Supplementary Information

Shape-Memory Polymer Nanocomposites with a 3D Conductive Network for Bidirectional Actuation and Locomotion Application

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Supplementary Information:

Figure S1. Three shape memory cycles of Pure SMP.

Figure S2. The loss factor vs temperature curves for pure SMP and CNT sponge-SMP composite**.**

Figure S3. Photos of inchworm-type robot moving process when the cycle time is 40s.

Movie 1 CNT sponge-SMP composite shape recovery process from “n” like shape to flat shape under applied 17V DC.

Movie 2 CNT sponge-SMP composite shape recovery process from flat shape to “u”-like shape under applied 17V DC.

Movie 3 CNT sponge-SMP composite bidirectional shape memory recovery process under applied 8V DC and 2V DC, play speed×100.

Movie 4 The moving process of inchworm-type robots when cycle time is 120s, play speed×100.

Movie 5 The moving process of inchworm-type robots when cycle time is 40s, play speed×100.

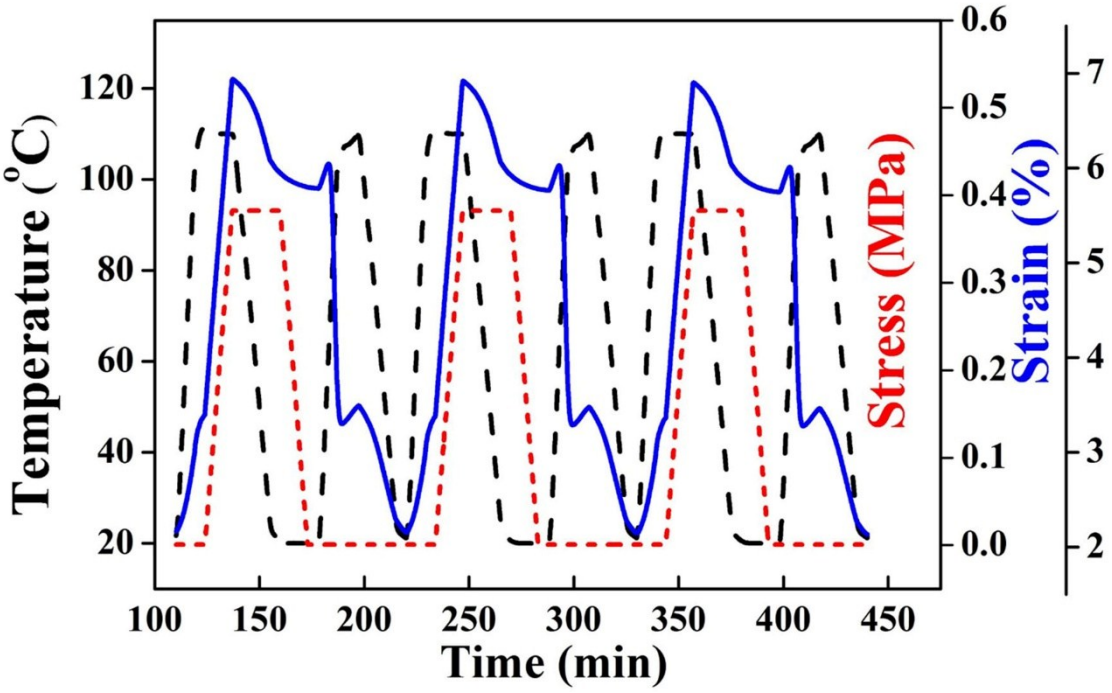

Figure S1. Three shape memory cycles of pure SMP.

