



Introducing the new TEP

PCB factory

The new TEP PCB factory is the latest and last word in low cost circuit board construction. Using, as its basis a 2-axis CNC machine with a floating head, this is the desktop machine that will energise electronics productivity and interest in the classroom. With its low entry level cost and robust features and its funky retro space-age appearance the machine will change the way we work in class. A wide range of PCB design platforms are now available in schools and yet the route to manufacture is often painful with wet chemistry, nasty chemicals, over-etching and developing commonplace or expensive often noisy CNC equipment tied up with small and fiddly one-off production.

This is a dedicated printed circuit no-frills machine that will work all day or part time engraving one-off's or producing circuit biscuit repeats.

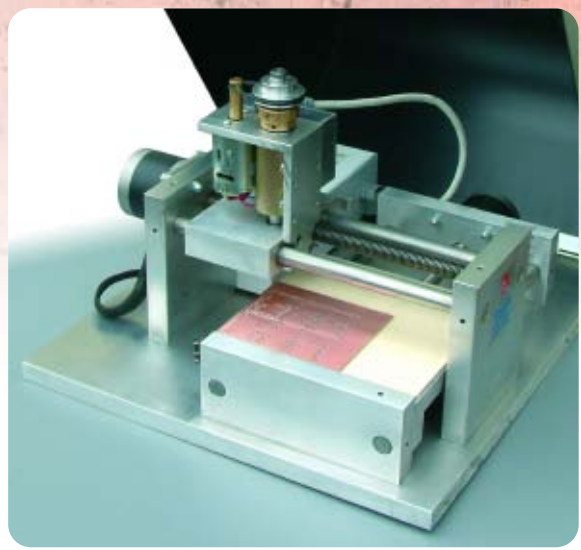
Taking its cue from any Gerber output the machine is a slave driven by the superb TEP software that compiles the maths and outputs the routines to the firmware for rapid production. The machine is driven from a Windows based PC with 98 or XP as the operating system. Connection is simply via USB.

Designs are imported from most proprietary design packages including PCB wizard. Future platforms will be automatically catered for with a free software upgrade from TEP, future-proofing the product. Consistent feed speeds ensure little or no tool pick-up on material and reduced noise footprint in the classroom. As a result there is only a small chance of over or under-stepping caused by the ramp up ramp down of larger machines and consequent 'binned' jobs.

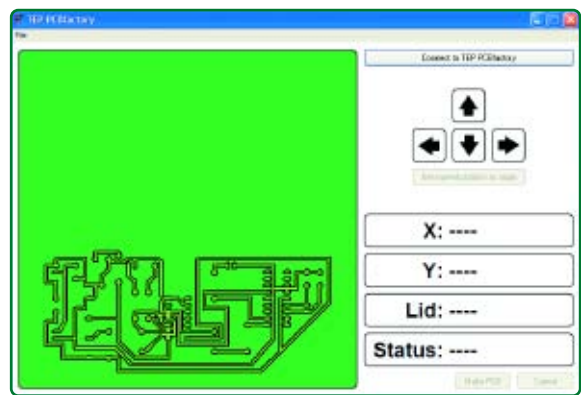


With just one tool change option from 90° V-cutter to drill prompted on screen and an easy to use and read interface screen making circuits was never this easy. One alternative is to cycle through without a tool change, the V-cutter can be left in situ to centre 'spot' pads that can then be drilled as required after removing from the machine. One neat feature is the 'oversizing' option for pad generation to make truly pupil friendly sized solder pads.

The machine features a useful X-Y bed size taking up to EuroCard sized boards. FR4 and similar boards are fastened down at their edge or underneath with high tack tape. When running the lid can be lifted at any point in the cycle to check the board or clear away debris as the job will auto pause and simply continue when the lid is lowered again.



TEP's new baby is sure to find lots of new homes in 2006 and make circuit production and development a pleasure without spending a fortune on equipment.



Software screen shot

PCB machine specification at a glance

- X/Y resolution (relative): 0.1mm
- X/Y maximum absolute positional uncertainty: 0.5mm
- X/Y feed speed: 2 mm/s
- Z mechanism: Solenoid plunger (active plunge)
- Z depth set mechanically via adjustment on plunger and with tool collar giving preset depth offsets for each tool
- Usable bed size: 100mm by 100mm
- Connectivity: USB
- Control: Windows (98 to XP) software (designs imported from PCB/Circuit wizard [other packages in the future])
- Safety: Automatic job pausing when lid is opened, will resume job when shut.

Available Summer 2006

