

TRANSFORMATIONAL POLYSTRING MODELING

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Description: Transformational Polystring Modeling was invented and patented by Dick Esterle. In a manner different from previous transformational polyhedra models, faces and edges of polyhedra transform, whereas axes length remains constant.

Any polyhedra with polar vertices can be constructed with tubes running through a central core made of it's dual polyhedron. Through these tubes, strings can be run in varying looped patterns which follow the edges of the polyhedra. Furthermore, the tubes can slide in line through the cores, varying the shape of the polyhedra constructed. As tube number increases, string looping and patterning becomes more varied and complex.

Purpose: to introduce participants to this type of modeling and explore possible applications. Participants will explore modeling 3,4 and possibly 6 tube (cube, octahedron and dodecahedron core respectively) polystring models. According to number of participants and time allotted various combinations will be constructed based on vertices, edge and face bonding of shapes involved and the effects this has on string patterning. Also multiple core models will be addressed.