

PILLOWHUGGER COLLECTION 2010 - 2012

Pillowhugger is a collection of textile products, incorporating soft electronics and responsive inks. The collection consists of different types of active and interactive cushions, playing with the current and possible future functions of cushion-like items and comfort objects.

Pillowhugger Lightning

Lightning pillow looks like any ordinary pillow. The difference lies in the effect that is revealed when the pillow is hugged or touched. When activated, a beam of light uncovers the layered patterns that are placed inside the pillow. Different pattern themes are designed for the illuminating PL-s, some inspired by natural structures and surfaces, some following the principles of sight psychology. The covering layer gives a hint of the sensor areas through the minimalistic design of contrast colour and figure use.

Besides the function in the home environment, the pillows can find a possible comforting usage in the public space as lighting objects (waiting rooms, lobbies, etc.). Currently a project is carried out in a collaboration with a school for severely disabled children. The pillows are tested as interactive study tools in order to learn causality.

The electronics embedded in the pillows are custom designed, using soft electronics.

The embroidered middle layer (the circuit + SMD LEDs) and the custom made PCB is developed by Kärt Ojavee in collaboration with **Centre for Biorobotics**, namely **Jaan Rebane**.

The soft sensors are designed by Kärt Ojavee and tested at the Centre for Biorobotics.

Material:

Covering layer: may vary (currently cotton, coated cotton and wool are used).

Filling: fine polyester fiber

Electronics layer: cotton, silver coated thread, copper coated fabric, cotton fiber, custom designed PCB and embroidered SMD LEDs.

The printed pattern layer: cotton and water based inks.

Measures:

the measures of the pillows may vary.

At the moment 50x60 cm and 55x55cm have been produced.

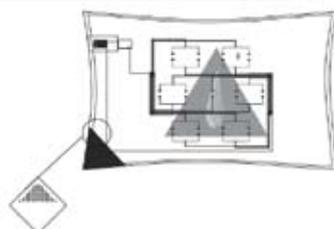
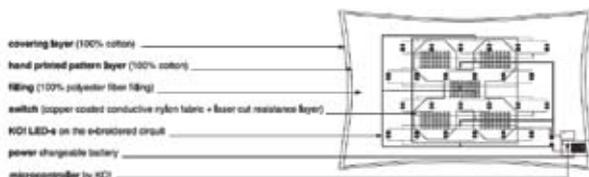
Pillowhugger Sun-sense

The patterns on these pillows change during the day, depending on the intensity of the daylight. The hand printed patterns "wake up" with the sunrise, giving the room a set of new colours. It follows the concept of a responsive living environment, where the interior does not have to stay passive during the day. In future, the patterns and colours in the room can be flipped any time with one movement or push of a button.

Material: cotton, wool or silk

Print: UV-sensitive ink

Measures: may vary



Pillowhugger Play-me

Play-me (PP) is a pillow with an embedded soft electronics interface, that enables to play sounds from the pillow. MP3 files can be loaded into the pillow and controlled through a fabric based printed soft keypad that is part of the item. Play-me could be an educating toy, playing audio-books or revealing sounds that would help to calm and comfort a child before falling asleep. The buttons on the soft keypad should be easy to use, following the signs known for player actions in every discipline. Play-me can be updated using a USB wire connected to the computer.

The Play-me pillows could be used in a home environment, in the waiting areas, hospital environment or as learning tools. In public spaces, audio providing pillows could play sounds locally (a pillow next to the person) and the sounds could be changed depending on the environment, but also by the person(s) waiting.

The pillows were also presented in the exhibition environment. During the duration of the exhibition, it was visited by a small group of severely disabled children and their teachers as a selected usergroup for interactive learning tools.

The soft electronics and technical solution is developed in collaboration with the **Centre for Biorobotics**, namely **Rasmus Raag**. The product is currently in a working prototype phase.

Material:

Covering layer: may vary, at the moment cotton or wool is used.

Electronics layer: copper coated fabric, silver coated threads, custom made PCB, flat speakers. Different kind of sensors can be used and are tested.

Measures: may vary.

