



↖ Project Example

SEWABLE LED KITS

Kits are packed ready for student use and include a coin cell holder, a coin cell, 2m of conductive thread and either two flashing LEDs or one colour changing LED. They allow lighting effects to be added to textiles designs without soldering.

| Description | Code | 1+ | 10+ |
|---------------------------------|------|----|-----|
| Flashing blue sewable LED kit | 2702 | | |
| Flashing green sewable LED kit | 2703 | | |
| Flashing red sewable LED kit | 2704 | | |
| Flashing yellow sewable LED kit | 2705 | | |
| Colour changing sewable LED kit | 2706 | | |

ELECTRO-FASHION - 60 STUDENT BULK PACK

The bulk pack offers great value for teaching larger groups of students.

Pack includes: 60 x sewable coin cell holders. 10 x colour changing LEDs.
 60 x CR2032 coin cell batteries. 25 x each of blue, red, yellow
 180m of conductive thread, 3m per student. and green flashing LEDs.

| Description | Code | 1+ |
|------------------------------------|------|----|
| Sewable LED - 60 student bulk pack | 2707 | |

ELECTRO-FASHION KITS WITH FLAT LEDs

These kits are ready-packed with all of the parts needed for students to make a simple E-Textiles circuit. The kit includes two flat LEDs that are marked up with + and - markings, making them smaller and easier to use than LEDs with leads. As well as the two flat LEDs, the kit also includes a 2m t-shirt of conductive thread, a sewable coin cell holder and coin cell.



↖ Project Example
(requires extra LEDs)

| Description | Code | 1+ |
|--------------------------------------|------|----|
| Sewable LED kit with blue flat LEDs | 2735 | |
| Sewable LED kit with green flat LEDs | 2736 | |
| Sewable LED kit with red flat LEDs | 2737 | |
| Sewable LED kit with white flat LEDs | 2738 | |

ELECTRO-FASHION CAT KIT

This cat kit contains all the items you need to make the cat (except for a pair of scissors and a needle). To make the cat the felt is cut into three pieces following the lines marked on the pre-printed design. The LED eyes, battery holder and a switch are sewn on to a piece of felt following the stitch lines. The cat is then sewn together and stuffed with wadding. Pop the battery in and **when the cat's ear is pressed the eyes will light**.

Kit contents:

- 1 x Printed felt.
- 2 x Sewable green slim LEDs.
- 1 x Sewable push button switch.
- 1 x Sewable coin cell holder.
- 1 x CR2032 coin cell.
- 2 x Conductive thread.
- 8m Embroidery thread.
- Wadding.



www.kitronik.co.uk/cat



| | |
|------|----|
| Code | 1+ |
| 2725 | |

PROJECT EXAMPLES - ELECTRO-FASHION SEWABLE LEDs



- ^ Examples of conductive fabric used on the hands of puppets. When these are touched together, the circuit is completed and the LED lights up.

ELECTRO-FASHION FLASHER CONTROLLER, LEDS & THREAD



This unit offers a simple way of adding 'flashing' white LEDs to a textiles project. The unit is programmed with a number of flashing patterns that are selected by a push button on the main PCB. Pressing this button cycles through the following patterns: all LEDs constantly on, slow flash (all on, all off), fast flash (each in turn), and turned off. The device features auto off, which turns the unit off after 30 minutes to preserve battery life. Depending upon flash pattern the battery lasts for approximately two days of constant use.

This kit is supplied 'pre-built' so requires no soldering. Each kit comprises three small PCB's. The largest of the three PCB's holds an LED plus the control electronics, battery and a push button. On both of the remaining PCB's there is an LED, which are connected to the main board with conductive thread.

i Includes approximately 2m of conductive thread.

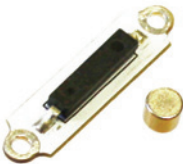
Q Dimensions: L34 x W20 x H9mm.

