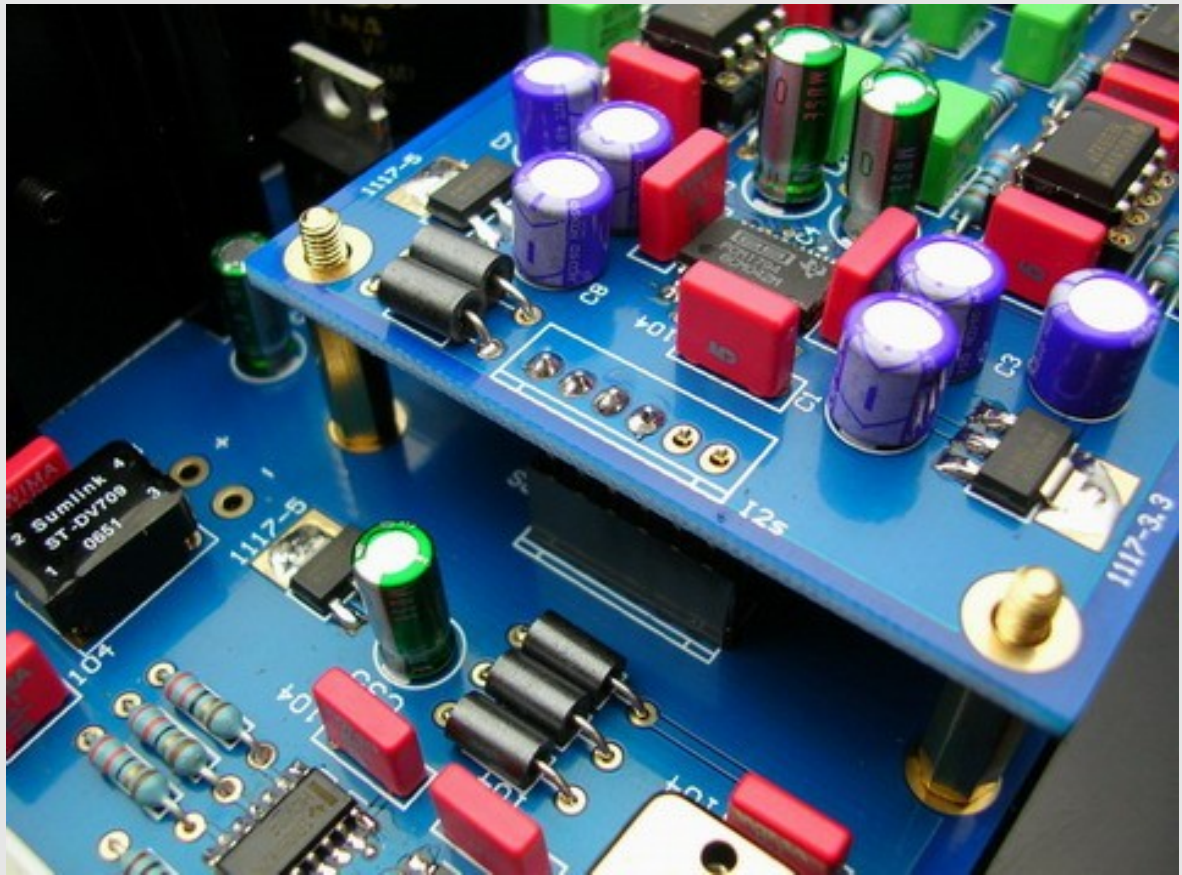


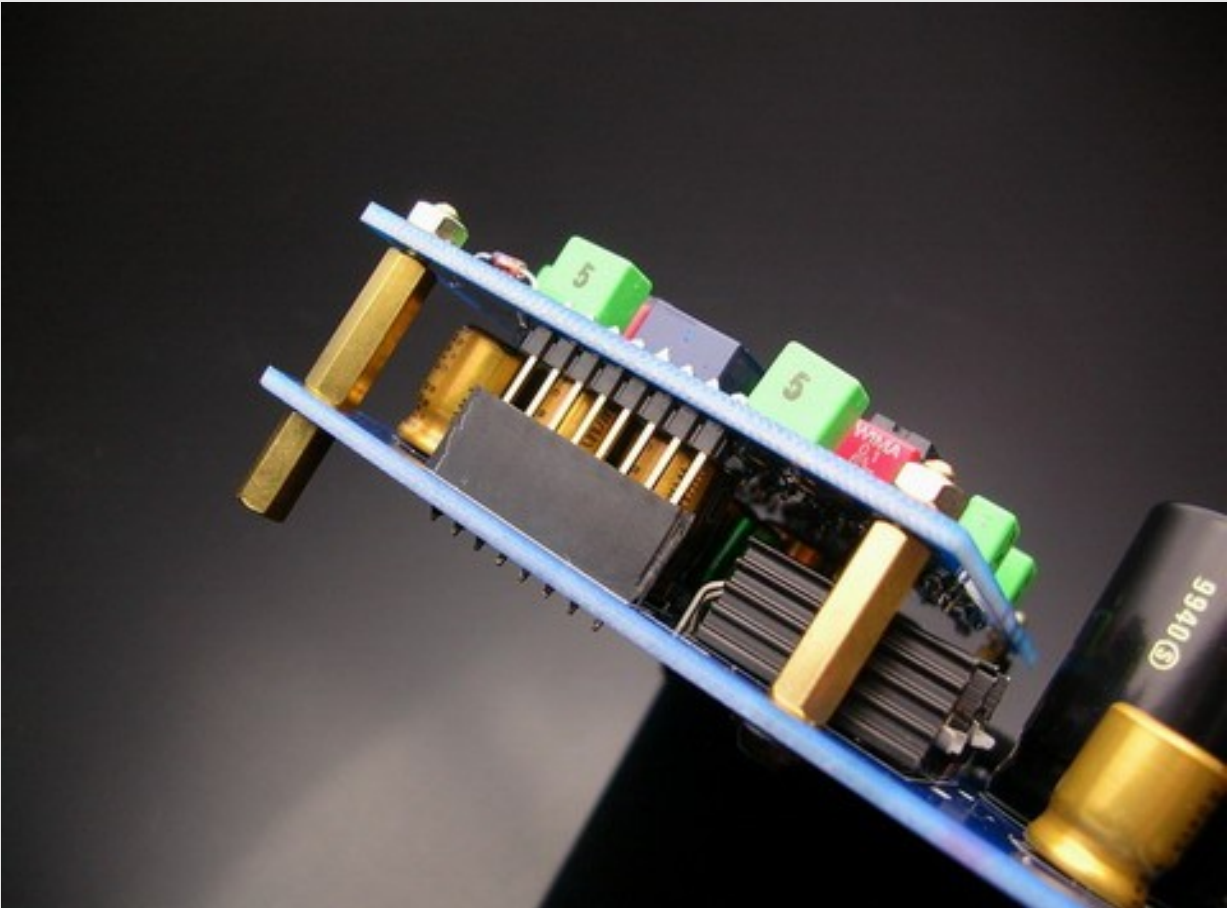


Install Connector for DAC module









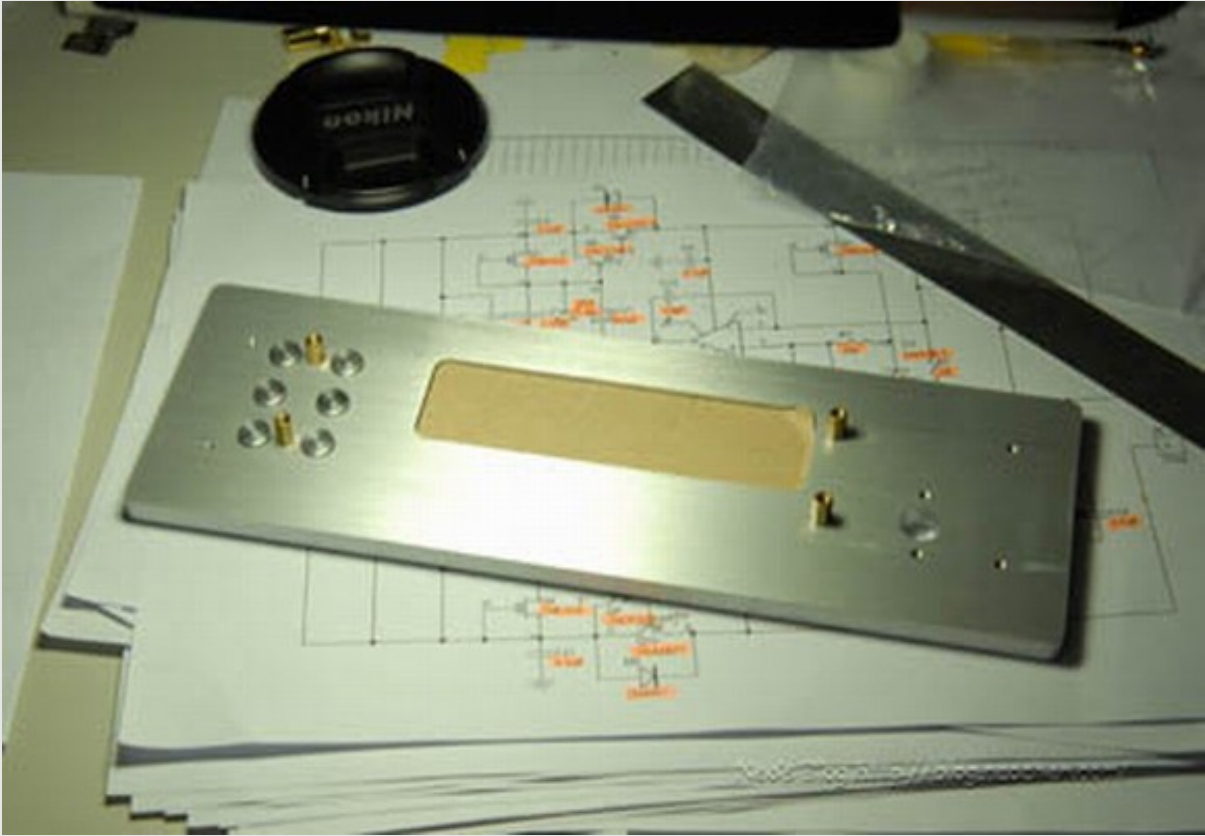




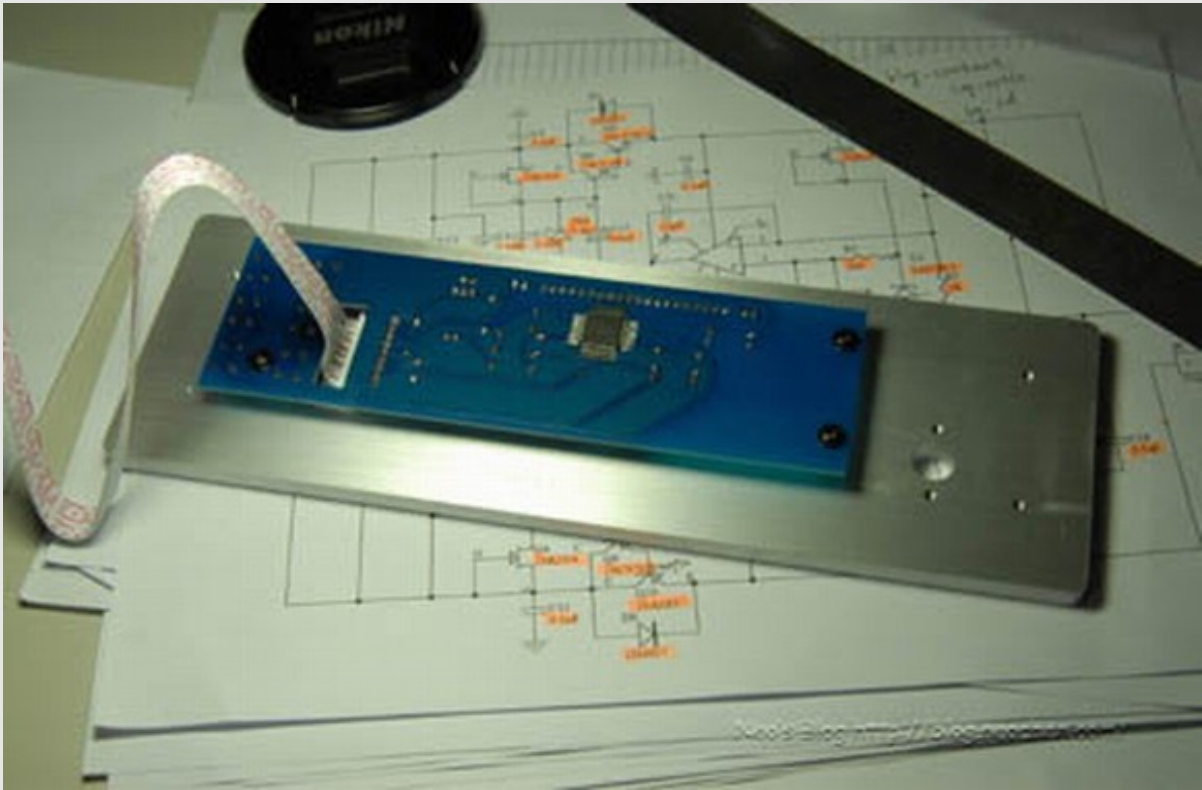
Panel assembly



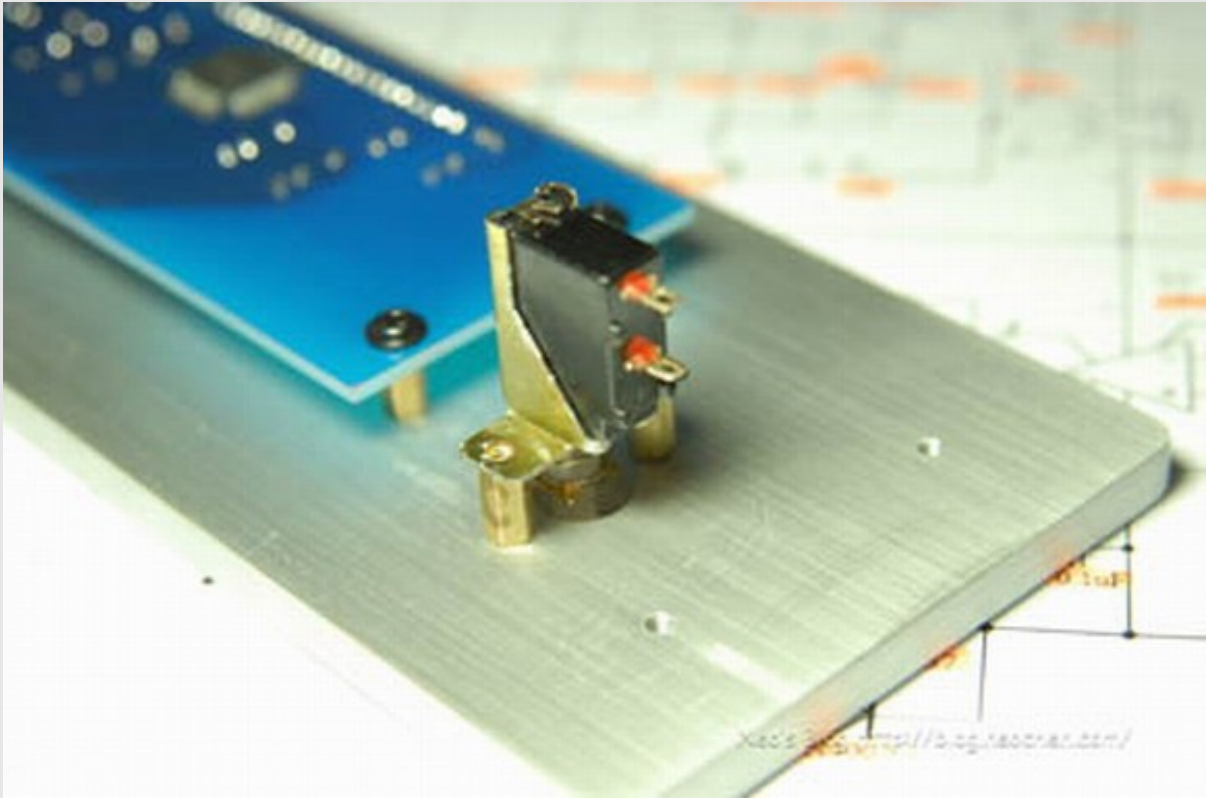
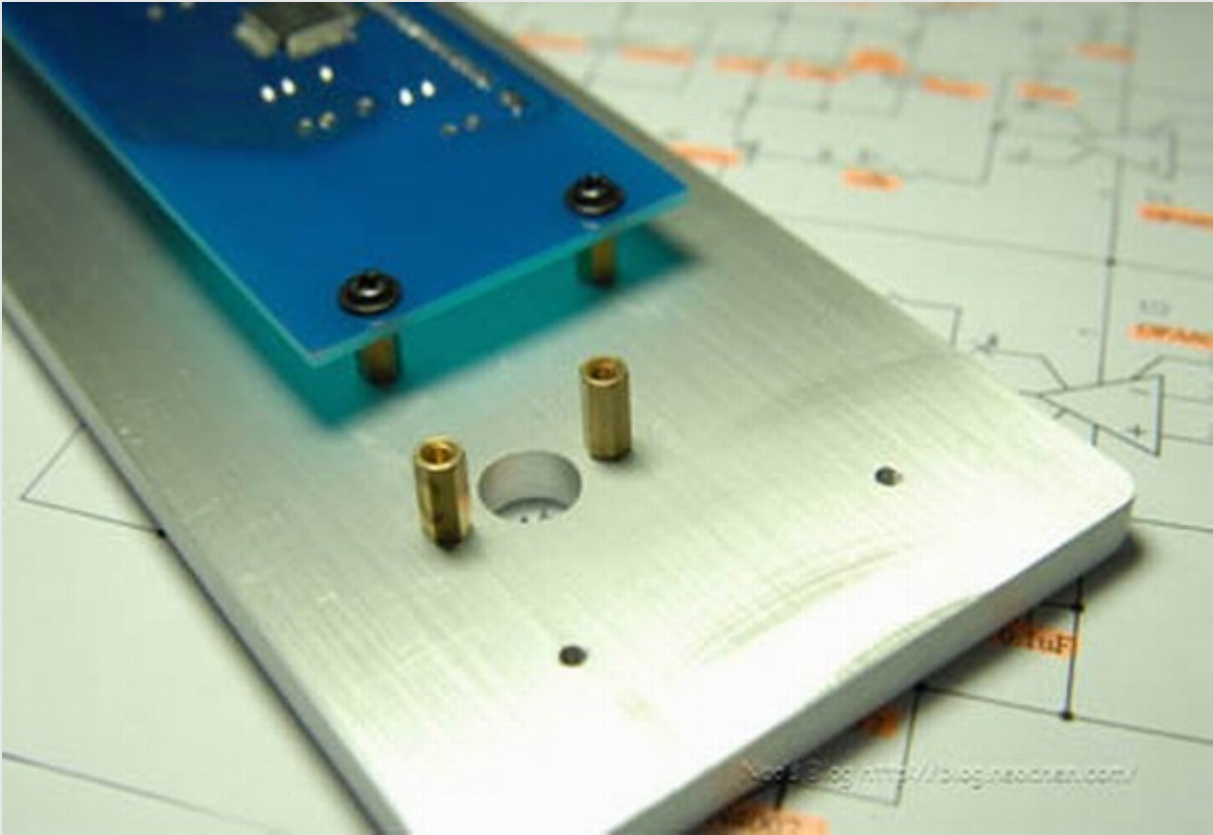
Install keys and 4 pcs 8mm HEX Standoffs for Display Board

