

Description of Additional Supplementary Files

File Name: Supplementary Movie 1

Description: Timelapse of quasistatic foot loading experiment.

File Name: Supplementary Movie2

Description: Timelapse of quasistatic bridge loading experiment.

File Name: Supplementary Movie 3

Description: An animation depicting force-balance simulations in which actuation springs (red) are applied at the boundary of the RS metamaterial (blue squares), and activated incrementally to achieve a series of target nonlinear conformal deformations (black points).