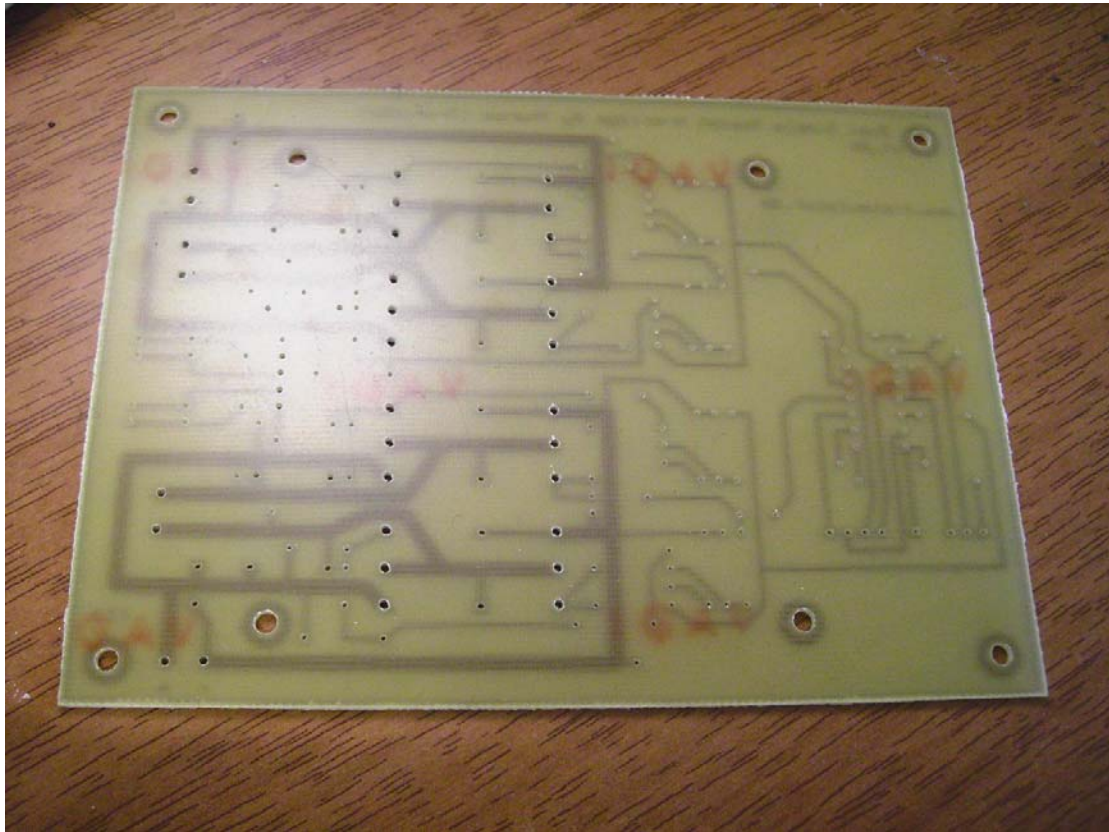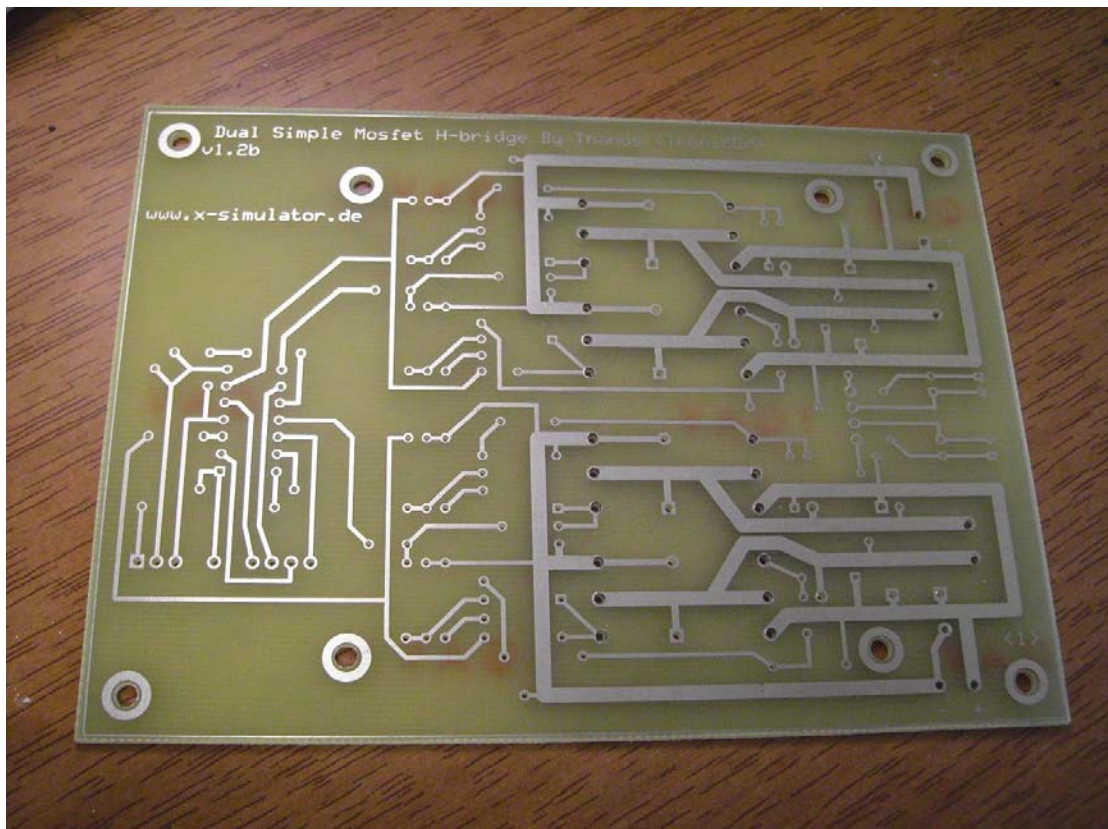# A short Guide to solder the Dual Simple Mosfet H-bridge 1.2b
