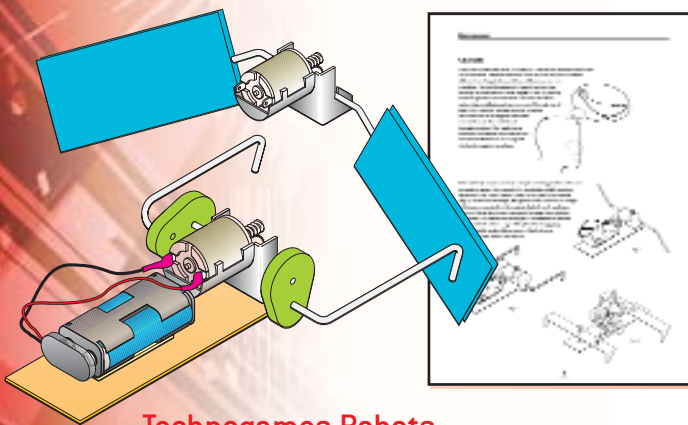


Products Update

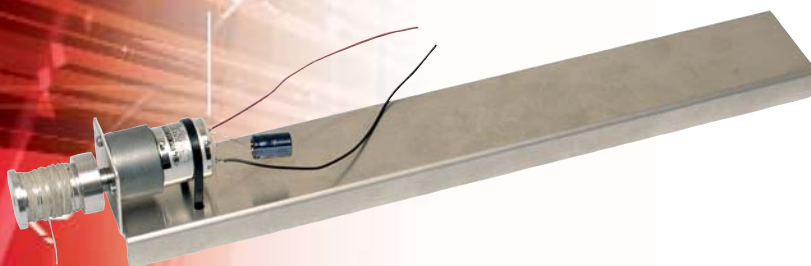
The new catalogue accompanying this edition of News and Views has swelled with the inclusion of new sections and many new resources – as well as several feature articles from TEP. We hope that you enjoy looking through the catalogue which not only offers the widest selection of modern and smart materials, but also the most exotic – ranging from magnetic fluid to metal paper. The products described below represent just a handful of some of the sixty new TEP resources for the new academic year.



Technogames Robots

The recent BBC Technogames publication is out of print, but TEP can now offer the accompanying kit of robot parts. This contains the main components and materials for making very simple robotic crawlers and swimmers and there are sufficient resources for the construction of two complete robots. An unbound Robo-technology handbook is also included in the kit.

➔ **Technogames robots** – stock code BBC 005



Generator Test/Demonstration Rig

The current interest in renewable energy and wind farms has prompted a demand from schools for a means of experimenting with and demonstrating generators driven by falling masses, wind or moving water. A unit based on a high-output geared generator is now available. This is capable of powering radios, lights etc. either from a falling mass – or from wind or water if suitable blades are fitted. For ease of use, the rig can be fixed to the top of a bookcase or door using G cramps. (A falling carrier bag containing two bricks or water filled milk cartons supplies enough energy to power a 3 volt radio.)

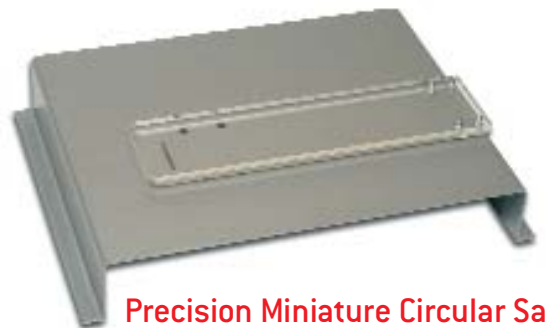
➔ **Generator Rig** – stock code GEN 006



Stereo Imaging Kit

The creation and viewing of 3D images has been popular for some 150 years. Two photographs taken from slightly different positions provide a stunning 3D reconstruction when viewed in a stereoscope. Digital cameras and modern printers now mean such images can be created in seconds. The potential for making and applying stereo imagery in design and technology – especially in relation to graphics products – is unlimited, and so we have obtained a low-cost fold-up stereo viewer as part of a 'getting started' kit. The kit contains sample images, instructional guide and pop-up stereo viewer. Pupils and students can create original images, think up original applications and even re-design and re-make the viewer itself into a new product.

