

PROCEEDINGS

FabriCast: Casting Silicone Structures via Direct Ink Writing on Textiles

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ABSTRACT

In this study two novel forms of textile-assisted direct ink writing (DIW) of room temperature vulcanised (RTV) silicones were explored: Silicone DIW on spandex fabric, and Silicone DIW on dissolvable fabrics. These processes were evaluated by incorporating resulting components into 4 soft robotic devices: impact resistant elbow pads, a soft passive suction cup gripper, and two fiber embedded inflatable tendril-like soft grippers.

KEYWORDS

3D Printing; soft robotics; augmented textile

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Conflicts of Interest: The authors declare that they have no conflicts of interest to report regarding the present study.



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