B Includes a CR2032 battery.

| Description | Code | 1+ | 10+ |
|-----------------------------|------|----|-----|
| Flasher controller and LEDs | 2719 | | |

ELECTRO-FASHION MAGNETIC SWITCH & MAGNET

This magnetic switch can turn on LEDs when the magnet is placed near the switch.



| Description | Code | 1+ | 10+ |
|--------------------------|------|----|-----|
| Magnetic switch & magnet | 2720 | | |

ELECTRO-FASHION LIGHT SENSOR

This board allows LEDs to be turned on automatically when it is dark. On one side of the board is the coin cell holder, which takes a CR2032 coin cell as well as a small on off slide switch. On the other side of the board is the light sensor. The design means that it is possible to cut a small hole in the front of the product for the light sensor to detect the light level, whilst also being able to get to the back of the board to change the battery and turn the board off. When turned off any connected LEDs will be off. When turned on the connected LEDs will be off in day light but come on in the dark.



| Description | Code | 1+ | 10+ |
|--------------------------------|------|----|-----|
| Electro-Fashion - Light sensor | 2721 | | |



LITHIUM 3V COIN CELLS

| Description | Code | 1+ | 10+ |
|------------------------------|------|----|-----|
| 3V CR2032 - 200mA/h - 5 pack | 2262 | | |
| 3V CR1220 - 40mA/h - 5 pack | 2269 | | |

SWITCHED COIN CELL HOLDER

This specially designed coin cell holder has large connection points for the conductive thread. These are clearly marked to show the battery polarity. The unit also has a small power switch so that you can turn the power on and off.



 Accepts CR2032 battery.

 Dimensions: L44 x W20 x H4.5mm.

| Code | 1+ | 10+ |
|------|----|-----|
| 2711 | | |

SEWABLE COIN CELL HOLDER

The specially designed coin cell holder has large connection points for the conductive thread and are marked to show the battery polarity. It is available on its own, to incorporate into your own designs.



 Accepts CR2032 battery.

 Dimensions: L34 x W20 x H4.5mm.

| Code | 1+ | 10+ |
|------|----|-----|
| 2701 | | |

MINIATURE COIN CELL HOLDER

This specially designed coin cell holder has large connection points for the conductive thread. These are clearly marked to show the battery polarity.



 Accepts CR1220 battery.

 Dimensions: L22 x W12.5 x H4mm.

| Code | 1+ |
|------|----|
| 2718 | |

SEWABLE PUSH SWITCH

This push button switch will allow LEDs to light whilst the switch is pressed.



 Dimensions: L18 x W8.5 x H6mm.

| Code | 1+ | 10+ |
|------|----|-----|
| 2708 | | |

SEWABLE SLIDE SWITCH

This two position miniature slide switch allows LEDs to be turned on or off in textiles projects.

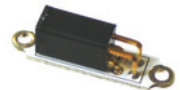


 Dimensions: L18 x W8.5 x H4mm.

| Code | 1+ | 10+ |
|------|----|-----|
| 2709 | | |

SEWABLE TILT SWITCH

When horizontal this switch is off. When tilted 10° from horizontal the tilt switch is on.



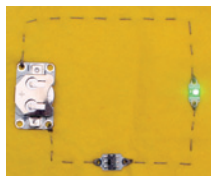
 Dimensions: L26 x W6.5 x H7mm.

| Code | 1+ | 10+ |
|------|----|-----|
| 2710 | | |



SEWABLE PCB LEDs

These ultra slim, pre-mounted LEDs are illuminated continuously. They have connections to which the conductive thread can be connected. These are clearly marked with '+' and '-' to indicate which is the positive and which is the negative connection.



The PCBs are double sided making the thread connection very reliable. They are supplied on a small panel and the LEDs can easily be removed by snapping them out.



Dimensions: L15 x W6.5 x H3mm.

| Description | Colour | Code | 1+ | 10+ |
|---------------------|----------------|------|----|-----|
| LED board - 10 pack | Red | 2712 | | |
| LED board - 10 pack | Blue | 2713 | | |
| LED board - 10 pack | White | 2714 | | |
| LED board - 10 pack | Green | 2723 | | |
| LED board - 10 pack | Sakuru (lilac) | 2726 | | |

5MM FLASHING LED



These flashing LEDs can be used with the Electro-Fashion coin cell power boards. 5mm flashing LEDs in red, green, yellow and blue. The LEDs flash at around 2Hz when connected to a 5V supply.

| Colour | Code | 1+ | 10+ | 100+ | 1000+ |
|--------|------|----|-----|------|-------|
| Red | 3538 | | | | |
| Green | 3539 | | | | |
| Yellow | 3540 | | | | |
| Blue | 3545 | | | | |

FREE TO DOWNLOAD RESOURCES

To help people new to Electro-Fashion get started we have worked with Julie Boyd to develop some free online resources. These give detailed step by step explanations of how to make a product.

There are guides on adding an LED to a hat (both a standard LED and a slim line LED), making a zippi doll with light up eyes & adding three LEDs to a bag. We are always working on more resources so it's worth keeping an eye on the website.



www.kitronik.co.uk/fashionresources