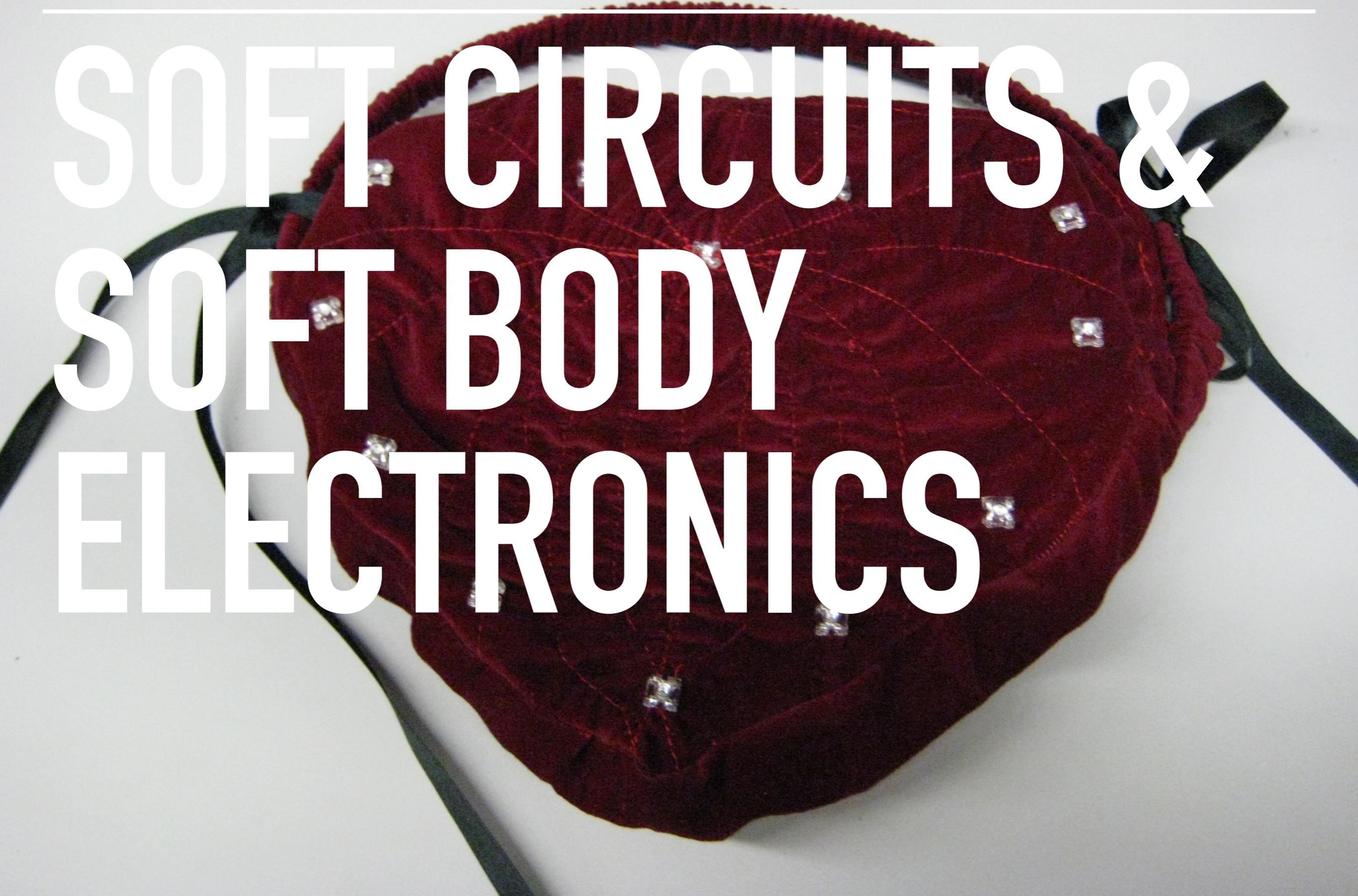


TANGIBLE MEDIA & PHYSICAL COMPUTING



SOFT CIRCUITS &
SOFT BODY
ELECTRONICS

AGENDA

MATERIALS
TRACES
MOVEMENT



MATERIALS

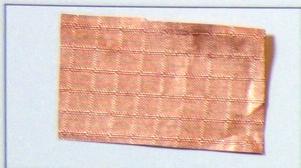
MOST CONDUCTIVE FABRICS, THREADS AND YARNS ARE A BLEND OF A CONDUCTOR (METAL, CARBON OR AN INHERENTLY CONDUCTIVE POLYMER) AND NON-CONDUCTIVE SYNTHETIC OR NATURAL FIBRE.

THIS BLENDING IS DONE AT THE LEVEL OF PLATING, COATING, DOPING AND SPINNING, AS WELL AS WEAVING AND KNITTING.

