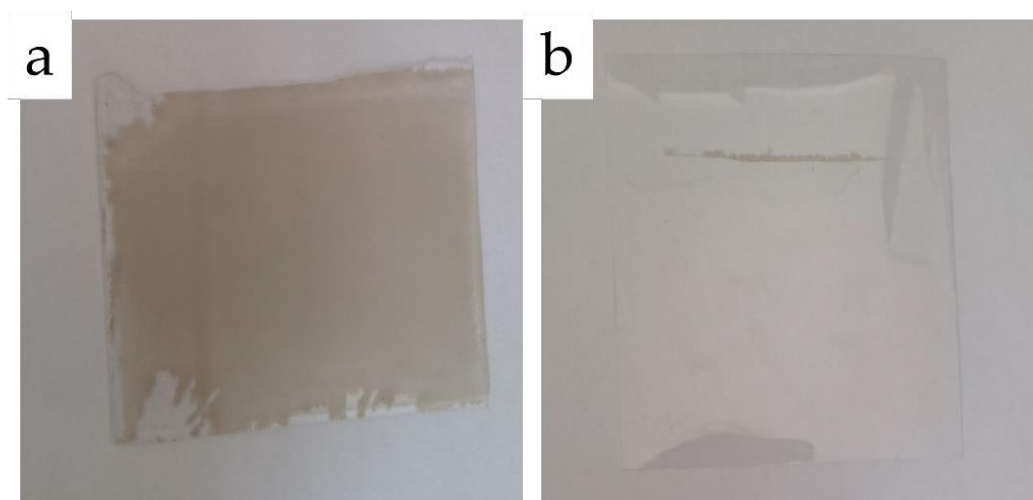
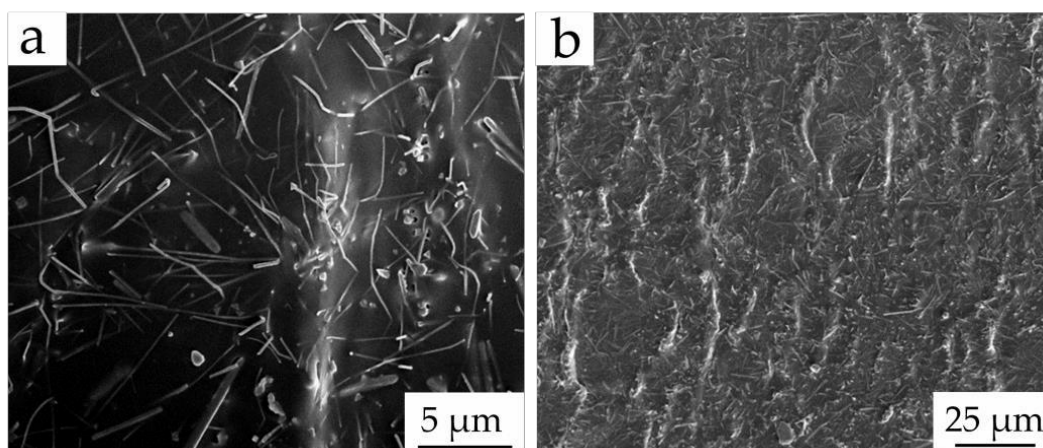


