Rubik 2x2x3 Tower Cube



a.k.a. Slim Tower, Franken Tower Made by Gentosha, Japan, 2009. (plastic, 1.5 x 1.5 x 2.25 inches; generic (left): opposite red is orange, opposite blue is green, opposite yellow is white; Gentosha (right): opposite red is yellow, opposite blue is light green, opposite gray is black)

An extended *Rubik's 2x2x2* where two dimensions are restricted to 180 degree rotations.

Notation: With a 2 high by 3 wide surface facing you, F (front), B (back), U (up), and D (down) denote 180 degree clockwise rotations of the corresponding faces, L (left) and R (right) denote a 90 degree clockwise rotation of the corresponding faces, - to rotate counterclockwise instead of clockwise, 2 or 3 to do it two or three times.

Solution: The solution that comes with the Gentosha puzzle gives the following transformations that may be used to solve the corners and edges independently.

It's easy to make the left and right faces their correct color, but with some or all of the corners out of place; then solve the corners using the following transformation as needed:

BRU <-> BRD: $\mathbf{U} \mathbf{F} \mathbf{R} \mathbf{F}$ L-ULU R-UR

Solve the edges using the following transformation as needed:

UF <-> UB:
$$(U R2)^3$$

Further Reading

Jaap's Page, from: http://www.jaapsch.net/puzzles/cube223.htm