

# TECHSOFT

## CAD/CAM Training Courses 2011-2012

Course Venue:

**The Intech Centre,  
Morn Hill,  
Winchester.  
SO21 1HZ**



Dear Colleague,

For 2011/12 we have moved our course venue in the South to the Intech Centre, Winchester. We still have close links with our friends at Ash Manor School and may offer courses there at some point in the future. For the moment, we hope this move will appeal to customers in more southerly counties. All courses are intended to be inspirational as well as informative and will be illustrated with lots of project samples and ideas.

Intech is signposted and easily accessible from the M3/M27/A34 and A31, Winchester is well-served by public transport. Lunch and/or refreshments will be provided on each course.

Intech is a superb venue for educational visits and family days out. When attending any TechSoft course you will have the chance to browse exhibits, talk to Intech Staff and see what they have to offer you.

### CAD/CAM Overview

This full day course provides an opportunity to broaden your knowledge of CAD/CAM and understand how it can be integrated into your teaching. It will show by practical demonstration how 2D Design V2 and SolidWorks can be used to develop a variety of innovative projects for the KS3 – KS5 curriculum. Although not level or area-specific, the day will have relevance to all material areas in Design and Technology including Product Design, Engineering, Graphics and Textiles. Projects will be produced using the full-range of TechSoft machines including print-and-cut technique for graphics, laser image transfer, laser cutting and engraving, milling, rapid prototyping and knife-cutting. This is not a detailed training day on how to use machines and software (as such), but a chance to get some feel for the range of CAD/CAM technologies available, and some inspiration as to how they can support designing and making at a practical level.



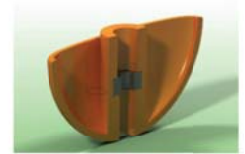
**Thursday 29<sup>th</sup> March 2012 (9:00 – 3:30) FREE OF CHARGE**

**Saturday 26<sup>th</sup> May 2012 (9:30 – 1:30) FREE OF CHARGE**

**Tuesday 17<sup>th</sup> July 2012 (9:00 – 3:30) FREE OF CHARGE**

## An Introduction to SolidWorks

SolidWorks is a world-class 3D CAD system which has already established itself as a market leader for commercial 3D design and engineering. Its friendly interface, intuitive routines and comprehensive tutorials mean it has the power to revolutionize the accessibility and utility of 3D design in schools. This course is aimed at beginners and will demonstrate;



- Familiarity with the interface and drawing page.
- Using Help features.
- Developing a modelling strategy.
- Using Sketch Tools and Feature Tools to extrude, sweep, revolve and loft base features for your model.
- Applying secondary features such as extruded cuts, chamfers and fillets.
- Editing models.
- Creating orthographic drawings from models.
- Producing assemblies from individual parts.
- Importing 2D Design drawings into SolidWorks for '3D Treatment'.



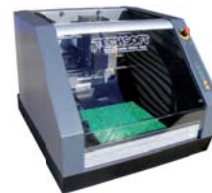
These twilight courses are (at the moment) by demonstration and not hands-on but all delegates will receive a free SolidWorks Student Design Kit (which contains the core 3D Design product SolidWorks) to take away.

**Thursday 9<sup>th</sup> February 2012 (4:00 – 6:00) FREE OF CHARGE**

**Thursday 24<sup>th</sup> May 2012 (4:00 – 6:00) FREE OF CHARGE**

## Getting the Best from 2D Design

2D Design has been the standard for 2D CAD in education for many years and all the familiar 'technical drawing' tools within it are as relevant today as ever they were. The course provides an excellent way for Design & Technology teachers to sharpen their knowledge and explore how the new tools in V2 can be used to create stunning graphics, alongside or to enhance, conventional geometric drawings. New features will be demonstrated through the activity of creating a product and a presentation sheet. Delegates will then have a hands-on opportunity to produce their own. A step-by-step guide will be provided which delegates may use for future reference.



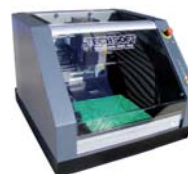
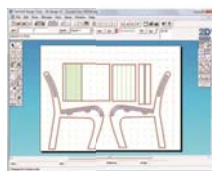
**Friday 10<sup>th</sup> February 2012 (9:00 – 3:30) £120+VAT**

**Friday 25<sup>th</sup> May 2012 (9:00 – 3:30) £120 +VAT**

## First Steps with CAD/CAM

This course provides an excellent way for new users to become familiar with 2D Design and how to exploit it as a simple to use, versatile and precise drawing and graphics tool. There will be tips for managing and trouble-shooting pupils' work and some 'golden rules' when teaching, to avoid pitfalls, and to help pupils develop good habits with CAD.

