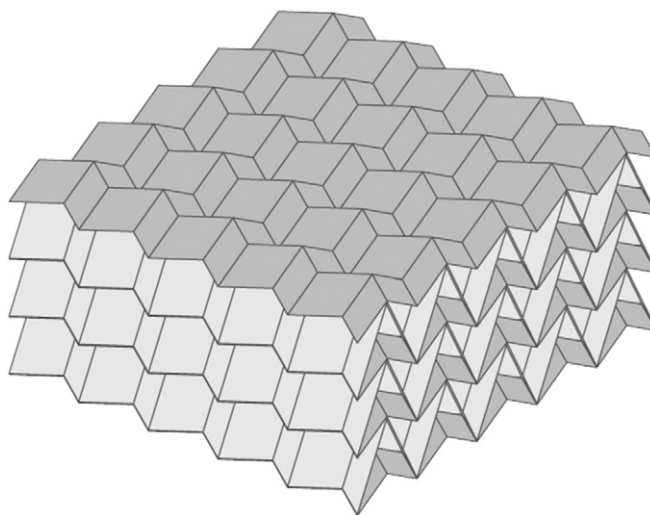


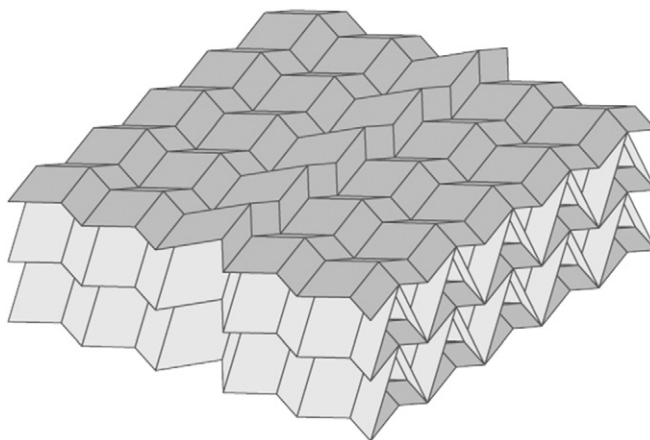
Supporting Information

Schenk and Guest 10.1073/pnas.1217998110



Movie S1. Individual Miura-ori sheets can be stacked together and bonded along joining fold lines to form a folded cellular metamaterial. Although the Miura-ori unit cell geometry varies between successive layers, the stacked configuration preserves the folding kinematics, and the 3D metamaterial expands/contracts uniformly. Here, a stack with alternating layers *ABABABA* is shown.

[Movie S1](#)



Movie S2. A self-locking folded cellular metamaterial. As the Miura sheets contract, the unit cells in the central column reach their maximum fold angle before the rest of the layer, thereby halting the folding motion and locking the metamaterial in a predetermined configuration. This behavior is achieved by varying the unit cell geometry within each layer.

[Movie S2](#)

Other Supporting Information Files

[SI Appendix \(PDF\)](#)