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Singlewall Carbon Nanotubes As Springs In A Nanotorsional Device ADAM HALL, MICHAEL FALVO, University of North Carolina at Chapel Hill, Curriculum in Applied and Materials Sciences, Chapel Hill, NC 27599, RICHARD SUPERFINE, SEAN WASHBURN, University of North Carolina at Chapel Hill, Department of Physics and Astronomy, Chapel Hill, NC 27599 — We present on the fabrication and characterization of a nanoelectromechanical device incorporating an individual single wall carbon nanotube as a support for a small, lithographically defined and fully suspended metal platform. The device can be actuated electrostatically through the use of a back gate, causing a concomitant twist in the nanotube. We discuss future potential of such a nanoelectromechanical system.

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