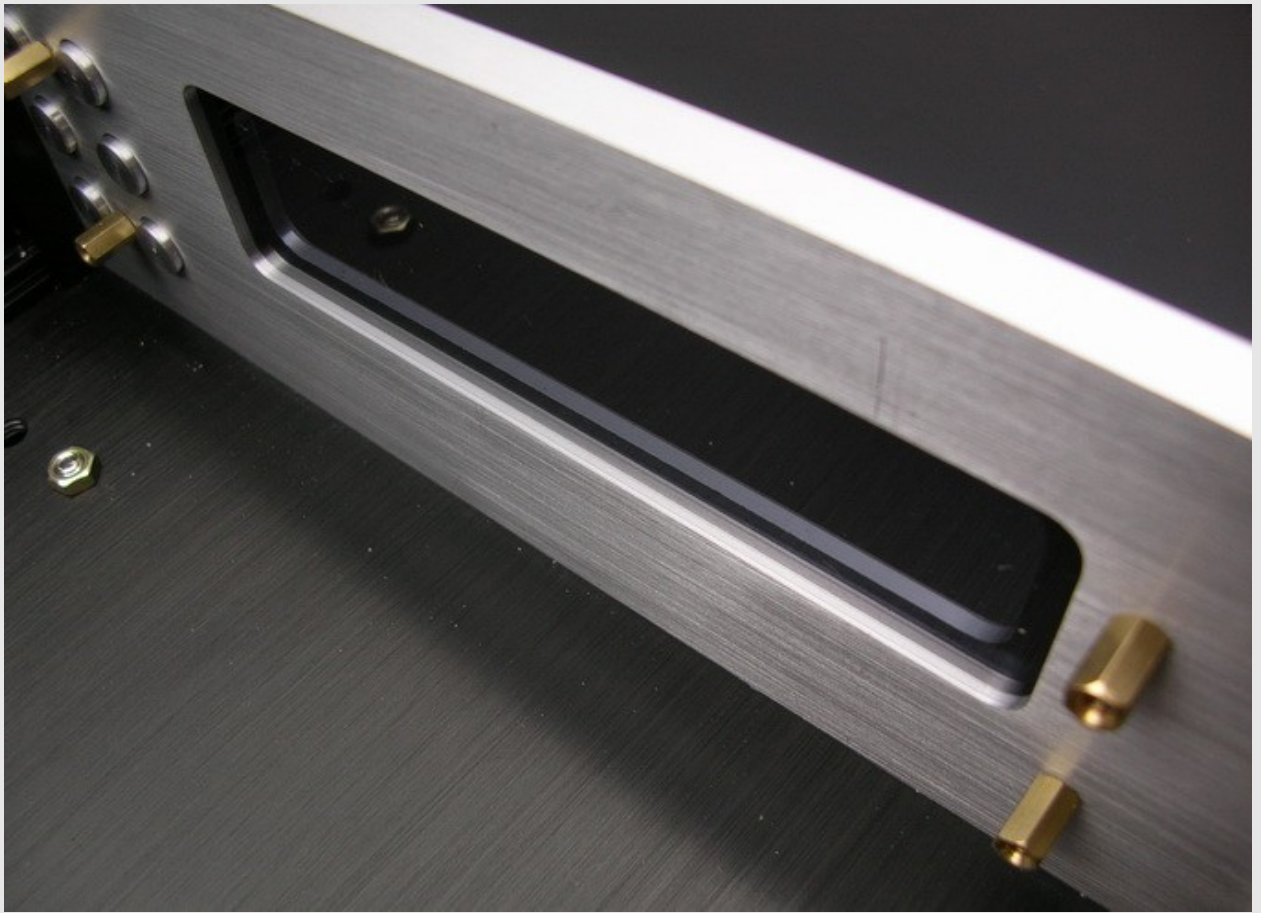


Install Display board



Install 2 pcs 10mm HEX Standoffs for Power Switch

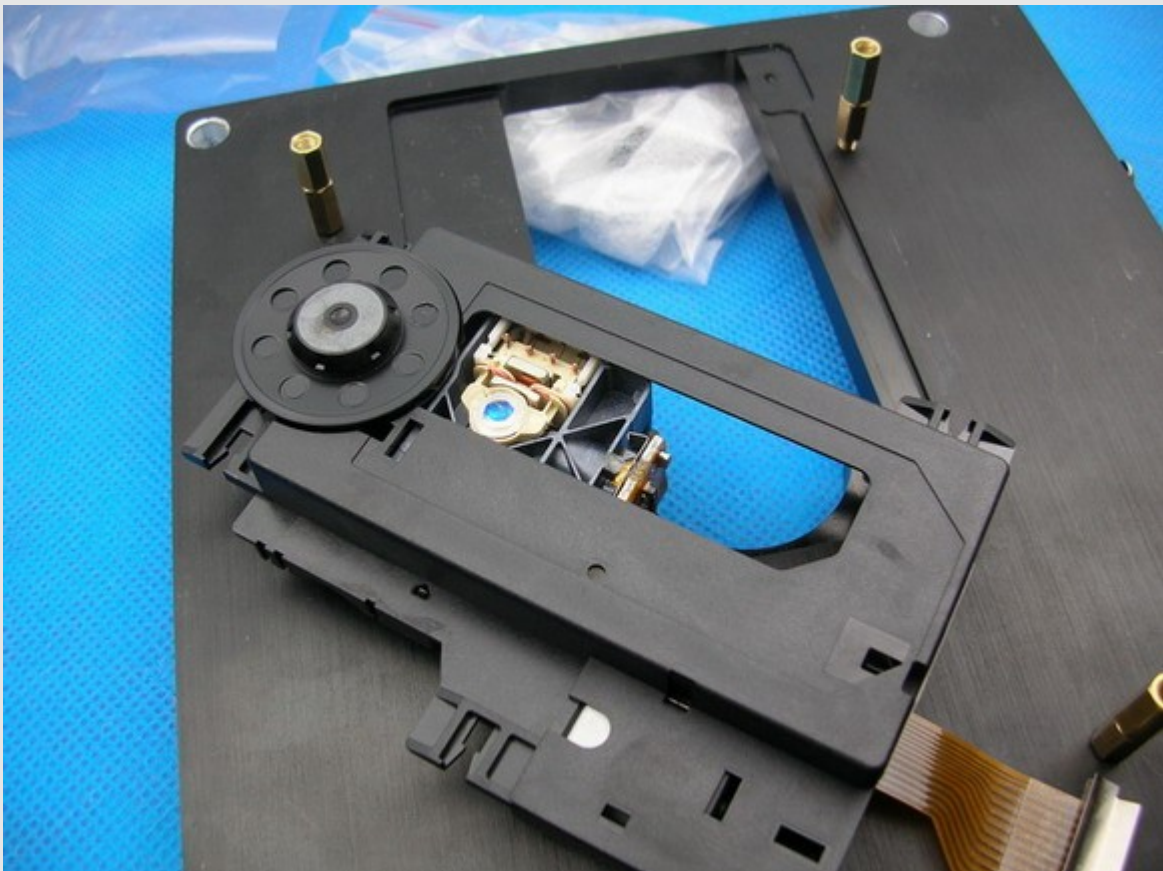




Laser Module assembly

Laser Pickup, Laser Control Board, Laser Pickup Panel,
4pcs 20mm HEX Standoff, 4pcs 3mm Φ x 6mm Screws,
4 pcs 2mm Φ Screws

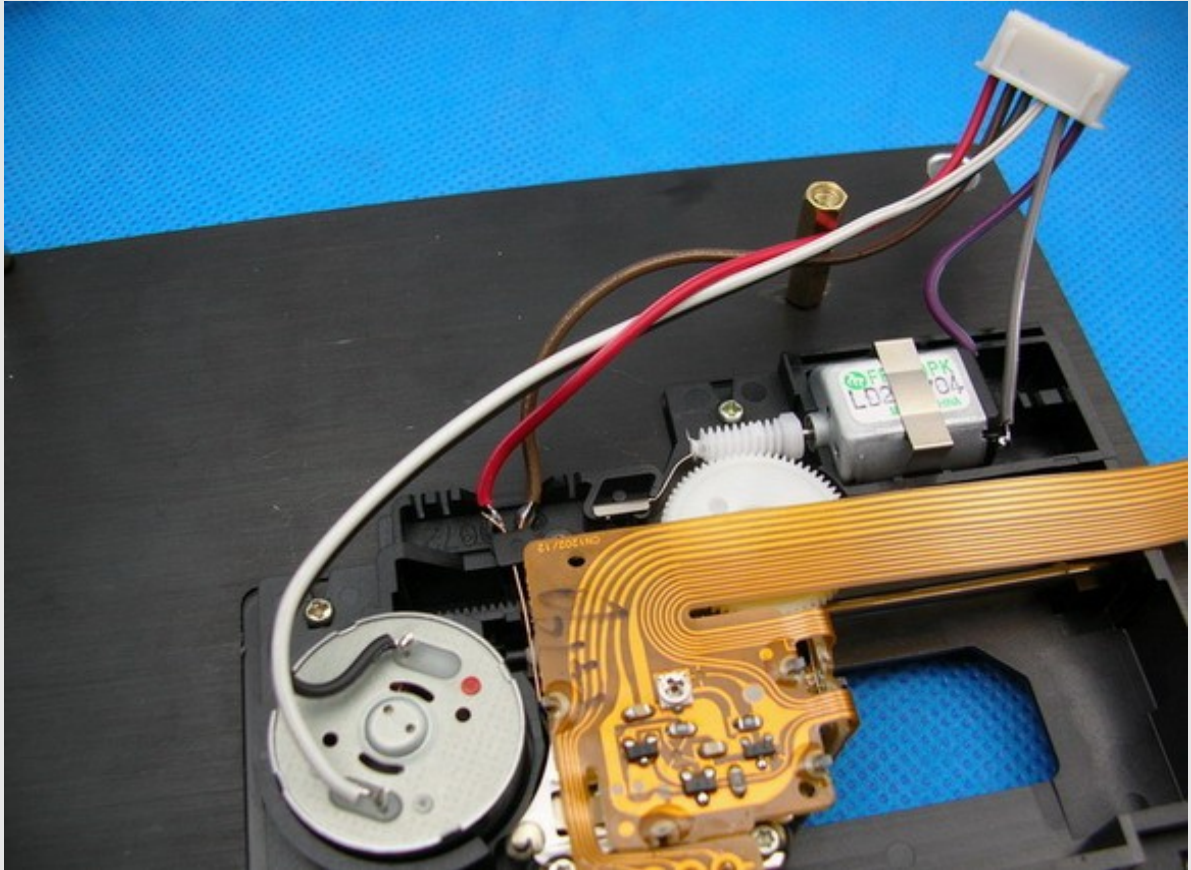
Install 4pcs 20mm HEX Standoff to the Laser pickup panel



