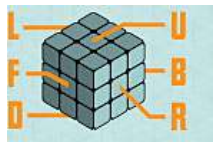


How to Solve the Rubik's Cube, an Introduction

The Rubik's Cube (also spelled Rubick's Cube, or Rubix Cube) is one of the most puzzling toys of all time. It ranks as one of the most cherished 80s icons and few people have ever claimed to solve it on their own. In fact, most solutions have come from mathematicians using group theory. But it is solvable. Trial and error will get you nowhere, so below is a 7 step process that will get you to sweet, sweet resolution.

SOLVING IN JUST 7 STEPS

Using this method, even an idiot can solve a cube in seven basic steps. Note the diagram below. Each face of the cube is assigned a letter. During the following steps, specific faces require a sequence of twists (or quarter turns). The letter "i" means inverse, or counter-clockwise twists. For example, in the following sequence **Ri U Fi Ui**, you would rotate the **Right** face counterclockwise a quarter turn, the **Upper** face clockwise a quarter turn, the **Front** face counterclockwise a quarter turn, and the **Upper** face counterclockwise a quarter turn. Before you start each move, make sure your thumbs are on the F side of the cube to ensure consistent orientation for all the sequences. To turn a face in the right direction, imagine that you are facing that side of the cube. If you mess up along the way, just restart from Step 1. Let's begin.



STEP 1: Solve the Upper Green Cross

To solve the green cross, you have to solve the green edge pieces on their own. This should be easy to figure out on your own. 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: Hold the cube with the piece in the upper-right position as in the diagram, and do the sequence **Ri U Fi Ui**. The edge piece should now be solved, and you can work the next edge piece until the cube looks like the right diagram below.



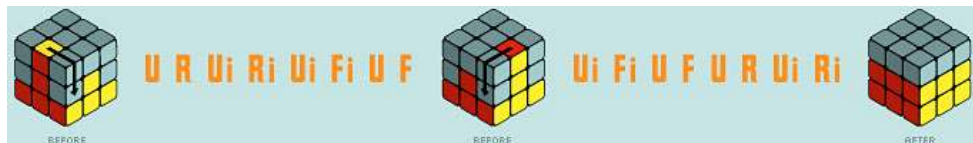
STEP 2: Solve the Green Corners

Find the corner piece in the bottom layer that belongs on top. Turn the bottom layer until the piece is directly below its home in the top layer. Hold the cube with the piece on the lower-front-right and its home at the upper-front-right and then do the sequence **Ri Di R 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 the wrong spot or flipped the wrong way, hold the cube with the piece in the upper-front-right position and do **Ri Di R D** once. Now the piece is on the bottom and ready to be solved using the **Ri Di R D** sequence.



STEP 3: Solve the Middle Layer Edges

Flip the cube so green is on the bottom. Find the yellow-red edge piece. If it's on top, turn it so it matches one of the diagrams below. Then do the corresponding sequence to solve it. If the red-yellow edge is somewhere in the middle layer but it's in the wrong place or flipped the wrong way, hold the cube so the edge is in the front-right position and do either sequence once: **U R Ui Ri Ui Fi U F** or **Ui Fi U F U R Ui Ri** (This may require that you 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 for the other 3 middle-layer edges.



STEP 4: Solve the Upper Blue Cross

Turn the top layer until the edges match one of the diagrams. Repeat the following sequence as many times as it takes to get a blue cross: **F R U Ri Ui Fi**.



STEP 5: Solve to Top Edges

Hold the cube with red in front. Turn the top layer until the red and blue edge piece is solved as in the diagram, and then repeat the following sequence until the yellow and blue edge piece is also solved on the right side: **R U R i U R U U R i**. Now turn the whole cube so that white is the front face. If the top white edge isn't solved, do the sequence again followed by and extra **U**.



STEP 6: Solve the Top Corners

Find a corner piece that's in the right place and hold the cube with that piece above your right thumb. Don't turn the top layer at all, as it will mess up all the effort from Step 5. Do the following sequence once or twice to put the rest of the corners into place: **U R U i L i U R i U i L**. If you can't find a corner piece in the right place, just do the sequence once before you start.



STEP 7: Solve the Top Corners (Again)

You're almost done, you beautiful mind, you. Hold the cube with the red in front. Keep turning the top layer until the upper-front-right-corner needs to be flipped to have blue on top like in the diagram. Do the sequence **R i D i R D** 2 or 4 times to get blue into position. The cube will get scrambled in the process, but don't worry. With red still in front, keep turning the top layer and repeating the sequence to flip the upper-right-corner pieces.



STEP 8: Solve the Top Corners (Again - Special case)

Try this if you land up with side two corner piece in right direction, but wrong position. Check the 'before' image



Congratulations, your cube is solved. If it didn't work, give up and crawl into a hole.