

Making a Printed Circuit Board (PCB) using the *Toner Transfer* process

1. Turn the clothes iron on it's highest setting (on a lab board)
2. Rough up the copper board (both sides) with nylon wool
3. Clean the copper thoroughly with alcohol until the tissue won't rub off any more dirt
4. Cut the design printout
5. Place the copper side of the board on the tracks of the printout
6. Fold the paper tightly onto the top side of the board
7. Place iron heavily onto paper
8. Iron both sides, working particularly strongly over the track side, digging in with the front edge of the iron (Spend at least 3 minutes doing this)
9. Write your name or initials on the paper
10. Drop the board in warm soapy water – Leave for 5 or so minutes (or overnight to soak if suitable)
11. Gently pull off the outside layers of paper, then carefully rub off any more layers with your fingers
12. Use a toothbrush to carefully remove any thin films of the glossy paper coating that is still on the copper (Don't worry if it stays on the toner tracks, that's fine, it just needs to be removed from the bare copper)
13. Pat the board dry and check under the magnifier for any remaining paper film that needs removal
14. Touch up any missing toner with an OHT permanent marker
15. NAME YOUR BOARD ON THE COMPONENT (Non-shiny) SIDE
16. Etch the board in copper sulphate solution