

2D PCB

Printed Circuit Board Design & Manufacture

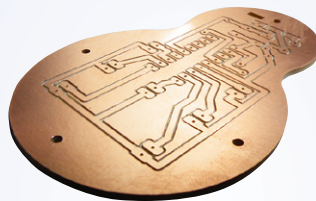
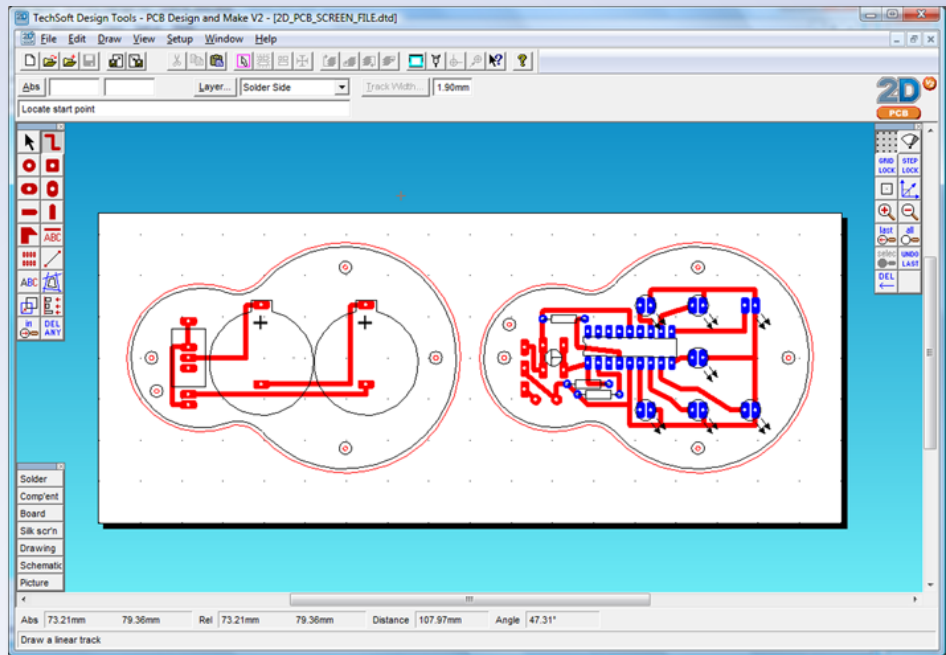
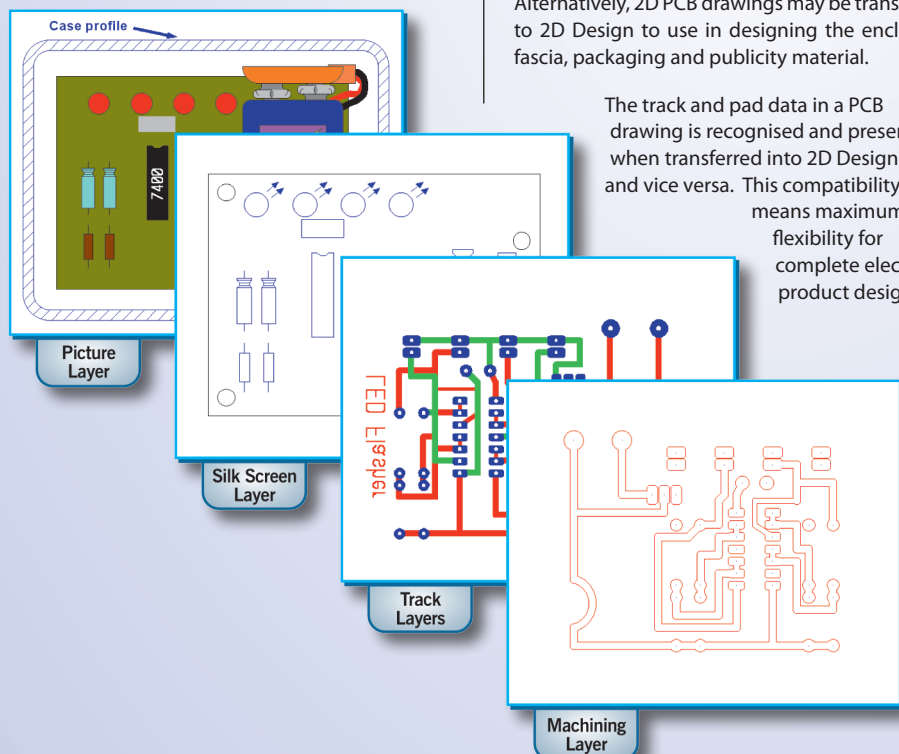


2D PCB is effectively two programs in one package.

