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Anduriel Widmark* (anduriel@andurielstudios.com), Denver, CO. *Creative Design Using Polystix- Homogenous Cylinder Rod Packings.*

Exploring the various ways cylinders can be symmetrically arranged to fill space with physical models is a fun and tactile way to learn about symmetry while also making a beautiful sculpture. In this paper, groups of non-intersecting congruent cylinder packings, related through cubic symmetry, are defined and classified. The basic techniques and materials required to reproduce these polystix models are outlined. Several examples of different arrangements are presented to highlight the range of geometric concepts that polystix can illustrate. In addition to being a great hands-on learning project, building polystix is also a practical system for creative and artistic design. (Received September 09, 2020)