PUTTING THE CURRICULUM ON WHEELS

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Over the last few years, the pace of change in Design and Technology has been enough to get most of us into a position where we feel excited by some aspect of what is going on with the latest CAD/CAM/CNC technologies.

Since the advent of the CAD/CAM in Schools Initiative, Design and Technology students have ready access to 3D Computer Aided Design (CAD) software, and are able to create 3D virtual models. Access to a CNC milling or routing machine has energised Design and Technology further, by allowing students to take their CAD designs from PC through to manufacture.

The recent introduction of new CAM machines, such as Laser Cutters and Rapid Prototyping machines, provides an additional output for students' 2D and 3D designs, using a wide variety of resistant materials. Opinions vary about which particular technology offers the most flexibility and value for money, but there is no denying the fact that CAM it is one of the single most important means of taking this particular aspect of the curriculum forward.

Cost effectiveness and life cycle costings are terms which we are all becoming familiar with, but it is generally accepted that CAM equipment is not cheap, and it can be difficult to justify the purchase of a £10,000 machine, especially if it is only used occasionally. Therefore the question on many people's minds is: "how can we can maximise the use of equipment and transform curriculum development?" For many schools the answer is simple: 'Go Mobile,' to ensure that all CAM machines are fully utilised and are truly a cross-curricular resource.

Most of Denford's machines - CNC Routers, Laser Cutters and Rapid Prototyping machines - are designed as fully portable units. They can simply be unplugged and pushed from room to room, through a standard width doorway.

The realisation of portability of equipment opens up a world of possibilities along the corridors of your school, as D&T equipment can now be made available for use by colleagues and students in Art & Design and Textiles. For example, Textiles colleagues can get ready access to a 3 axis CNC Router or a Laser Cutting machine to make buttons, toggles and fasteners. Your Graphics colleagues can make modelling innovations using a broad range of resistant materials not previously thought possible, with relatively little need for practical skills. This flexibility opens up a whole host of cross-curricular possibilities for a multitude of project work moving towards GCSE qualifications.

In essence, the 'Go Mobile' concept can have benefits for all concerned. A number of departments can gain access to this valued piece of CAM equipment, and cost effectiveness and life cycle costings are thus maximised. Most importantly, student access to the equipment is increased dramatically, and the equipment is fully utilised as a cross-curricular resource.