Digital Doodles

By far the most popular method of pointing to a particular location on the screen is by using a joystick or trackball (see page 56), but these peripherals were never conceived as precision devices. Sophisticated software, however, which manipulates individual dots or pixels on the screen can change the joystick or trackball into a remarkably accurate input device, capable of producing clear graphic representations. It enables the user to create a drawing in large scale on the screen and then reduce it down to the required size. What started as a games peripheral can become a powerful drafting tool.

One such device is the Robo 1000 Bit Stik Graphics System. Running on a 64 Kbyte Apple II or IIe, this relatively inexpensive system (£595) comprises software and purpose-built hardware including a precision joystick that can rotate or be moved horizontally or vertically. It offers many of the facilities found in mainframe-based CAD/CAM (Computer-Aided Design/Computer-Aided Manufacture) packages. The software includes the ability to: retrieve pre-drawn images from disk storage, and likewise to store pictures and diagrams for future use; fill areas with one of 16 colours – though of course you will need a colour card in your computer and a colour monitor to achieve this; magnify part of the image for drawing fine detail (called 'zooming'); pan left-right and up-down; and incorporate curves and circles. Given that the graphics resolution of a standard Apple is well below that of a professional CAD/CAM system, the results are surprisingly good and, perhaps best of all, the operating instructions are particularly clear and easy to follow.