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Supporting Information

Photomechanical Response of Polymer-Dispersed Liquid Crystals/Graphene Oxide Nanocomposites

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Figure S1. Absorption spectrum of GO aqueous solution (0.2mg/mL).

Mechanical stretch direction



Figure S2. (a) & (b) are POM images of the PDLC/GO nanocomposite films with 3wt% 5CB and 1wt% GO before and after stretching with an elongation rate of 100%. The scale bar is 100 μm.



Figure S3. Photograph of the nematic LC (5CB) dispersion in water.



Figure S4. Thermally responsive behaviors of stretched PVA film (a,b), PVA/ GO film (c,d) and PVA/5CB PDLC film (e,f) with an elongation rate of 100%. Photographs of stretched PVA film at 25 $^{\circ}$ C (a) and 45 $^{\circ}$ C (b), PVA/GO nanocomposite film at 25 $^{\circ}$ C (c) and 45 $^{\circ}$ C (d), PVA/5CB PDLC film at 25 $^{\circ}$ C (e) and 45 $^{\circ}$ C (f).



Figure S5. Visible–light responsive behavior of the stretched PDLC/GO nanocomposite films with the upper layer rich of LC domains toward the light source (a) and with lower layer lacking of LC domains toward the light source (b).