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**Functional Carbon Nanotube Junctions Synthesized from Tailored Graphene Nanoribbons**<sup>1</sup> JUN-QIANG LU, University of Puerto Rico at Mayaguez, LAN HE, HANQING JIANG, Arizona State University — We report an approach for synthesizing carbon nanotube (CNT) junctions from two tailored graphene nanoribbons (GNRs). Using molecular dynamic simulations, CNT junctions with two-, three- and four terminals can be synthesized from GNRs either with perfect or irregular tailoring. The functionality of the CNT junctions is confirmed by charge transport simulations.

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