

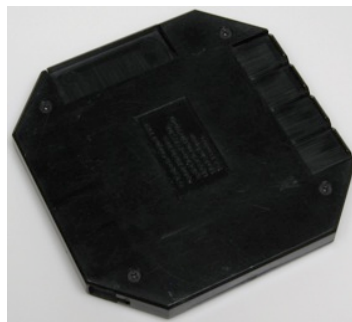
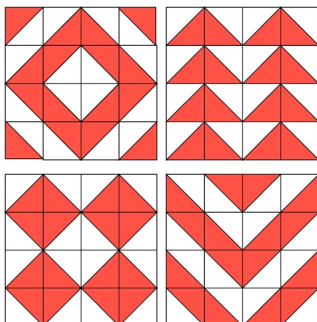
# Tsukuda's Square



**a.k.a. "It", 4x4 Four By Four Puzzle**

*Patented by T. Suga, 1983, copyright Gabriel Industries 1981.  
(plastic, 3.5 inches square by 5/16 inch thick)*

The back of the box in which the puzzle came challenges one to arrange the 4x4 array of tiles to form one of the four patterns shown below. There is a plunger on the top that can slide the rightmost three columns down one unit simultaneously, and four plungers on the left that can slide each of the four rows horizontally one unit to the right (any combination of plungers can be used except that the first of these four cannot be pushed if the top plunger is already pushed); the plungers are located on the back of the puzzle (see photo below) and have springs that cause them to snap back when you let go. So this is really a 5x5 grid with the empty left column and empty top row hidden. *Rubik's XV* and *Uriblock* are a similar idea, except with a different arrangement of plungers that do not have springs (and where for *Rubik's XV* the empty column and row can be seen). The *Four By Four* version of this puzzle was made with the same graphics and also in a version with a picture of a lion, and the "It" version was made with the numbers 1 through 16. *Jaap's Page* presents a solution that has four simple sequences to cycle 7 tiles (two rows less a corner) in four ways (clockwise or counter clockwise, leaving out either an upper left or upper right corner), uses them to solve the first two rows and some of the bottom two rows, and then employs complicated combinations of these sequences to solve the remaining tiles.



## Further Reading

*Jaap's Page*, from: <http://www.geocities.com/jaapsch/puzzles/it.htm>

*Suga GB Patent*, from: <http://www.ipo.gov.uk> - patent no. GB2101897