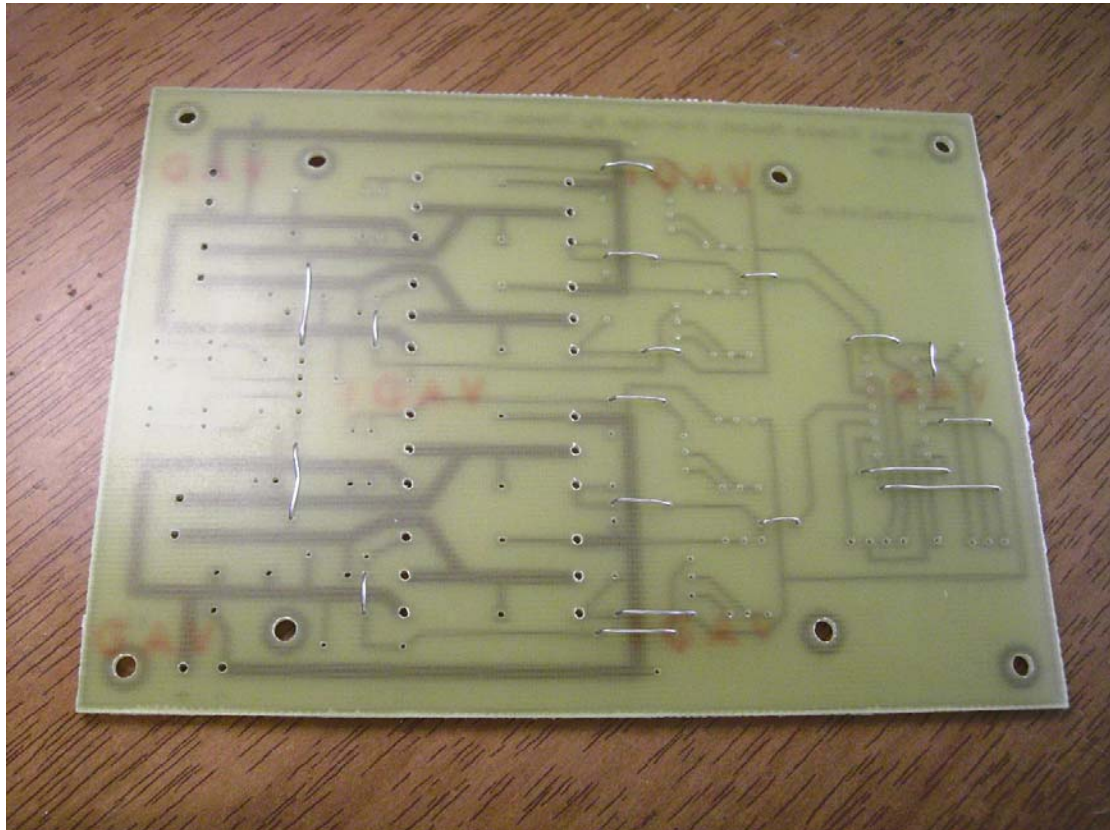
First be sure that the holes for the Terminal Connectors are big enough to let them fit.
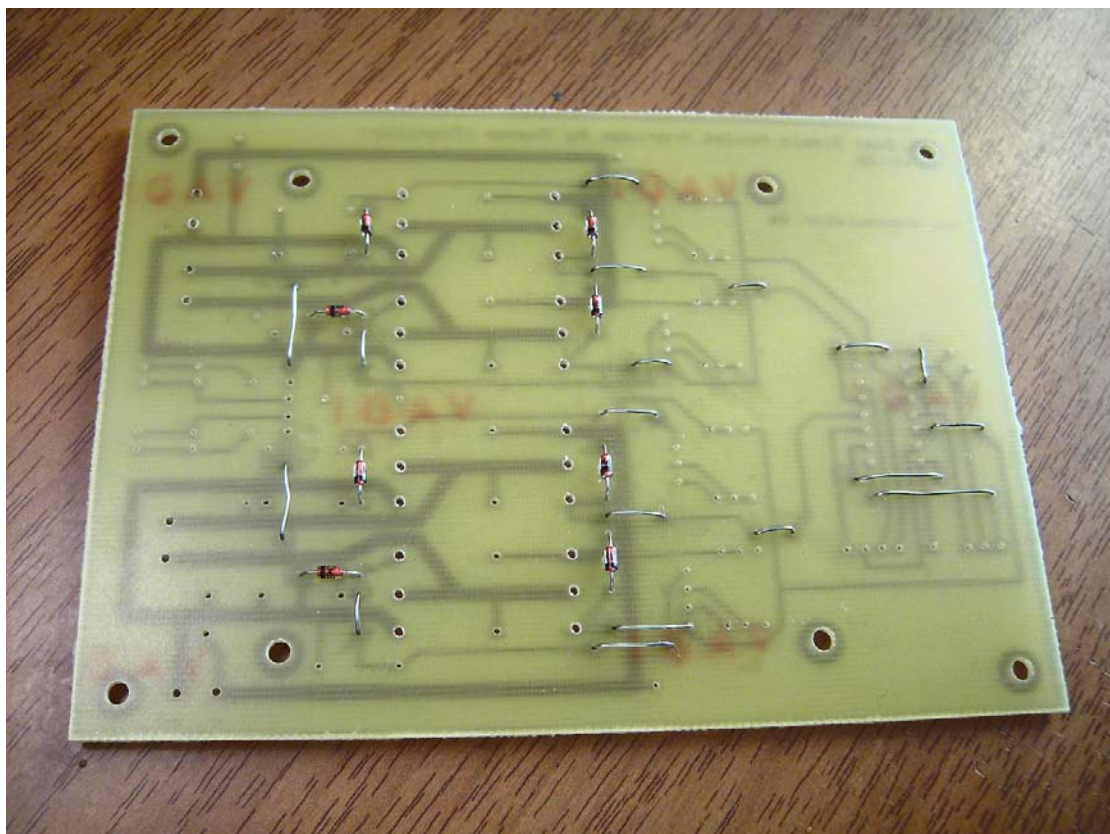

