

PCB DESIGN & MAKE

PRODUCT CODE: PCBDM

Printed Circuit Board
CAD/CAM for Windows

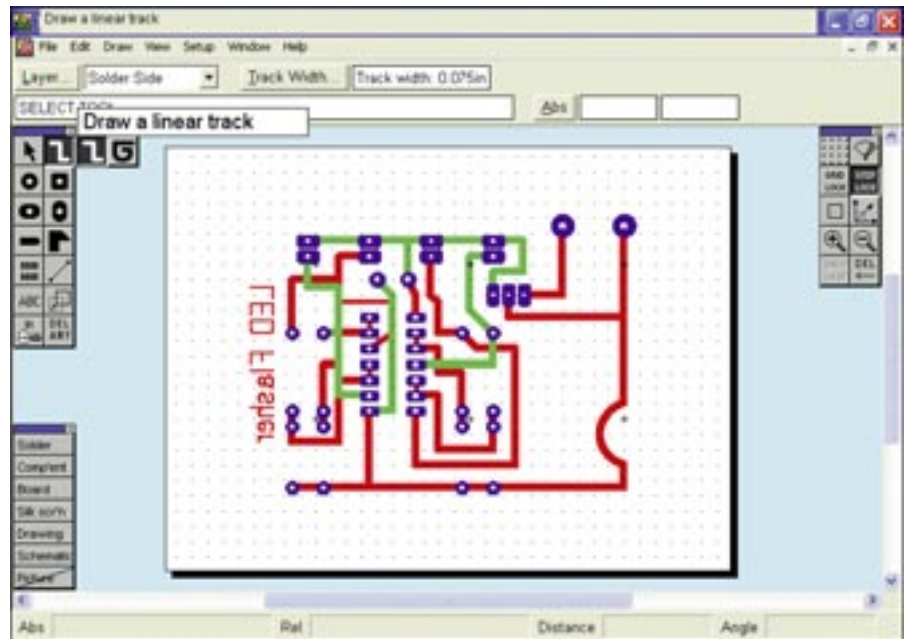


PCB Design & Make is effectively two programs in one package.

Firstly, a very simple to use PCB design package, developed specifically for the needs of education and secondly, a PCB manufacturing system. The system allows the use of a STIKA, CAMM 1, or ColorCAMM to cut out the tracks in sticky backed copper foil, or the use of a MDX-40E, EGX-350E, MODELA, or CAMM 2, etc., to engrave around the tracks, drill the holes and cut out the board, for a completely finished PCB.

PCB DESIGN

PCB Design provides a convenient and professional method of designing printed circuit boards and drawing schematics. Although a very comprehensive system, the most important design consideration for our software writers, has been to make it easy to use and accessible to students. It is ideal for both simple single-sided PCBs, and complex double-sided boards. A library facility allows standard component libraries (supplied) to be used. Alternatively, user defined components, or even whole circuits, may be saved as library



