PCB FABRICATION METHOD

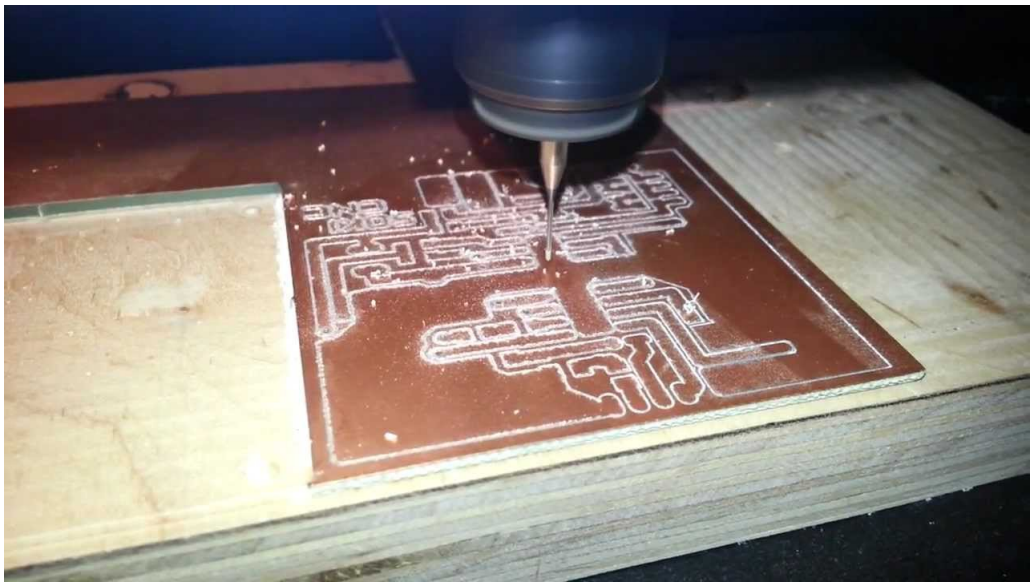
Toner Transfer Method

Steps involved:-

1. Take the print-out of board layout on a Glossy Magazine paper.
2. Invert the printed circuit on copper clad and irons it uniformly for about 5 minutes.
3. Put the combo in a water tub and gently remove the paper from it. The resultant is a copper board with black tracks of toner on it.
4. Put it in small container containing FeCl3 and stir occasionally for about 15-20 minutes until exposed copper has been removed.
5. Use a kitchen scrub to remove toner off the tracks. Now we have a printed circuit board with fine copper tracks on it.
6. Spray an anti-oxidant on it so as to prevent copper from oxidation. Now we have our PCB complete.
7. Drill it and solder components on it.
8. Test the power supply for various load voltages and currents.

PCB MAKING USING CNC MACHINE

The whole PCB fabrication process is carried out by the CNC machine. You just need to program it with the help of software. Circuit making, drilling, cutting etc. are all performed by the machine.



Printed circuit board milling (also: isolation milling) is the process of removing areas of copper from a sheet of printed circuit board material to recreate the pads, signal traces and structures according to patterns from a digital circuit board plan known as a layout file.

Similar to the more common and well known chemical PCB etch process, the PCB milling process is subtractive: material is removed to create the electrical isolation and ground planes required. However, unlike the chemical etch process, PCB milling is typically a non-chemical process and as such it can be completed in a typical office or lab environment without exposure to hazardous chemicals.

High quality circuit boards can be produced using either process. In the case of PCB milling, the quality of a circuit board is chiefly determined by the system's true, or weighted, milling accuracy and control as well as the condition (sharpness, temper) of the milling bits and their respective feed/rotational speeds. By contrast, in the chemical etch process, the quality of a circuit board depends on the accuracy and/or quality of the photomasking and the state of the etching chemicals.