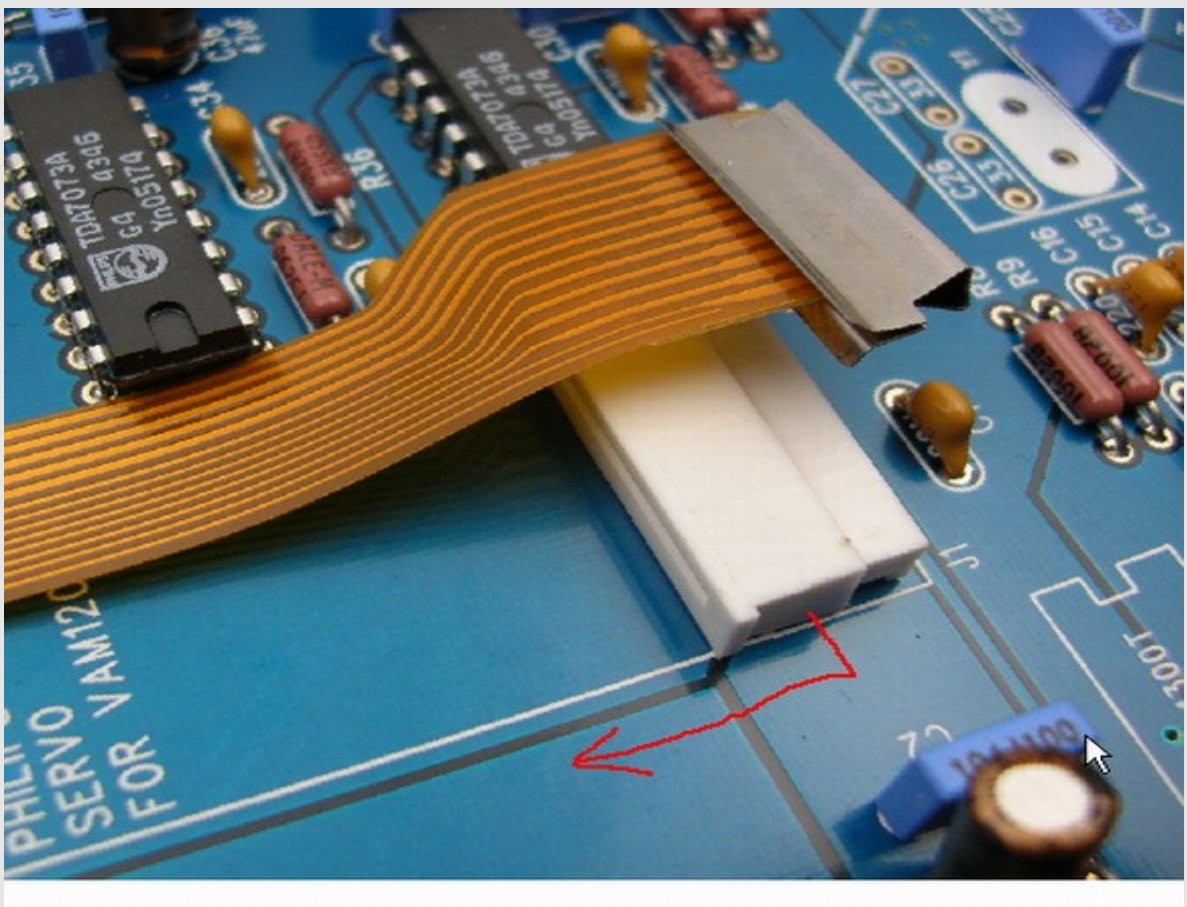
Install Laser Pickup to the Laser Pickup Panel with 4
2mm Φ Screws

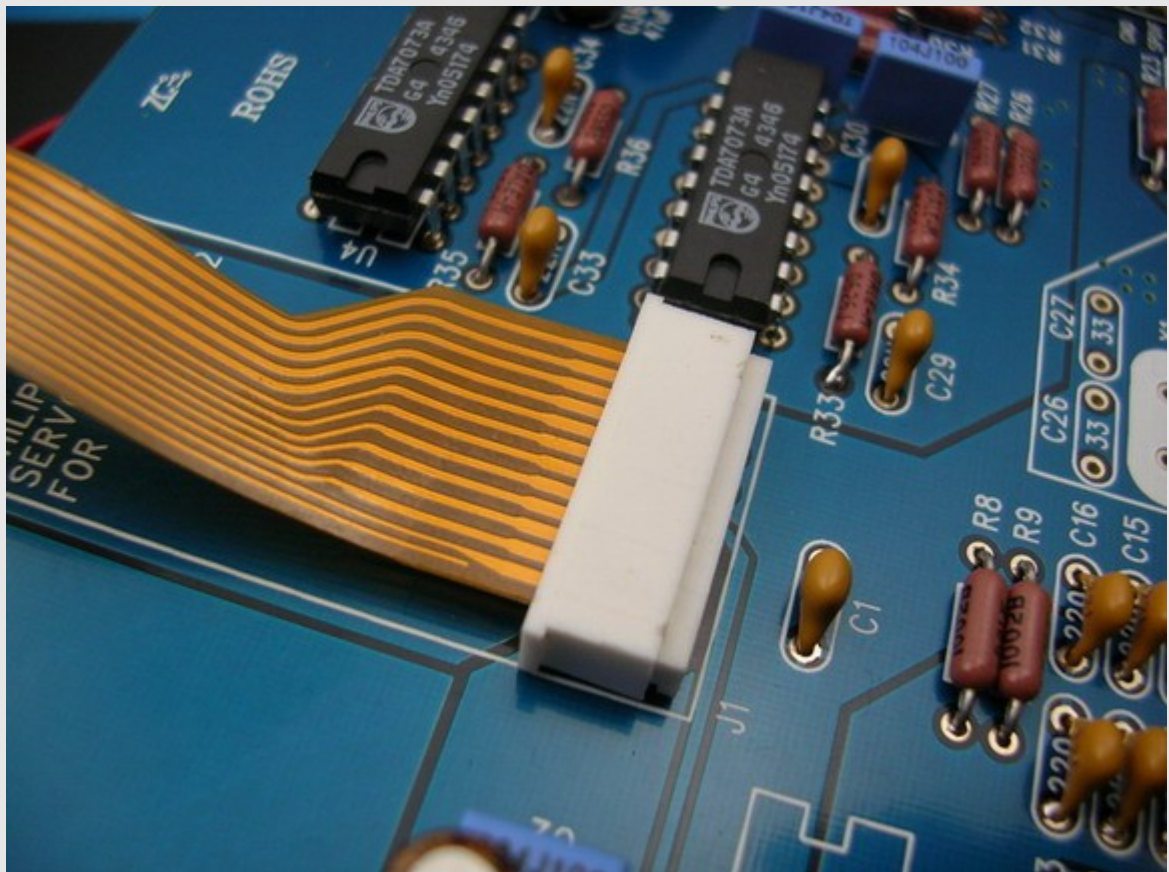
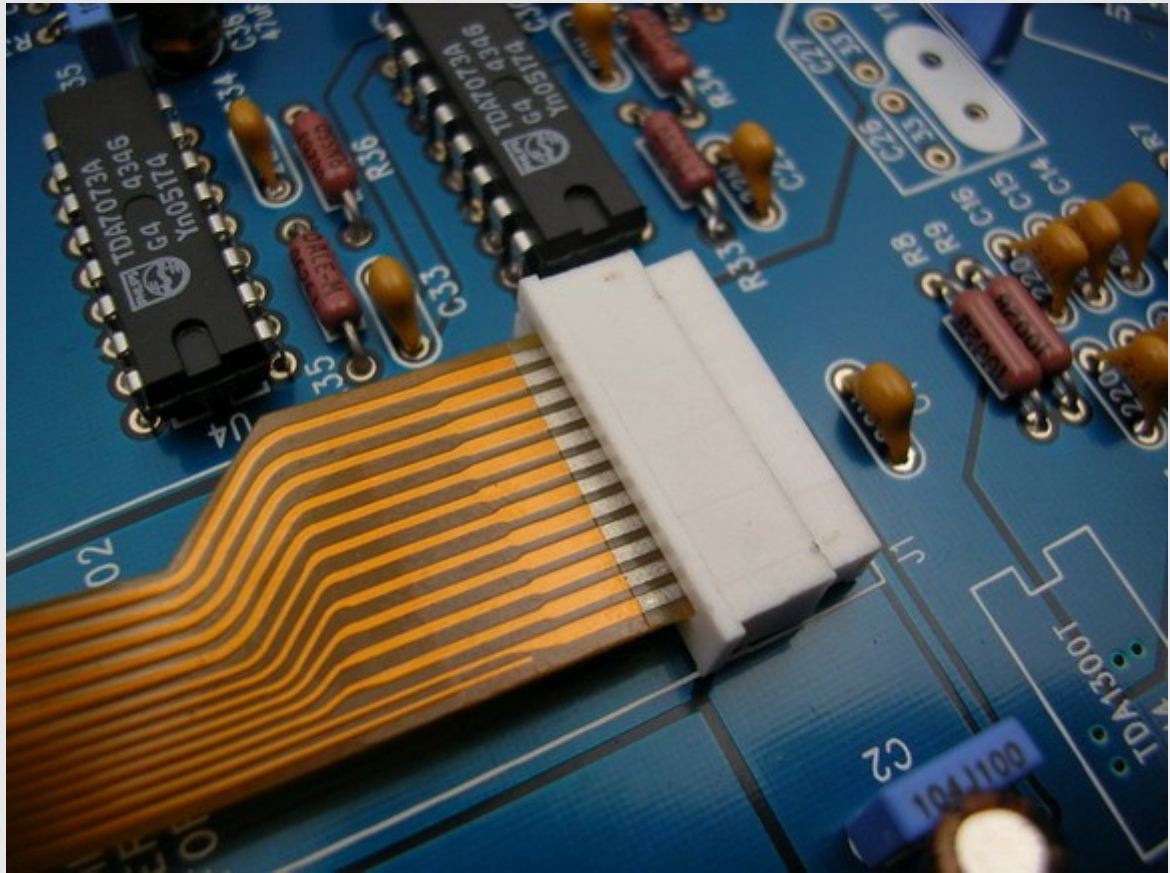


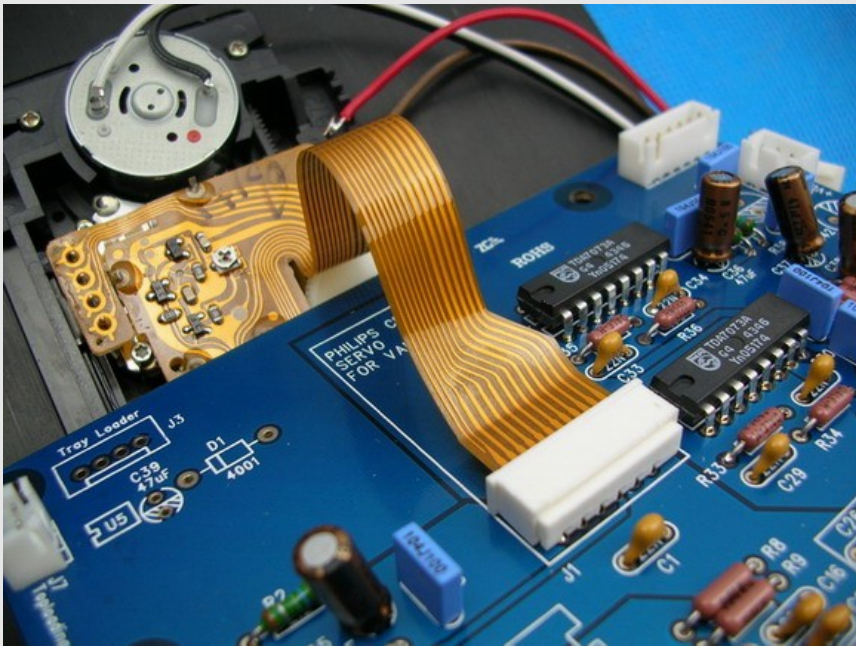
Solder Laser Pickup Wire



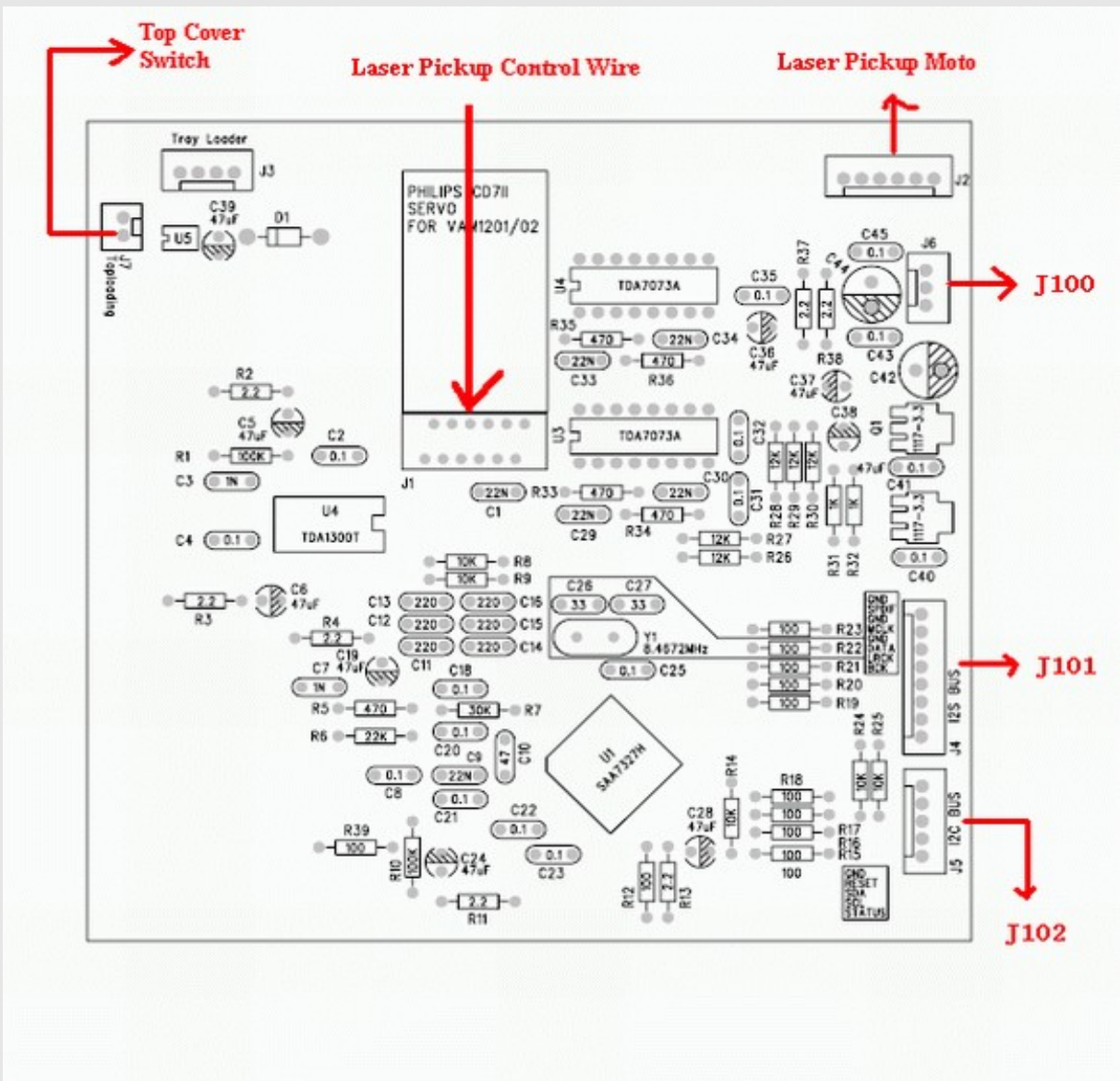
Connect Laser Pickup Wire to the Control Board



