

# 2x2 Cube Beginners Tutorial

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## How To Solve The 2x2 Rubik's Cube

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This is an easy 2x2 Rubik's Cube tutorial, where you don't need to learn move notation or long algorithms.

With some practice, you should easily be able to solve the cube in under 1 minute. If you want to get even faster, you should learn How to do Finger Tricks and Advanced 2x2 Methods.

### Step 1. White Layer

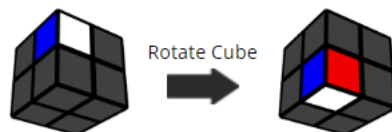
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Before solving anything, do this 4-move sequence repeatedly until you have it memorized. It will be very important in Step 1 and Step 3!



Find any white piece, and hold the cube so that white faces the bottom. This solves the first piece of the white layer.



Now we'll use the 4-moves to solve the rest of the first layer.

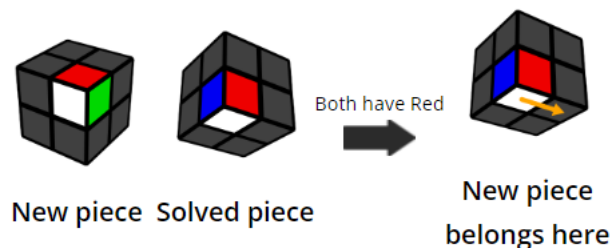
There are 3 remaining locations for a white piece to go.

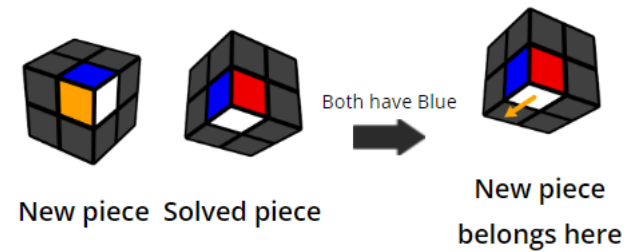


With the solved white piece always on the bottom, find another white piece in the top layer. Examples:



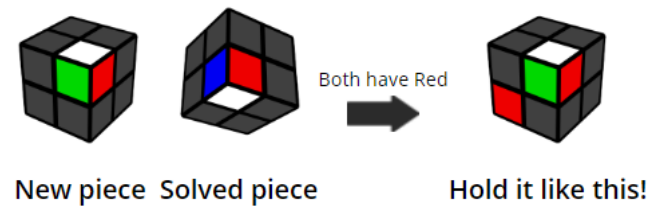
If the new piece and solved piece share a color (besides white), then the new piece belongs on that side of the solved piece. Examples:



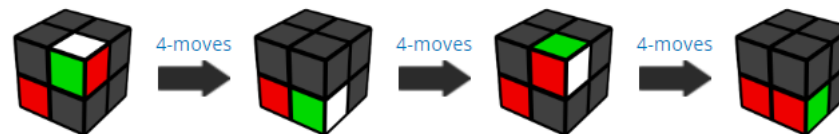


Turn the top layer so that the new piece is directly above where it needs to go, and face it so that it's on the front/right.

Example:



Once the new piece is on the front/right, repeat the 4-moves until this piece is solved.



Repeat until all of the first layer pieces are solved. If find a white piece incorrectly stuck in the bottom layer, you can bring it into the top layer by holding it on the front/right and doing the 4-moves.

## Step 2. Correctly Position Yellow Pieces



A piece is in the correct position if 2 colors on the piece match the nearest colors on the bottom layer.

Examples of pieces in the correct position:



Count how many pieces are in the correct position.

- If 0 pieces are correct, turn the top layer to get at least 1 correct.
- If 1 piece is correct, hold it in the front/right.
- If 2 pieces are correct (next to each other), turn the top layer so that only 1 is correct.
- If 2 pieces are correct (across/diagonal from each other), hold any piece in the front/right.
- If all 4 pieces are correct, you are done this step!

Then do the following moves:



Check if all 4 pieces are in the correct position. If not, count how many pieces are correct and repeat this step from the beginning.

### **Step 3. Solve the Cube!**



It is very easy to make a mistake during this step, so I recommend reading the whole thing, including the common mistakes, before attempting it.

Turn the cube over so that the unsolved pieces are all in the bottom layer.

You may have 2, 3, or 4 unsolved pieces.



Repeatedly do the 4-move sequence until the front/right piece is solved (has yellow on the bottom).

Then turn the bottom layer (not the whole cube) to bring an unsolved piece to the front/right. Repeat until the whole cube is solved.



### Common mistakes:

Turning the whole cube to get the next piece to the bottom/right. Make sure you turn only the bottom layer.

Not finishing the 4-moves because the piece is solved after 3 moves. Make sure you always finish the 4-moves.

Note: If you only have 1 piece unsolved while the rest of the cube is solved, or if you followed step 7 correctly but it does not work, then your cube is unsolvable, and needs to be taken apart and reassembled

Congrats on solving the 2x2 Rubik's Cube!