➔ **Stereo Imaging Kit** – stock code STI 002



Precision Miniature Circular Saw

This amazing saw provides a highly accurate means of cutting metal or plastic materials in safety - and with virtually no waste. It uses a low-speed slitting saw just 0.5mm wide that will slice through metals such as aluminium, silver and brass as well as most plastics to give a perfect finish. It offers the advantages of absolutely distortion-free cutting and the ability to cut out internal corner details ('notching') very accurately. The unit, supplied complete with fitted see-through guard and a low-voltage power supply unit, is also suitable for cutting rigid foamed plastic for 'Pods' and other similar applications.

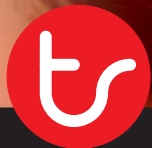
➔ **Miniature Circular Saw** – stock code SAW 008

F1 Modelling Block

This material, used extensively for wind tunnel test models, is perhaps as close as it gets to an ideal modelling material that can be cut either by hand or machine to give a perfect finish. The material is a highly compressed micro-fibre that appears virtually homogenous. Although it is quite dense, the material is not unduly heavy. It is available in blocks measuring 50mm x 150mm x 225mm and applications (apart from profile modelling) include vacuum forming moulds, small mechanical parts and even jewellery components.

➔ **Modelling Block, Single** – stock code MOD 007

➔ **Modelling Blocks, 3 Pack** – stock code NLC 037



Metal Paper

A recently published book listing the most exotic metals currently available to designers and engineers includes an astonishing material described as rigid origami sheet: 'twist it, wrap it and it will always hold its shape'. Based on 0.02mm gauge aluminium foil with a matt black polymer coating both sides, it feels and behaves like a metal/paper/plastic hybrid!

The material, which comes from Hollywood, USA, originated in the film industry where it's used for instant spotlight adjustments. However, it clearly has hundreds of other uses including:

- ◆ Modelling metal structures (it crumples and behaves to scale)
- ◆ Making actual models – e.g., the metal equivalent of paper planes
- ◆ Prototyping torch and lamp parts (it is heat resistant)
- ◆ Solar heating equipment (it has excellent heat absorption and can literally be wrapped around heat exchanger pipes etc.)
- ◆ Pin hole cameras and similar optical applications
- ◆ Jewellery

The roll is 300mm wide and approximately 16metres in length giving a massive total area of approximately 50 square feet or 5 square metres.

Metal Paper – stock code MET 004

<http://www.mutr.co.uk>



The Middlesex University Teaching Resources website has a vast selection of products for all types of projects and classroom experiments. Categorized into different product sections, items can easily be found, or you can perform a simple site search. Secure online ordering and special low prices for schools.



Low-cost Optical Fibre

Low-cost Optical Fibre – stock code EW1 020C

Until now, the cost of communications grade optical fibre has prohibited long-distance applications in schools. The 0.75mm diameter polymer fibre now available for a few pence per metre can be used both for piping light in models etc. and for basic signalling and control over longer distances. For simple control or signalling applications, you simply need a high bright red (or infra-red) LED at the transmitting end and a simple phototransistor circuit at the other. A small hole drilled into the lens face of both LED and phototransistor will accommodate the fibre ends. Alternatively, for experimentation, metal paper can be wrapped around to hold the fibre in place against the components.



EL Demonstrations Kit

This kit consists of a small inverter pre-wired to a 600mm length of EL cable. This supplements the existing range of EL cables and inverters by facilitating demonstrations without the need to perform the delicate task of connecting the fine cable leads. Just 2 x AAA batteries are required to provide continuous running up to 15 hours or the option of 30 hours of flashing light. (Please note: the cable colour is blue.)

EL Demo Kit – stock code EL 010

Lodestone

The original magnetic material. This is the naturally occurring magnetite mineral used over the centuries for magnets and for making compasses. It is now very hard to find, but was tracked down to supply science departments. Apart from its educational and historical interest, it makes a striking conversation piece – complete with a 'beard' of filings! Each stone weighs in at approximately 90 grams.



Lodestone – stock code STI 005



You should have received your all-new TR catalogue with this issue. The new catalogue contains some great extracts and ideas for projects from previous News & Views articles as well as a wealth of supporting information on individual items.

If you have not received yours please contact:

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