

A printed electronic interactive poster

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1 Problem

A poster is a large print which is typically used for decoration or to convey information; they are widespread and used in many different areas from advertising to academic conferences. Usually, posters only use images and text to relate their message. This leads to posters being a very one sided experience with viewers simply taking in a static viewpoint through observation.

2 Goals

The fundamental goal of the project is to design and create an interactive poster that can react to users to provide a more interesting and visually appealing experience than a standard poster. The project aims to use a traditional printing process, albeit employing the use of several electronically useful inks to integrate the electronics where ever possible. This effectively means that the poster itself will act as the substrate for the circuitry, as opposed to a conventional PCB. The poster will use proximity sensors to detect users and will respond through the use of components such as speakers, lights, and colour changing devices. The implementation of these printed devices, as well as the circuits which will be used to drive them, will be researched and designed for an optimal user experience.

3 Scope

The poster itself will be printed using a bespoke printer owned by the university of Southampton, as such there are a limited number of different inks available to be used.