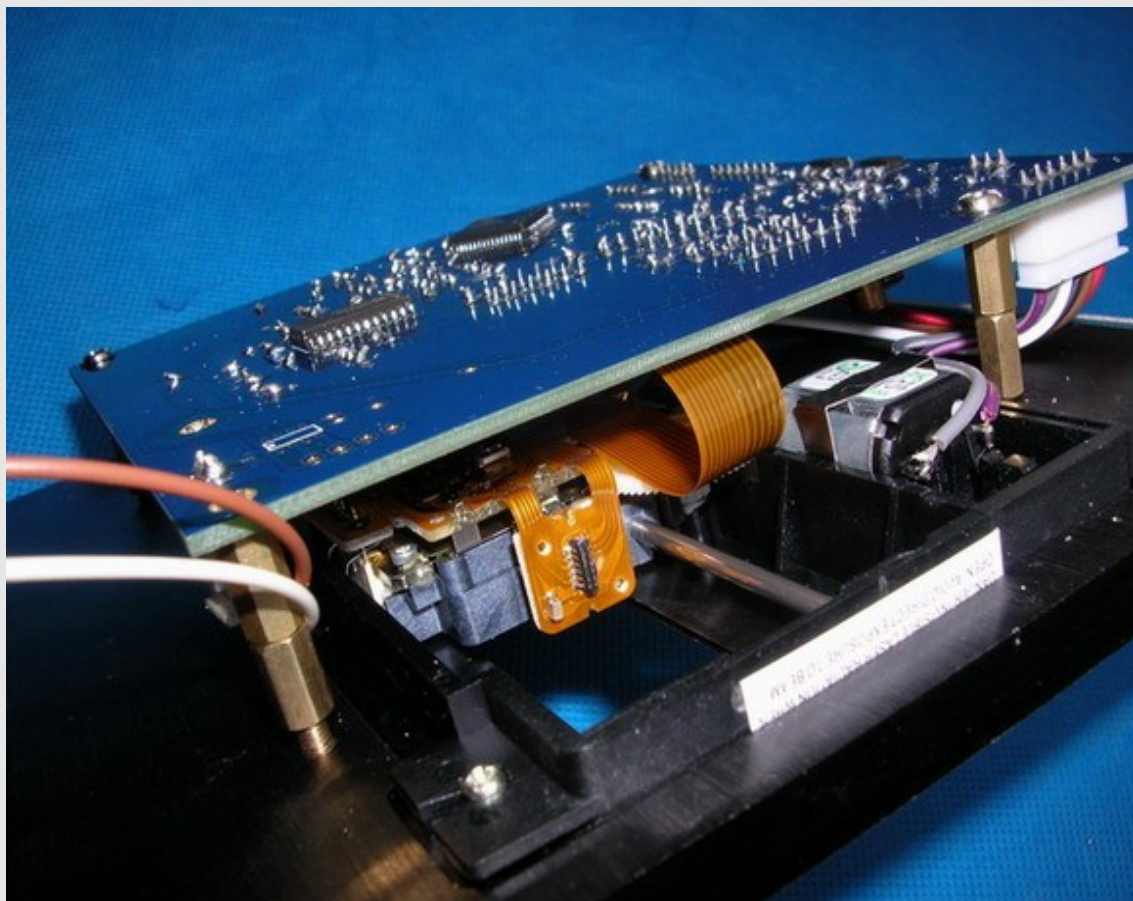




Connect another wire to the Control Board



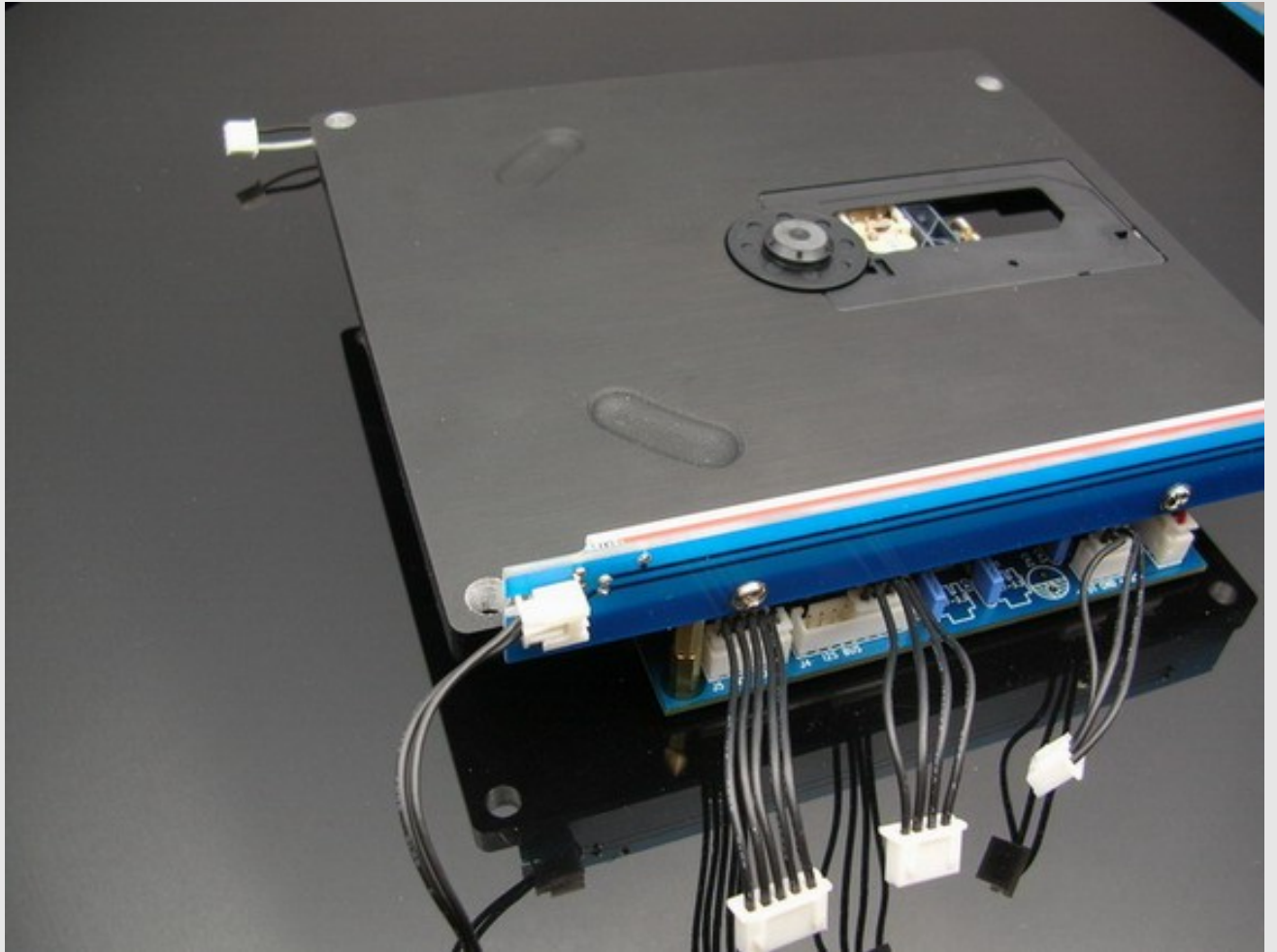
Install Control Board to the Laser Pickup Panel



Install LED Board

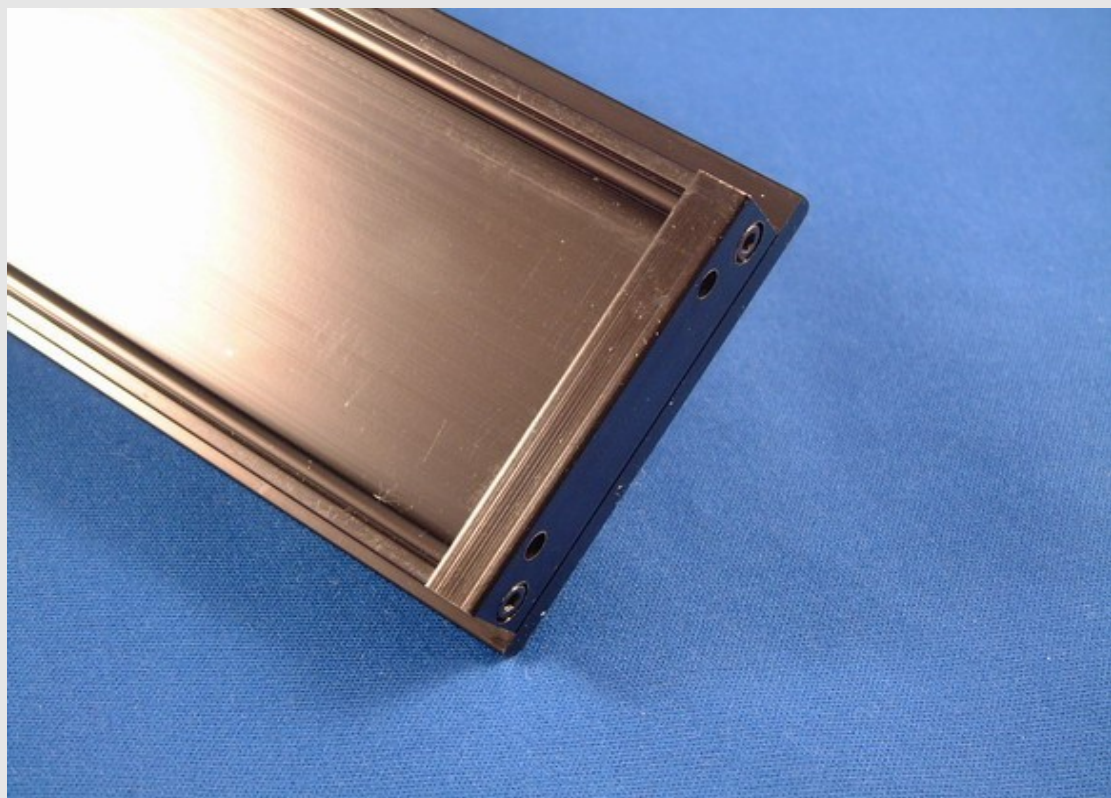
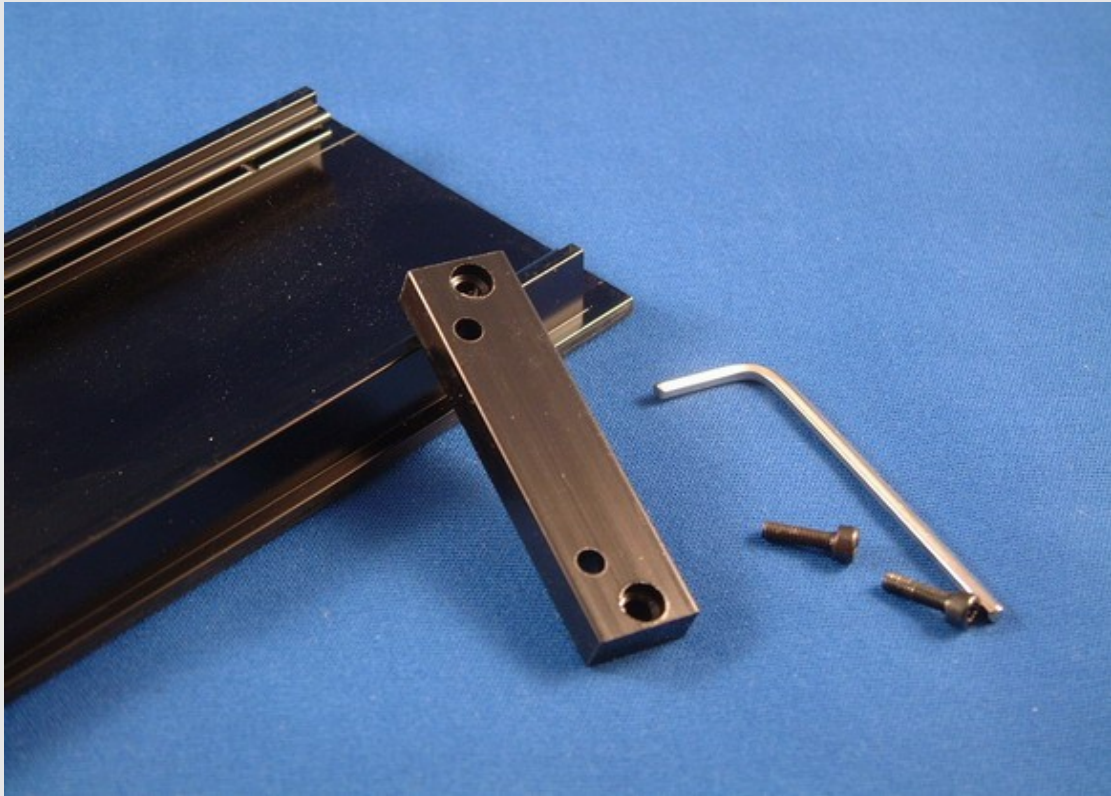






Chassis assembly

Install Panel to the side covers (2 pcs Panel support, 4 pcs 3mm Φ x 10mm Screws)

