



Möbius Kaleidocycle

Applications

- Puzzle/Relaxation Toy
- Advertisement Display
- Ornamental Jewellery, Elegant Enclosure
- Mixing Device

Problem & Solution

Known tetrahedral rings made from more than six tetrahedra can deform in many different ways and move in what might be described as “snakelike” fashions, which is quite visually unappealing and has no functional benefit.

This invention is based on a family of previously unknown ring mechanisms made from identical twisted tetrahedra. For a certain critical twist angle which depends on the number of tetrahedra, the ring mechanism has only a single degree of freedom. This allows for the placement of intricate periodic patterns on the facets of the tetrahedra so that features of these patterns periodically appear/disappear during the everting motion of the ring.

Benefits

- Effortless Rotation
- Unseen Light Effect
- New Mixing Dynamics

Patent Pending

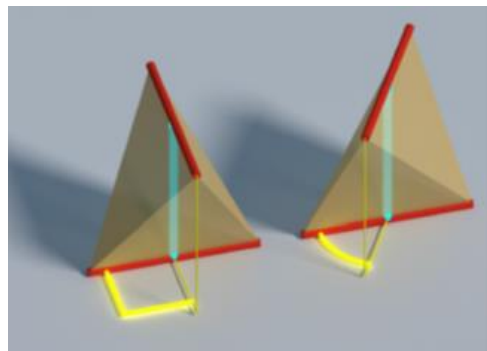
Keywords

Puzzle, Toy, Advertisement Display, Mixing Mechanism, Jewellery, Gift Box

For more information

Business Development/Technology Licensing Section

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(Top) The critical twist angle which is mathematically calculated based on the number of tetrahedra; (Middle) A ring of 9 tetrahedra. This design could be used as a potential ornamental gift or advertisement display; (Bottom) 3D-printed puzzle.