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Fabrication of a graphene quantum dot device[1] JEONG IL LEE, EUNSEONG KIM, Center for Supersolid & Quantum Matter Research and Department of Physics, KAIST, Daejeon, 305-701, Republic of Korea — Graphene, which exhibits a massless Dirac-like spectrum for its electrons [1], has shown impressive properties for nano-electronics applications including a high mobility and a width dependent bandgap [2]. We will report the preliminary report on the transport property of the suspended graphene nano-ribbon(GNR) quantum dot device down to dilution refrigerator temperature. This GNR QD device was fabricated to realize an ideal probe to investigate Kondo physics—a characteristic phenomenon in the physics of strongly correlated electrons.

[1] K. S. Novoselov, *et al.* Nature 438, 197-200 (2005)
[2] Young-Woo Son, *et al.* Nature 444, 347-349 (2006)

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