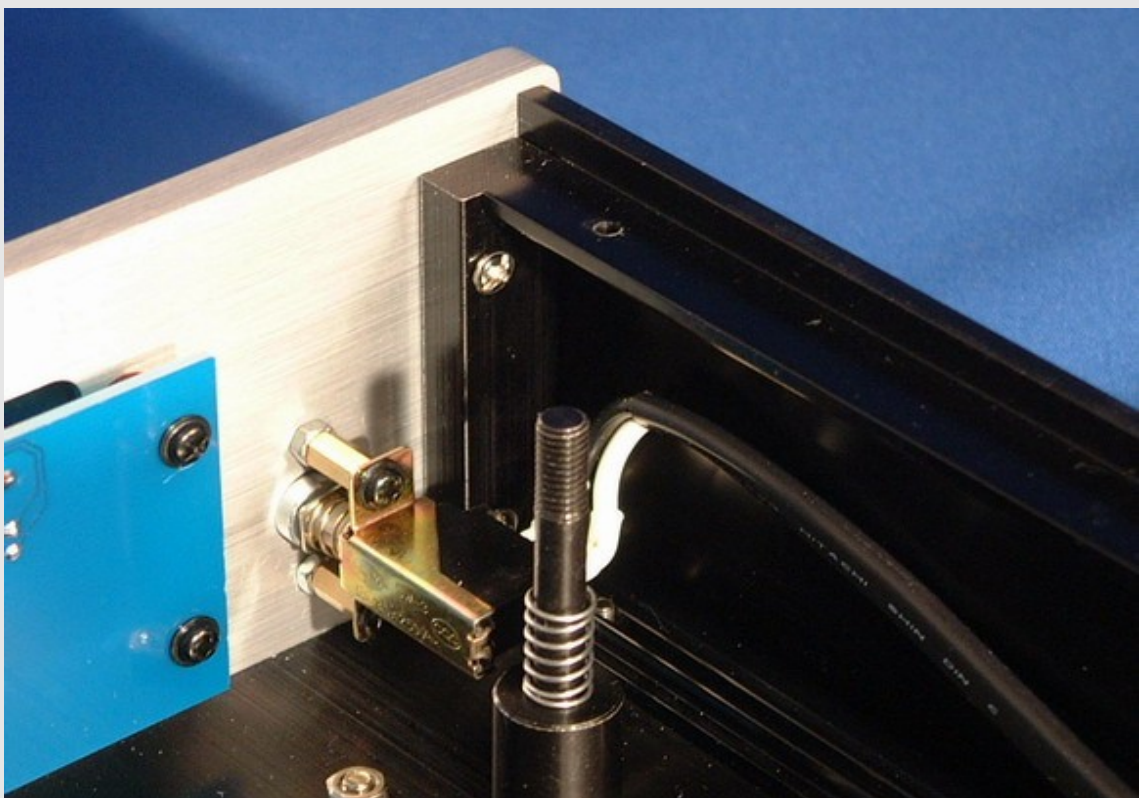


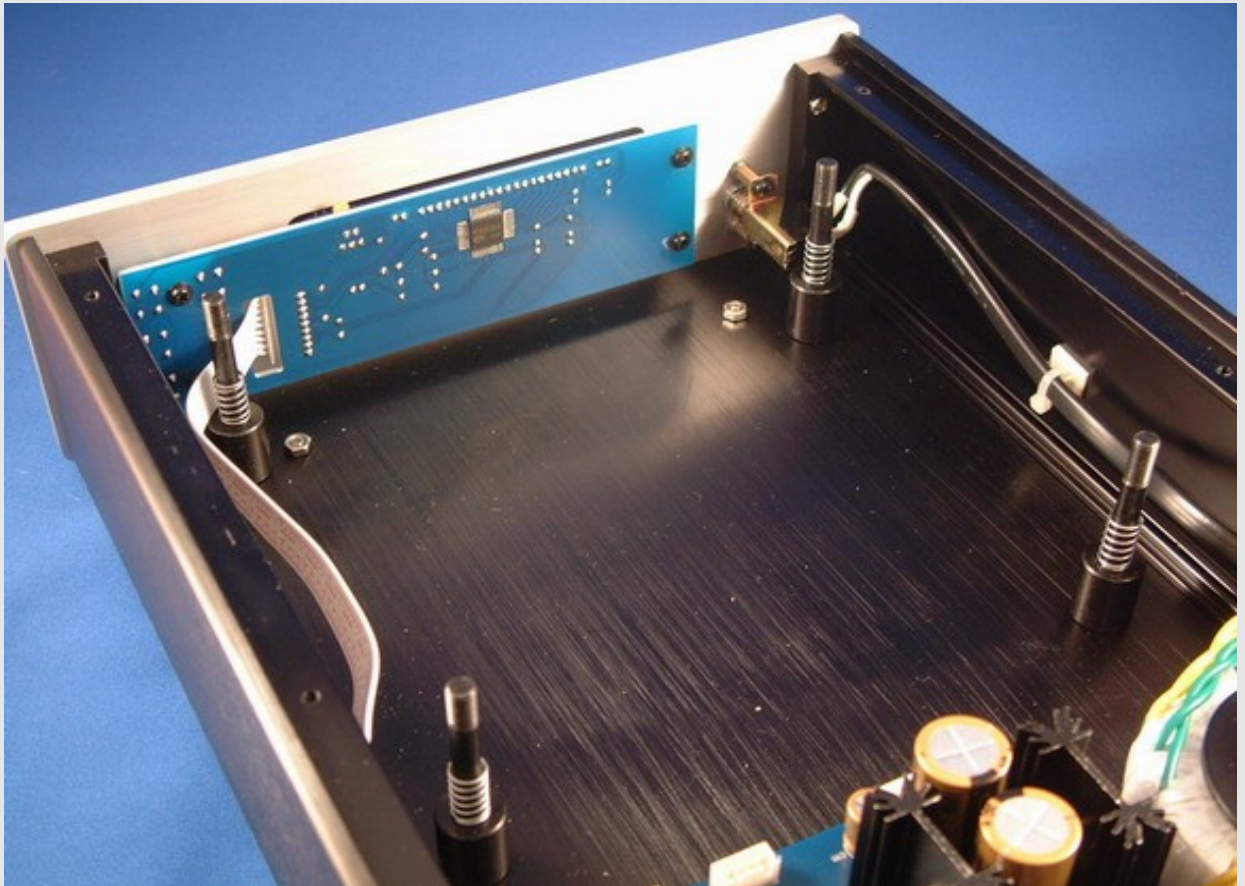
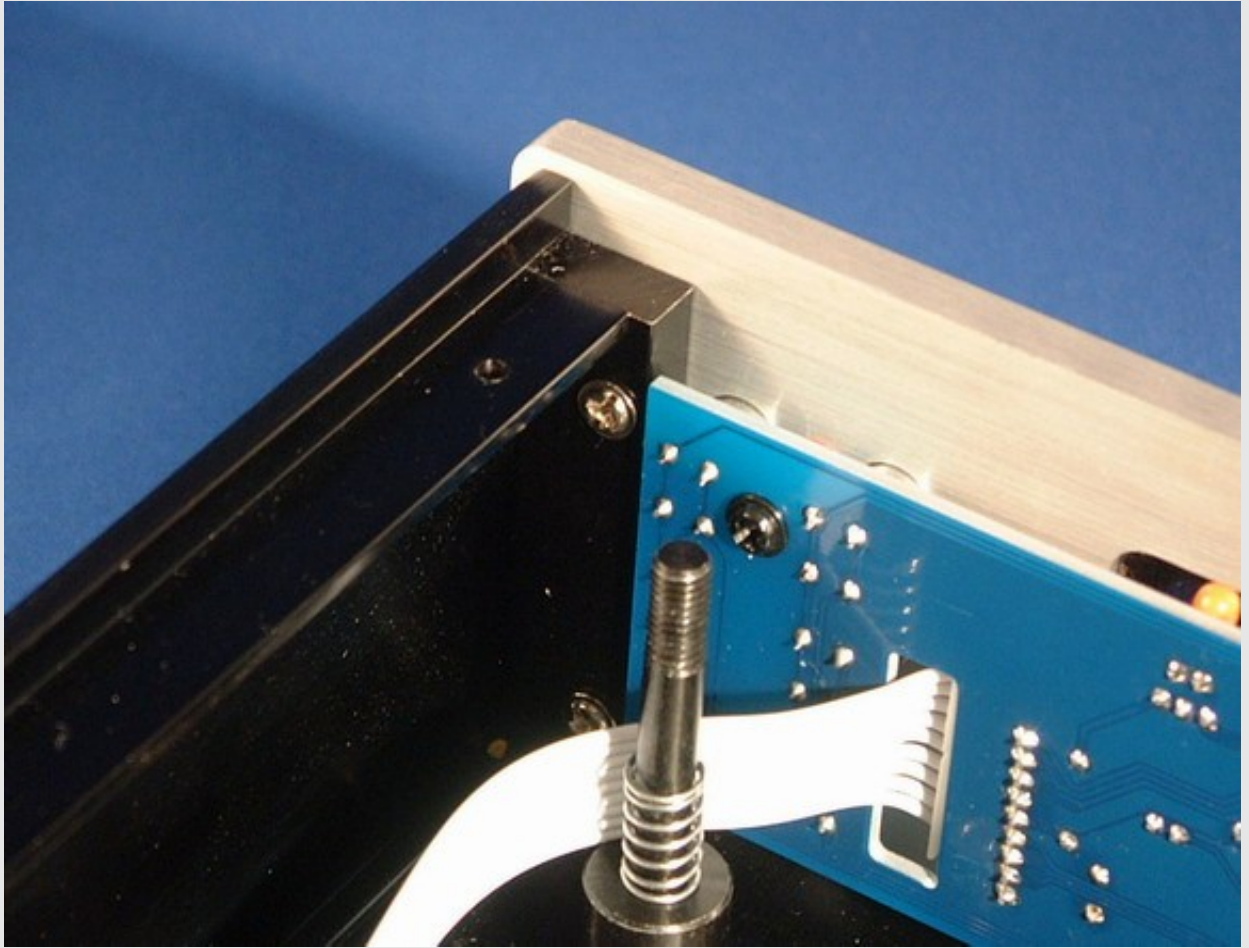
Install rubber feet to bottom cover



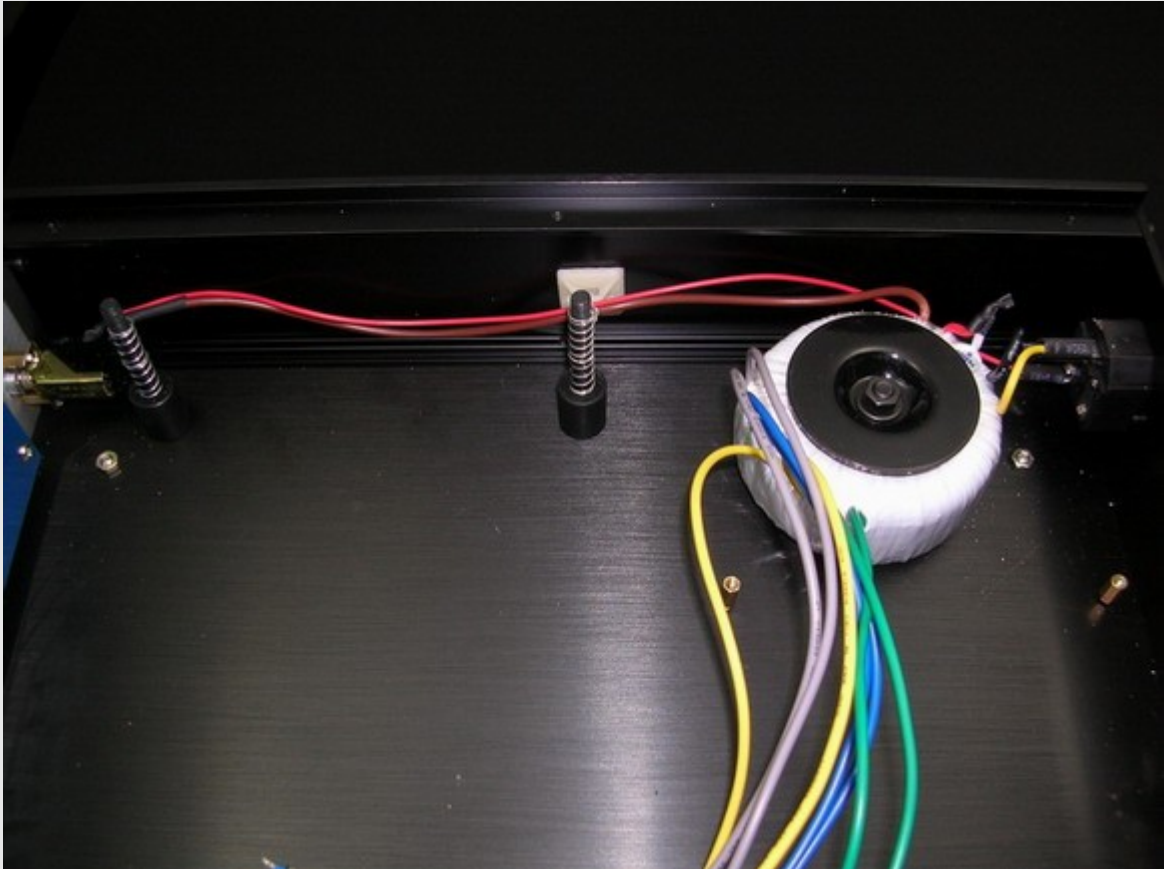
Install ICE power socket to the rear panel

Put side panel, front panel, rear panel and bottom cover together (front panel 3mm Φ x 12mm Screws, all other 3mm Φ x 10mm Screws)

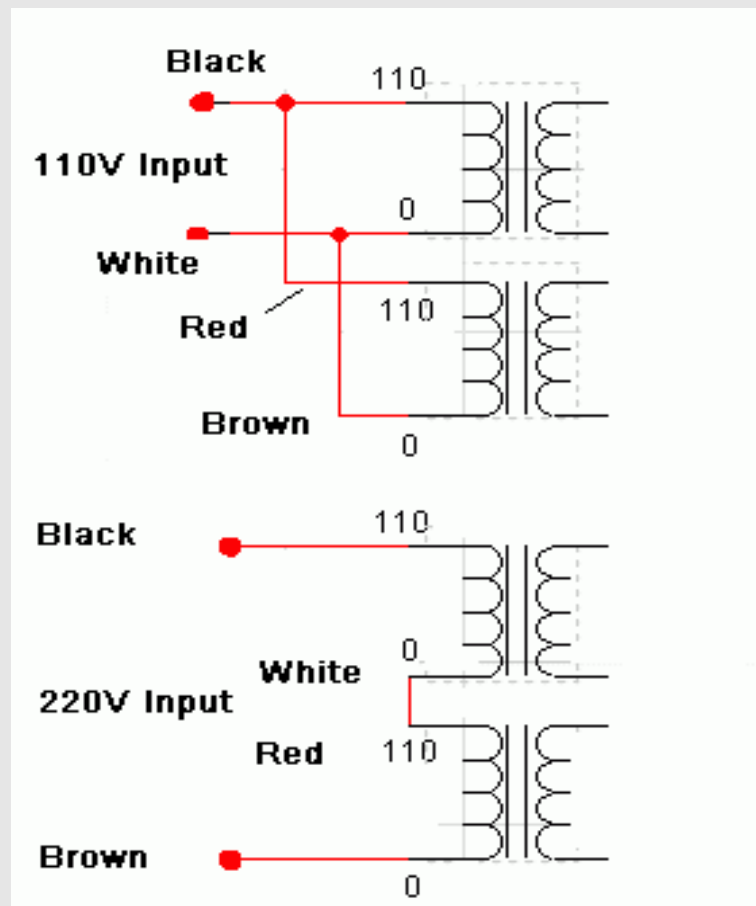
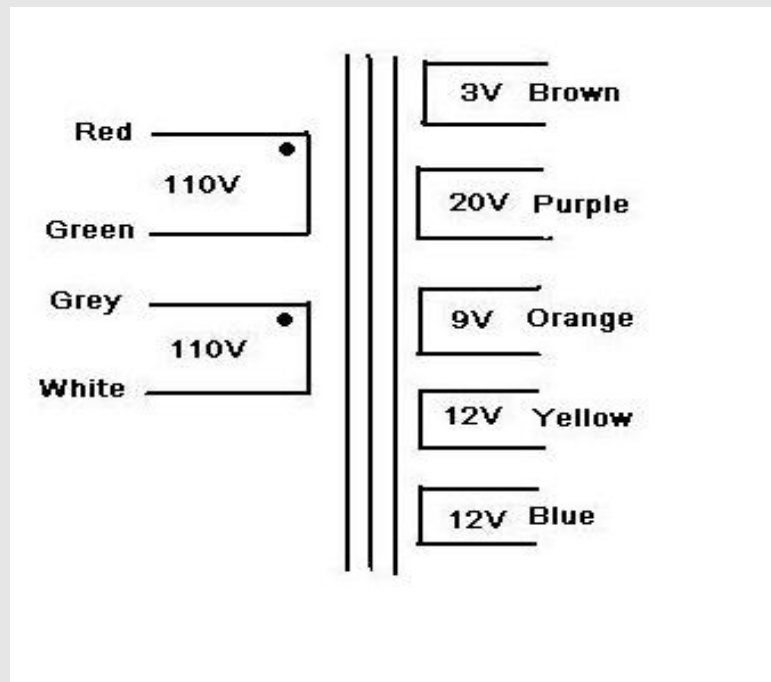