MATERIALS

CONDUCTIVE MATERIALS

KOBAKANT, 2017



Copper Conductive Fabric

Corrosion proof copper-silver plated polyamide ripstop fabric.
Producer: Statex
Distributor: LessEMF



Pure Copper Polyester Taffeta

Pure copper, tarnish resistant finish. High conductivity, resistivity: 0.05 Ohm/sq.
Distributor: LessEMF



VeilShield

Woven 132/inch mesh polyester fibers coated with Zinc-blackened Nickel over Copper for better corrosion resistance. Nickel allergy!
70% light transmission. 0.1 Ohm/sq. Distributer: LessEMF



SaniSilver

Double side weave. one side is highly conductive (<1 Ohm per sq) pure Silver, the other side is pure cotton (~100 Ohm/sq)
Producer: Statex
Distributor: LessEMF



Eeontex Non-Woven

Carbon doped Polyester/Nylon with a conductive polymer formulation.
Producer: Eeonyx
Distributor: Sparkfun



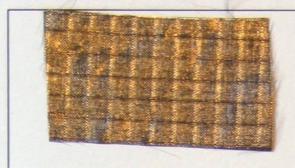
Eeontex Stretch Fabric

A conductive knitted nylon/elastane fabricwith a conductive polymer formulation.
Stretch in both direction.
Producer: Eeonyx
Distributor: Sparkfun



Eeontex Twill Fabric

Woven polyester fabric coated with a conductive polymer formulation.
Producer: Eeonyx



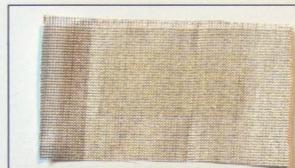
Ripstop Silver Fabric

Pure Silver coated onto nylon RipStop. Comfortable and safe against the skin. Resistivity is less than 0.25 Ohm/sq.
Producer: Statex
Distributor: LessEMF



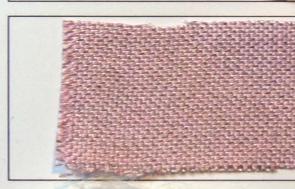
Silver Stretch Conductive Fabric

Silver plated knitted fabric, 78% Polyamide + 22% Elastomer plated with 99% pure silver.
Producer: Statex
Distributor: LessEMF



Safety Silk

Natural Silk plus Pure Silver. <1 Ohm/sq.
Distributor: LessEMF



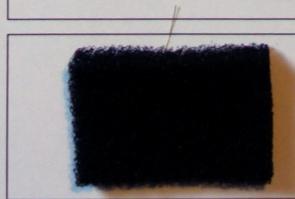
Soft&Safe Shielding Fabric

70% bamboo fiber and 30% Silver. high conductivity (<1 Ohm per sq).
Distributor: LessEMF



Conductive Wool

Wool 80% stainless steel fiber 20%. Resistive material. Suitable for felting.
Producer: Bekaert



Velostat

Piezoresistive carbon impregnated plastic sheet material.
Producer: 3M
Distributor: LessEMF

ESD Foam

Anti-static foam used for packaging material.

Karl-Grimm High Flex 3981

Fine copper fiber plied with synthetic fiber core. Solderable.
Producer: Karl Grimm | Distributer: Karl Grimm

Karl-Grimm High Flex 3981 Silver 14/000

Fine copper fiber coated with silver plied with synthetic fiber core. Solderable. Producer: Karl Grimm | Distributer: Karl Grimm

Elitex

235/34 Polyamide plated with silver.
Producer: Imbut GmbH | Distributer: Imbut GmbH

Shieldex

Silver Plated synthetic thread.
Producer: Statex | Distributer: Statex

Bekinox VN

Fine stainless steel fiber plied. Good for heating use.
Producer: Bekaert | Distributer: Bekaert

25% Metal Egypto Color Gold Gimp

Thread wrapped with metal wire.
Producer: Bart and Fransis | Distributer: Bart and Fransis

Radio Conductive Thread

90% polyester SuperTech + 10% 0,035mm Inox Steel thread
Producer: Bart and Fransis | Distributer: Bart and Fransis

Silver Plated Nylon

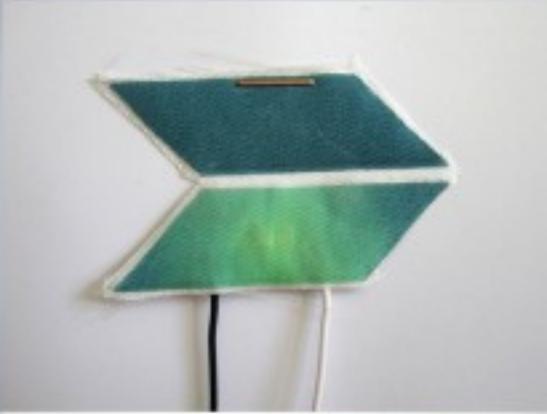
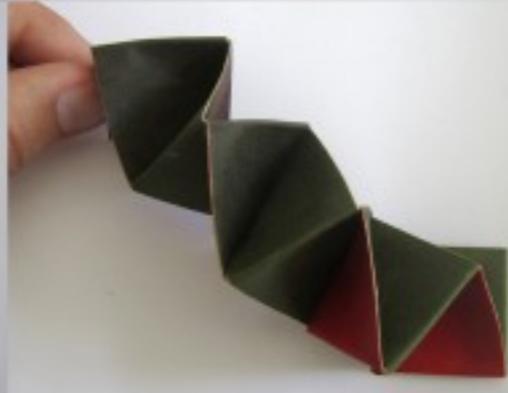
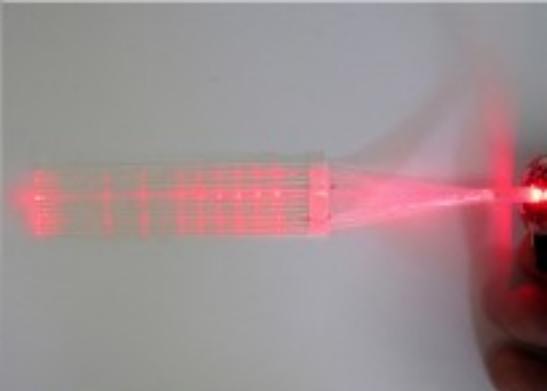
66 Yarn 22+3ply 110 PET. Resistance: <1000 Ohm/10cm.
LessEMF