Delegates will be led through three projects which will exploit knife cutting-machines, milling machines and a laser cutter and will gain both a pupil's and teacher's-eye view of the projects. Implications for incorporating such projects into all areas of the KS3 curriculum will be explored. The course focuses on basic CAD/CAM skills and inclusion for all pupils as part of their D&T entitlement.



**Friday 21<sup>st</sup> October 2011 (9:00 – 3:30) £120+VAT**

## CAD/CAM for Textiles

The main focus of this course is to inspire Textile teachers, and to give them an opportunity to see first-hand how CAD/CAM techniques can enhance students' work. The course uses 2D Design throughout which will allow prior learning in other areas of the Technology curriculum to be built upon. The software will be used to create designs which can be used in a number of processes:

- Knife-cutting for heat-applied vinyl logos, etc.
- Computerised embroidery.
- Laser cutting for intricate appliqué designs in delicate fabrics or to cut accessories such as bespoke buttons, Leather patches, logos, swing labels, etc.
- Laser engraving eg., photo-engraving denim, embossing fabric, lace effects.
- Laser image transfer (heat-pressed images onto fabrics).
- Machining print-blocks.



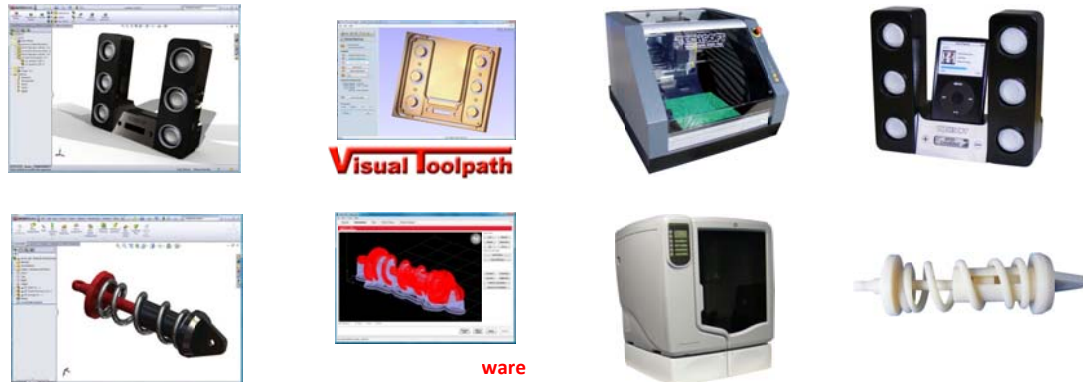
No previous knowledge of 2D Design or CAD/CAM is required and some of the machines used are quite probably already in the department! On the full day course, delegates will have time and the opportunity to complete at least one project of their own.

**Thursday 20<sup>th</sup> October 2011 (4:00 – 6:00) £45+VAT**

**Wednesday 14<sup>th</sup> December 2011 (9:00 – 3:30) £120+VAT**

## 3D Technology for D&T Students

3D CAD with Rapid Prototyping has already revolutionised product design and is now being heralded as about to transform the way we obtain industrial components and household goods. With simple, affordable 3D Printing the time may be near when this technology will be commonplace in the home. No more waiting for the latest gadget or part to be shipped – just download the file and print it yourself.



This course will show how SolidWorks can be used to create a component and test it for fit, appearance, strength and carbon footprint before it leaves the desktop. 3D machining (Subtractive Rapid Prototyping) will be demonstrated and parts will be produced by 3D Printing using the latest HP Designjet 3D technology.

The course aims to be a technology update, to be thought-provoking and to provide an insight into how students could use 3D techniques in their work.

**Tuesday 13<sup>th</sup> December 2011 (4:00 – 6:00) £45+VAT**

**Wednesday 28<sup>th</sup> March 2012 (4:00 – 6:00) £45+VAT**

**Monday 16<sup>th</sup> July 2012 (4:00 – 6:00) £45+VAT**

I hope you will find something of interest here and look forward to meeting you at Intech at some time in the near future.

Yours sincerely,

Tim Elderton

Sales and Training Manager (South)

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***TO LEARN MORE ABOUT CAD/CAM VISIT [www.techsoft.co.uk](http://www.techsoft.co.uk)***

**To book a place on any of these courses, please contact TechSoft UK Ltd on **01745 535007**, or email [sam@techsoft.co.uk](mailto:sam@techsoft.co.uk), or book online [www.techsoft.co.uk/training](http://www.techsoft.co.uk/training)**

***Places will be limited so please book early to avoid disappointment.***