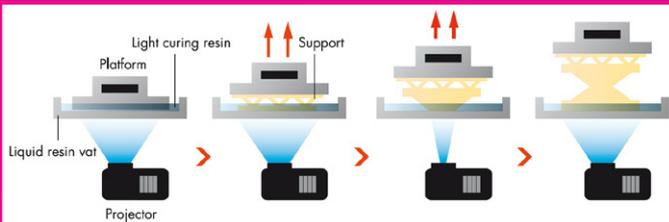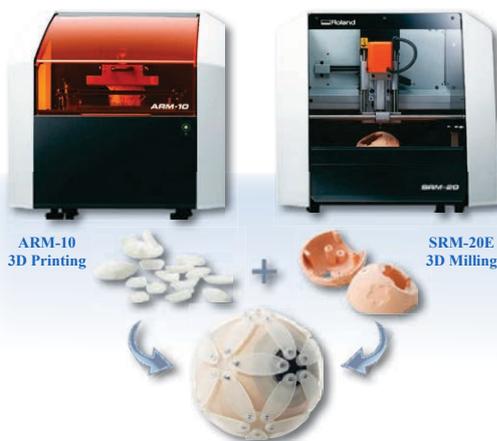## New 3D Printer from Roland

What is an ARM-10?

The Roland ARM-10 is a revolutionary new 3D-printing device that builds smooth, precise models using photo-sensitive imageCure liquid acrylic resin. The machine is driven by included software that accepts 3D .stl files and converts them into a series of slices that build to complete the model. Models are then created by projecting an image of each slice onto the resin-wet base of the build platform. The software takes care of any structural support needed and automatically includes this into the build. ARM-10 technology brings a number of unique benefits. Because the model is produced in suspension, resin usage is minimised and less material is needed to create support structure. In contrast to scanning or rastering techniques, curing each layer by momentary projection of the slice image is quick and provides for faster build times. On completion, the model is washed in isopropanol alcohol cleaning fluid, and supports are snipped away. After curing in UV light (sunlight), the translucent models can be left 'as printed', polished or painted as required. ARM-10 will provide a valuable resource for commercial users and higher education. In the classroom, the materials used by ARM-10 need careful handling so close supervision will be needed.

An ARM-10 provides professional 3D-print capability at a price that rivals budget machines but with model properties that are otherwise unattainable in this sector. ARM-10 is the first 3D printing device to be developed and produced by Roland DG, an established major player in the global prototyping market, and signifies an important new dimension to their product portfolio. With the Roland brand behind it, ARM-10 users can be assured of solid back-up, reliable technical advice and dependable customer support well into the future. Machines also benefit from a full Roland one year warranty.

How it works

Milling technology sits alongside 3D Printing to provide full capability for all rapid prototyping demands. The new SRM-20E and ARM-10 machines from Roland DG bring together precision Subtractive Rapid Manufacturing (SRM) and Additive Rapid Manufacturing (ARM) into a 'matched- pair' of stylish, affordable desktop machines. See page 65 for full details of the SRM-20E.

ARM-10
3D Printing

SRM-20E
3D Milling

Specifications

Max Build Size:	130 x 70 x 70mm
Model Material:	imageCure™ photopolymer resin (semi transparent)
Slice Resolution:	0.1mm
Interface:	USB
Weight:	17kg
Dimensions:	430(W) x 365(D) x 450(H)mm
Warranty:	1 Year On-Site

Prices £*
*See **Pricing Information** on page 2*

Starter Package	
MP-RL-ARM10E	Roland ARM-10E Starter Package. *Includes machine with resin tray and washing kit, 3 bottles imageCure resin, 5 litres isopropynol cleaning fluid and pack of 100 disposable gloves.* *Save £22*
Machine Only	
RL-ARM10	Roland ARM-10 *c/w resin tray and washing kit*
Consumables	
RLP-ARM-RESIN1	350g bottle of Standard Hard Resin
RLP-ARM-RESIN2	350g bottle of Flexible Resin
RLP-ARM-RESIN3	350g bottle of Rubberlike Resin
RLP-ARM-VAT1	Replacement Resin Tray
MMP-ISOCF1	5 litres Isopropanol Alcohol Cleaning Fluid *(for cleaning parts made on the ARM-10)*
TMS-LAS-GLOVES	Pack of 100 Medium Vinyl Gloves (powder free)

Optional Extras
Parts can be cured quicker by exposure to a UV light source - a manicurist's nail drier will do the job.

Washing unused material from complex parts can be enhanced by using a suitable jewellers ultrasonic tank.

Recommended Software
SOLIDWORKS (page 18)