5x5x5 Rubik's Cube (also known as the Professor Cube)

Phase 1: Solve the centres

1. Use the centre pieces to determine the colour of each face. Form 1×3 strips of the same colour and move them to the correct face. To avoid messing up a face that has already been solved, join the strips as follows:

2. The following algorithms can be used if you just wish to move one piece:

3. Repeat until the centres of all six faces are solved.

Phase 2: Match the edges

1. Look at the unmatched edge piece at the front-upper-centre position. Find the edge piece with the same colour and use face moves (not slice moves, so as not to disturb the centre pieces and the completed edges) to move it to the front-down-right position.

2. Now look at the edge piece at the front-upper-right position. Find the middle edge piece with the same colour and use face moves to move it to the front-right-middle position. Then apply the following algorithm to bring the two pairs of edge pieces next to each other:

   Note: The last 3 turns can be left out.

3. Sometime it is impossible to pre-position 2 pairs of unmatched edges as required above. Then just position 2 edges pieces with the same colour as follows and bring them together:

4. The following situation may occur (1 edge piece is flipped):

5. Repeat until all 12 edges have been matched.

Phase 3: Solve the cube

1. Solve the cube as if it is an ordinary 3x3x3 cube.