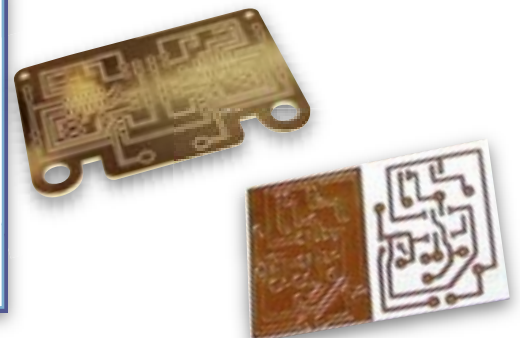
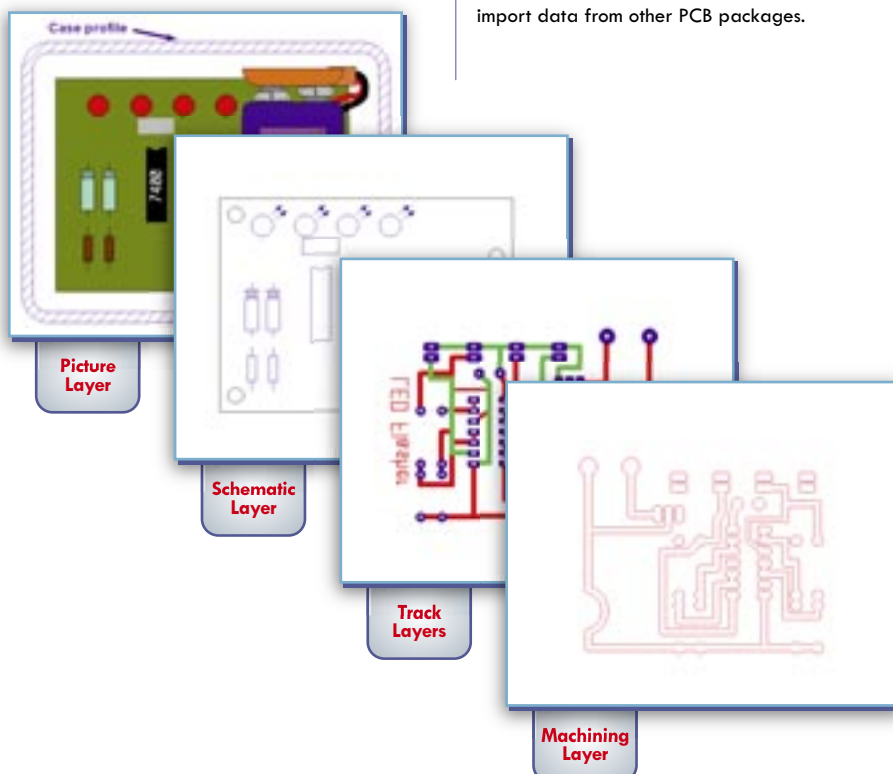
items. Thus it is possible to create small system boards which may easily be loaded and "joined" together to form complete circuits. A large selection of pre-drawn "Alpha" circuit modules is included.

Links with 2D Design mean that design drawings may be used as templates, allowing accurate positioning of components on the board. Alternatively, PCB Design drawings may be transferred to 2D Design to use in designing the enclosure, fascia, packaging and publicity material.

For maximum flexibility of use, PCB Design will import data from other PCB packages.

FEATURES

- | Shares a common user interface with education standard drawing package, Design Tools - 2D Design.
- | Colour coded double layer boards, silk screen and schematic layers.
- | Preset or user definable pads and tracks. Tracks may be drawn at any angle.
- | No practical limit to size of board or component count.
- | Comprehensive transformation commands, move, rotate, mirror image, copy and array.
- | Editing mode allows single items, or groups, to be moved while maintaining connectivity.
- | Comprehensive zoom facilities.
- | User definable library items, allows whole circuits to be used as library items, thus enabling "system" circuit design.
- | Opens other Design Tools files allowing board profiles to be matched to enclosure design, component profiles to be incorporated into library items, etc.
- | Data may be imported from other PCB software.
- | Graphical output via Windows printer drivers.

