RapidPRO

/low-cost rapid prototyping system/

RapidPRO allows students to create working prototypes from designs created using any 3D CAD system capable of saving files in STL format. This is a common file format in the CAD world and most of the popular 3D CAD systems such as Pro/DESKTOP™, Pro/ENGINEER™, SolidWorks®, Rhinoceros®, Mastercam®, think3™, thinkdesign™, CADKEY® and AutoCAD® are all capable of exporting an STL file.

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RapidPRO imports a solid model and using a special "wizard", takes just a few clicks to "slice" the model. The slices are then cut out of sticky-backed card in conjunction with a vinyl cutter, nesting as many slices as possible on a sheet to minimise paper usage. To further minimise material costs the model can be scaled and the required number of sheets is displayed at any chosen scale.

- A narrow tagged frame is placed around each slice into which two registration holes and the slice number are placed.
- Slices are retained in whole sheets and positioned accurately on two assembly pegs in an ordered manner, the backing paper being removed between each slice.
- No special board or jig is required.
- The assembly process is surprisingly fast and accurate, helped by the rectangular frame, which provides a positive locating "feel" even though the useable part of each slice might be an irregular shape.
- Assembled models are surprisingly strong and as the name of the product suggests, can include geometry elements that are impossible to machine, like internal shaped recesses for instance.
- Assembled models can be further sprayed and sanded to form a smooth finish if required. The models are strong enough to be used as moulds for vacuum forming and low-pressure injection moulding.

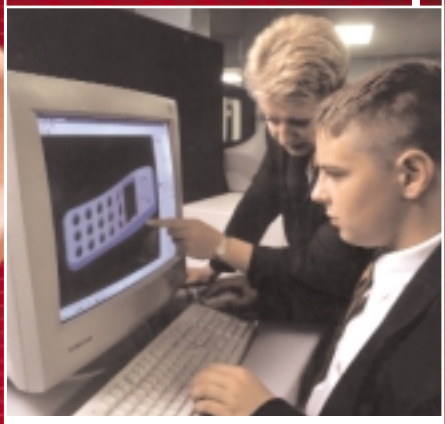
However expensive some systems might be, all Rapid Prototyping systems work on the principle of laying layers of material. Besides being the most economical system, **RapidPRO** is the most visual system available with regard to demonstrating to students how layering is achieved and hence remains the best Rapid Prototyping teaching tool available. The fact that all students in a class can simultaneously build their own models further endorses **RapidPRO**'s claim to be the most appropriate Rapid Prototyping system for schools.

Whilst the main application of the system is intended to be Rapid Prototyping, those schools without CNC machines but with a vinyl cutter can use it and the **RapidPRO** software as a Rapid Manufacturing centre to recreate all their solid models from sticky-backed card. For the teacher with no CAD/CAM experience, this route provides an easy, problem free introduction to CAM and acts as a possible stepping-stone towards the future implementation of more advanced CAM systems using CNC machines, for instance.

A cutting-disabled but otherwise functional demo version of **RapidPRO**, with some example STL files and comprehensive, graphical HELP can be downloaded from the PRODUCTS / RAPID PROTOTYPING section of our website at www.boxford.co.uk Once downloaded, look at HELP / ASSEMBLE to see how easily a solid model is recreated.

UK customers can purchase **RapidPRO** directly from Boxford. Outside the UK, if the box below does not contain the contact details of an authorised, local distributor, please contact Boxford directly for information about where you can purchase **RapidPRO**.

Distributor Details:



slice model

cut layers

assemble

finish

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