

# RUBIK'S<sup>®</sup>

CUBE

## THE ULTIMATE BRAIN TEASER

Twist it & turn it to line up the same colors on all sides. Once you solve it, challenge yourself to beat your best time!

Contents: • Rubik's<sup>®</sup> Cube • Plastic Stand



For 1 Player • AGES 8+

# RUBIK'S<sup>®</sup>

CUBE



## 7-STEP SOLUTION GUIDE

# About your Rubik's Cube

RUBIK'S Cube is just one of a series of exciting puzzles designed to challenge your mind and capture your imagination. With amazing movement of color and pieces, each puzzle offers an intricate challenge that is hard to put down. And just in case it has you stumped, this 7-Step Solution Guide will help you master the challenge.

**RUBIK Fact:** *RUBIK'S Cube was invented by Erno Rubik, a Hungarian Professor of Architecture and Design. Within one year of its launch in 1980, it became the fastest-selling puzzle the world has ever known. Rubik's Cube is now the best-selling puzzle ever, with over 250 million cubes sold.*

**RUBIK Fact:** *Most cubes can be solved in only 17 moves with the aid of a computer, and theoretically there is no cube that requires more than 20 twists to solve. Some people can solve the cube in under 45 moves from any scrambled position; and a few can even solve the cube blindfolded!*

## Step 1

### Solve the Upper Green Cross

**HINT:** To solve the green cross, you have to solve each green edge piece on your own, one-by-one. The tricky part is not messing up the ones you've already solved. First solve the red-green edge, then the white-green edge, then the orange-green edge, then the blue-green edge. You have to figure out this part for yourself. Should you ever have an edge piece in the correct place but flipped the wrong way, use this step to flip it without affecting the other three green edges. Just hold the cube with the piece in the upper-right position as in the picture below, and do the sequence  $Ri \cdot U \cdot Fi \cdot Ui$ . The edge piece will now be solved, and you can work on the next edge piece.



$Ri \cdot U \cdot Fi \cdot Ui$



## Step 2

### Solve the Green Corners

**HINT:** Find a corner piece in the bottom layer that belongs on top. Turn the bottom layer until that piece is directly below its home in the top layer. Hold the cube with the piece at the lower-front-right and its home at the upper-front-right, as in the picture, and then do the sequence  $Ri \cdot Di \cdot R \cdot D$ , 1, 3, or 5 times until that corner is solved. If you find a corner piece that's already in the top layer but it's in the wrong spot or flipped the wrong way, just hold the cube with that piece in the upper front right position, and do  $Ri \cdot Di \cdot R \cdot D$  once. Now the piece is in the bottom layer, and you can solve it as described above.



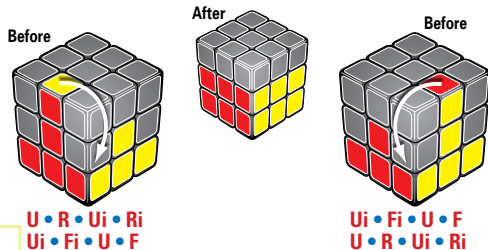
$(Ri \cdot Di \cdot R \cdot D)$   
x 1, 3 or 5



## Step 3

### Solve the Middle Layer Edges

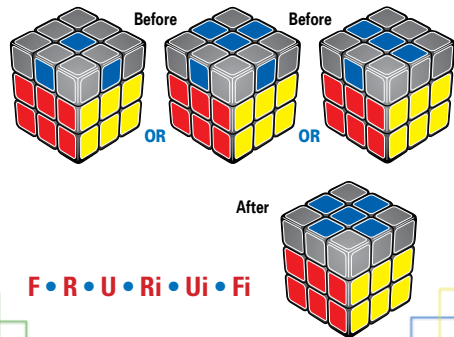
**HINT:** Now flip the cube over so green is on the bottom. Try to find the red-yellow edge piece. If it's in the top layer, turn it until the edge matches one of the pictures below. Then do the corresponding sequence to solve it. If the red-yellow edge piece is somewhere in the middle layer, but it's in the wrong place or flipped the wrong way, hold the cube so that the red-yellow edge is in the front-right position, and do either sequence once. (This may require you to rotate the cube to a new face). After the move, the piece is in the top layer, and you can solve it as described above. Repeat this for the other 3 middle-layer edges.



## Step 4

### Solve the Upper Blue Cross

**HINT:** Turn the top layer until the edges match one of these pictures. If you do the sequence below once and you still don't have a blue cross, then repeat this step until you do. It doesn't matter which face you start with. Note: In this step, there will be other blue pieces showing on your cube that do not appear in these diagrams.



# The 7-Step Solution Guide

Each step involves a sequence of twists of the cube to move a particular square. To solve the cube, just repeat the steps!

Each face of the cube is assigned a letter (shown below). Each step is made up of a sequence of twists (a one quarter-turn of the face of the cube). To complete the sequence for each step, twist one face of the cube, then twist the next face, and so on, for the complete sequence. The letter 'i' means inverse, or counter-clockwise. Before you start each move, be sure to place your thumbs on the F side of the cube, as shown in the illustration. This will ensure that your cube is properly oriented to execute the move.

## Turn clockwise

- R - Right Face
- L - Left Face
- B - Back Face
- D - Down Face
- F - Front Face
- U - Upper Face
- ?i - Inverse (turn Counter-clockwise)



## Important!

To turn a face clockwise, imagine you are facing that side of the cube.

# How each step works

**B** - Twist the Back Face a quarter turn clockwise



**Ri** - Twist the Right Face a quarter turn counter-clockwise



*Example turns*

Each step can be used to solve up to FOUR pieces if there are none solved when you start the step. Please note that these illustrations display a sample of a situation on your cube for ONE of the possible FOUR pieces needing to be solved. In many cases, you will need to rotate the cube to a new starting face (with red, orange, yellow or white center square) and repeat the instructions in order to place/rotate all of the pieces in that step before moving on. The end result will only come AFTER all four sides of the cube have been through that step's sequence and all the pieces are in their proper location and oriented properly to match the surrounding center square colors. As such, you may have to repeat the same step a few times with different sides as the starting face until all the pieces are solved.