Design of Wearable and Shape-Memorable Fibriform Sensor for Detection

of Multimodal Deformation

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Figure S1. SEM images of (a) a vertically-aligned CNT array and (b) a continuous CNT sheet pulled out from the vertical array.



Figure S2. TEM image of the CNTs



Figure S3. Raman spectrum of the CNTs.



Figure S4. Photograph of the setup for the fabrication of TPU@CNT fiber.



Figure S5. (a) SEM image of cross-section of TCP fiber. (b) Magnified SEM image of CNT@PPy layer.



Figure S6. SEM image of the TCP_{2000} fiber released from a tensile strain above 60%.



Figure S7. Photographs of a LED electrically connected by (a-b) a TPU@CNT fiber and (c-d)

a TPC₂₀₀₀ fiber at their original and tensile strained (50%) states, respectively.



Figure S8. The comparison of the electrical response of a TPC_{2000} fiber to continuous tensile strain and stepwise tensile strain, respectively.