

Supporting Information

Textile based stretchable microstrip antenna with intrinsic strain sensing

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The custom-made tensile setup shown in **Figure S1** was used to study the change in the electrical properties of the textile (i.e. resistance) upon uniaxial stretching. The setup consists of two holders controlled by a pair of stepper motors (Translation Stage VT-21L Micronix, US) with a velocity of movement of $V_S = 0.1$ mm/s and a LabVIEW to stretch the samples homogeneously from both sides up to 100% strain. Two rectangular textile pieces were added to the design of the patch (shown as black bars in **Figure 6** inset) to make electrical connections. Electrical resistance was simultaneously collected using a digital multimeter (34461A, Agilent, US) connected to the samples.

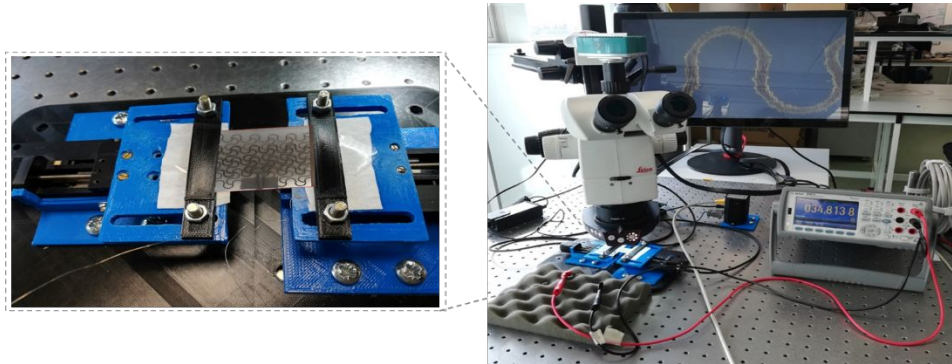


Figure S1. Custom-made setup to evaluate the electromechanical performance of meshed textile structure.