



Materi Pembelajaran

Matakuliah :

**DESAIN DAN SIMULASI RANGKAIAN
ELEKTRONIKA**

Kode Matakuliah : SKO 21425

Prodi : SISTEM KOMPUTER

Dosen Pengampu Matakuliah:

Bayu Nugroho, S.Kom., M.Eng

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PCB Etching

1: Take the copper layer board and cut according to your requirement.

2: Place the bottom copper layer print into the copper PCB board facing the print towards the copper layer as shown. Adjust the paper and board carefully



Chapter 15

PCB Etching



PCB Etching

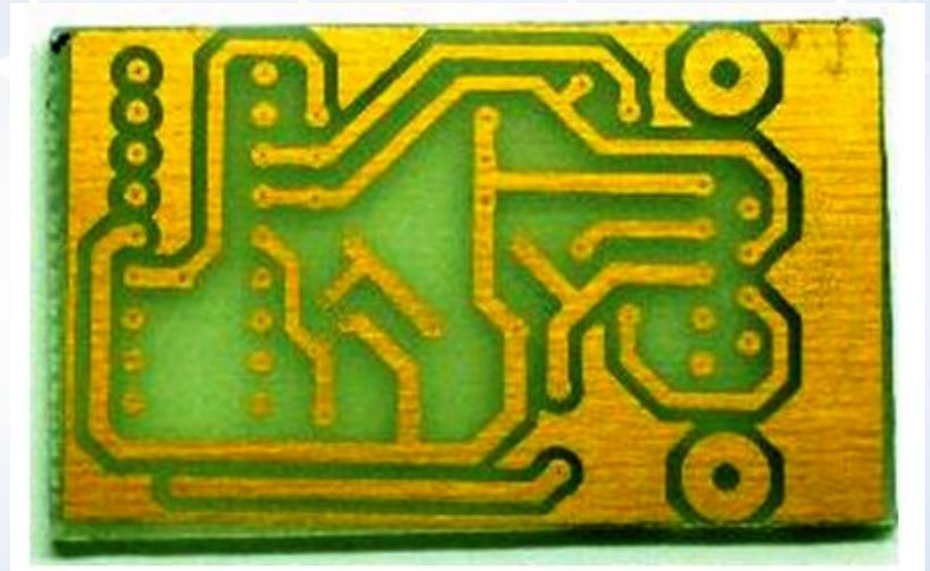
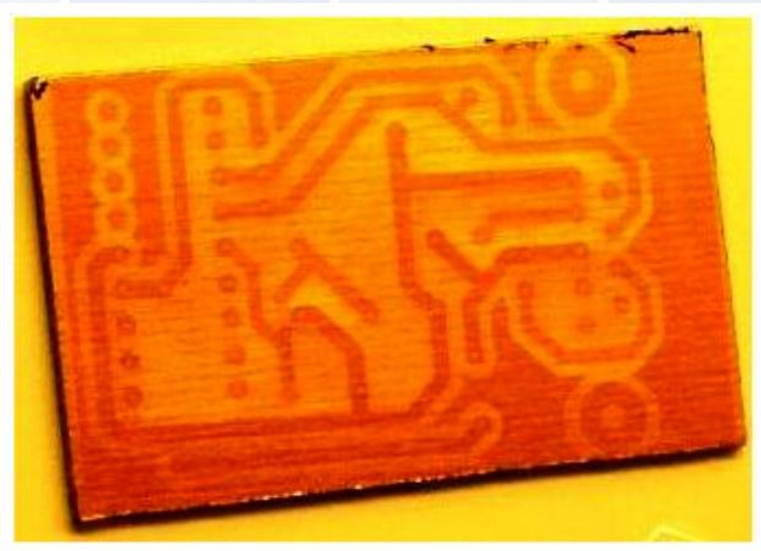
3: Apply heat to the printed paper by an iron box or any heat source

4: We will see that the paper print is merged with the board. Next, drop the board into the water and remove the paper. The carbon print on the board will remain



PCB Etching

5: Next place your board in ferric chloride liquid. The copper will react with the ferric chloride whereas the copper not having carbon layer will be dissolved.



PCB Etching

- 6: Now clean your board with sandpaper. Remove any excess carbon layer.
- 7: Next, drill holes according to the drill position layer we designed.
- 8: Next place your components in the correct place and use soldering kit to solder them into place.
- 9: Finally, cut the extra pins by a cutter. The circuit is complete.
- 10: Finish.

Tugas Mandiri (teori):

Lakukan pembuatan skema Up dan Down Counter 7 Segment menggunakan software simulator

Tugas Mandiri (prakt):

Lakukan Simulasi Up dan Down Counter 7 Segment menggunakan software simulator dan jelaskan hasil simulasinya.

end

