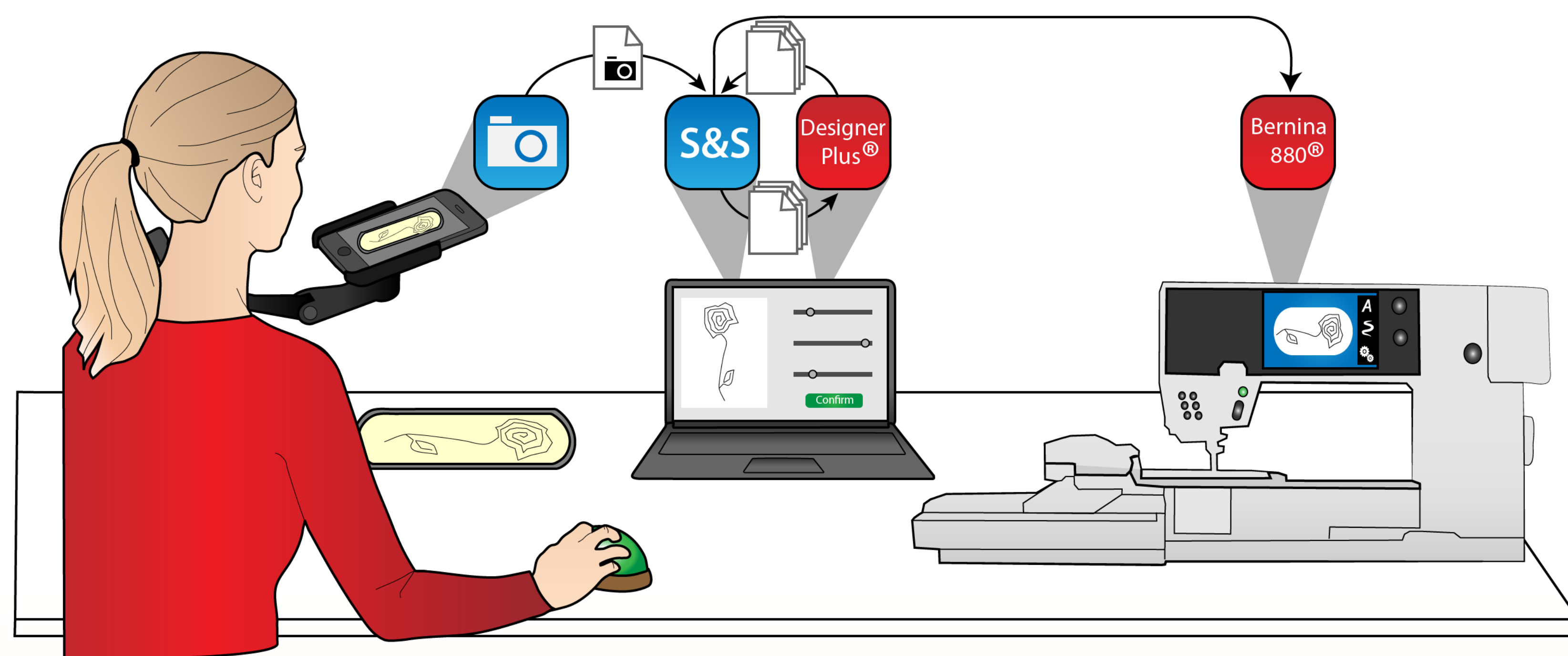


Sketch&Stitch

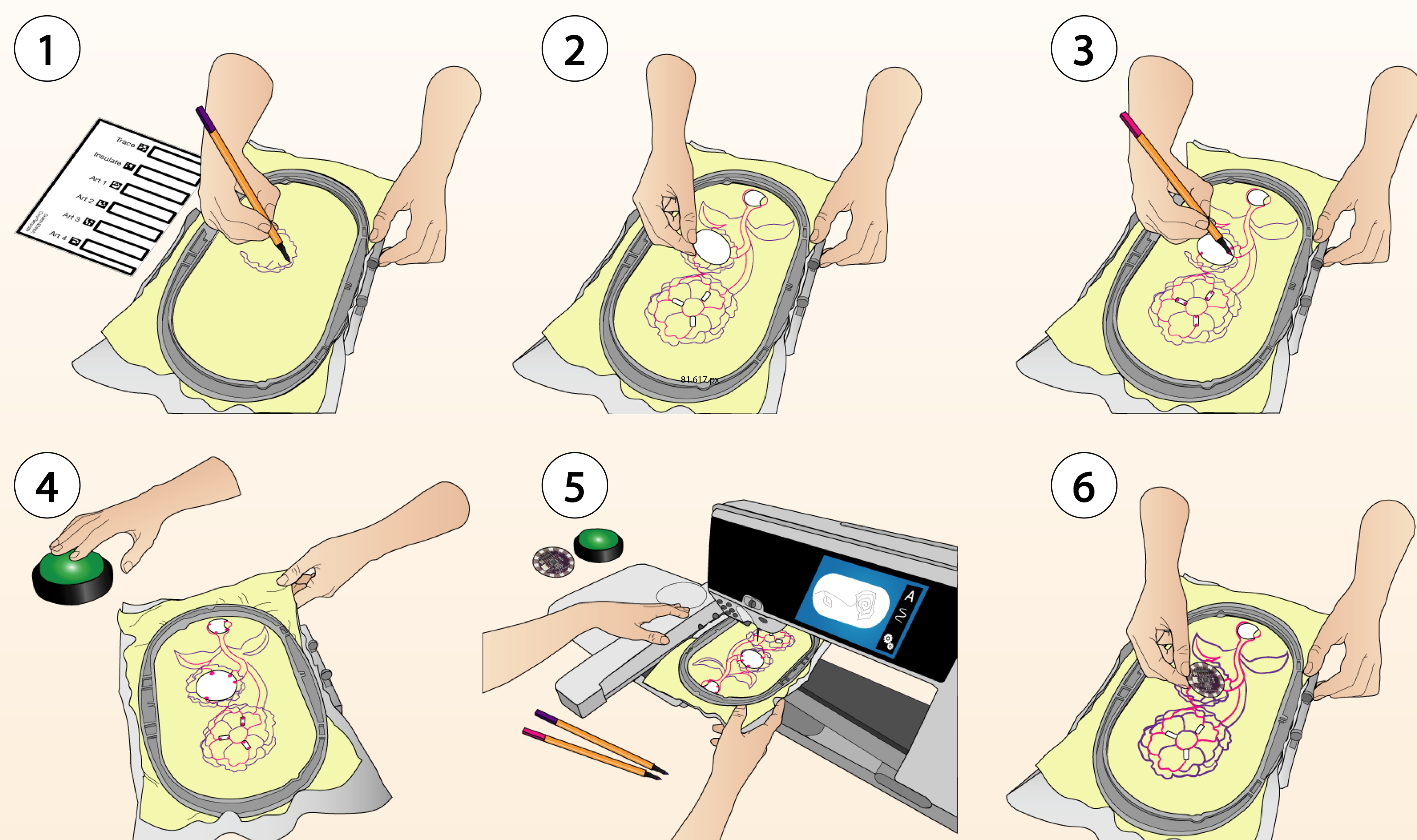
Interactive Embroidery for E-Textiles

Nur Al-huda Hamdan, Simon Voelker, Jan Borchers



Sketch&Stitch is an end-to-end fabrication system that allows users to **transform a sketch on fabric into an interactive circuit**. It embeds the **domain knowledge** for embroidering textile interfaces using conductive yarn.

Users communicate with the system via coloured pens and our **Circuitry Stickers**, which represent electrical components, custom stitch patterns for wire crossings to insulate, and various textile touch sensors.