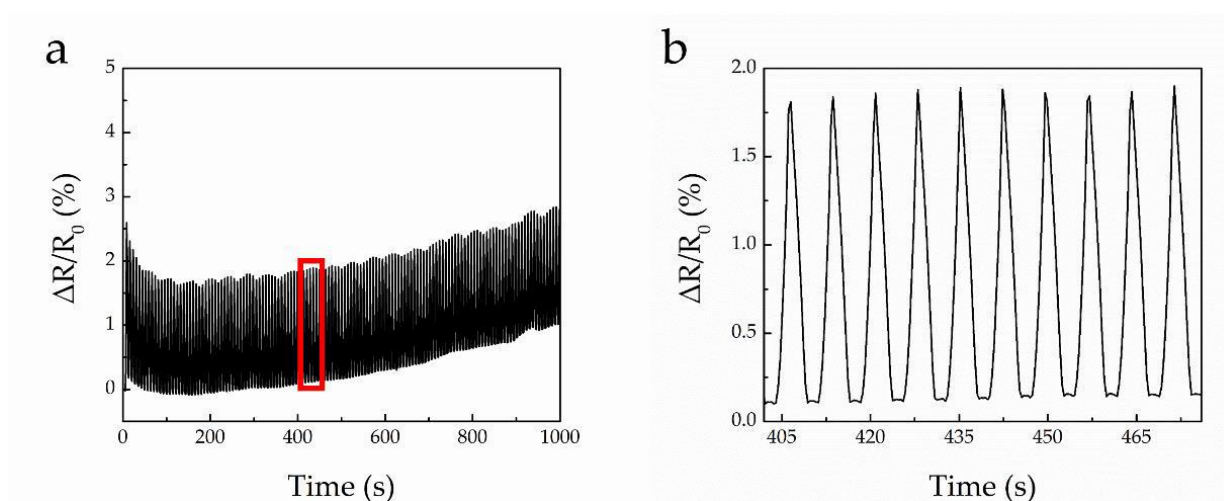
Supplementary Materials



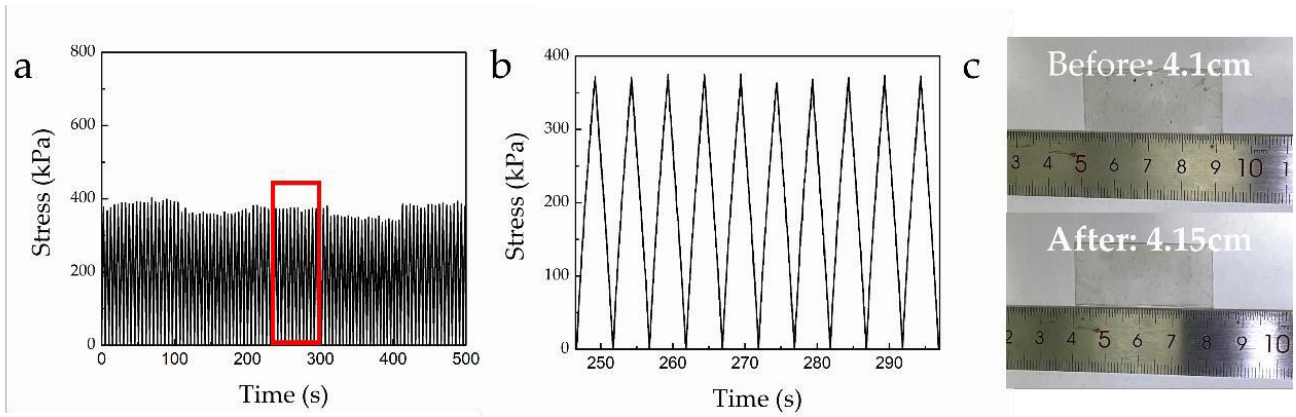
**Figure S1.** (a) AgNWs/PDMS film; (b) PET after strippingReferences.