Nm10/3 Conductive Yarn

80% polyester 20% stainless steel, light grey.
Producer: Bekaert | Distributer: Bekaert

Silverspun Yarn

87% combed cotton, 5% silver, 5% nylon, 3% Spandex. Highly conductive, about 10 Ohm per inch. The silver will not wash out. LessEMF



AGENDA

MATERIALS
TRACES
MOVEMENT



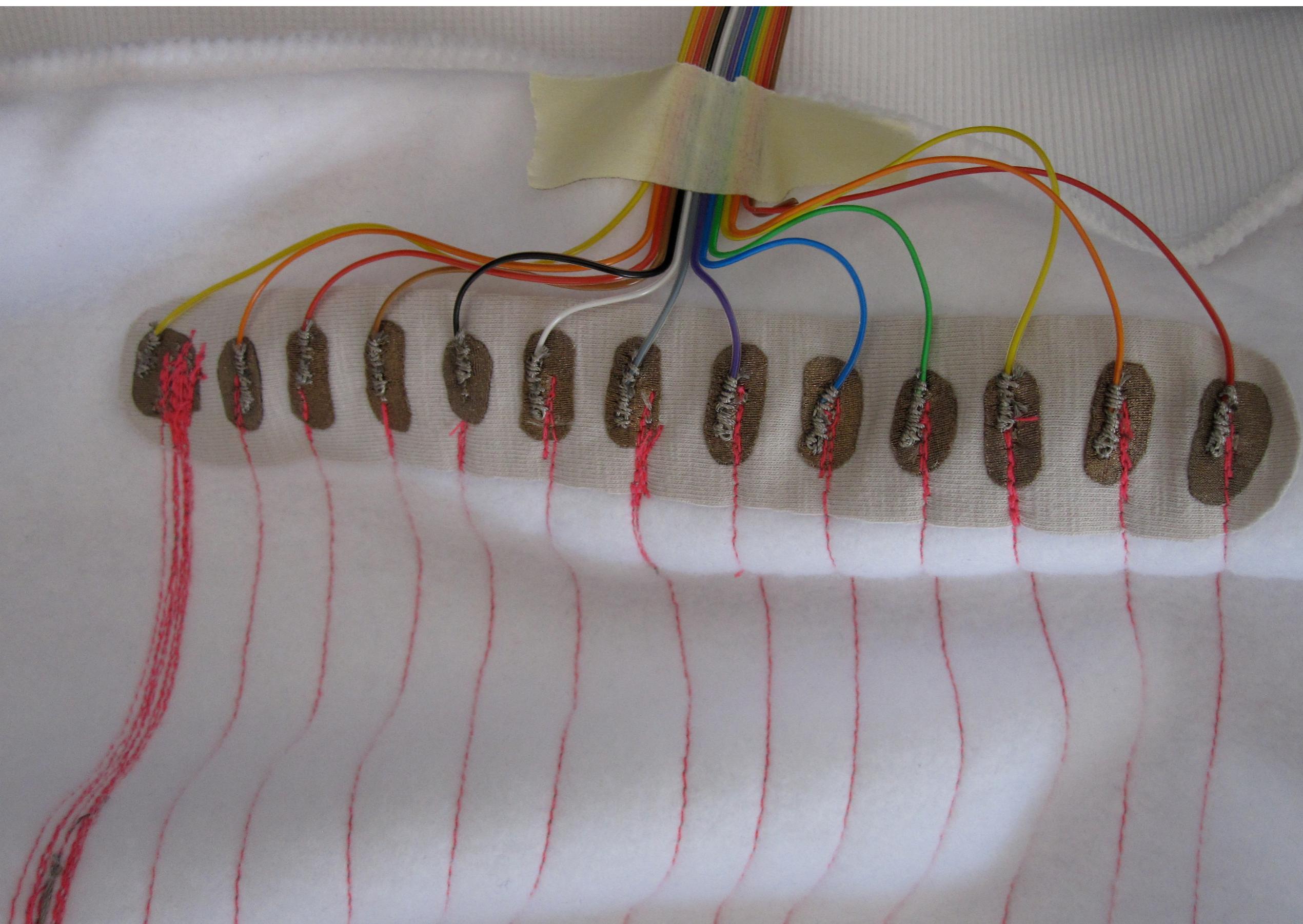
TRACES: CONDUCTIVE THREAD



TRACES: CONDUCTIVE THREAD



TRACES: CONDUCTIVE THREAD



TRACES: CONDUCTIVE THREAD



TRACES: CONDUCTIVE FABRIC

TO MAKE CONDUCTIVE FABRIC TRACES, ONE CAN APPLY FUSIBLE INTERFACING / HEAT N' BOND OR IRON-ON GLUE TO A CONDUCTIVE FABRIC.