Step 1 Sketch your design on a piece of fabric

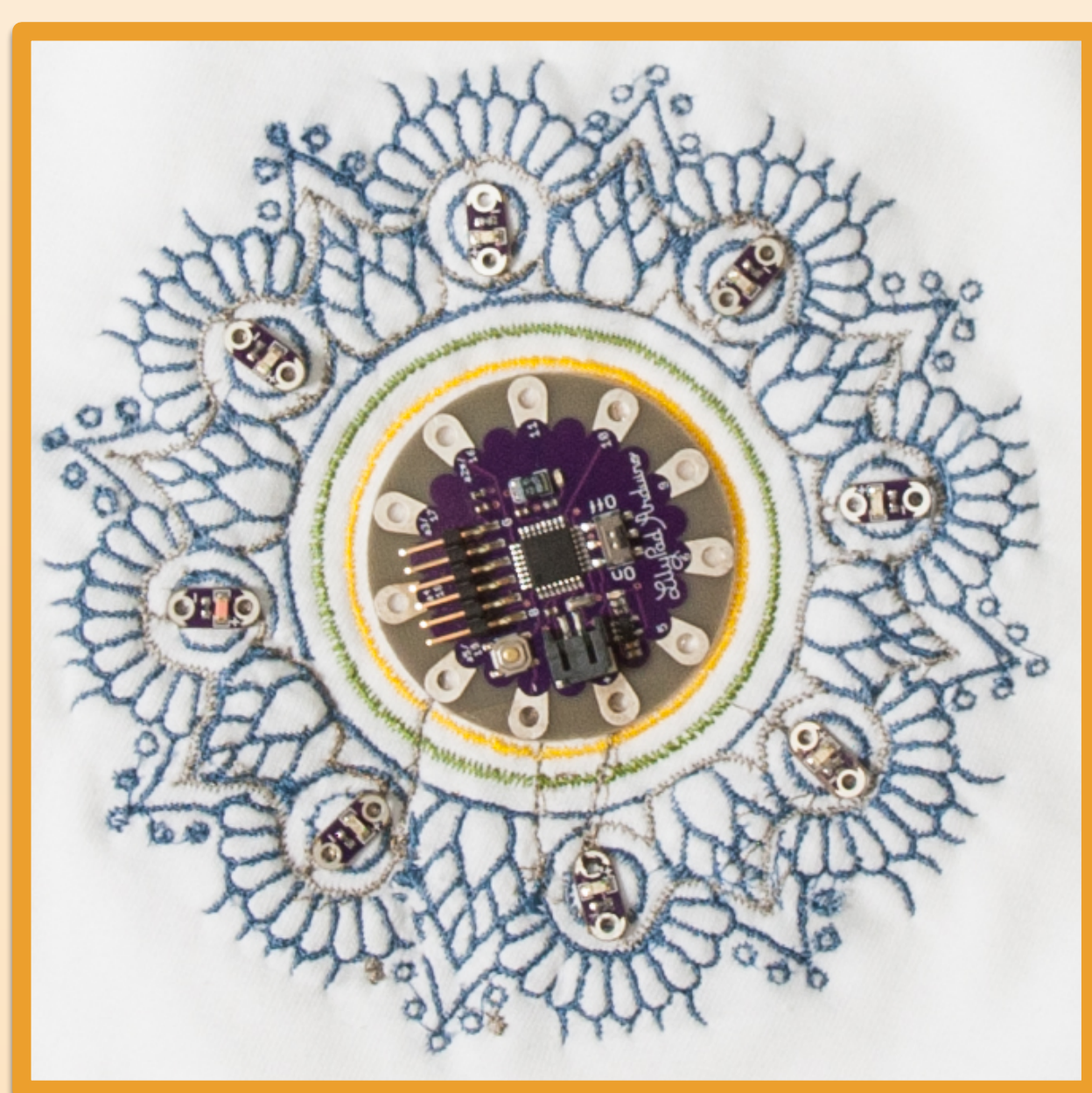
Step 2 Mark the location of electrical components with our Circuitry Stickers

Step 3 Connect your traces with a coloured pen

Step 4 Take a picture of your sketch

Step 5 Place the fabric in the embroidery machine

Step 6 Replace the stickers with the electronics



Sketch&Stitch offers several design strategies that enable makers to create single and multi-layer textile interfaces for wearable and non-wearable applications.