

Tensegrity Stool

Tensegrity is an amalgamation of two words 'Tension' and 'Integrity.' The tensegrity concept is mainly about the judicious use of available material to create a structure that is both stable and spans a large area; it is used to build structures which employ an economy of material and obtain optimal results.

Tensegrity structures contain two types of components to achieve this purpose: the

struts which lend strong support, that is the integrity part, and the cables that maximize the span by stretching or tension. In other words, strong struts connected together by flexible cables hold the structure together in optimal tension.

Where do such structures occur? In nature, spider webs demonstrate this concept effectively: they contain strong structural supports, the radial threads and a few polygonal threads, and the rest of the web is woven around it.

Mathematically, tensegrity is a configuration of points, or vertices, that satisfy some simple distance constraints. Cables keep vertices close together and struts hold them apart.

Another main purpose in building structures employing this concept is also to achieve quick assembling and dissembling so as to enable ease of transportation.

The tensegrity stool that was exhibited is one example of this structural concept. It basically consists of rods and strings connected together to support either a human or an object placed on it.