Be careful with the drill process, to do not break the traces or force them to peel off the PCB.
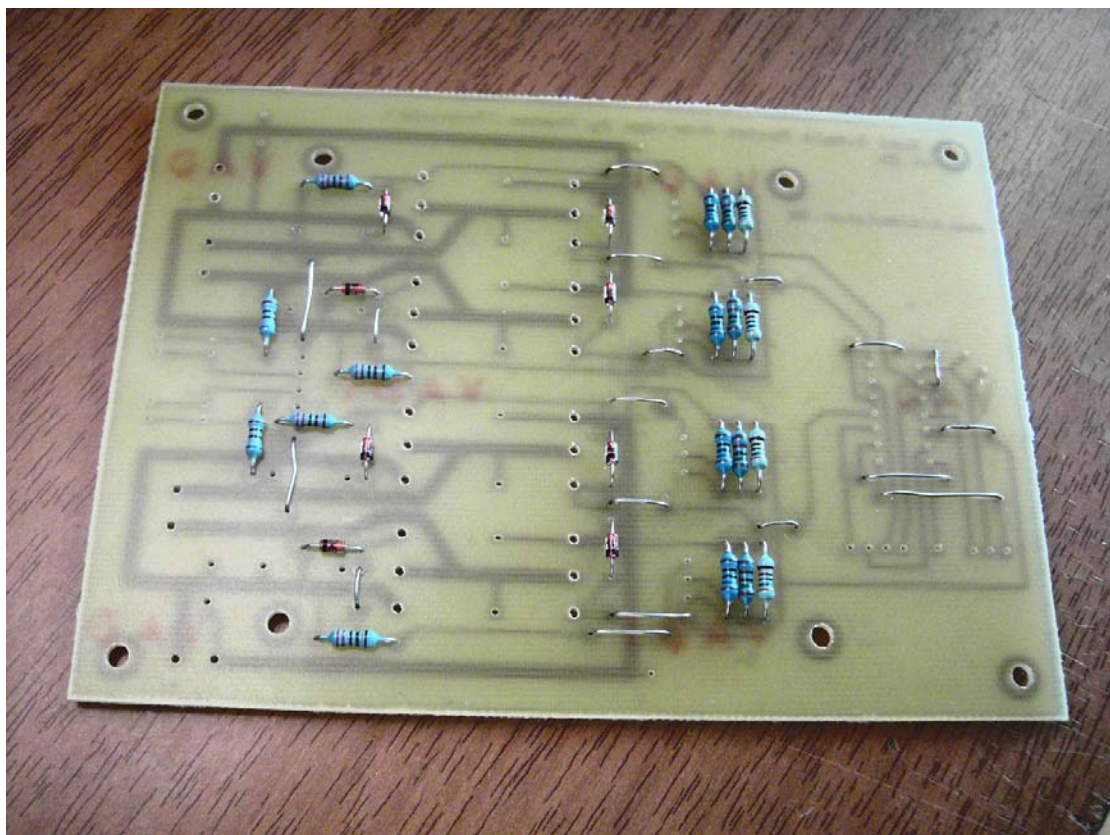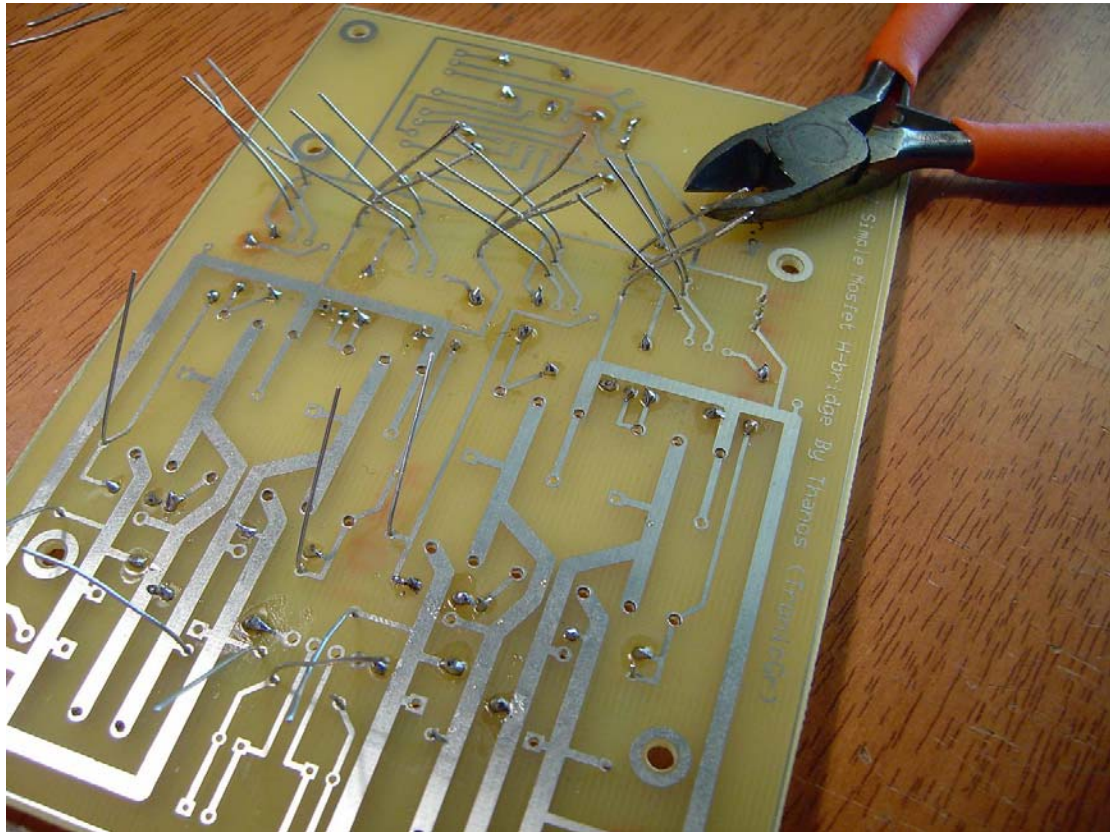
First thing to do is to place the lower height components, like for start, the wire bridges:
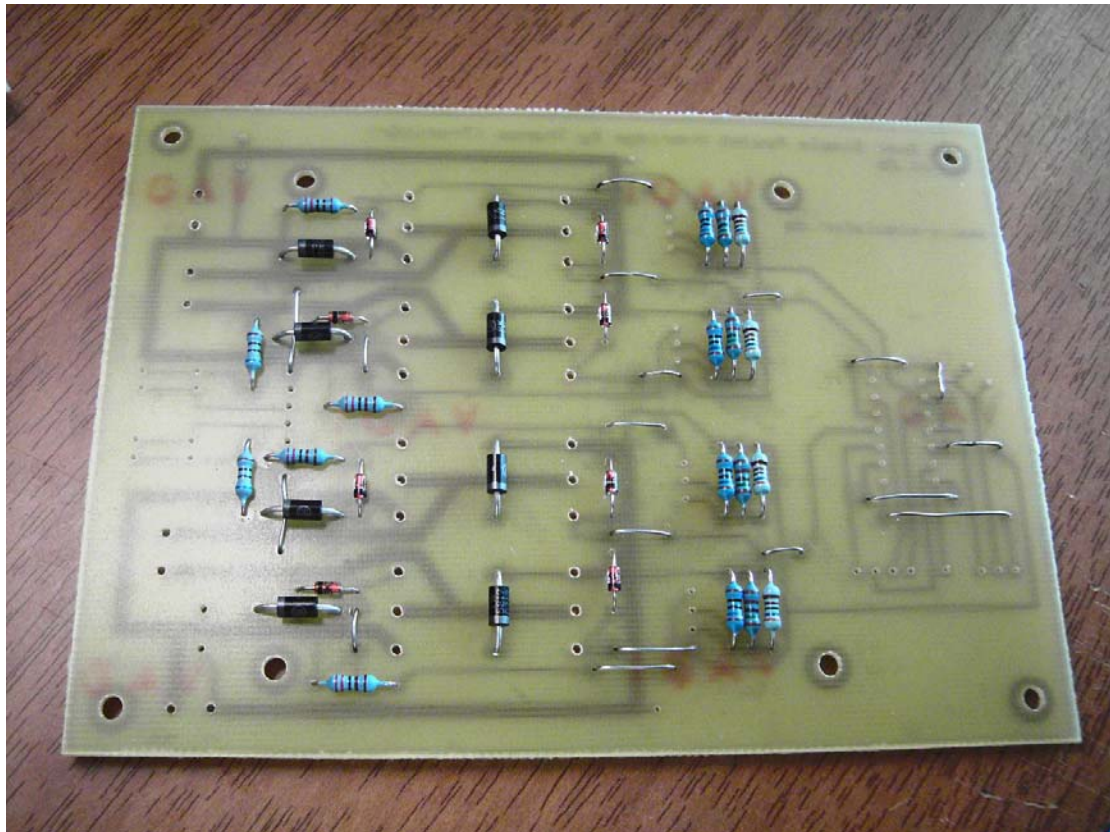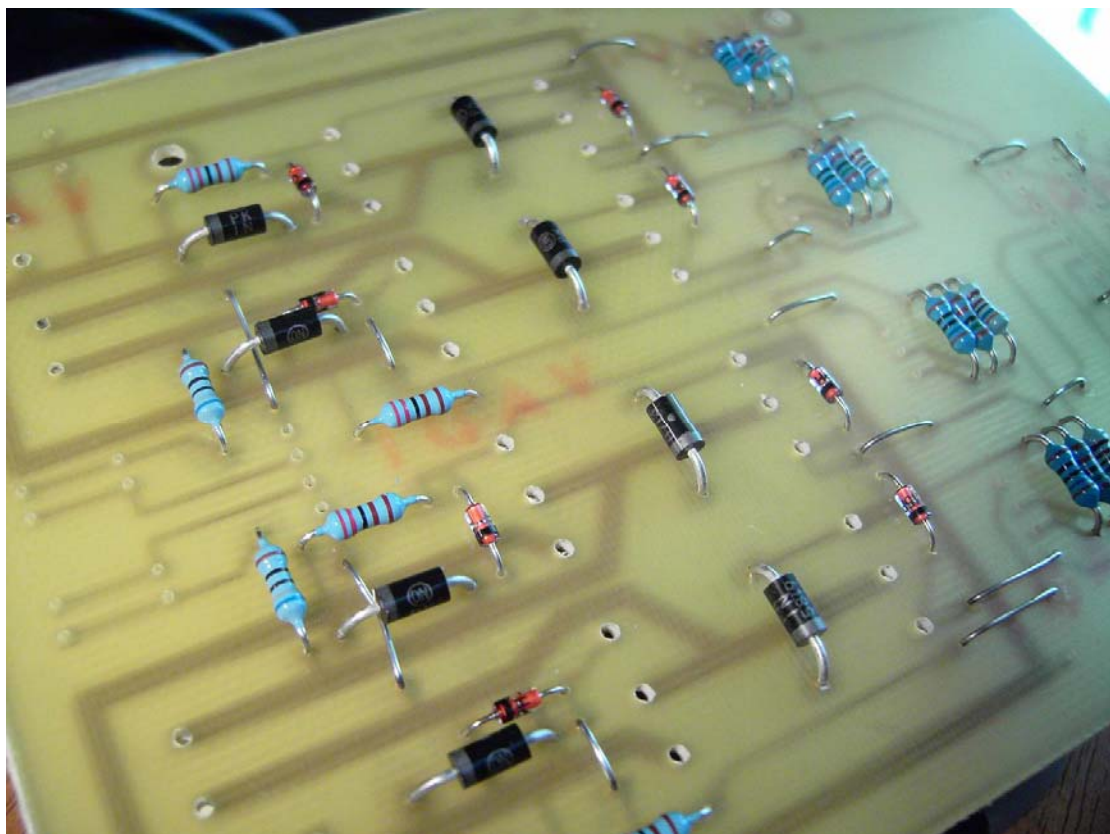