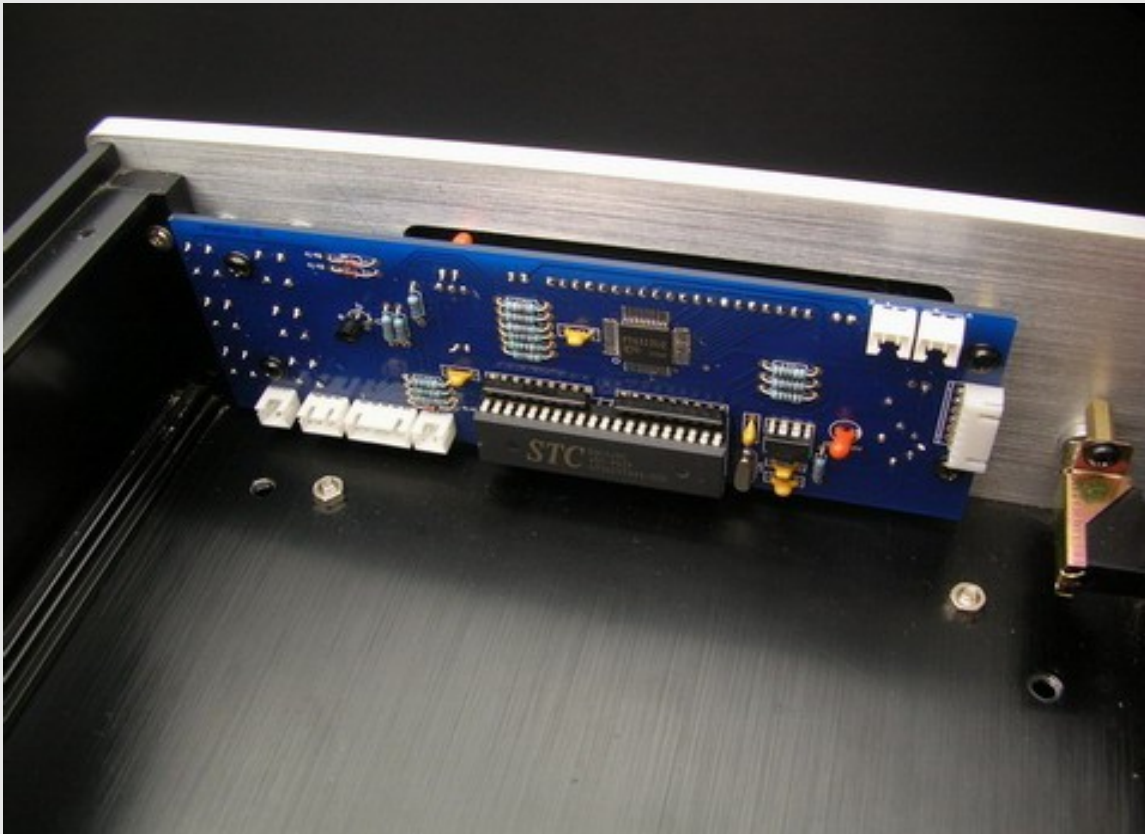
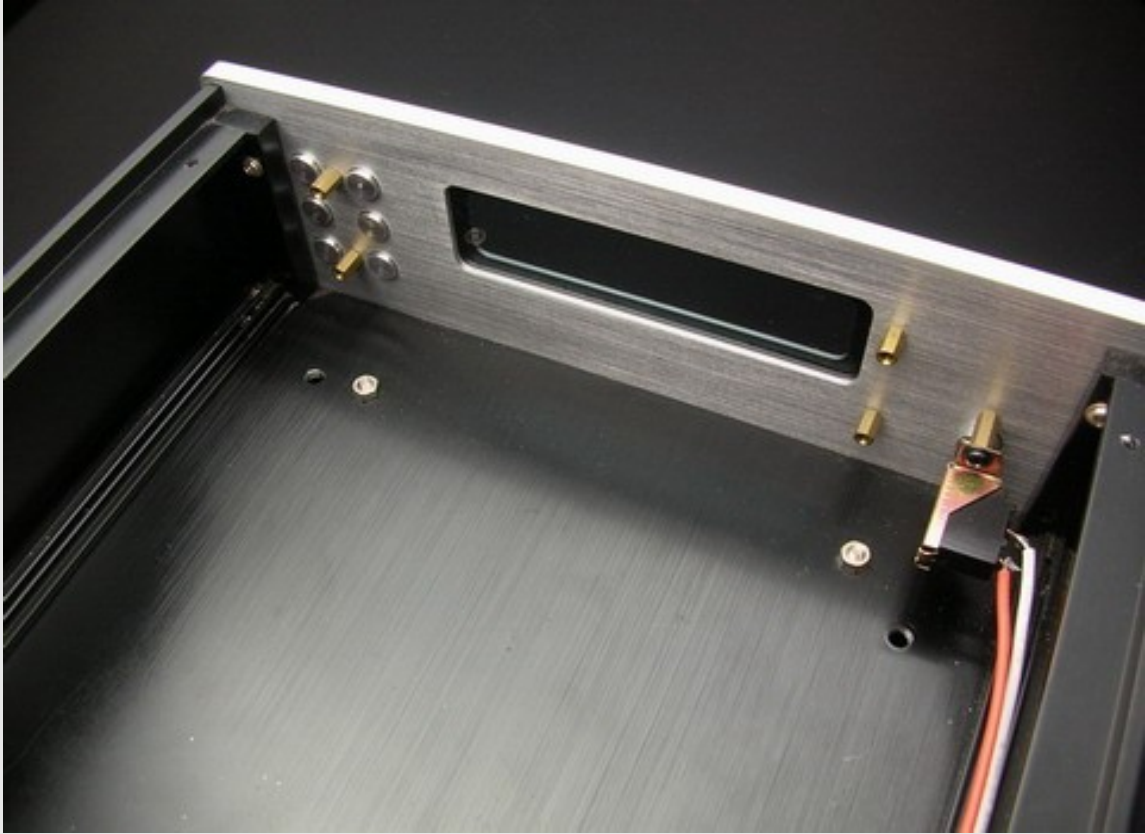


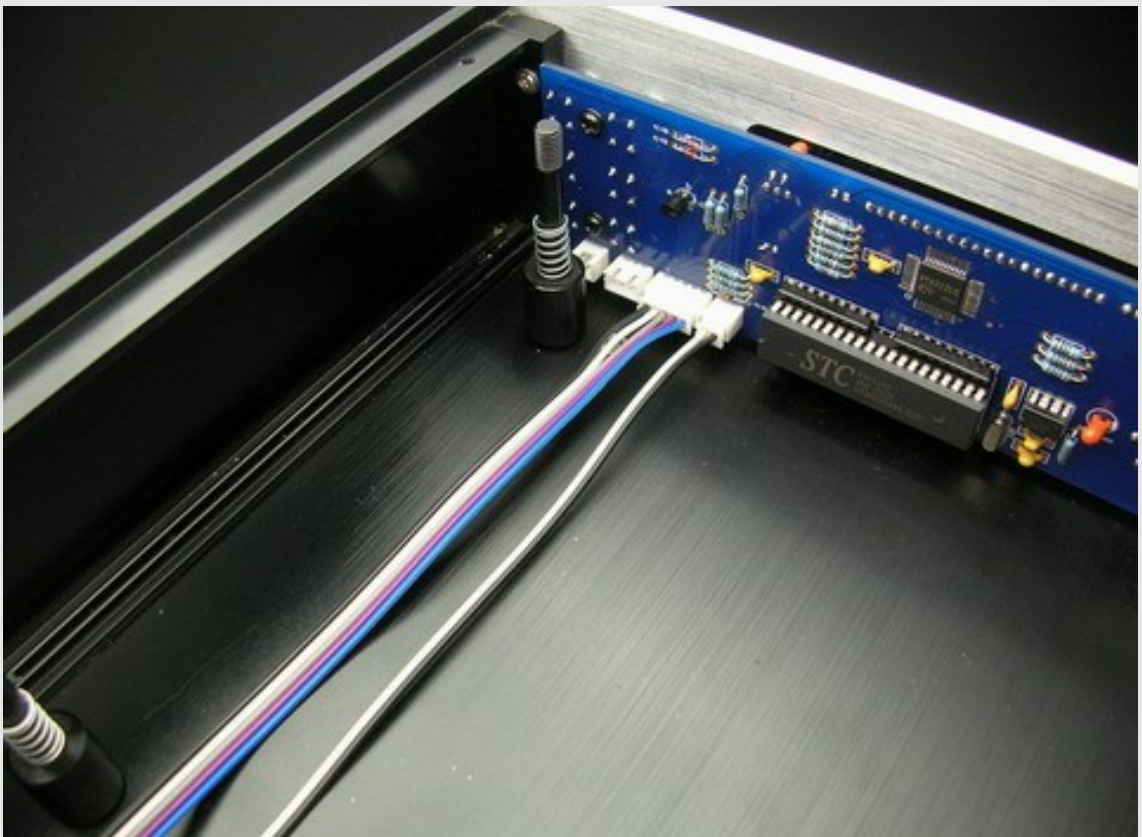
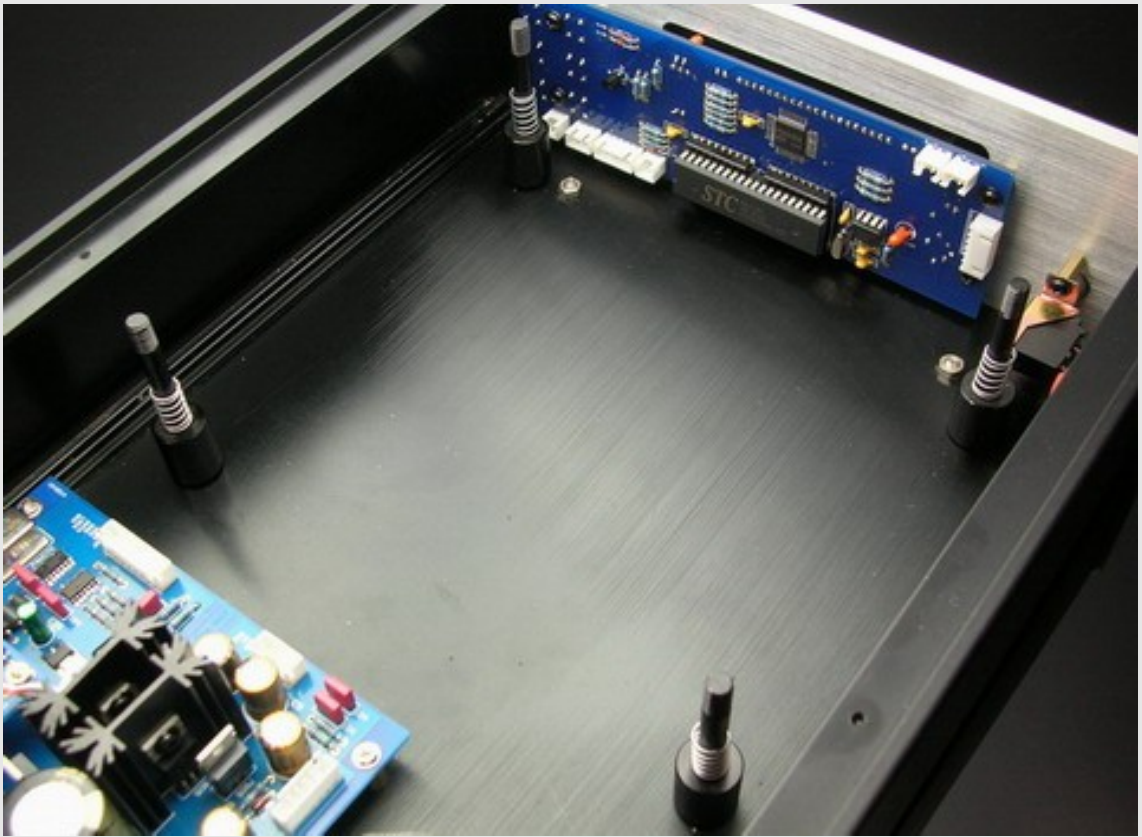
Install Transformer

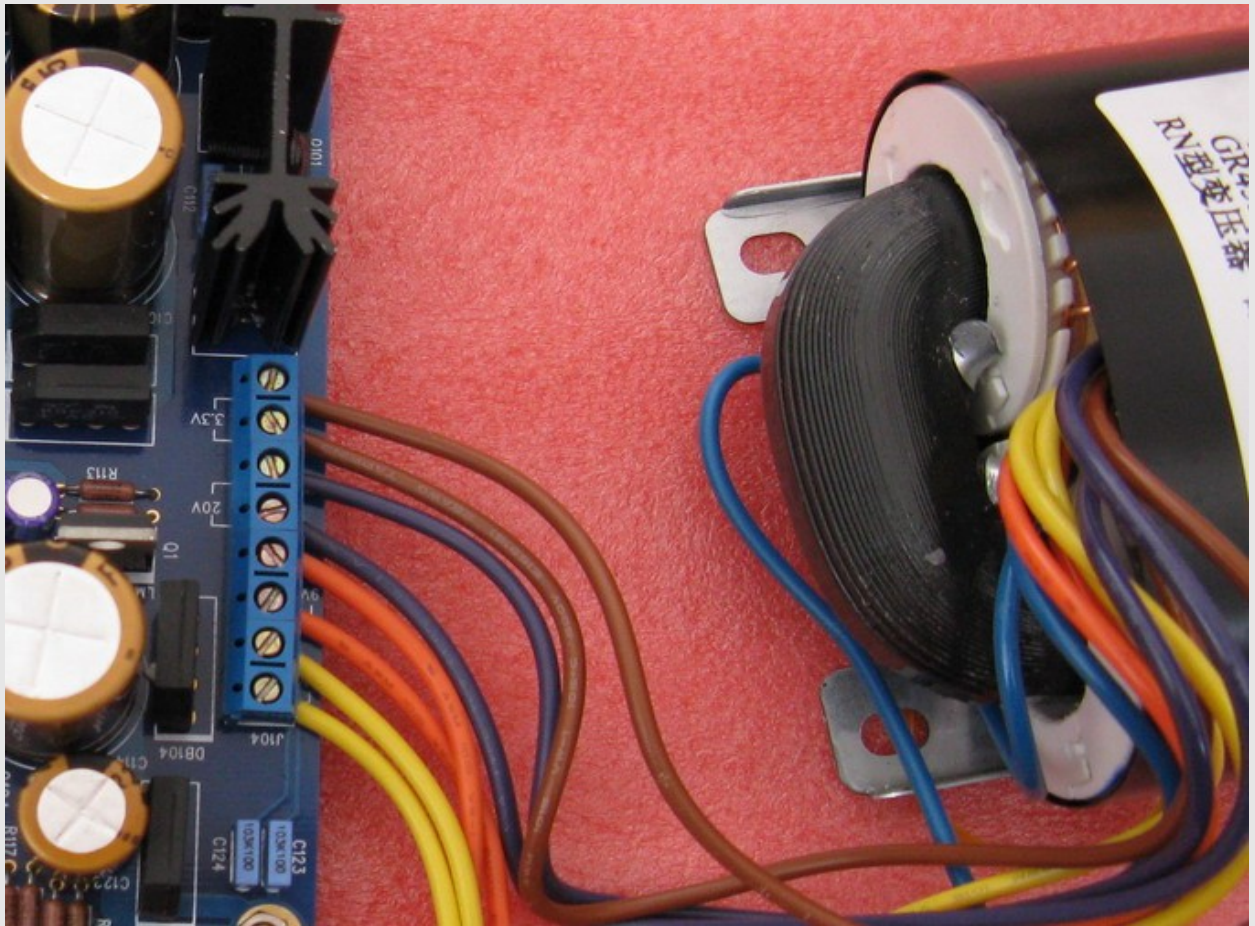
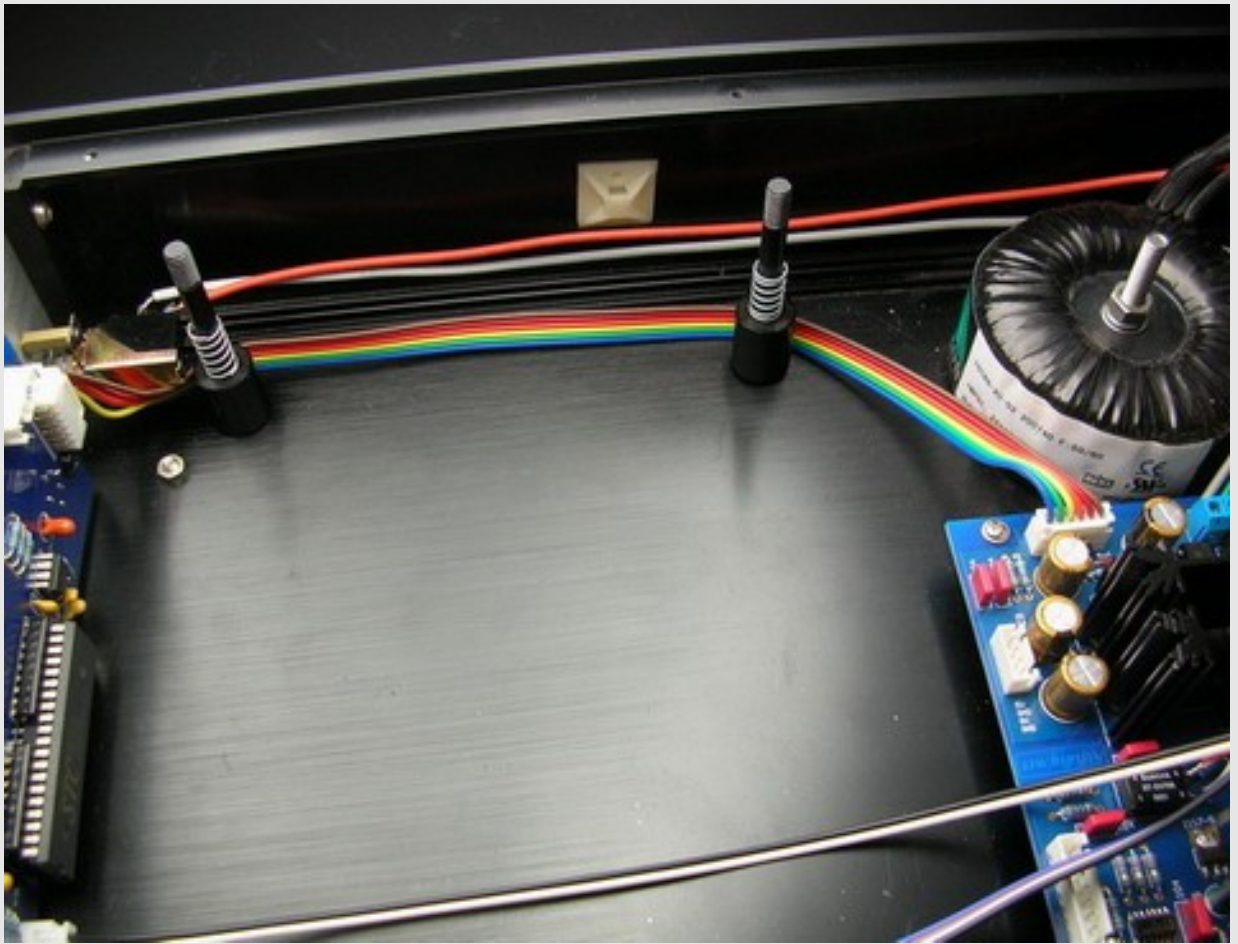