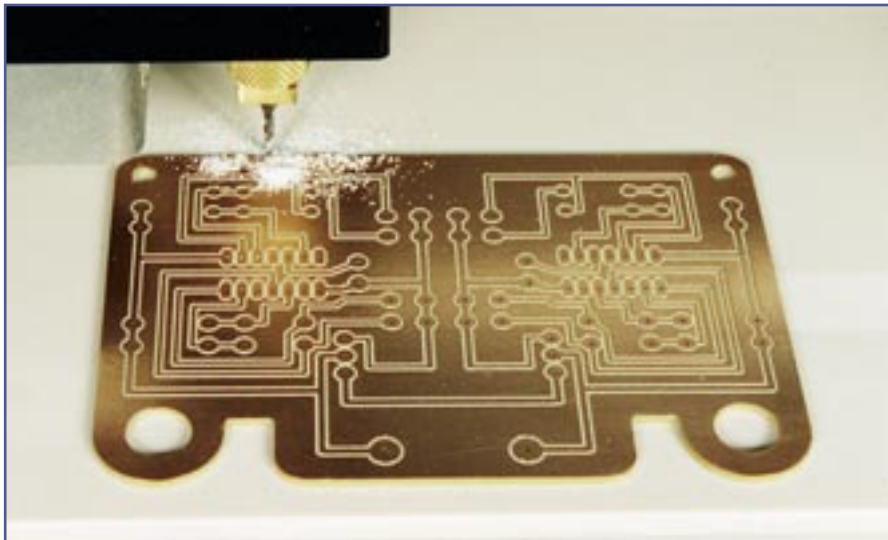


PCB MAKE

Conventional school PCB manufacture has been fraught with problems. Now TechSoft have devised clean, quick and simple solutions using manufacturing machines already widely available and proven in schools. Look at the advantages:

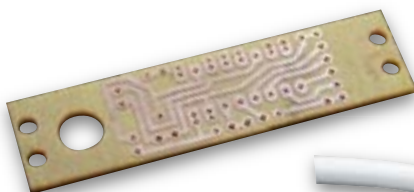
- NO** "Bridging" of tracks due to faulty etching.
- NO** Dangerous chemicals and messy etch tanks.
- NO** Chemical disposal problems.
- NO** Multi-stage manufacturing processes.
- NO** Expensive photo etch board.
- NO** Guessing exposure times (and getting it wrong!).

The software allows two basic manufacturing strategies, engraving onto conventional PCB board using a MDX-40E, MODELA, etc., or cutting a circuit from sticky backed copper foil using a STIKA, CAMM 1, etc.

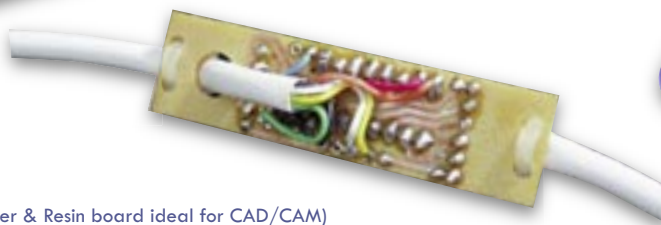


ENGRAVING PCBs

A piece of PCB board is placed on the machine bed, and the *Make PCB* option is selected. The machine will then automatically engrave the tracks, drill the holes, and cut out the board. This is a quick, clean and reliable process (eg, a typical simple 555 based circuit should take no more than a couple of minutes to complete on a MDX-40E). Virtually any circuit design can be manufactured with this process. It is even possible to put tracks between DIL pads!



Isolation Engraved PCB
(FR2 PCB Laminate - Paper & Resin board ideal for CAD/CAM)



Cutronic Foil PCB
(Mounted on a milled Acrylic base)

FEATURES

- | Data may be imported from other PCB software.
- | Manufacturing output to Roland CNC machines.

COPPER FOIL PCBs

This process, developed by TechSoft, uses a self-adhesive copper foil (Cutronics). This fits into any Roland vinyl cutter (other than SCP-85), and cuts just like vinyl. When weeded, the circuit can be applied to any suitable substrate such as plastic sheet, wood or card. (If card is used it is possible to make bendy, even "roll up" circuits).

This process is ideally suited to simple circuits with larger pads and tracks, a marvellous introduction to PCB manufacture.

MINIMUM HARDWARE REQUIREMENTS

Windows 95 / 98 / Me / NT / 2000 / XP / 2003 / Vista.

Microsoft recommended minimum hardware specification advised.

Network compatible (site license only).

ORDERING

In order to avoid software theft, the software is encrypted with the name of the licensed user, typically the name of a person, or the name of an individual establishment.

When ordering please state:

- a) Name of licensed user/site (max 28 characters, including spaces).
- b) Address for site license.