APPLY THE FUSIBLE INTERFACING TO THE CONDUCTIVE FABRIC BEFORE CUTTING THE TRACES INTO THE DESIRED SHAPES.



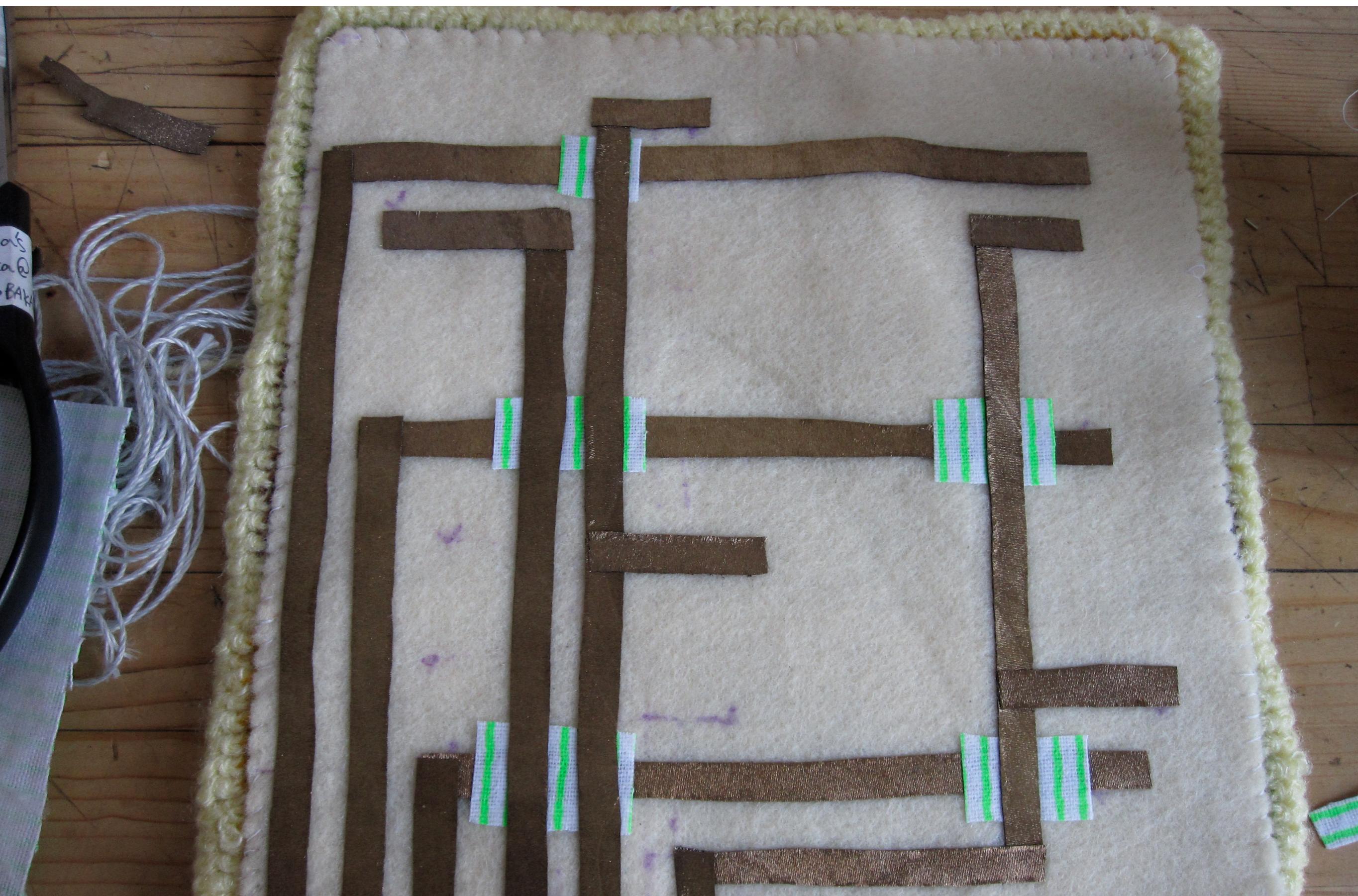