Use two 12V connect to PCB two 9V



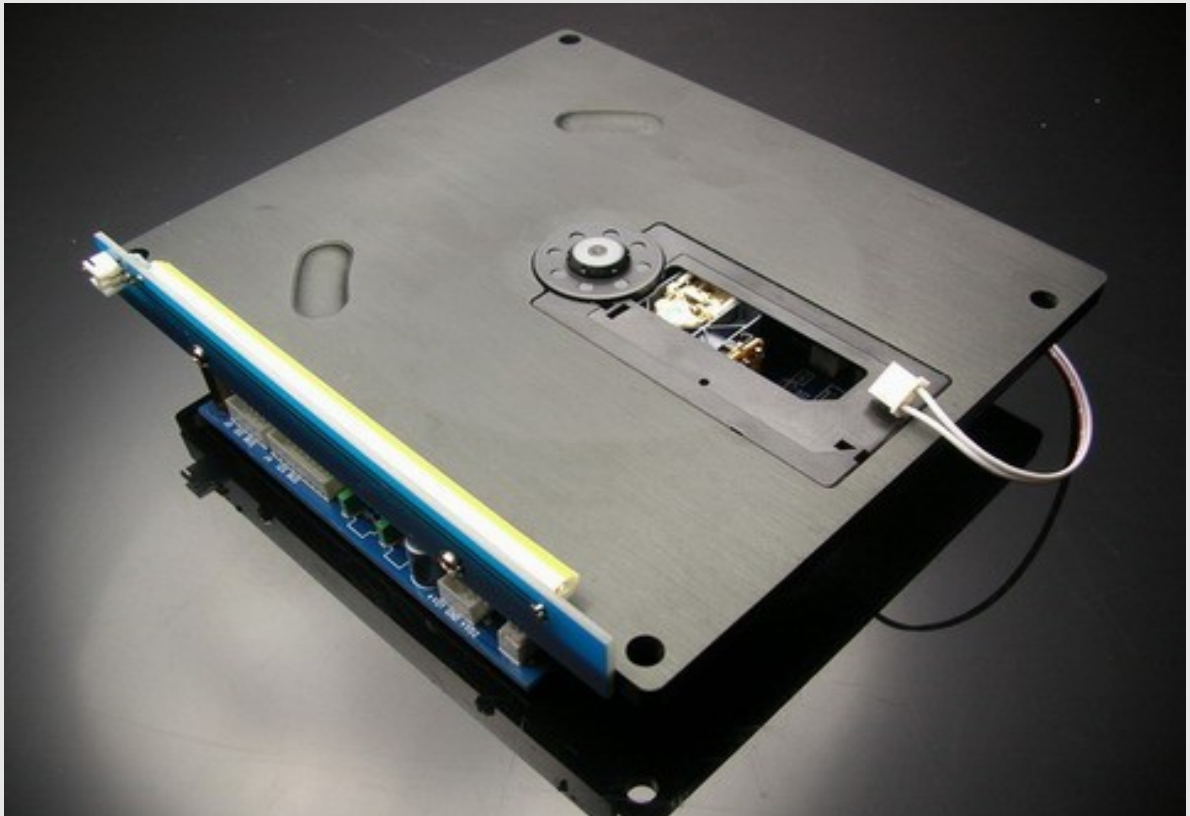


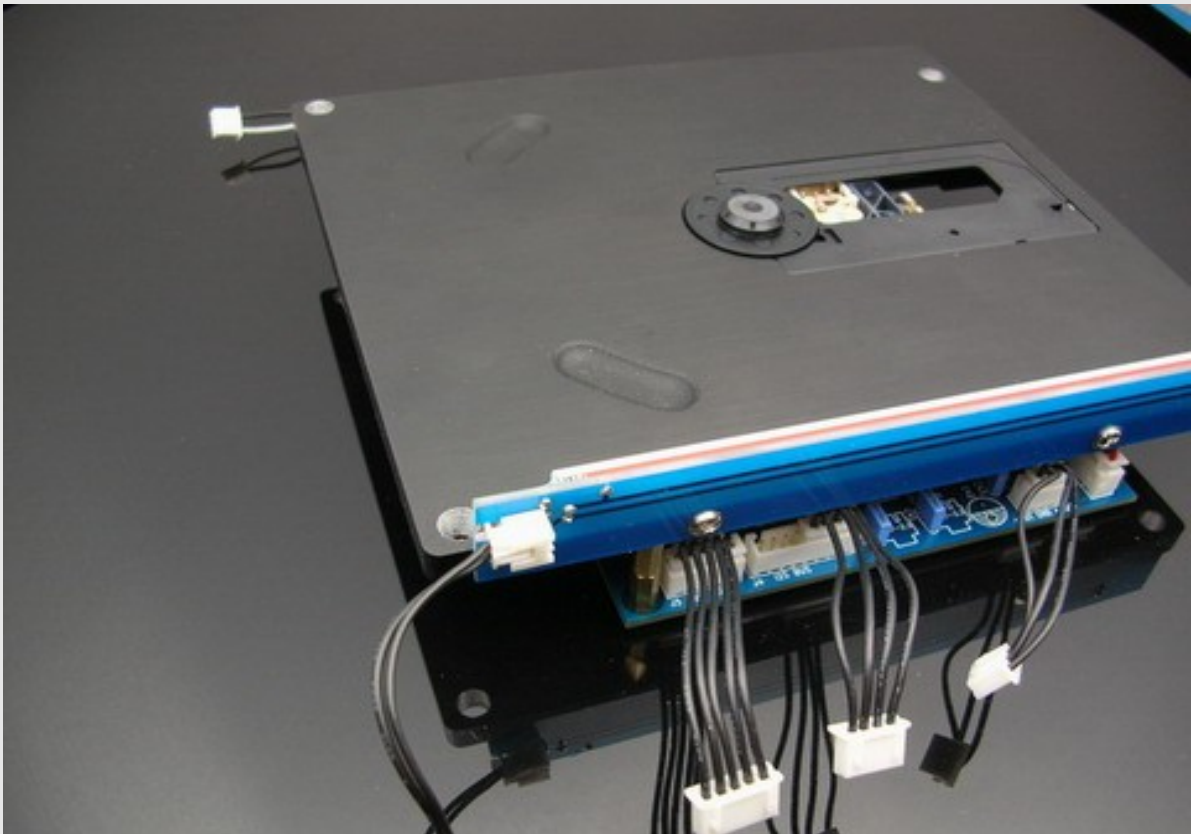






Install Laser Pickup Module



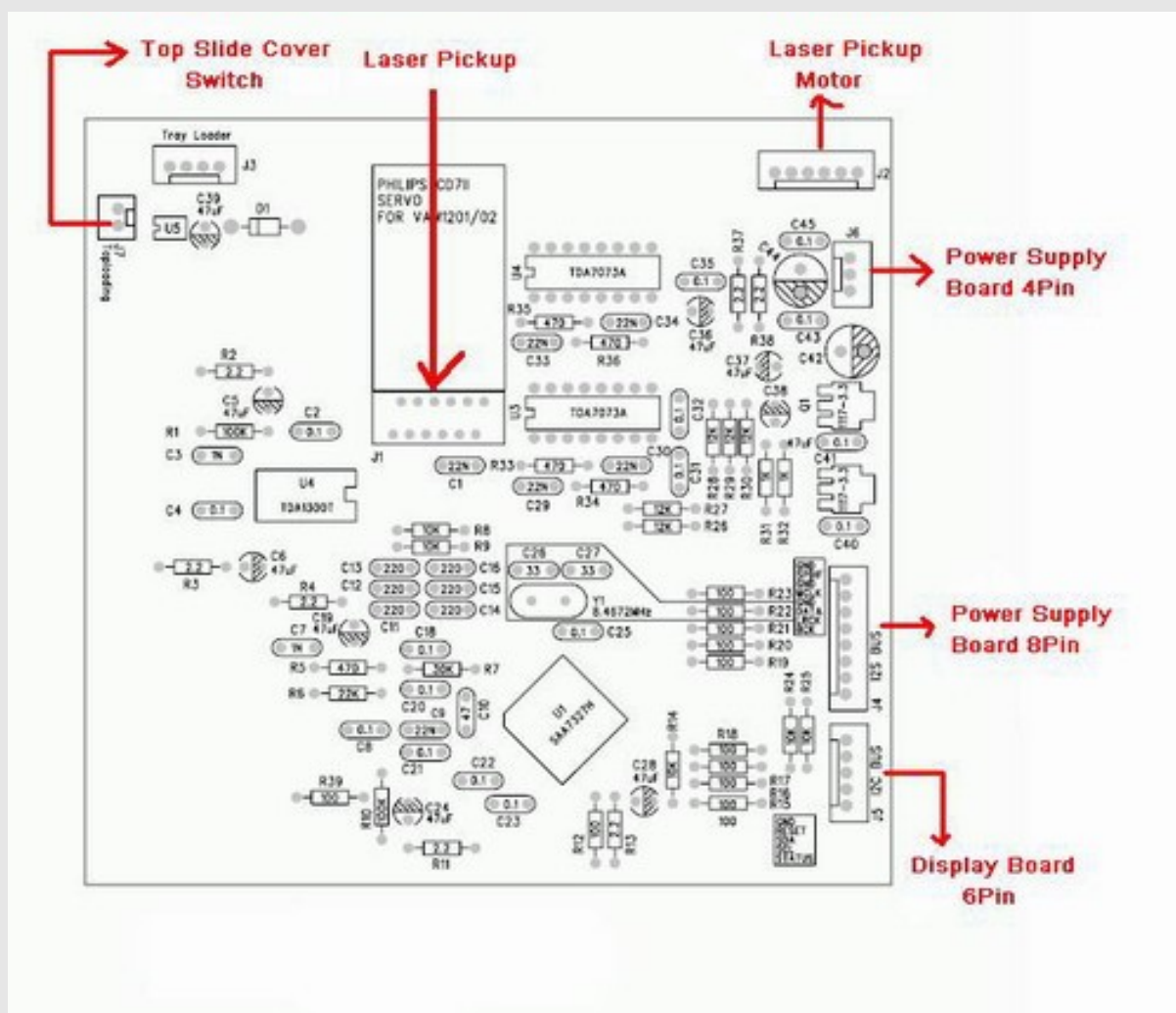
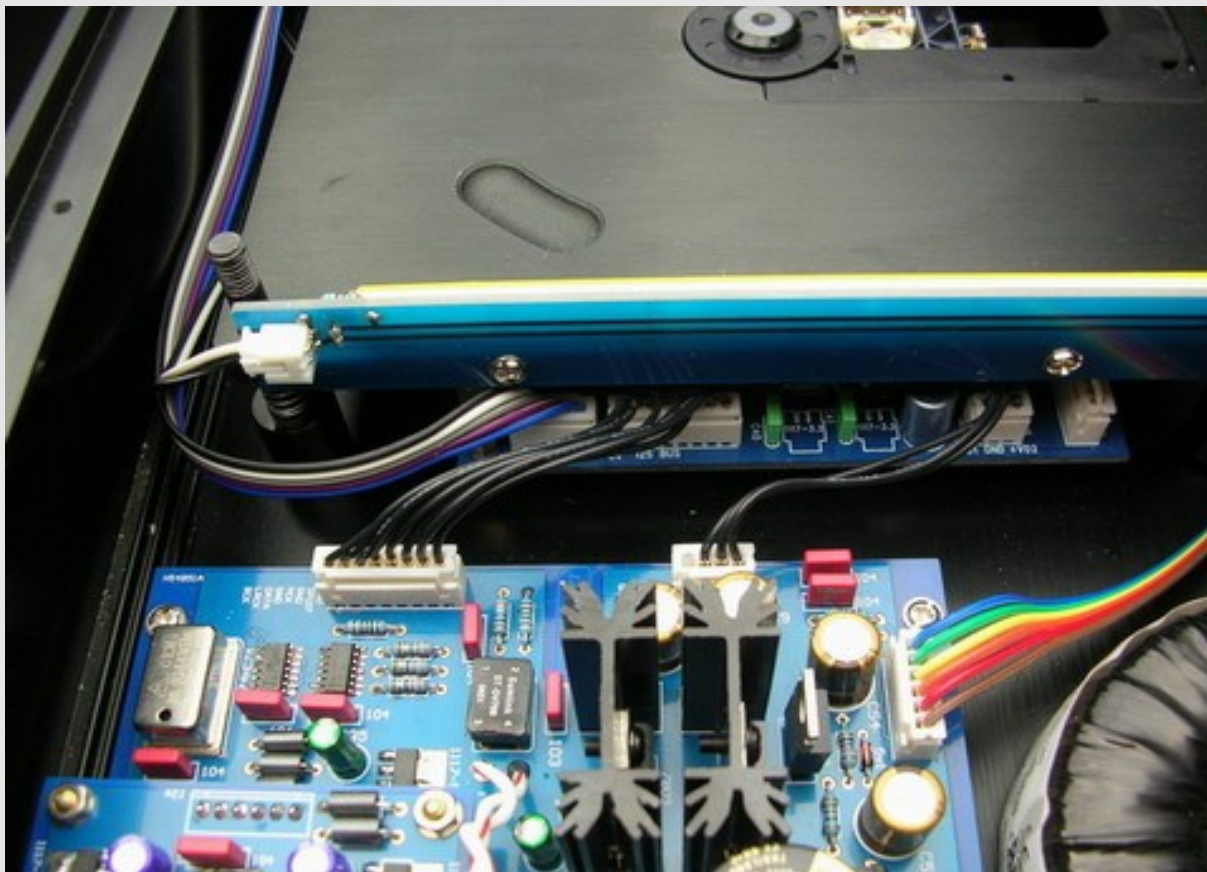




