

## Kitronik update – November 2008

### Get female students interested in electronics with an air freshener project

Most design and technology teachers will have at some point had to find ways of getting female students in their classes excited and interested in electronics. Electronics and engineering are sometimes seen as male orientated subjects, but this is something that doesn't need to be the case. Female students are as capable of understanding electronics as their male counterparts. One obvious way to get female students more excited by the subject is to offer them a project to which they can relate. One example of this is our amplifier project that has been as popular with both male and female students. Another project that we have recently introduced that is proving popular is the air freshener project.



The air freshener project uses a low current motor to spin a fan which can blow air through an air freshener (such as potpourri). The electronics take no power in standby and when the button is pressed the motor spins for up to 100 seconds. The graphic to the left shows how an air fresher board could be integrated into a housing. In this enclosure the potpourri is placed in the top compartment and on the push of a button the air is pulled up through the unit and out of the top through the potpourri. The enclosures could be designed in a CAD/CAM package if you have these facilities.

#### EiSS article

The Electronics in Schools Strategy (EiSS) has written a great article explaining why you should teach electronics, including a section describing how girls can succeed in electronics. For details see:

[http://www.ectinschools.org/pdfs/EiS\\_myths.pdf](http://www.ectinschools.org/pdfs/EiS_myths.pdf) (*type carefully it's case sensitive*)

Why not order yourself a **free sample** of one of the air freshener kits to see if it is suitable for your needs. See the back page for details.

Description	Code	1+	10+	100+
Air freshener kit	2123	£4.11	£3.38	£3.08

## Possytronics – product picks

### What is muscle wire and polymorph?

Possytronics muscle wire is a fantastic smart material that contracts by about 5% when an electrical current is applied to the wire. When the current is removed the wire returns to its original length. This makes it ideal for producing projects that combine both electronic and mechanical elements. Polymorph is a plastic material that becomes soft when heated in hot water allowing it to be reshaped any number of times. *(Polymorph isn't in our current catalogue, but is now available, see bottom)*



### Teaching material

The class pack (detailed below) is supplied with a fantastic support booklet. At over 80 pages it explains all you could ever need to know about muscle wire and the polymorph materials. The booklet also covers the **Dancing Toy Project** (shown left). With the dancing toy the muscle wire is used with a lever to make the clown's arms and legs move when the button is pressed. All lesson plans and many of the worksheets covered in the booklet are also supplied in Microsoft Word format on a CD ROM that accompanies the booklet.

### Muscle wire class pack

The simplest way of introducing muscle wire to your students is by using the class pack which contains everything you need to get started.

The class pack (for 20 students) contains:

- 1 set of the teaching notes and a resource CD
- 20 pieces of 15cm muscle wire (with crimped ends)
- 20 mechanism kits

See catalogue  
page 27 for full  
product details

Description	Code	1+
Muscle wire, pack of 5	3801	£12.00
Mechanism kit, pack of 10	3802	£17.00
Muscle wire class pack, for 20 students	3803	£92.00
Polymorph, 100g bag	3804	£3.95

## News in brief



## Visit us at the Design and Technology show

The Design and Technology with ICT show is nearly upon us. This years event is held from the 20-22 of November at the Birmingham NEC. This great event is something that all design and technology teachers will want to visit. With over 100 suppliers you be sure to come away with some fantastic ideas.

You can find us at stand A06. If you would like any help and advice please come along and see us. Ask us any electronics questions that you might have even if they don't relate to one of our products. We would also welcome any feedback that you may have on any of our products. There will be free amplifier project kits, so don't forget to collect yours!

With free entry and free parking there really is no excuse for not going. Register on line for the show at <http://www.ichf.co.uk/d+t/>

## Inspirational photo gallery now online

In September the web photo gallery went live. It shows images of students work using Kitronik project kits. The gallery is intended to inspire students and teachers alike when they are staring at that blank sheet of paper at the start of the project.

Home About us Products Services Ordering Resources News / info

Home > Products > Project kits > Project gallery

Laser cut MDF MP3 amplifier

Showing: [All kits](#), this kit: [MP3 Amplifier project kit](#) [Select view](#)

School: Meele Brace School Page 4 of 10

The complete unit - Laser cut from 4mm MFD, varnished & assembled with a friction fit.

You can view the gallery at:  
[www.kitronik.co.uk/gallery.htm](http://www.kitronik.co.uk/gallery.htm)

**More photos required  
and we'll even give you  
£5 an image for your  
trouble!**

Please Email your high quality photos of students work that uses our kits to [gallery@kitronik.co.uk](mailto:gallery@kitronik.co.uk). For each photo we use we will send you a £5 WHSmith gift voucher as a little thank you.

## Free sample – Fax back

### Tick one

- 2101, Alarm
- 2102, Battery tester
- 2103, Game
- 2104, Timer
- 2105, Xylophone
- 2106, Rear bike light
- 2107, Steady hand game, terminal block
- 2108, Steady hand (with latch)
- 2109, Dice
- 2110, Thermometer
- 2111, Easy build timer
- 2112, Light activated switch
- 2113, Heat activated switch
- 2114, LED torch
- 2115, MP3 amplifier
- 2116, Quiz buzzer
- 2117, Square wave
- 2118, 7 segment counter
- 2119, Rainbow LED & bat box
- 2120, Dark activated colour changing LED
- 2121, Programmable timer
- 2122, Programmable music box
- 2123, Air freshener
- 2126, PIC development board
- 2127, PIC project board

To request your free sample kit with accompanying teaching notes, please tick **one** box on the left.

*(Or / and please tick)*

Send me a 2008 / 2009 catalogue.

Update my name or address details as amended (left).

**Fax this side to:  
0845 8380782**

Alternatively, call or Email us (see below).

# Kitronik

Phone: 0845 8380781

Fax: 0845 8380782

Email: [sales@kitronik.co.uk](mailto:sales@kitronik.co.uk)

Kitronik Ltd  
Lenton Business Centre  
Lenton Boulevard  
Nottingham  
NG7 2BY