TRACES: CONDUCTIVE FABRIC



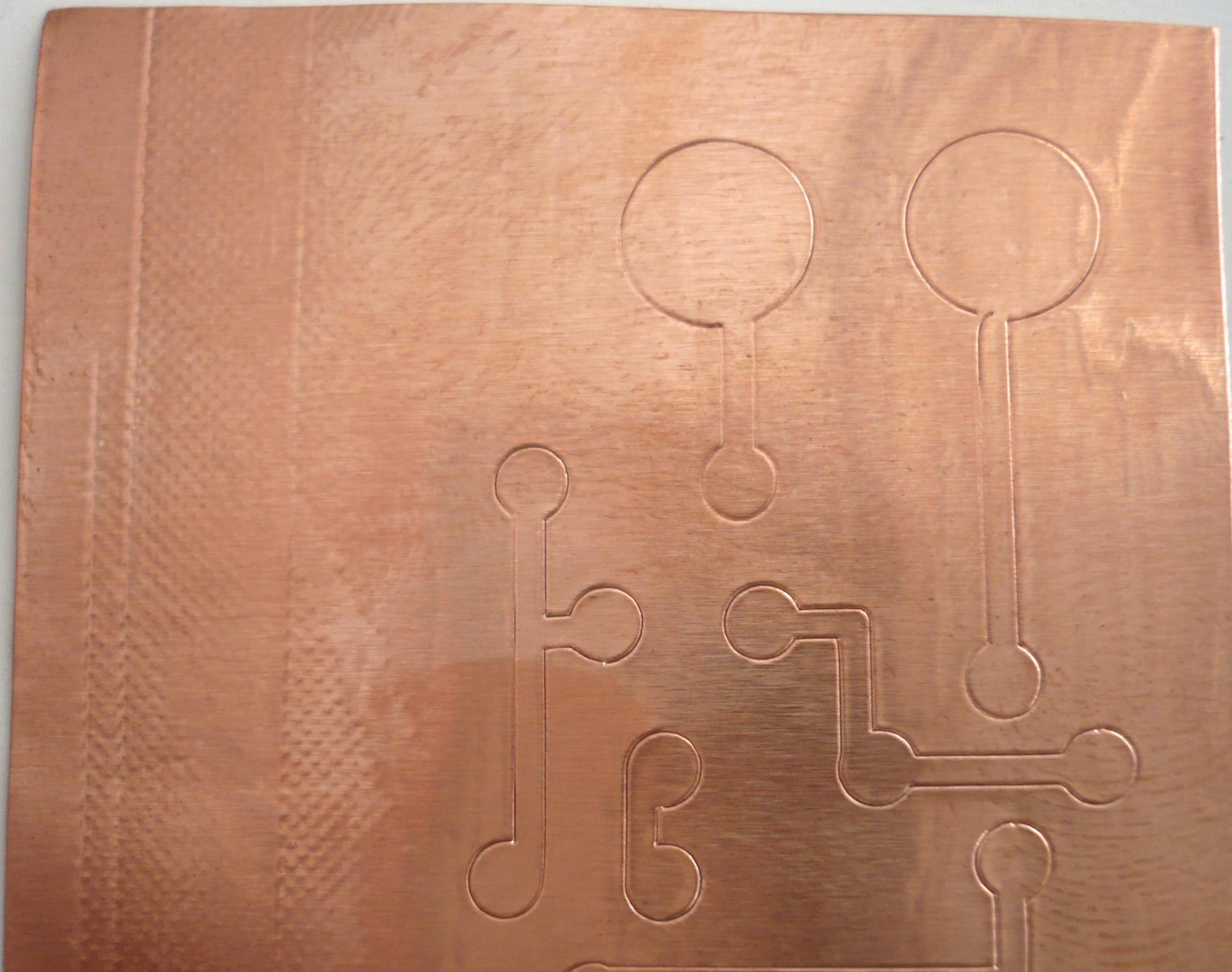
TRACES: CONDUCTIVE FABRIC



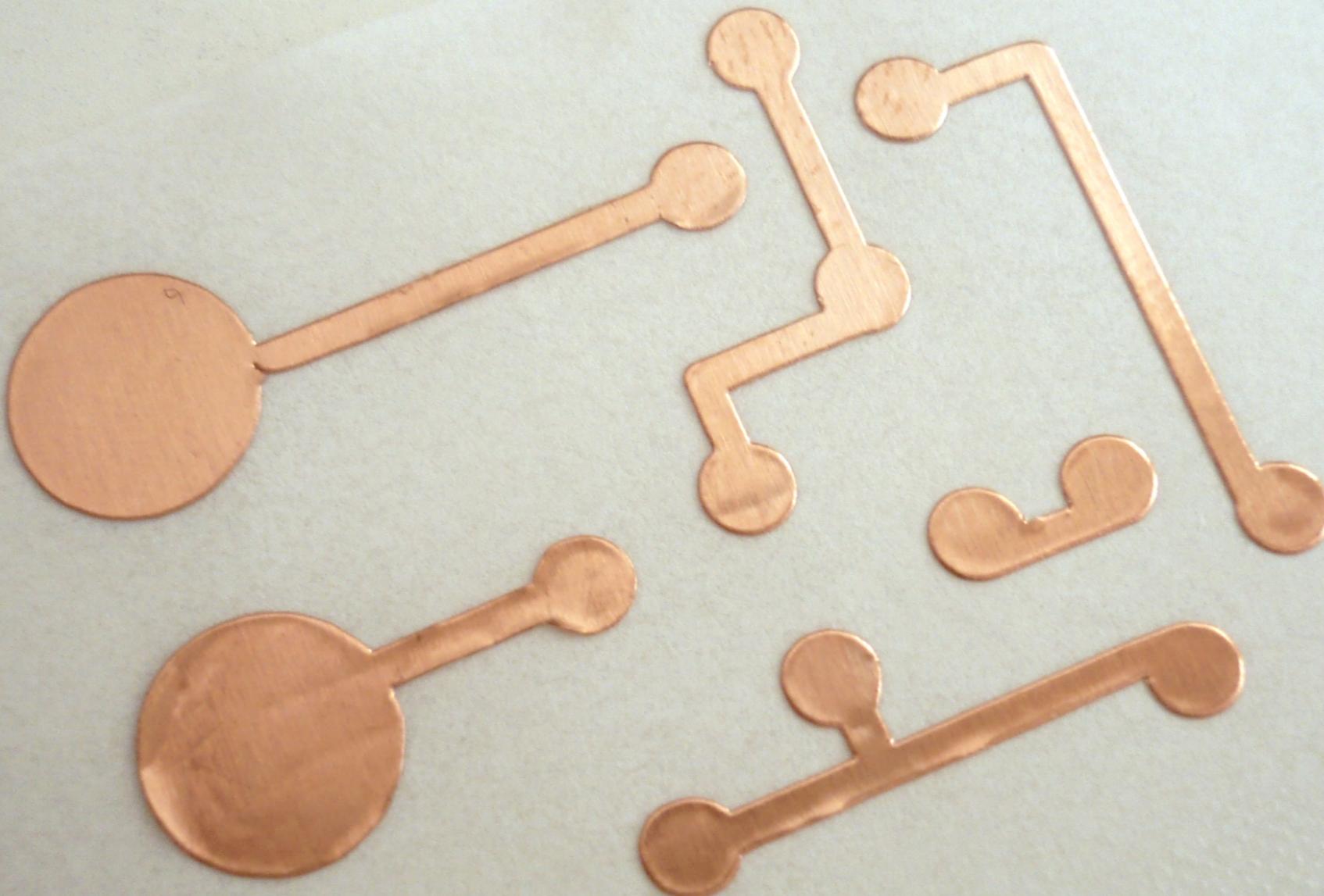
TRACES: CONDUCTIVE FABRIC



