

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: A movie demonstrating the hydrogel's wide spectrum of mechanical properties (including robust elasticity, high stretchability, and shape reconfiguration).

File Name: Supplementary Movie 2

Description: A movie showing a prosthetic finger which is compliantly covered with the transparent biomimetic skin can sense the finger's bending-release movements.

File Name: Supplementary Movie 3

Description: A movie showing the prosthetic finger attached with the biomimetic skin can sense temperature stimulus by the contact with a person's hand and display real-time resistive response.