

# **EDUCATION WORKBENCH**



# BY TEACHERS FOR TEACHERS

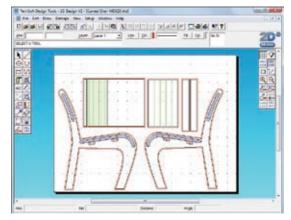
# CAD/CAM, Apparel, Signage and Packaging Production Made Easy

Roland presents the tools and technology to teach your students 21st century skills. Developed by a team of technical educators, the Roland Education Workbench provides complete solutions to teach your students sign making, graphic design, CAD/CAM, manufacturing and package design.

#### We start by teaching the teacher

What makes the Roland educational kits different is the focus on teacher success. Too many technical training products require expertise on the part of the teacher to figure it out on their own. Teachers must spend hours and hours studying technical manuals just to operate the machine! TechSoft™ Education Kits are used in

thousands of schools worldwide and were designed by technical educators who understand the need to quickly come up to speed with a variety of real world projects. With Roland and TechSoft complete solutions, you have the confidence and skills to introduce your students to the fascinating world of design and technology!



Model chair created using TechSoft Design Tools and the Roland MDX-40A Desktop Milling Machine

# WE'VE DONE THE HOMEWORK FOR YOU

### Apparel Decoration, Sign and Packaging Production

With the TechSoft GX-24 Education Kit, your students will learn how to cut vinyl for signs and vehicle graphics, cut heat transfer materials for decorated apparel, and cut card stock for packaging.

Due to their exceptional reliability and value, Roland CAMM-1 vinyl cutters have for many years been the tool of choice for sign shops, apparel decorators, and educational institutions worldwide. The GX-24 desktop vinyl cutter adds optical alignment to allow printed graphics to be automatically aligned and accurately contour cut. Included CutStudio<sup>™</sup> software lets users enlarge, reduce, re-position, rotate and mirror images. With the TechSoft GX-24 Education Kit, commercial quality color-printed packaging, paper and vinyl labels, iron-on decals, etc., can be created with ease.



Bundle your GX-24 Desktop Cutter with a TechSoft Education Kit to start teaching right out of the box. See back for details.

## CAD/CAM 3D Modeling

CNC milling is an essential component of product design, rapid prototyping and manufacturing. Now your students can learn Computer Aided Design and Manufacturing with the TechSoft MDX-40A Education Kit.

The bundled TechSoft projects create real world parts that give all of your students a chance to create a complete project in just one or two class hours. Meanwhile, 3D printers take several hours to print a single part!

The affordable Roland MDX-40A milling machine is easy to set up and use, yet exceptionally versatile. Unlike 3D printers, functional prototypes and parts can be produced out of a wide variety of non-proprietary materials with greater precision, speed and better surface finish.

Easy-to-use CAM and simulation software is included. The ability to use G-code allows educators greater flexibility and ease of integration with sophisticated design programs, including Mastercam, EdgeCAM, SurfCAM and Gibbs CAM. Optional accessories include a rotary 4th axis for unattended 360 degree milling and a 3D scanning attachment for reverse engineering.





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Setup and control the GX-24 from within 2D Design V2 to create apparel, signs, packages, and vehicle graphics.

Design and Create various projects with included CAD software which outputs directly to the MDX-40A.



#### START TEACHING OUT OF THE BOX WITH TECHSOFT™

TechSoft's Education Kits are designed to get teachers up to speed as quickly and painlessly as possible. The courses are tutorial based, beginning with unpacking the machine and getting it ready for use. Each subsequent tutorial develops a new skill or teaches a new technique. The included CD contains sample graphic files to produce.



#### **TechSoft Education Kit** for MDX-40A CAD/CAM:

- 1 Course manual for the Roland MDX-40A
- 1 Site license of 2D Design software
- 1 USB 2.0 Connector cable
- 1 2mm Slot drill
- 1 2mm Ball-Nosed cutter
- 1 40 degree VeePoint engraving tool
- 1 HSS VCarving tool
- 1 Tool Adaptor for 4.36mm tooling
- 2 Upper collets
- 1 2mm Long reach ball ended hex socket key
- 1 Roll of double-sided tape
- 1 305 x 305 x 5mm White styrene sheet for surfacing a milling bed
- 1 150 x 55 x 1.5mm Orange styrene sheet for routing a bookmark
- 1 120 x 100 x 3mm Blue sintra™ for routing a box
- 1 230 x 115 x 3mm Blue acrylic for routing a game
- 2 60 x 60 x 1.6mm Laminate for making a PCB\*
- 1 100 x 40 x 1.6mm Brushed aluminum engraving laminate for engraving
- 5 125 x 85 x 20mm Modeling foam for milling 3D objects
- 1 125 x 100 x 4mm Birch plywood for V-Carving signs
- 1 70 x 70 x 1.6mm White on black engraving laminate for V-Carving photos
- 1 55 x 65 x 1mm White styrene sheet for creating 3D photos

\*Printed circuit board

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#### TechSoft Education Kit for GX-24 Apparel, Sign and **Packaging Production:**

- 1 Course manual for the Roland GX-24
- 1 Site license of 2D Design software
- 2 300 x 200mm sheets of blue adhesive-backed vinyl for cutting signs
- 1 300 x 200mm sheet red iron-on vinyl for iron-on apparel decoration
- 1 300 x 200mm sheet orange water slide decal media for decorating ceramics
- 1 300 x 200mm adhesive-backed copper foil for PCB production
- 10 A4 sheets card stock (blank) for basic packaging production
- 1 Plotter pen for plotting then cutting
- 2 A4 label sheets (blank) for labels and decals
- 1 A4 label sheet (printed) for labels and decals
- 1 A4 white iron-on printable vinyl (blank) for iron-on apparel decoration
- 1 A4 sheet of clear printable vinyl (blank) for labeling and packaging
- 1 A4 sheet of clear printable vinyl (printed) for labeling and packaging
- 1 A4 card stock (printed) for packaging
- 1 Creasing Tool (aluminum) for packaging production



#### **HOW TO GET STARTED:**

For more information, or for a Roland authorized educational dealer near you, please visit our web site www.rolanddga.com/edu.

Custom T-shirt graphics created by 2D Design then cut with the GX-24 Cutter



FOR COMPLETE PRODUCT SPECIFICATIONS AND FEATURES, OR MORE INFORMATION, CALL 800-542-2307 OR VISIT WWW.ROLANDDGA.COM ROLAND DGA CORP. | 15363 BARRANCA PARKWAY | IRVINE, CALIFORNIA 92618-2216 | 800.542.2307 | 949.727.2100 | CERTIFIED ISO 9001:2008 RDGA-Ed-01 Nov. 2009

# modeling and manufacturing instruction.