TRACES: CONDUCTIVE TAPE



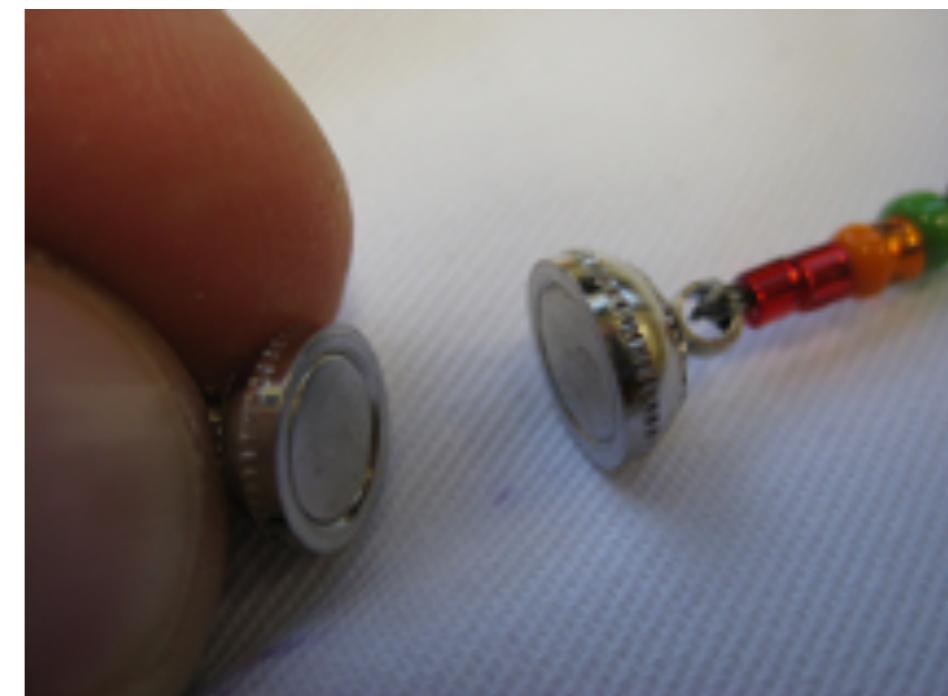
TRACES: CONDUCTIVE TAPE



TRACES: CONDUCTIVE TAPE



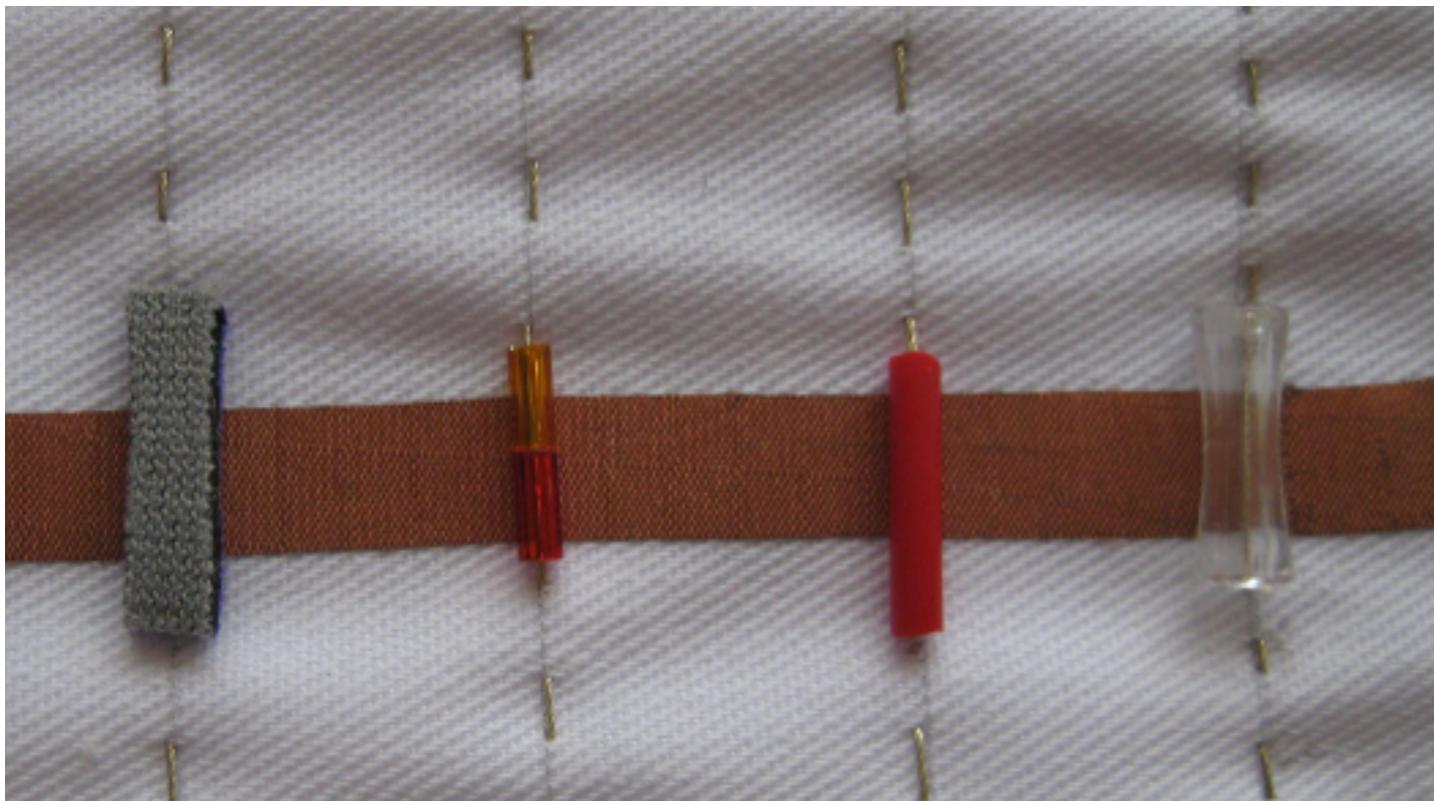
