

2013 E-Textile Swatchbook Exchange: The Importance of Sharing Physical Work

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Abstract

The E-Textile Swatch Exchange is a platform for sharing physical work samples in the field of electronic textiles. The exchange wishes to emphasize the importance of physicality and quality workmanship in an increasingly digital world. Individuals and collaborative efforts participate in the exchange by submitting a unique swatch design of their own, and in turn receive a compiled collection of everybody else's swatches. This means that everybody participating needs to make as many multiples of their swatch as the total number of participants. There are no guidelines defining what the swatches could or should be, only that they relate to the field of E-Textiles.

Author Keywords

E-Textile; Swatchbook; Exchange of Physical Work Samples; Community; Documentation

ACM Classification Keywords

H.5.1. Information interfaces and presentation

Introduction

The E-Textile Swatchbook Exchange compiles individual work samples into a format for sharing and exchanging research and designs. The physicality of the swatchbook puts emphasis on craftsmanship and quality of work by providing access to the real thing, and not a digital representation thereof.

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The collection of samples in the 2013 swatchbook were produced by 24 individuals with diverse links to the e-textile community, including academic researchers, textile designers, industrial designers, artists, electrical engineers and enthusiastic makers. Each individual who participated in the exchange worked to produce 24 multiples of their work so that everybody received a complete set of samples.

We intend to continue the Swatchbook exchange as part of the eTextile Summercamp [1].

eTextile Summercamp

The eTextile Summercamp is a weeklong event that brings together expert practitioners from the fields of E-Textiles and Soft Circuitry. Gathering in the countryside of France, the camp offers participants space and opportunity to come together professionally and casually to exchange knowledge, share skills through hands-on workshops and engage in discourse around current topics.

The 2013 eTextile Summer Camp was organized by Mika Satomi, Hannah Perner-Wilson, Meg Grant and hosted by the Paillard Centre d'Art Contemporain & Résidence d'Artistes in Poncé sur le Loir, France.

Imagery

For more images of the 2013 Swatchbook Exchange please visit the links in the following sections.



E-textile Swatchbook participants presenting their swatches at the 2013 E-Textile Summercamp



E-textile Swatchbook participants filling the swatchbooks with their swatches at the 2013 E-Textile Summercamp



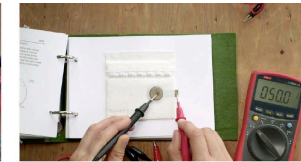
"Tender knitted pockets"
by Martijn ten Bhömer



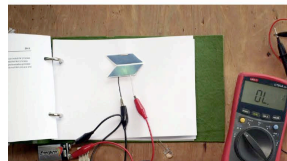
"Thermochromic Origami"
by Isabel Cabral



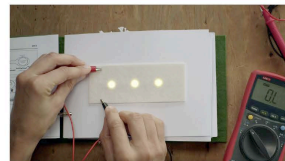
"Transitional Liquid Crystal Fabric"
by Sara Robertson



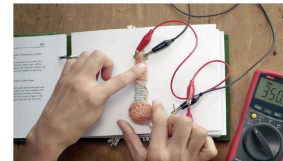
"Skin patch with magnet zipper"
by Marina Toeters



"Thermochromic heated lozenge"
by Lynsey Calder



"Embedded Flexible LED Strip"
by Meg Grant



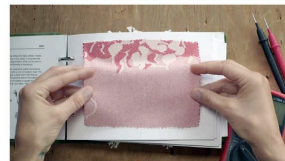
"Crochet Accelerometer"
by Mika Satomi



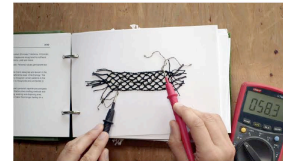
"Light-emitting paper strips"
by Sarah Taylor



"Beaded Tilt Sensor"
by Hannah Perner-Wilson



"Bedtime Stories"
by Kristi Kuusk



"Bobbin-Lace with Conductive
Inlay Thread"
by Marta Kisand



"Conductive Blackwork Pattern"
by Anja Hertenberger



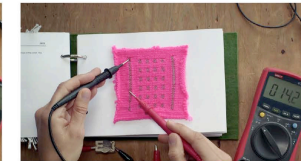
"Excuse Me"
by Becky Stewart



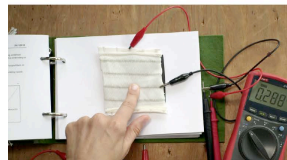
"Exobag V0.1"
by Beam Contrechoc



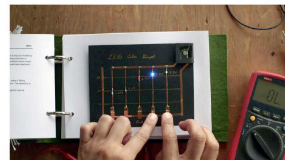
"Harvest Weave"
by Melissa Coleman



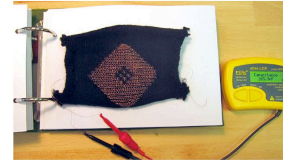
"Knitted Breadboard and
Punchcard"
by Irene Posch & Ebru Kurbak



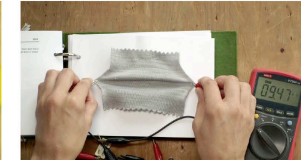
"Matrix"
by Maurin Donneaud &
Laurent Malterre



