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Unlock e-textiles with a LilyPad Arduino by Ewan Fisher

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Ever heard of the concept of e-textiles? The LilyPad Arduino is a handy microcontroller that allows you to harness the power and flexibility of Arduino technology to create clothing that will really get you noticed!

An Arduino board is a useful piece of kit that has gained notoriety with electronics hobbyists and inventors alike. It uses intelligent hardware and software that allows you to perform a variety of functions. These range from simply setting up a flashing LED to installing sensors that can tell you when youâ€™ve put down a hot drink without using a coaster.

Similarly, LilyPad Arduinos are an integral tool for e-textiles and clothing, a trend that is emerging rapidly with regards to the application of electronics.

The LilyPad itself can be sewn to fabric and is programmable using Arduino software while the board comes preburned with a boot loader for coding. It is powered via its USB connection or through an external power supply.

Customise your Lilypad

LilyPad Arduinos come with a number of accessories and can be customised to suit your requirements. Conductive thread, ribbon and fabric are all available to tailor your wearable electronics project.

The result is â€˜smart clothingâ€™ with the LilyPad Arduino and its components sewn into clothing for dramatic effects.

Notable examples that display the use and functionality of the technology include heart rate monitor vests where electronics enthusiasts hook up sensors and programme software to pick up the human heart rate with LEDs displaying the pulsing beat. Cooler and warmer colours are cleverly used to signify differing strengths of heart rate.

There are many other designers looking at ways to make e-textiles creative and functional. For example, Microsoft, in partnership with technology experts and fashion designers, created the â€˜printing dressâ€™. The dress was connected with similar microcontrollers to the LilyPad to project Tweets onto the front of it as an example of how people can interact through the fabric of their clothing.

Using the LilyPad Arduino as the brain behind your project, you too can harness its power to build visually appealing and communicative designs.

Of course, simpler designs can also be crafted such as flashing bracelets or any number of others that use sensors, actuators and LEDs sewn into fabrics that can react with movement.

If youâ€™re thinking about embarking upon a LilyPad project, contact quality electronics retailers for advice on which components to use and fantastic after sales support. However imaginative you want to be, a LilyPad Arduino and its wide selection of accessories can bring your e-textiles and clothing project to life.

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Proto-PIC is the best option for electronics enthusiasts when it comes to purchasing electronic components like a Lilypad.They has a cost-effective range of products.

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