TRACES: (DIS)CONNECT



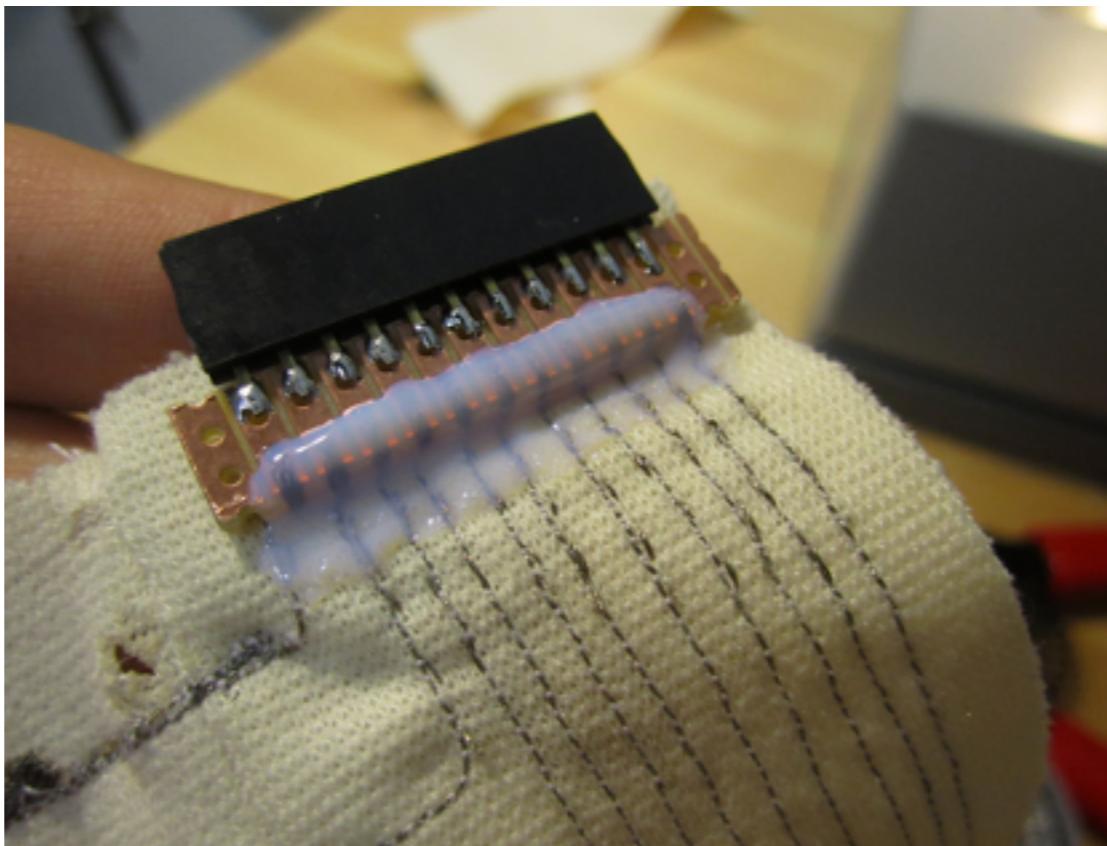
TRACES: (DIS)CONNECT



TRACES: ISOLATING TRACES



TRACES: STRAIN RELIEF



AGENDA

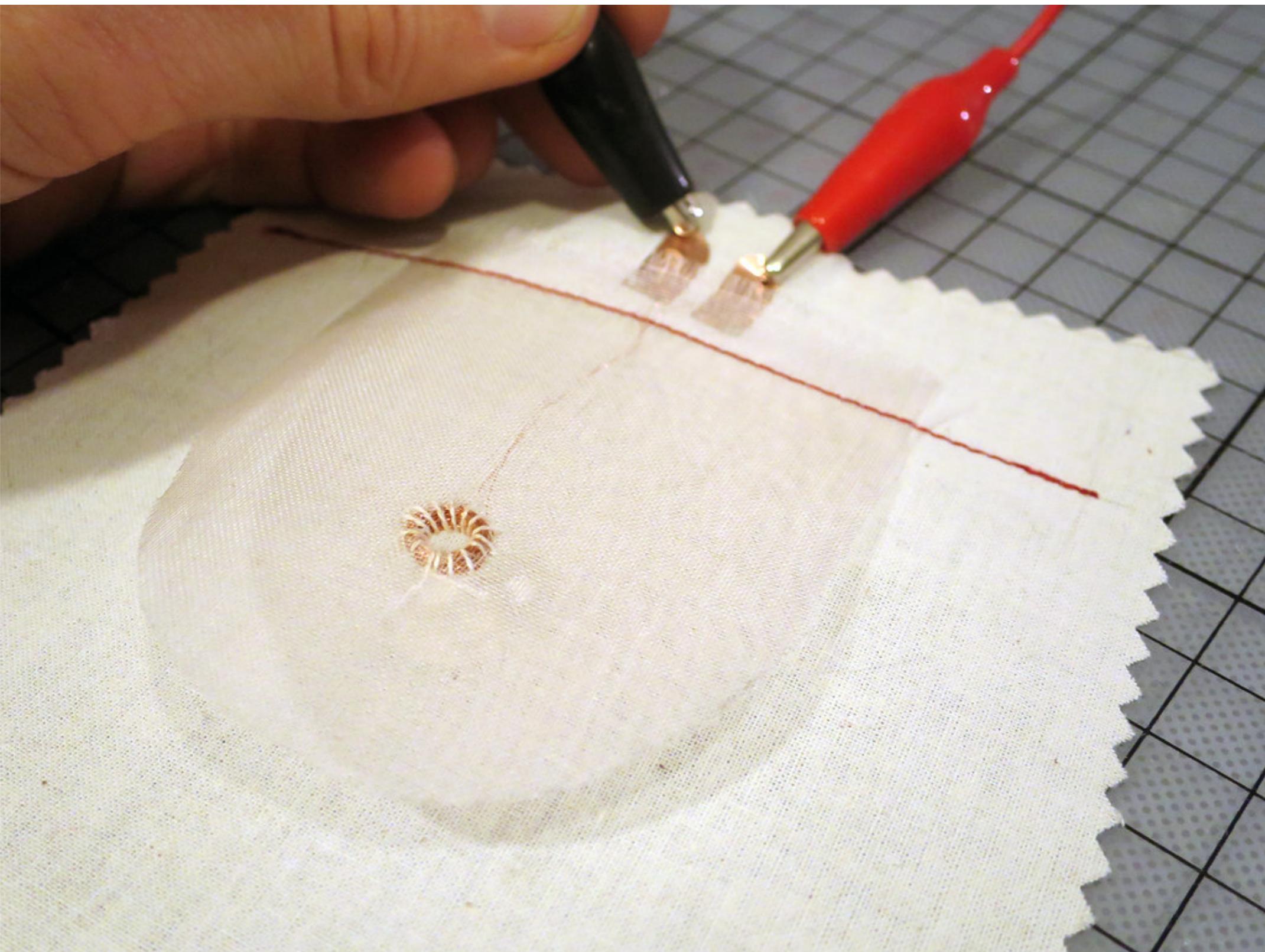
MATERIALS
TRACES
MOVEMENT



MOVEMENT: SMOCKING



MOVEMENT: FLAP



MOVEMENT: SOUND



[HTTPS://WWW.KOBAKANT.AT/DIY/](https://www.kobakant.at/DIY/)