

## Supplementary materials

# Printed Soft Sensor with Passivation Layers for the Detection of Object Slippage by a Robotic Gripper

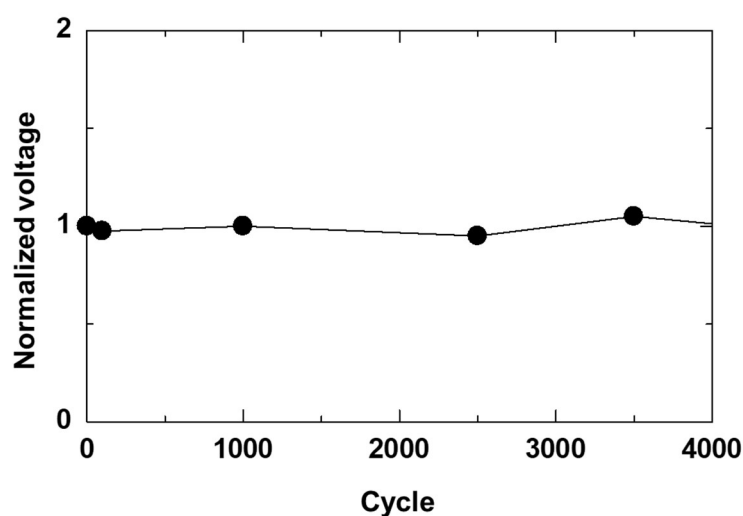
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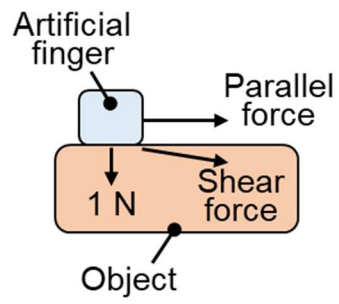
<sup>3</sup> Arkema K. K., 2-2-2 Uchisaiwaicho, Chiyoda-ku, Tokyo 100-0011, Japan; atsushi.miyabo@arkema.com

\* Correspondence: tomohito@yz.yamagata-u.ac.jp (T.S.); tokito@yz.yamagata-u.ac.jp (S.T.)

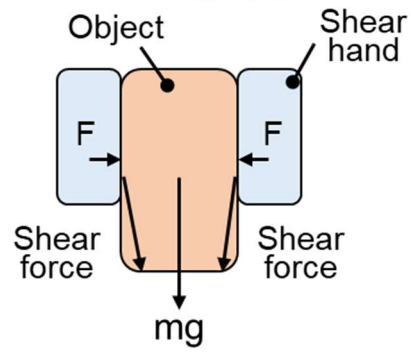


**Figure S1.** A mechanical fatigue of our sensor as a normalized voltage during long-term cycling for 3500 cycles.

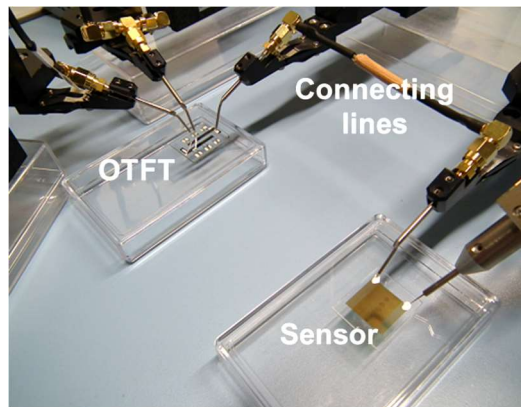
## Electric slider



## Robot gripper



**Figure S2.** Shear force occurring of shear force in testing of Figure 4a and d.



**Figure S3.** A connection system with the sensor and OTFT as the amplifier circuit.