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, VersaSTUDIO or TrueVIS to cut out the tracks in sticky backed copper foil, or the use of a SRM-20E, RotoCAMM, EGX-350E, etc., to engrave around the tracks, drill the holes and cut out the board, for a completely finished PCB.

PCB Design

2D PCB 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



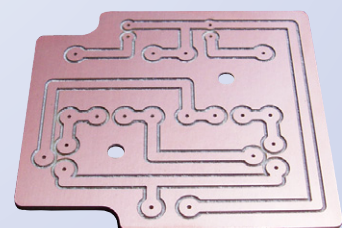
be saved as library items. Thus it is possible to create small system boards which may easily be loaded and "joined" together to form complete circuits. A large selection of pre-drawn "Alpha" circuit modules is included.

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

The track and pad data in a PCB drawing is recognised and preserved when transferred into 2D Design V2 – and vice versa. This compatibility means maximum flexibility for complete electronic product design.

Features

- Shares a common user interface with education standard drawing package, 2D Design V2
- 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 2D Design files allowing board profiles to be matched to enclosure design, component profiles to be incorporated into library items, etc.
- Graphical output via Windows printer drivers
- Manufacturing output to Roland CNC Machines



PCB Manufacture

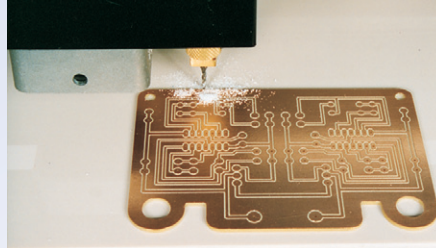
Conventional school PCB manufacture has been fraught with problems. Now TechSoft have devised clean, quick and simple solutions using manufacturing machines already widely available and proven in schools. Look at the advantages:

- 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 SRM-20E, RotoCAMM, EGX-350E, etc., or cutting a circuit from sticky backed copper foil using a STIKA, CAMM 1, etc.

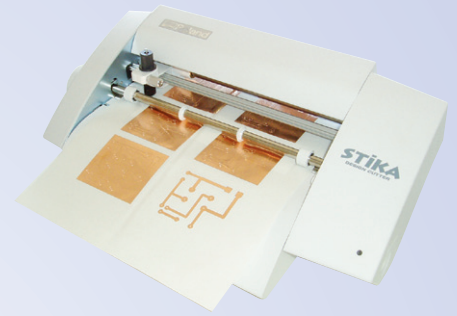
Engraving PCBs

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

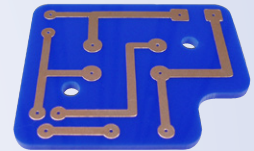


simple 555 based circuit should take no more than a couple of minutes to complete on a RotoCAMM). Virtually any circuit design can be manufactured with this process. It is even possible to put tracks between DIL pads!

Copper Foil PCBs



This process, developed by TechSoft, uses a self-adhesive copper foil (Cutronics). This fits into any Roland vinyl cutter 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.



Electronic Dice

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

Software Information

Site Licence

A Site Licence allows a school/college to install the software on any number of computers on the school site.

Student Licence

A Student Licence allows a school/college to distribute a special non-output version of the software to students and teachers for home use. Students will be able to save work for output back at school. Schools may choose to charge a nominal amount per student, to recoup the cost.

Minimum Hardware Requirements

Windows 2000 / XP / 2003 / Vista / 7 / 8 / 10.

Microsoft recommended minimum hardware specification advised.
Network compatible (site licence 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 licence if appropriate.

Prices £*

*See Pricing Information on page 2

TS115	2D PCB Site Licence	
TS116	2D PCB Student Licence	
Version 1 to Version 2 Upgrade Prices:		
TS117	PCB Design & Make Site Licence upgrade to 2D PCB Site Licence	
TS136	PCB Design upgrade to 2D PCB Site Licence	
TS137	PCB Make upgrade to 2D PCB Site Licence	
TS118	PCB Design & Make Student Licence upgrade to 2D PCB Student Licence	
TS138	PCB Design & Make Site and Student Licence upgrade to 2D PCB Site & Student Licence <i>(Save £10)</i>	