Inversion

Sold by Toys & International Games, patented by P. A. Roberts, 1985.
(plastic, 2.6 inches)

Like the Varikon Box 3x3x3, but here the 19 cubes are held in place by the edges of the central cross, and you use the puzzle by simply pushing the cubes around. Each cube is colored blue on three sides adjacent to one corner and red on three sides adjacent to the opposite corner. The puzzle is to go between all red and all blue on the outside. Here is what the box back says:

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Inversion Booklet

WARNING: This is a 3 dimensional puzzle, 3 dimensional thinking is required. Continued use will help 3-D thinking. NOTE: the center core is one rigid structure. Do not attempt to twist. All cubes should be moved by selectively sliding them from one position to another.

Each Inversion consists of 19 identical cubes, each having 3 blue and 3 red sides. When assembled each cube is placed in one of 8 different positions depending on the orientation of the red sides. The 8 corner pieces demonstrate each of the 8 positions.

Further reading:

Roberts Patent, from: www.uspto.gov - patent no. 4,511,144

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