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Deterministically Assigned Directional Sensing of Nanoscale Crack based Pressure Sensor by Anisotropic Poisson Ratios of the Substrate

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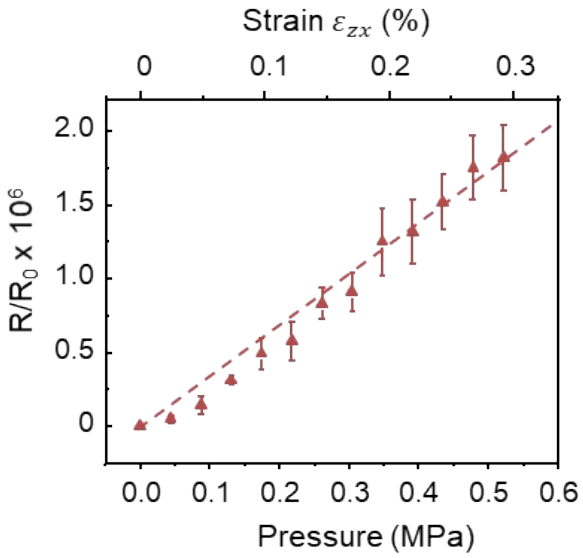

Figure S1. Linear resistance profile under 0.6 MPa pressure.

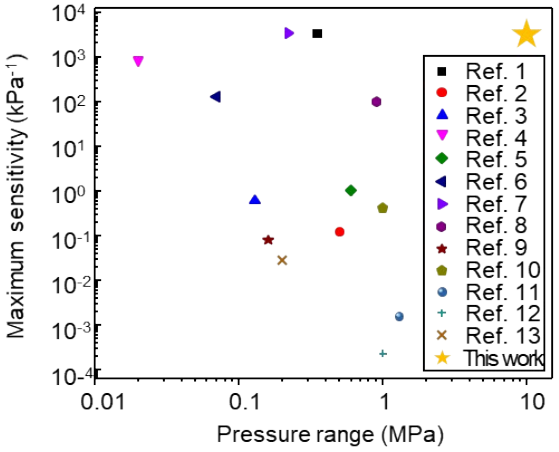

Figure S2. Comparison of pressure ranges and maximum sensitivity.

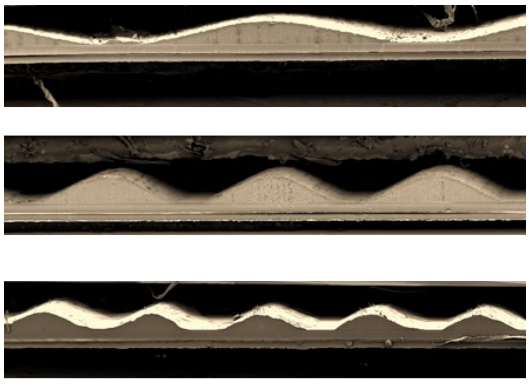

Figure S3. 3D printed half-honeycomb groove molds with different angles, 15°, 30°, and 45°. (Scale bar: 600 µm)

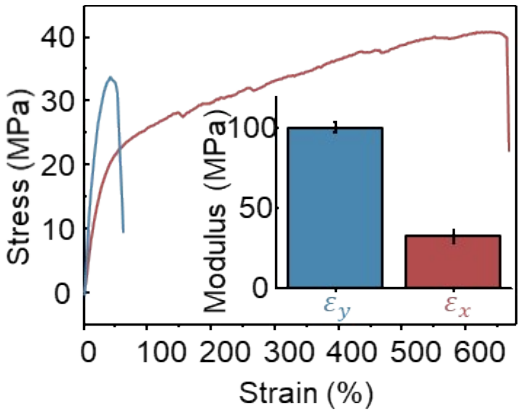

Figure S4. Stress-strain curves of each *x* and *y* directional deformation.

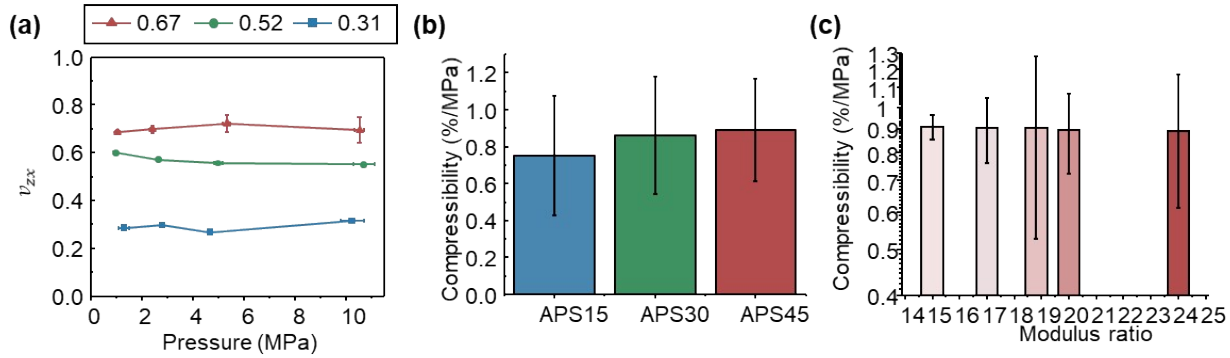

Figure S5. (a) Consistency of Poisson's ratio under various pressures at each controlled APS. (b) Compressibility (z-Strain/Pressure) of APS with APS15, 30 and 45. (c) Compressibility of APS with different modulus ratio.

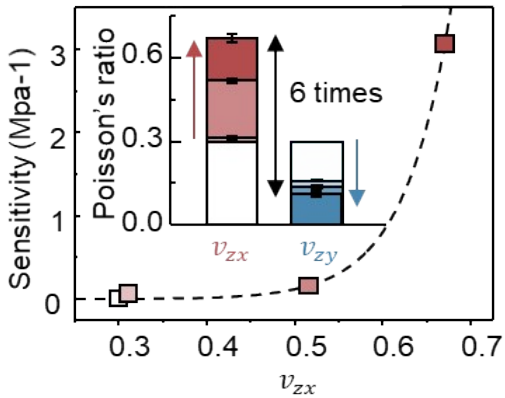

Figure S6. The sensitivity and anisotropicity changes under Poisson's ratio

Table S1. Modulating the moduli by mixing two different PUA.

	Soft PUA	Hard PUA	6:1	7:1	8:1	9:1	10:1
Modulus (MPa)	5.1	820.8	120.6	105.1	90.7	79.3	75.2

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