**Figure S2.** SEM images of AgNWs/PDMS film stretched at the magnification of 6000× (a) and 1000× (b).



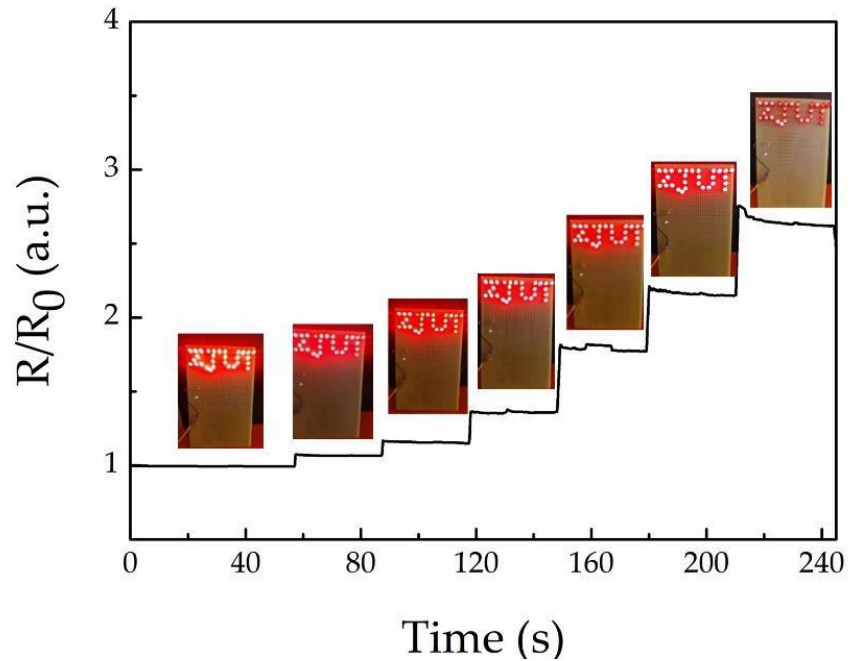
**Figure S3.** (a) The stretching-releasing tests of the strain sensor; (b) The stretching-releasing tests of 10 cycles.



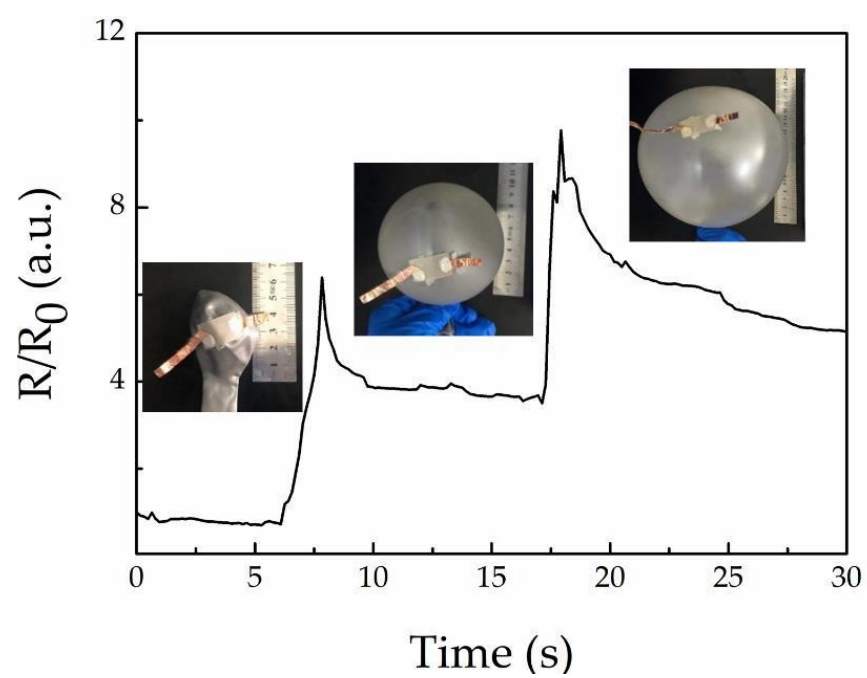
**Figure S4.** (a) The stress variation of the AgNWs/PDMS film in a typical bending cycle of 0-30% strain; (b) The stress variation for 10 cycles; (c) Photographs of the stretching process.

**Table S1.** Recovery rate of recently reported PDMS strain sensors.

Sample	Recovery (%)	Strain (%)	Ref
PDMS/VACNT	1.75	30	1
PDMS/CNF	2.54	50	2
Au/Ti/PDMS	3.7	35	3
AgNWs/PDMS	1.22	30	This work



**Figure S5.** Brightness change of LED lamp during strain sensor stretching at 0%, 2%, 4%, 6%, 8%, 10%, 15% strain.



**Figure S6.** Resistance changes of strain sensor during balloon inflation.