Paper Circuit Printer and Its Applications

Yeh, Chia-Yu

In this study, we have developed a thermal printing technology to fabricate circuits on the surface of ordinary paper. We designed a machine to print a paper circuit board by thermally melting a toner and fusing it to the metallic foil. For the thermal printing, the temperature are optimized and controlled at 200 degree Celsius, whereas the pressure exerted on the printed circuit board is controlled at 4923.3 N/m^2. Compared to traditional circuit board technology, our proposed process is simple, cost effective, and environmentally friendly. The paper circuits also have great flexibility and recyclability.

Awards Won:

Third Award of $1,000