D3.1: Designs of printed smart fabric early prototypes

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Project acronym: CREATIF

Project full title: Digital creative tools for digital printing of smart fabrics

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SEVENTH FRAMEWORK PROGRAMME

FP7-ICT-2013-10: Objective ICT-2013.8.1 Technologies and scientific foundations in the field of creativity

Publishable short non-confidential summary

The printing of the smart fabric advanced prototypes for proximity sensing, sound emission, light emission and colour change is reported. Nine fabrics have been selected for evaluation and the proximity sensor has been printed on all fabrics to provide an initial ranking. The other functions have been printed on the highest ranked fabric.

Visualisation and interaction with the sense of sight is achieved through the light emission and colour change functions. Sound and interaction with the sense of hearing is achieved through the sound emission buzzer through sound emission for example from a PC's speakers. These functions are combined with the proximity sensor to allow interaction. The proximity sensor can also function as a touch sensor to interact with the sense of touch. Pending the availability of a haptic PC screen this touch and feel sensation can also be simulated.

The feasibility of the selected digital printing approach in achieving the required function has been proven. Further development will be undertaken to improve the level of functionality is ongoing.

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