Supplementary Information

Three-Dimensionally Printed Pressure Sensor Arrays from Hysteresis-Less Stretchable Piezoresistive Composites

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Figure S1. Resistance signal for the PDMS flat pressure sensor device.

Figure S2. Resistance signals for (a) 10 wt% STO-SIS and 50 wt% STO-SIS flat pressure sensor devices.
Figure S3. Resistance signal for the 30 wt% SML-SIS flat pressure sensor device.

Figure S4. Resistance signal for the 30 wt% SMO-SIS flat pressure sensor device.
**Figure S5.** Stress-strain curves for the SIS films with styrene compositions of 14, 17, and 22 wt%.

**Figure S6.** Viscosity data in relation to shear rate for (a) SML and (b) STO surfactants.
**Figure S7.** Resistance signal data for 792-times repeated measurements at a pressure of 30 kPa for the 30 wt% STO-SIS flat pressure sensor device.

**Figure S8.** Variations in linewidth for the lines printed on top of structures with various air-gap distances.
Figure S9. Resistance measured at various positions in the Ag electrode-printed array device (without multi-stacked sensor layers).
**Figure S10.** Resistance signal in 664-times repeated measurement at a pressure of 30 kPa for the 3D-printed array device.

**Figure S11.** Resistance signal data in 664-times repeated measurement at a pressure of 30 kPa for the 3D-printed array device.

**Movie S1.** Motion picture of showing the 3D-printing process of Ag electrodes on the pre-structured PDMS substrate (recording speed: x2.5).

**Movie S2.** Motion picture of showing the printing process of SIS insulator parts on top of pre-printed Ag electrode lines (recording speed: x1.5).
**Movie S3.** Motion picture of showing the 3D-printing process of Ag electrodes on top of pre-stacked Ag electrode lines and SIS insulator parts (recording speed: x1.5).

**Movie S4.** Motion picture of showing the 3D-printing process of sensor layers in the array device (recording speed: x1.5). The as-printed suspending lines became flat by a solvent evaporation, prior to the next pillar printing process.