

Abstract Submitted  
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**You can always get what you want** ZORANA ZERAVCIC, School of Engineering and Applied Sciences, Harvard University, SAHAND HORMOZ, Kavli Institute for Theoretical Physics, University of California, JESSE COLLINS, VINOTHAN MANOHARAN, MICHAEL BRENNER, School of Engineering and Applied Sciences, Harvard University — Colloidal particles coated with DNA strands can self assemble into complex structures. Which structures are formed and with what yield depends on the specifics of the design rules. We numerically study the directed self assembly of DNA coated colloidal particles. By testing different design rules for self-assembly with short-range interactions and studying the stability of equilibrium structures, we uncover the principles for always getting a desired assembled structure.

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