

The Lamp

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Our project consists of a lamp constructed in the shape of a cuboctahedron $(3, 4, 3, 4)$, one of the Archimedean solids. It is made up of an arranged pattern of squares and triangle constructed from Styrofoam balls and wire. The base of the lamp consists of a Styrofoam square, with a bulb and necessary wiring materials. The hardest part about constructing the figure was determining, without measuring tools, the exact angle that the wire had to be placed in the Styrofoam ball. Even the slightest misplacement of the wire resulted in an odd configuration of one of the shapes, which in turn misshaped the project as a whole. After several tries, however, we finally mastered making the shapes, and the lamp turned out almost perfect.