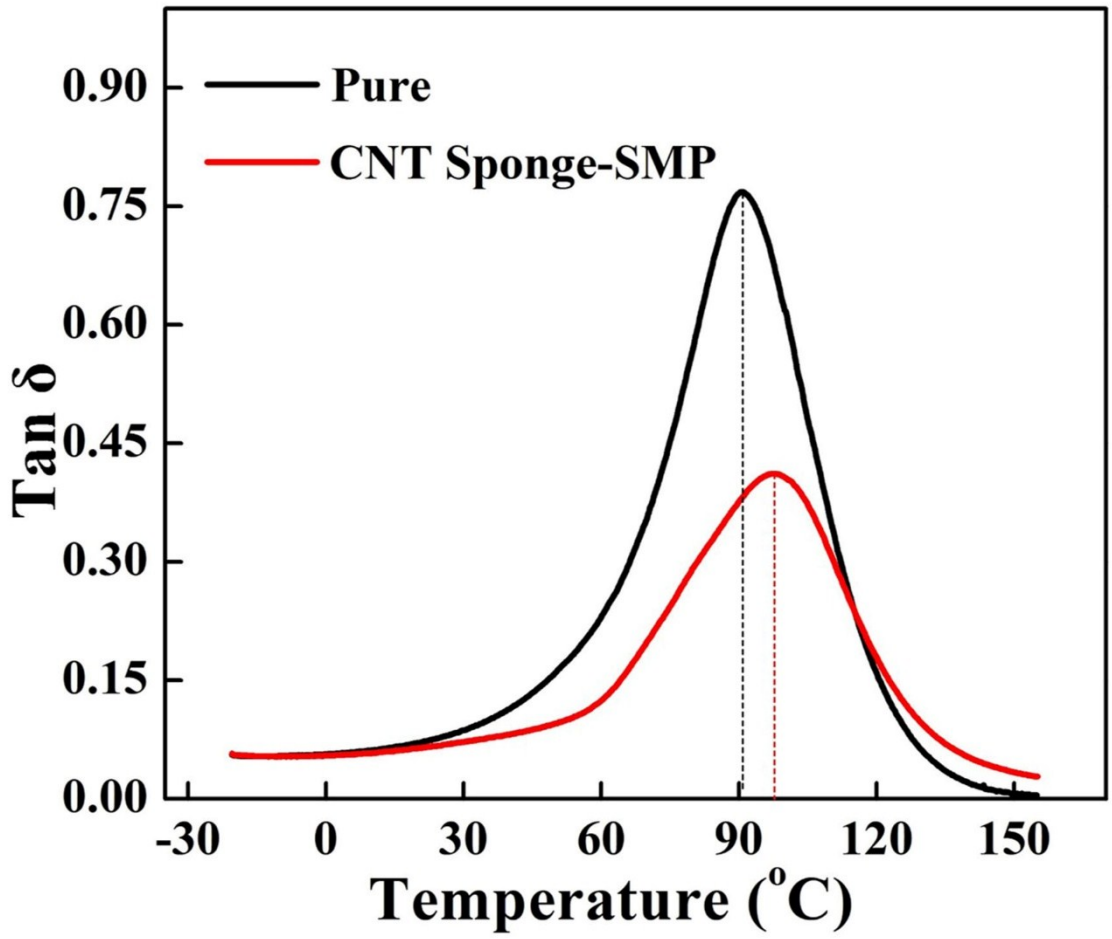

Figure S2. Loss factor vs. temperature curves for pure SMP and for the CNT sponge-SMP composite.

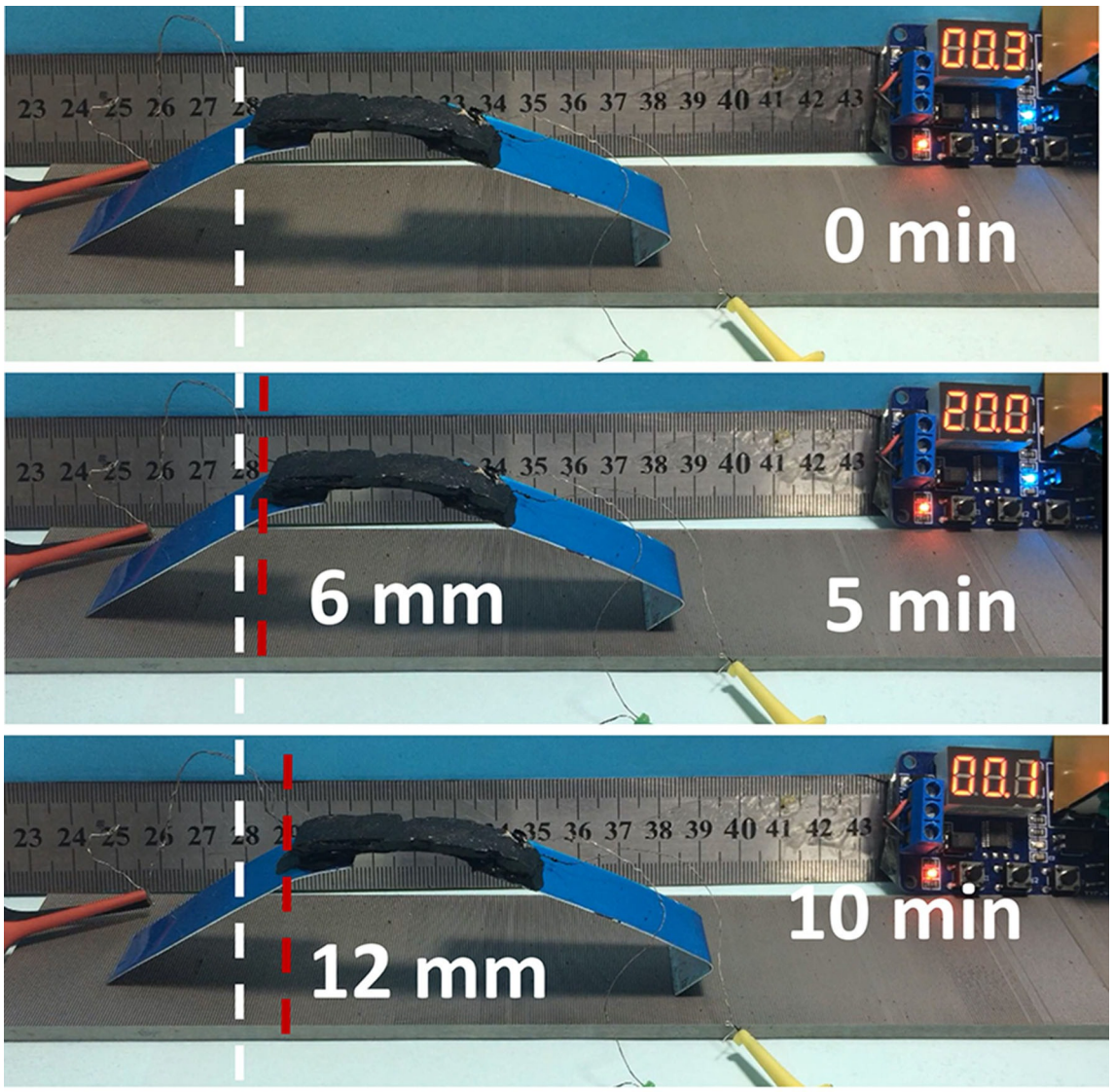

Figure S3. Photos of inchworm-type robot movement for a cycle time of 40 s.