5x5x5 Rubik's Cube - How to solve the Professor's Cube

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https://ruwix.com/twisty-puzzles/5x5x5-rubiks-cube-professors-cube/
The 5x5x5 Rubik's Cube also known as the Professor's Cube is the invention of Udo Krell. On this page I'm going to present this puzzle and will give you a clue about how to solve the 5 layered Rubik's Cube.

There are three main manufacturers. The **Eastsheen** 5x5x5 version moves very smooth without lubrication, but maybe the Shengshou 5x5x5 is the best choice to buy. The classic **Rubik's Professor's Cube** has the worst quality, it's loose and locks up, the centre piece caps are falling out. For the Verdes Cubes fans there is a good option, the **V-Cube 5**. This doesn't feel like it's going to fall apart on me, it's massive just how it should be and it cuts corners relatively well. This version is also a good option. Maybe you will find...
some Chinese copies cheaper but these are not the best choice due to the bad quality.

Play with the online 5x5x5 Rubik's Cube simulator
(https://ruwix.com/online-puzzle-simulators/5x5x5-professors-cube-simulator.php)

2x2, 4x4 and 5x5 cube puzzles

There are not so many mods out there, maybe working with so many pieces is too time-consuming, but we can find siamese versions and sticker mods.

The 5x5x5 Rubik's Cube puzzle has approximately $2,82 \times 10^{74}$ possible permutations. To illustrate how big this number, I have to tell that it is close to the estimated number of atoms in the Universe.
The solution

Pairing the edges: \( u' R U R' u \)

To solve this puzzle you have to know the solution of the 4x4x4 Cube (https://twisty-puzzles/4x4x4-rubiks-cube-rubiks-revenge/). We are using the same notation (https://the-rubiks-cube/notation/), and the basic idea is the same: First we put together the centre 3x3 blocks, then we pair the edge pieces then solve it like a regular 3x3x3 Rubik's Cube (https://ruwix.com/the-rubiks-cube/how-to-solve-the-rubiks-cube-beginners-method/). This twisty puzzle (https://ruwix.com/twisty-puzzles/) might be even easier because it has fixed centre pieces, and there are no parity cases, but it takes more time to solve it because it has more pieces. Building the 3x3x3 is pretty intuitive, you have
to use the same method you used in the case of the 4x4x4 cube. Pairing the edges is a little different though. We'll have to place the two outer edge pieces next to the centre edge piece. To do this we're going to use the same \( u' R U R' u \) algorithm (and its symmetric) and we'll have to take care not to cut up the already solved pieces. You can see a blue line on the attached image where the pieces will be separated in the top layer. You can have paired pieces in the spots marked with pink without any problem because these will remain intact.

While you're pairing the corresponding edge pieces you might find yourself in a situation when you have to swap two edges like marked on the picture. In this case apply this algorithm, while holding the cube the way you see it on the picture:

\[
l' U2 l' - U2 F2 l' F2 r U2 - r' U2 l2
\]
When edge and the centre blocks are ready just solve it like a Rubik's Cube moving the outer layers. Practice much and you'll get into it!

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