Then place the Zener diodes:

Next is placing the resistors. To avoid the trouble of holding them during soldering, bend a little their legs and cut them.
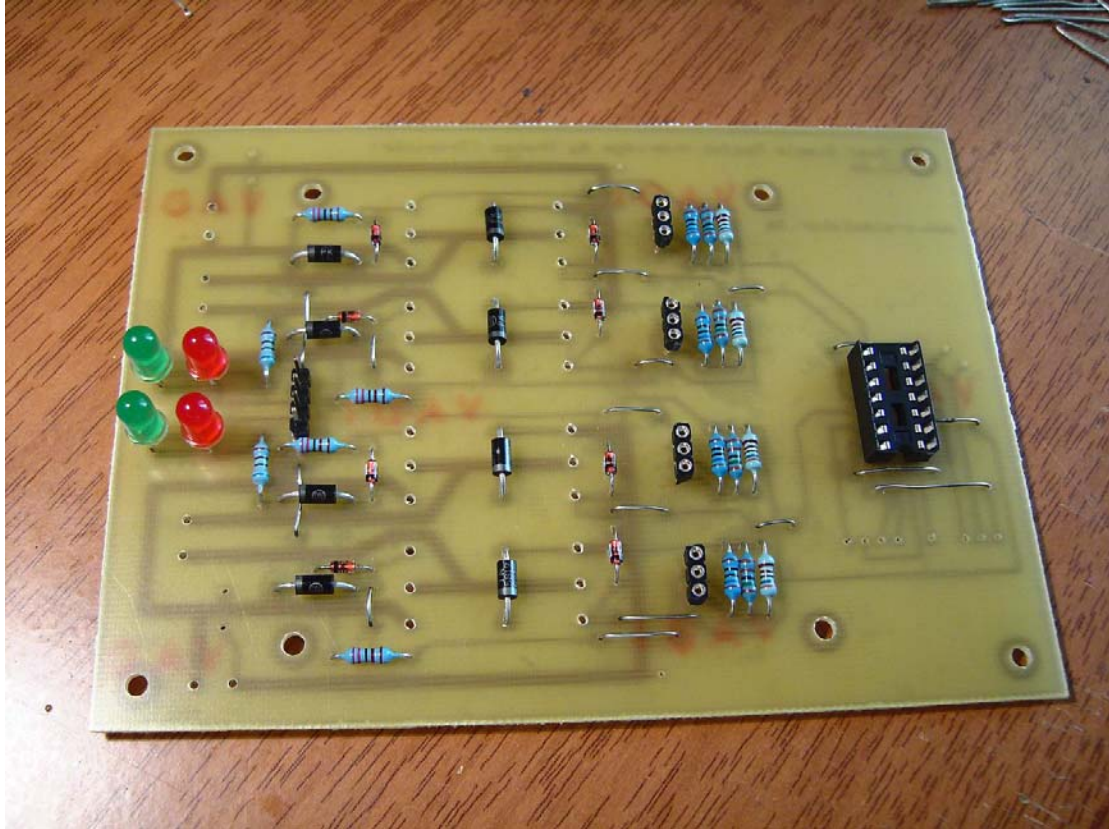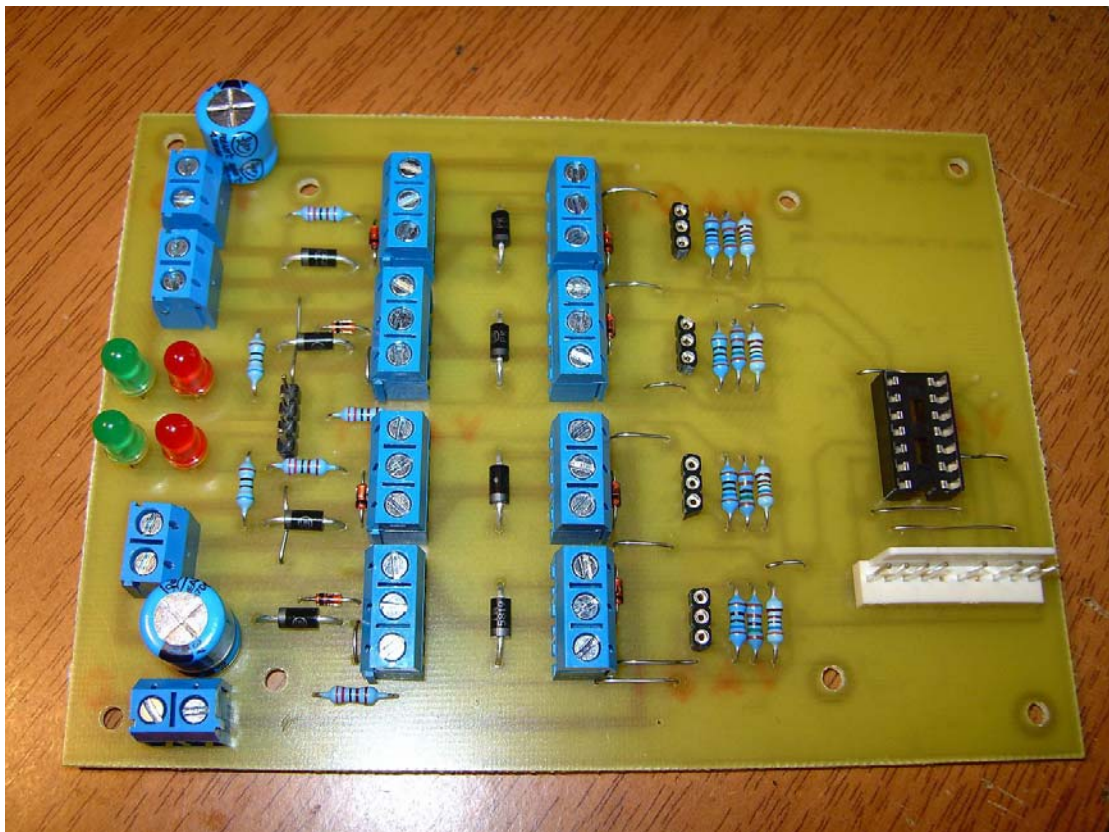
Next thing to place is the Scottky diodes:

Be sure that they fit the holes because they have thick legs, otherwise drill them bigger:
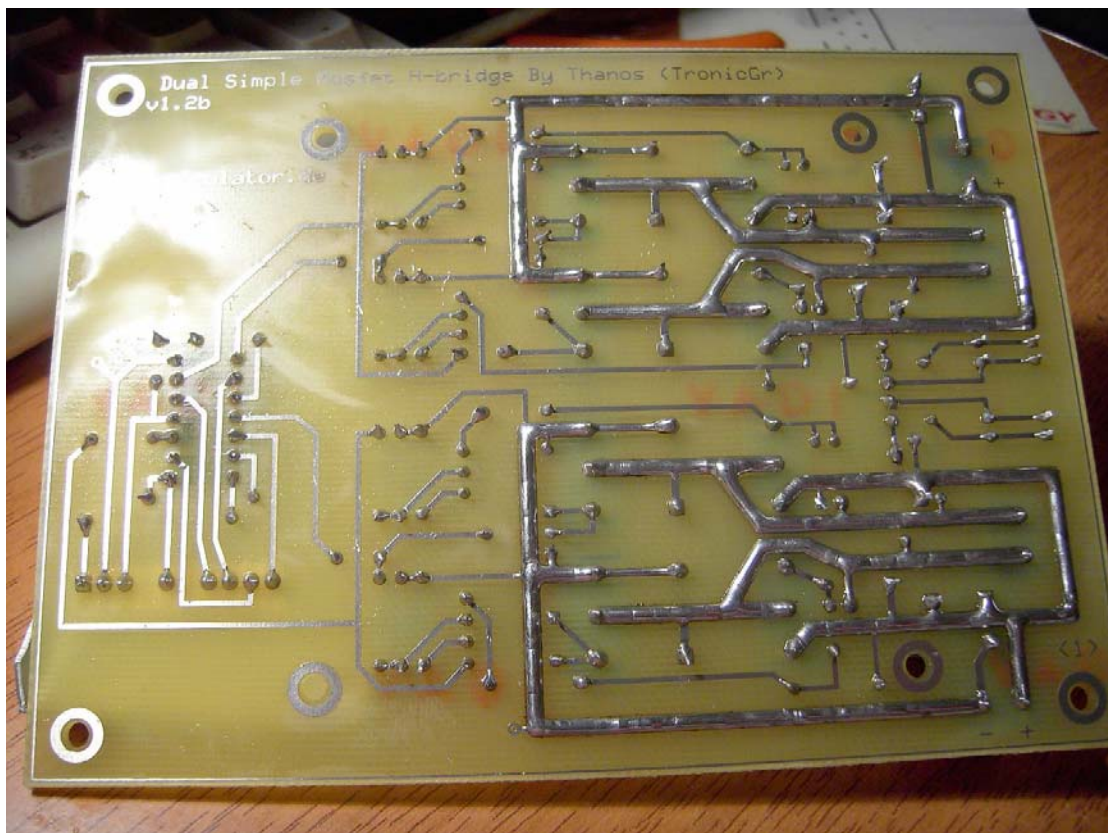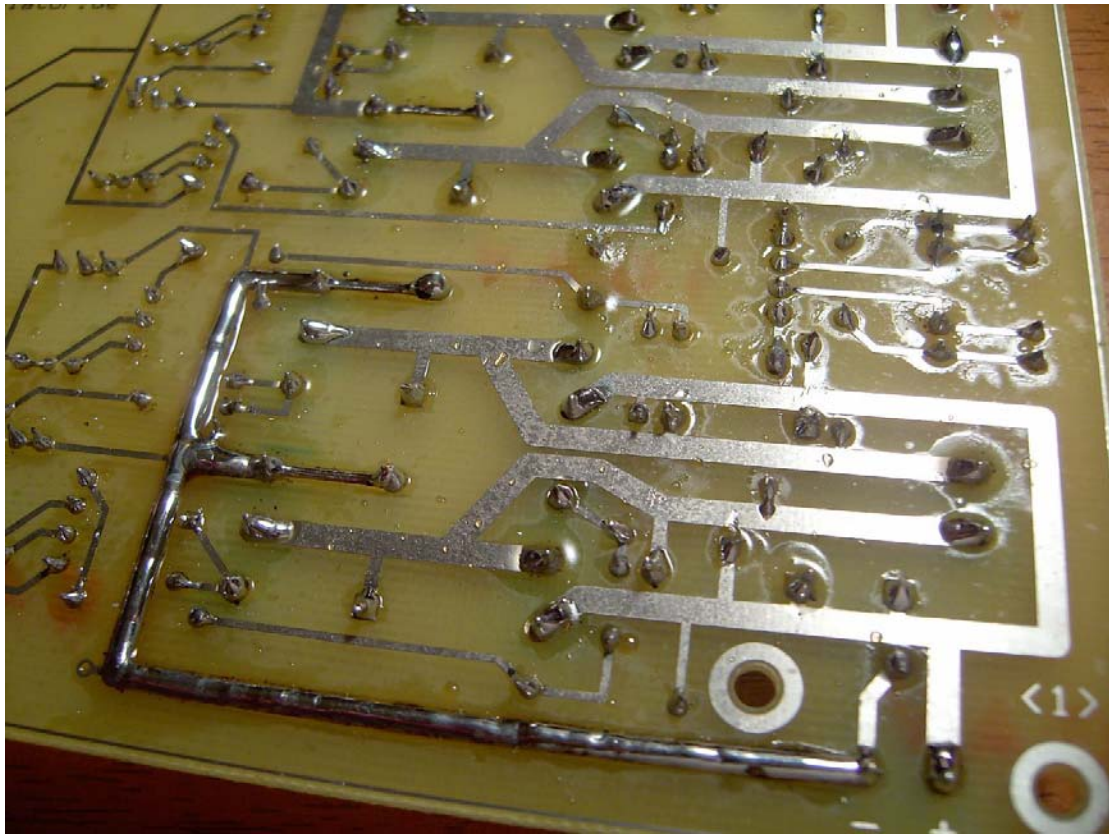
Next place the status leds, the SIP header for the jumpers, the IC base and the transistor bases as well.
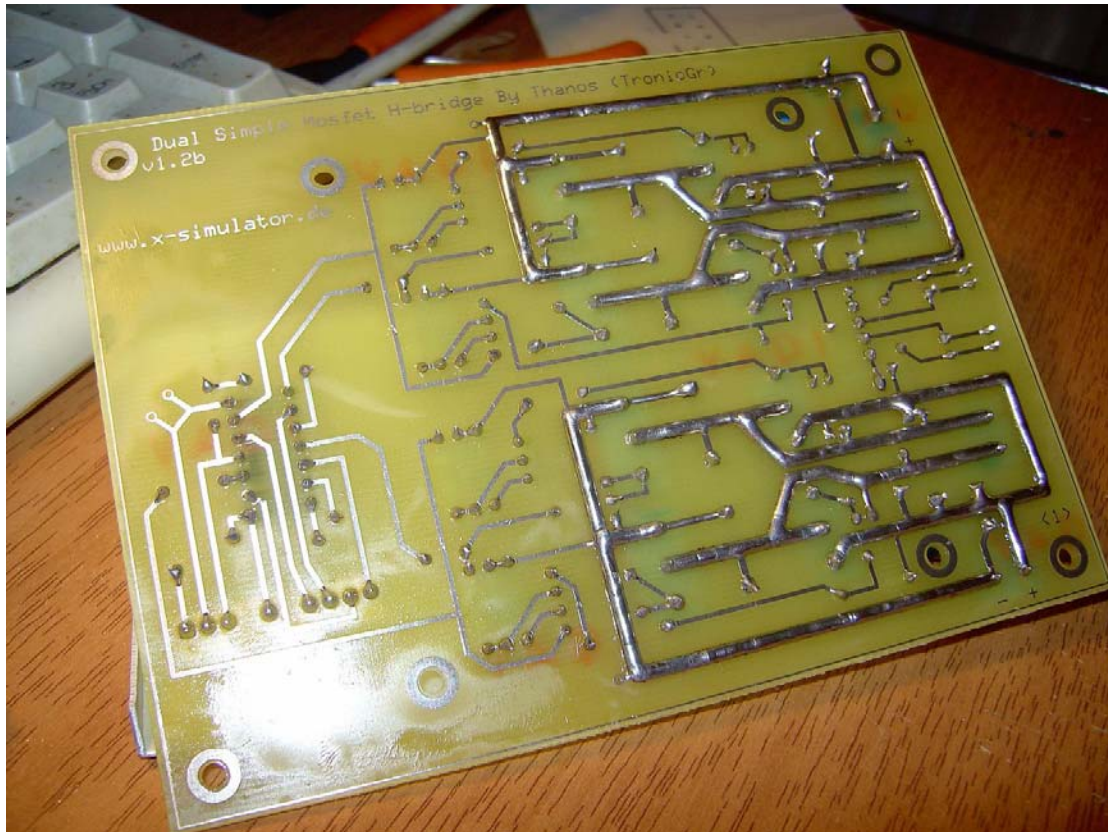

