

1036-52-32

**Robert Connelly\*** ([connelly@math.cornell.edu](mailto:connelly@math.cornell.edu)), Dept. of Math., Malott Hall, Cornell University, Ithaca, NY 14853. *Symmetric Tensegrities*. Preliminary report.

This is a brief introduction to the theory of tensegrity structures, which are defined as configurations of points in the plane or space, together with distance constraints, cables and struts, between some pairs of the points. Of particular concern is a catalog of stable tensegrities in three-space that have enough symmetries so that any pair of points are equivalent in the symmetry group, there is only one symmetry class of struts, and there are two symmetry classes of cables. (Received November 27, 2007)