Six Spots

Designed and made by David Pitcher, 2017.
(plastic made with a 3D printer and custom stickers, 2.25 inches square, red opposite purple, blue opposite green, yellow opposite orange)

A fun to use puzzle with smooth movement. Like the Dino Cube, corners can twist. However, here only half of them can, where the spots in the middle of the three faces move with the face.

It is easy to play with the puzzle until the edges are all correct. A four move sequence can then be used to permute the spots. Consider a solved cube with green on the top, yellow on the front face, purple on the right face, and red on the left face (which cannot be seen here):

Refer to the lower left corner of the front as $LL$, the upper right corner of the front as $UR$, let $cw$ denote a clockwise rotation of a corner, and $cc$ a counter clockwise rotation. These four corner rotations move the front spot to the right, the right spot to the left, and the left spot to the front. By repositioning and performing this sequence a number of times the puzzle can be solved.

Further Reading
Six Spots Twisty Puzzles Museum Page 2019, from: www.twistypuzzles.com
Twisty Puzzle Pitcher Puzzles museum pages 2019, from: www.twistypuzzles.com

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