Next are the Terminal Connectors, the Molex header and last the big capacitors.
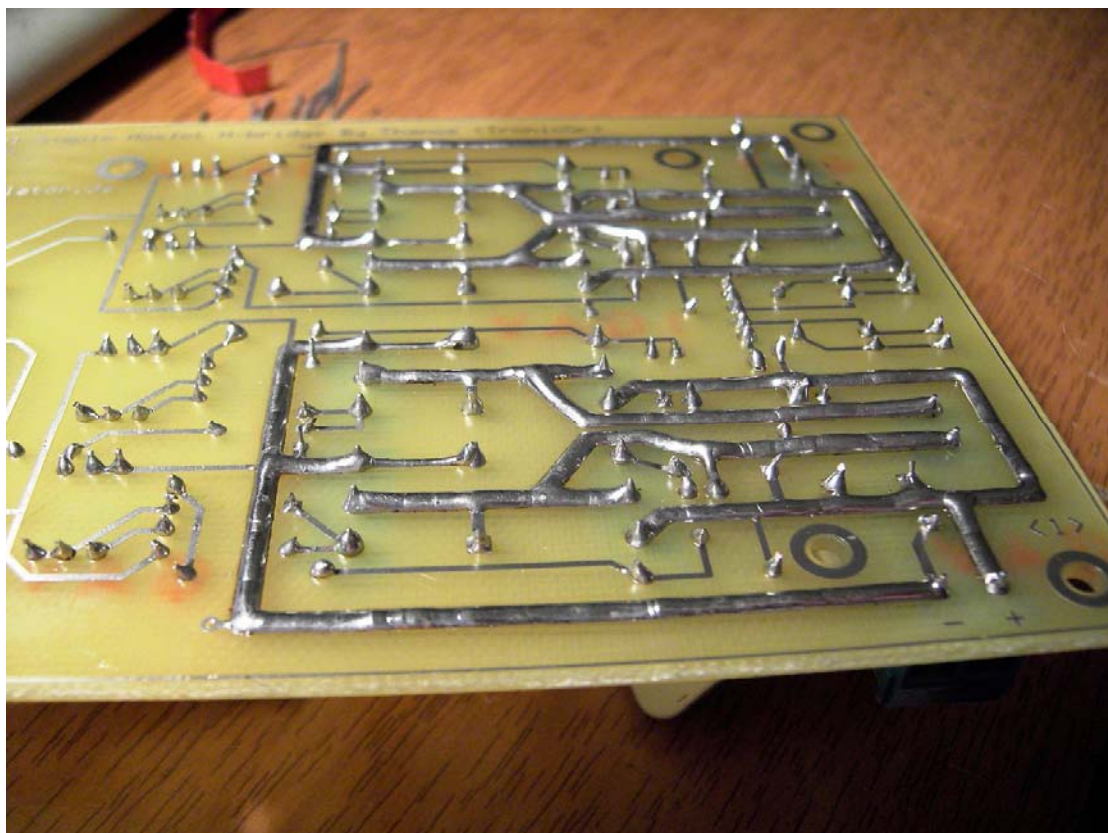
Now, one more thing to do, before cleaning the mess from the resin residues. Place loads of solder on the thick traces! I used about 1 meter of solder to fill the thick traces!