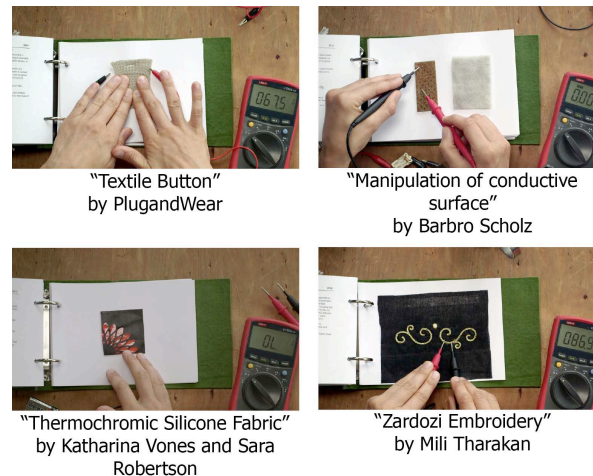
"LED Color Graph"
by Jie Qi



"Knitted Capacitor"
by Irene Posch & Ebru Kurbak



"Resistive knitting"
by Pauline Vierre



Video Documentation

For a video showcasing all the samples featured in the 2013 Swatchbook Exchange please visit the following link: <http://youtu.be/YcmxE24VdWA>

Web Documentation

Each swatch featured in the 2013 Swatchbook Exchange is also documented on the E-Textile Summercamp website in the Swatchbook Exchange category [2].

Downloads

Download PDF Versions of 2013 Swatchbook Exchange from the following links:

spreads (print quality):

http://etextile-summercamp.org/2013/wp-content/uploads/2014/06/SwatchBookExchange2013_print_DS.pdf

spreads (smaller file):

http://etextile-summercamp.org/2013/wp-content/uploads/2014/06/SwatchBookExchange2013_small_DS.pdf

single pages (print quality):

http://etextile-summercamp.org/2013/wp-content/uploads/2014/06/SwatchBookExchange2013_print_SS.pdf

single pages (smaller file):

http://etextile-summercamp.org/2013/wp-content/uploads/2014/06/SwatchBookExchange2013_small_SS.pdf

Materials

Materials used to create the swatches contained in the Swatchbook include: 100% cotton thread (size 10), conductive thread (117/17 2ply), ATTINY13a, LDR, resistor, tent fabric (side 1: camouflage, side 2: silver green), organza, Cotton or Polyester, conductive yarn, normal yarn, marble/stone, beads, conductive thread, conductive fabric, copper polyester taffeta fabric, silver plated nylon fabric, Karl-Grimm copper thread 7×1 fach verseilt kupfer blank 3981, silver plated nylon thread 117/17 2ply, heavy metal bead, glass/plastic beads, green or black silk taffeta fabric, cotton thread, HeatnBond fusible interfacing, solder, 0603 surface mount green LEDs, CR2032 coin-cell battery, Zardozi – metal wire, Cotton fabric, Embroidery loop, Fine sewing needle, Cotton sewing thread, Bekinox conductive wool (with steelfibers blend) application made of copperfibers on small sample: TC ink 27° and common ink, 100% wool felt, 12V 5050 flexible LED strip, Non-pvc heat press t-shirt decal “vinyl”, Bison-tix adhesive, Silk Twill fabric, Thermochromic pigment, Fluorescent pigment, Textile binder, Foil glue, Textile foil, Copper tape, 150Ω surface mount resistor, Solder, Multithreaded core copper insulated wire, power supply

(not included), Scrubbed knitted material (85% PES, 15% EA), Magnet zipper (Magnets: Nd-Fe-B Rare Earth magnetic ceramics, passivated zinc galvanisation, Pouches: 100% PA), Sensitive® (72% PA, 28% EA), Stretch conductive fabric (92% Silver plated, 8% Nylon), Knitted spacer fabric (PA mono and multi filament), Vliesofix Hotmelt, Laser Cut Black 100% polyester fabric, Chromazone Thermochromic Powder Red 19°C, Blue Artists Pigment Powder, 12 grams Silicone to 1.2 grams Developer, Polymer optical fibre; paper yarn; adhesive, paper-based non-woven; white or RGB LED; battery or electrical source, Resistive thread – made of 20% inox and 80% Polyester – from Créafibres and Viscose thread 100%, Knitted by Guigou on circular knitting machine, Conductive Yarn (Gunze & Mitsufuji, ETC SI30, 6 Ohm / 20 cm), Linnen Fabric, Cotton Thread, Bio-cotton, ecru colored, Conductive Elektrisola (0101 HF-Litze 4 x 0,0710 mm Grad 1 Polysol-155), Elastic, ecru colored thread, Conductive Bekaert (Bekitex BK 50/2, 50 Ω /cm), Polyester, Stainless Steel, Wool, cotton thread, gold thread, conductive thread, grass from Greenwhich, 50%CO 50%PES Textile Substrate, Thermochromic Pigments

(27°C trigger temperature), Conventional Pigments, Binder with stiffness agent and paper touch agent, Aluminum foil, Wood glue, ATtiny45, SMD LEDs, conductive thread, non-conductive thread, non-conductive fabric, wool, acrylic yarn, Karl Grimm silver plated nylon, acrylic yarn, enamelled copper wire (0,15 mm diameter), Laser Etched/Screen-Printed and Coated Black Cotton Satin, LCR Hallcrest Liquid crystal slurry (R25C5W) 25°C activation temperature and combinations of a variety of activation temperature liquid crystals and leuco thermochromic dye systems, Permanent black textile pigment, Copper tape, conductive fabric tape, solder, 1206 surface mount LEDs in red, yellow, pink, blue and white, magnets for battery holder, polyester, copper thread coated with silver

References

[1] E-Textile Summercamp Website:

<http://etextile-summercamp.org>

[2] 2013 E-Textile Swatchbook Exchange Website:

<http://etextile-summercamp.org/2013/?cat=12>