Connect wire from Display Board to Laser Pickup Module



Connect Wire from Laser Pickup Module to Mail Board



Wire DAC and Analog outputs



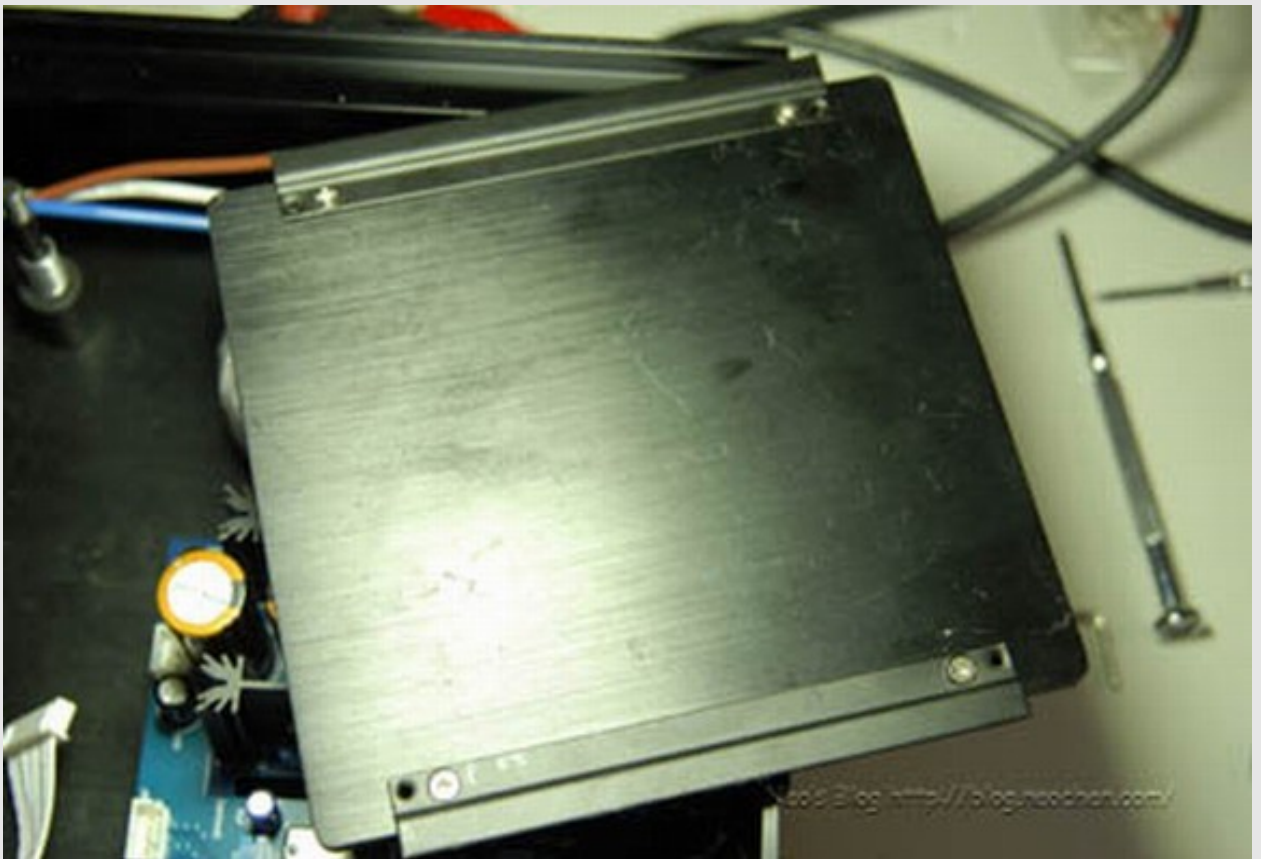


To Cover assembly

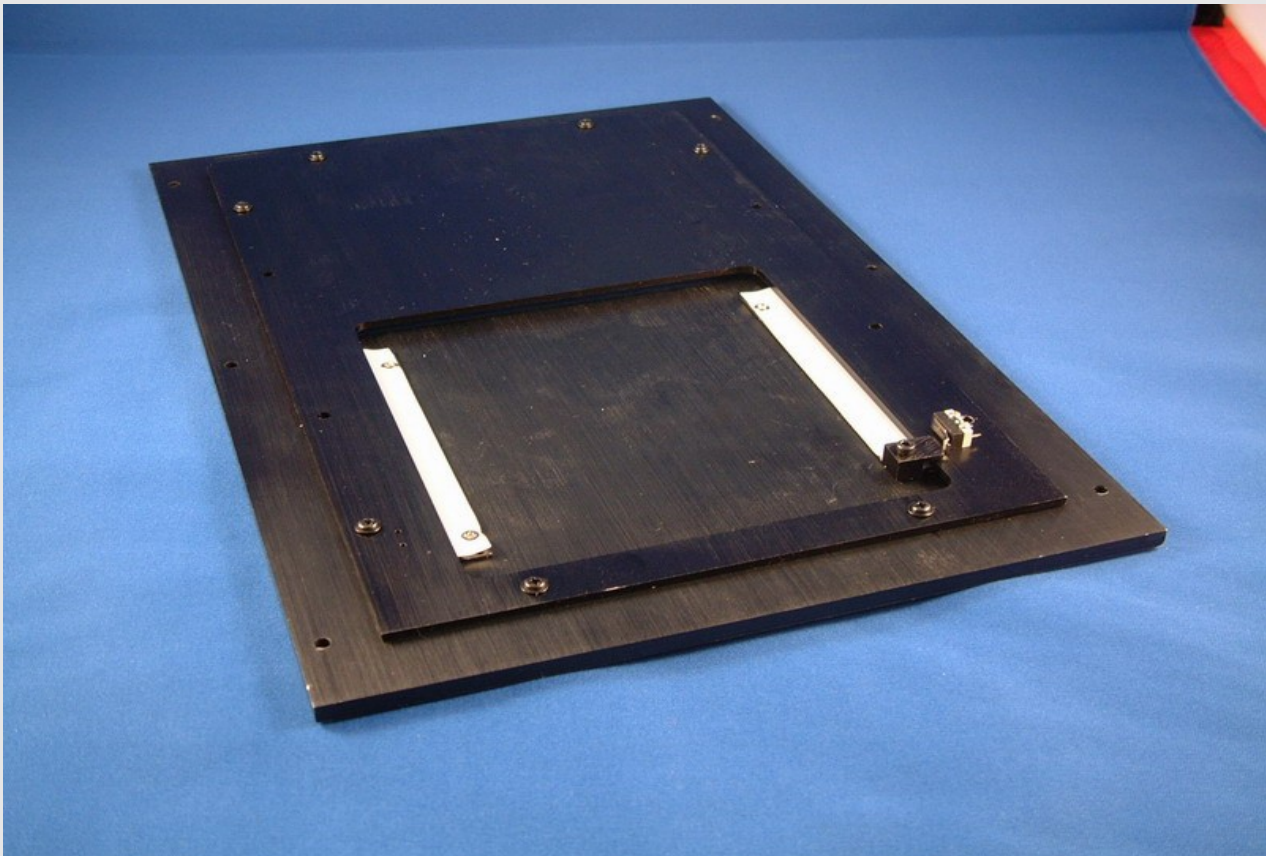
2pcs (Φ 2mm X 8mm screws, 4 pcs Φ 3mm X 3mm screws, 8pcs Φ 3mm X 6mm screws, 7pcs Φ 3mm X 10mm, Top cover switch, 2 pcs Top slide cover assembly piece and Top cover assembly piece)

Install Top slide cover assembly piece to Top slide cover

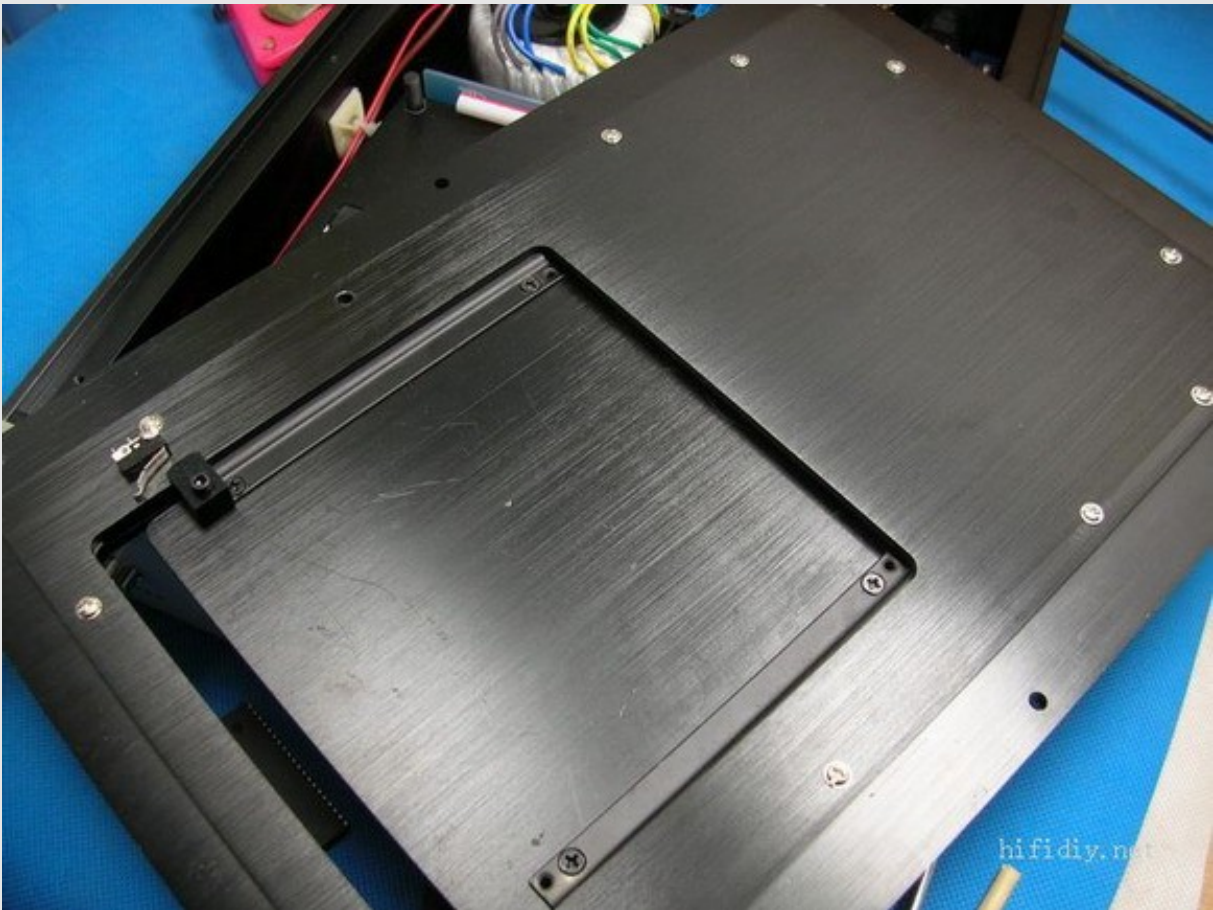
(Use 4pcs Φ 3mm X 3mm screws)

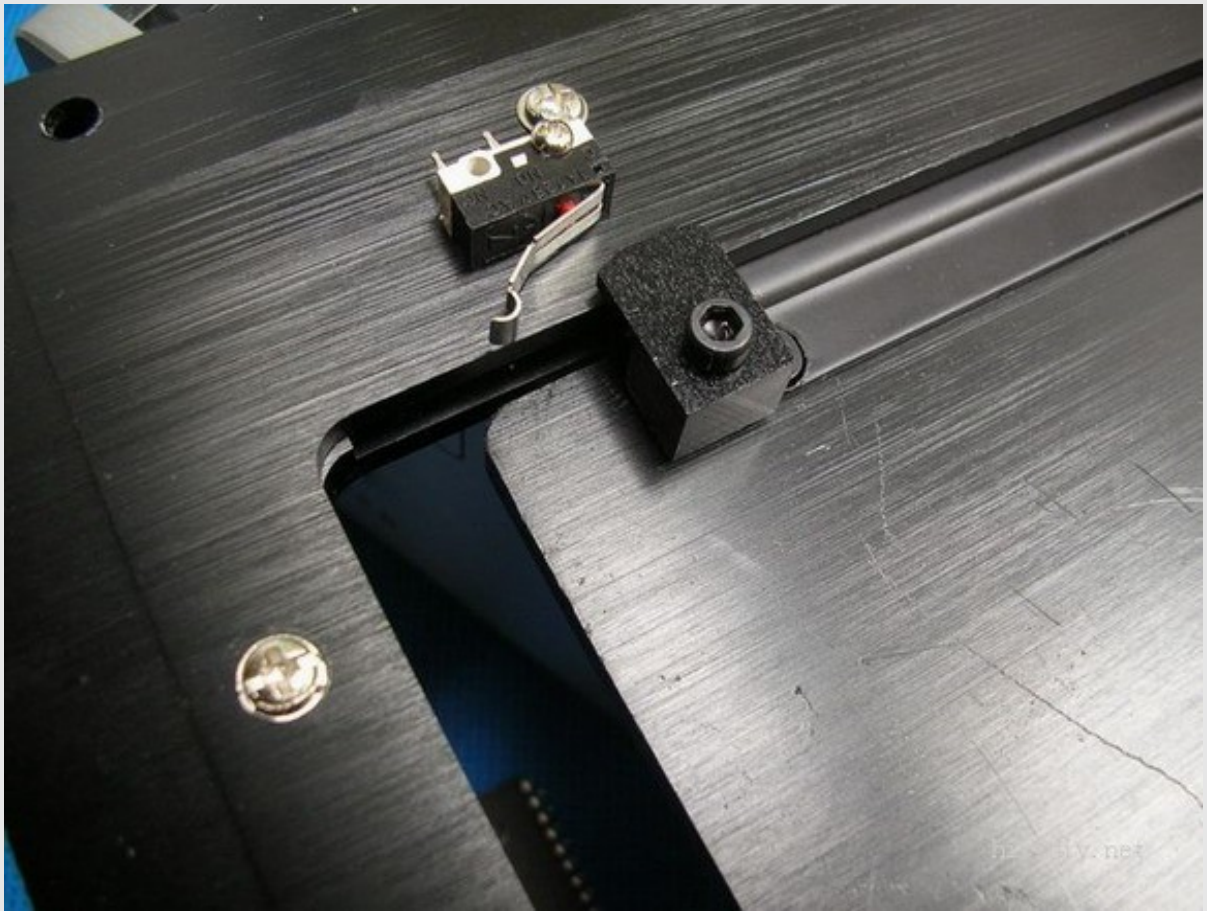


Install Top slide cover to Top Cover



Install Top cover switch





Connect Top cover switch cable and install Top cover