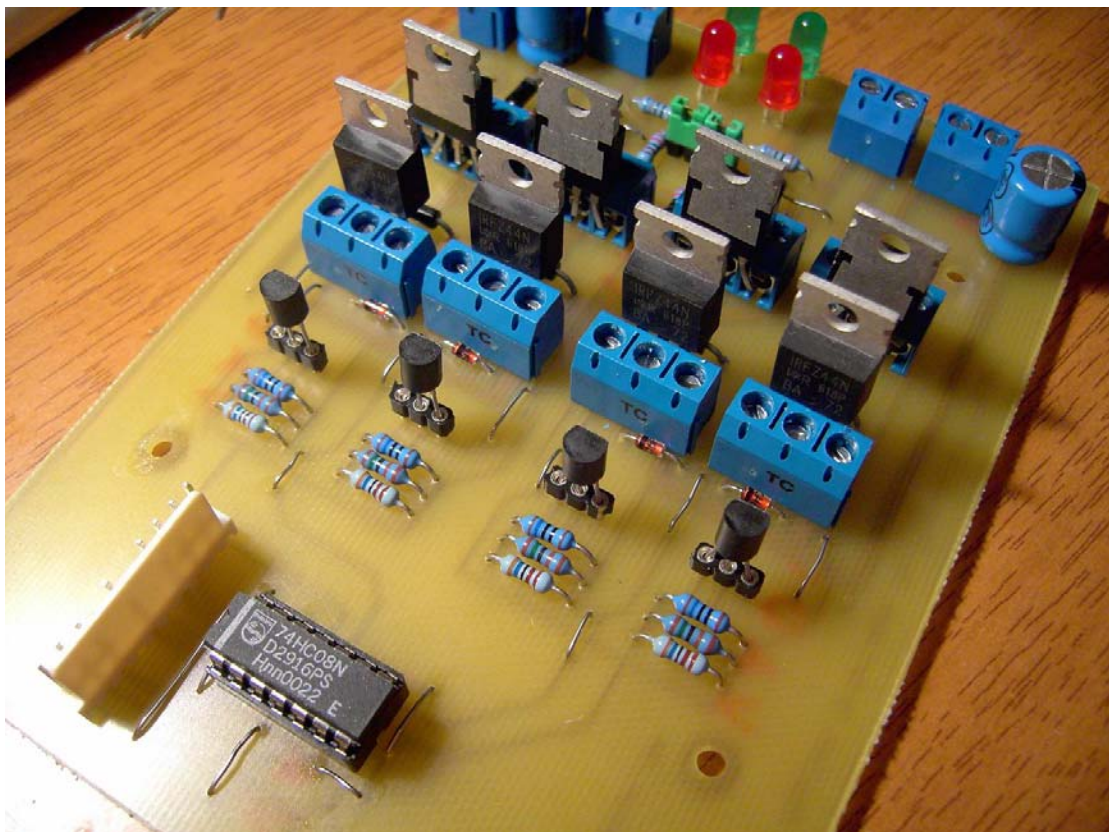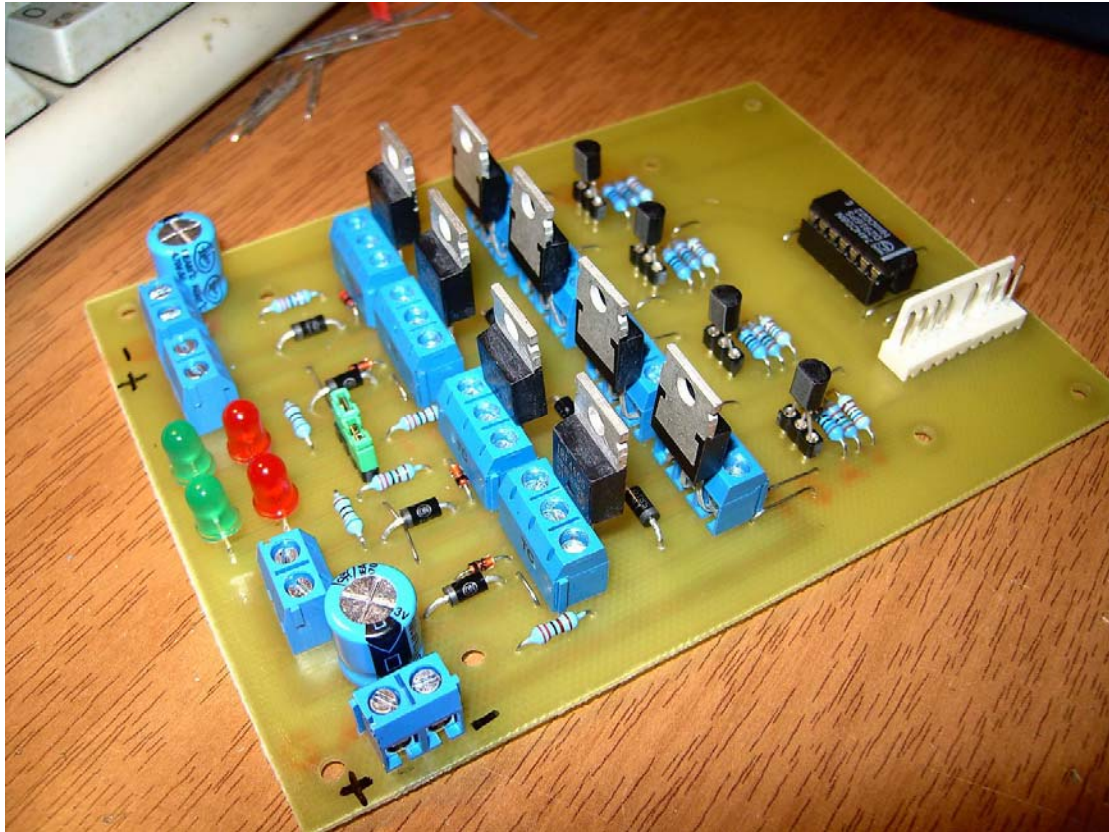It should look uniform, otherwise melt it and let it flow on its own.

I reflowed the traces solder by hand easily!

Now clean the Resin residues off the PCB using a proper chemical cleaner (ask your local electronics supplier for one) and after it is completely dry, spray it with a plastic insulation layer to protect the PCB traces from rusting over time.

