

E-Textiles

technique focus

TF0043



What you'll need

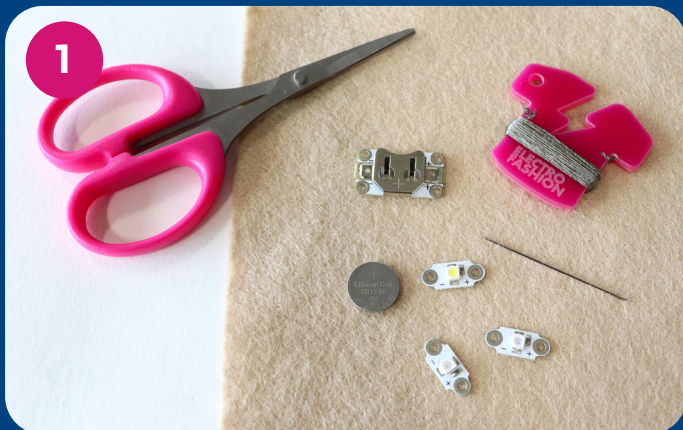
EL500 E-Textiles Starter Kit **EL508** Conductive Thread **FC075B...** Fabric Paints
EL220... E-Textiles LEDs **ST061A** SureStitch 50 Mixed Needles **CR921A...** 100% Cotton T-shirts



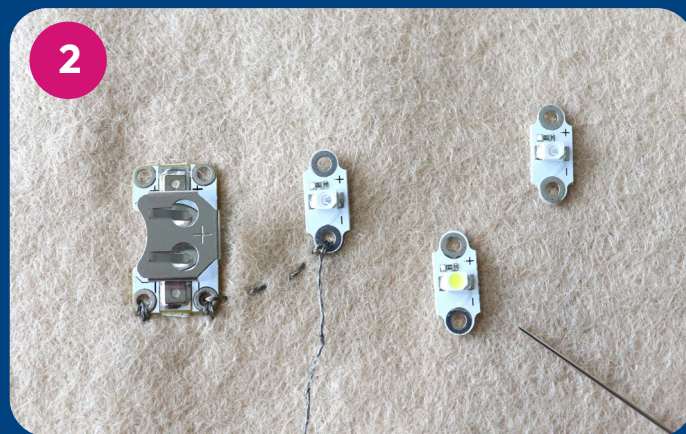
E-Textiles Starter Kit: Is the ideal starter kit for students to experiment with incorporating LEDs into textiles. Why not try adding soft circuits with LED lights to tshirts, bags and other fashion accessories.



Step by step



Prepare your work space, we recommend using the E-Textiles Starter Kit, as it contains all of the electrical components you will need. Start by threading up a needle with the conductive thread, you may need to use a needle threader for this. Line up your cell battery and sewable LEDs to cover the area you need.



You will need to align the positive and negatives so that they match up to each other. E.g. the negative ends of the cell battery will line up with the negative ends of the sewable LEDs. Start by securing the end of the conductive thread with a knot, and sewing from loop to loop in the positions needed.



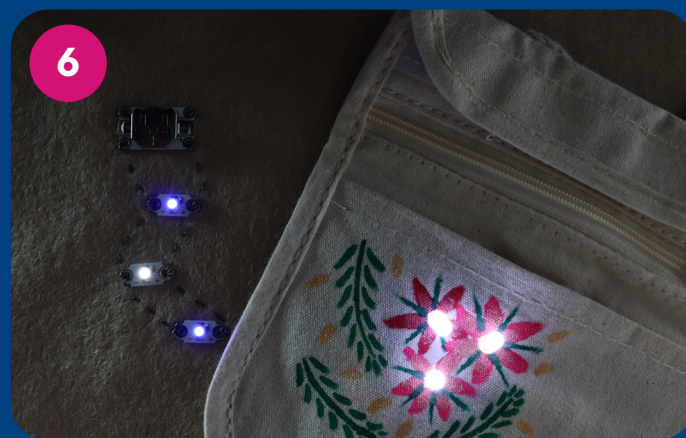
Sew to the end of your path, we have started with the negatives. Secure your thread at the back by creating a knot and trimming the end of the thread. You don't want to have any long loose threads underneath the circuit as this can affect the current.



Create a knot at the end of a new piece of conductive thread and sew the next path (positives) from the cell battery to the positive loops of the sewable LEDs. At no point must the thread pathways meet or cross over each other from the positive and negatives.



Once this path is completed, secure the end of the thread underneath your fabric and trim. Your circuit should now be complete. Carefully place the coin cell battery into the slot in the cell battery, the positive side upwards. Your LED lights should be lit up!



Once you have mastered the basics of the small circuit, you can incorporate this onto textile accessories such as t-shirts and bags. Decorate and create designs using fabric paints to really bring your design to life! You can also experiment with switch cell batteries and flashing LED lights to create interesting effects.