After you are ready, prepare the Mosfet legs by bending them to fit in the terminal connectors' sockets and screw them as hard as you can! During this procedure, be sure to discharge the static electricity off your body, by touching often a grounded device: i.e. the computer case…

Don't forget to also place the transistors in their base sockets too!
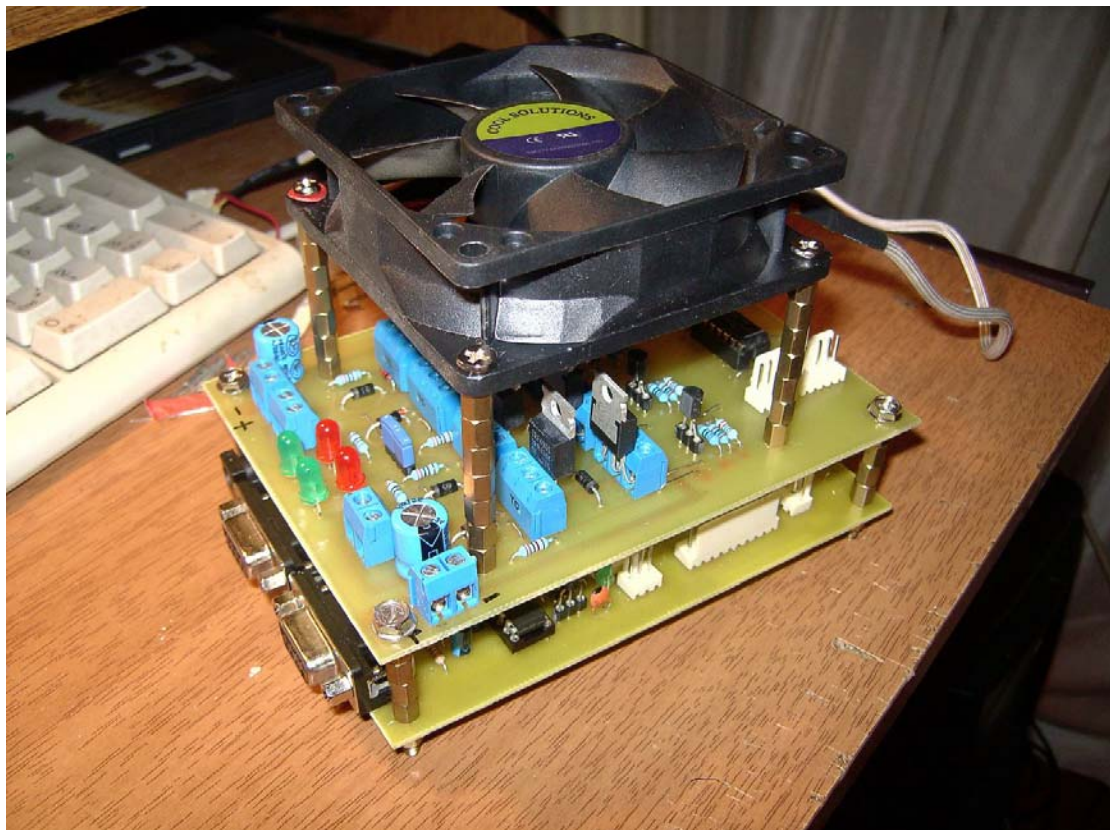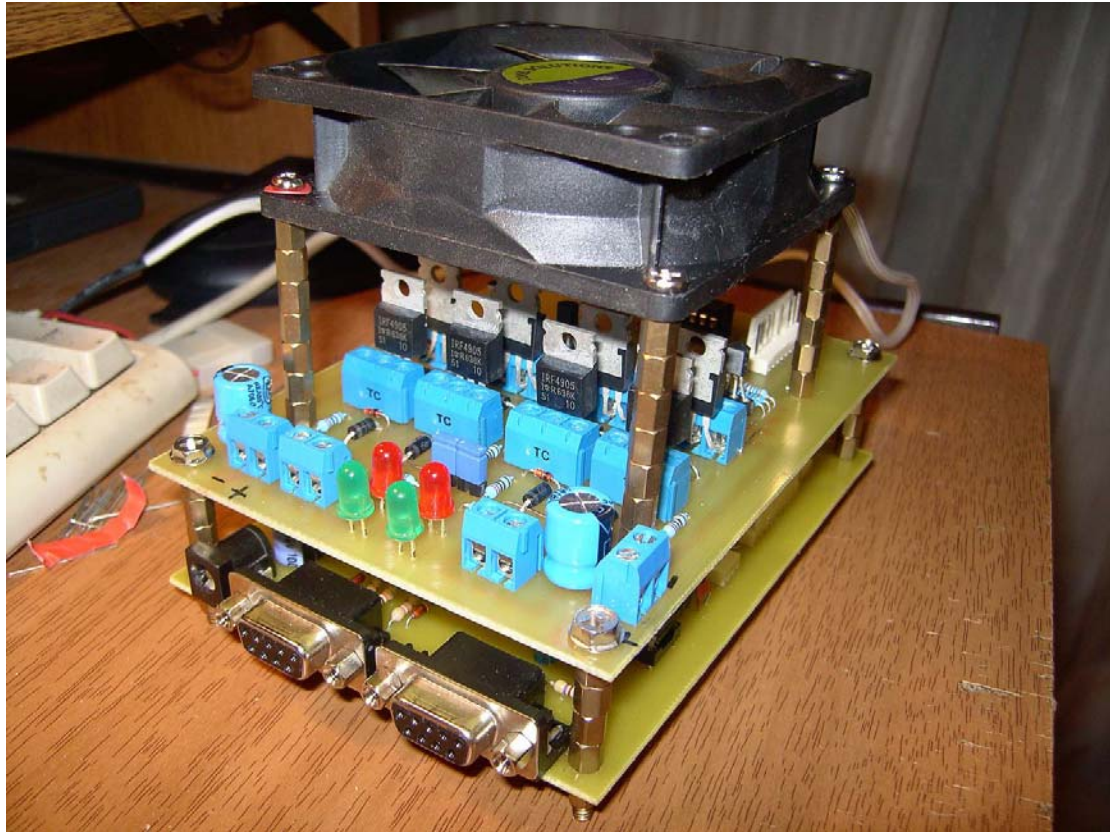

Now you are ready to use it, as you like. A nice way to mount it is to place it directly on top of the AVR motion controller and also place a PC case fan to blow air on the mosfets. If you are not using loads that draw more than 5Amps, you can skip placing aluminum coolers on the mosfets.

But if you are going for large loads that draw up to 25Amp its more than important to use aluminum coolers bolted on the mosfets and if possible, using some silicon paste between the contact to allow better heat transfer,

You should use 8 aluminum coolers pieces bended in 90 degrees but must be careful to not let each other contact as the mosfets are sitting on different potential each other and any such short circuit, will blow them off!!

Made By Thanos for: www.x-simulator.de

More info: www.x-simulator.de/forum

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