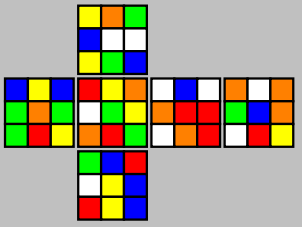
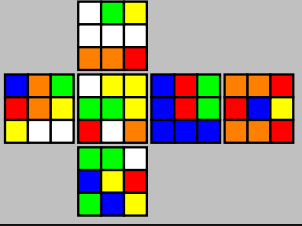
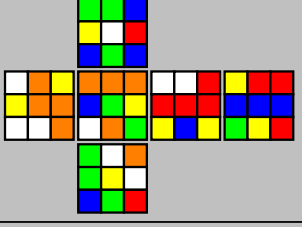
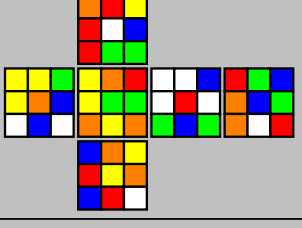
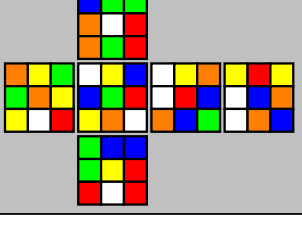
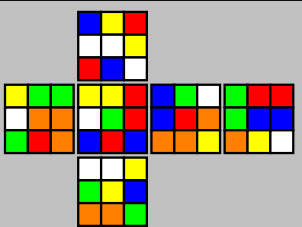
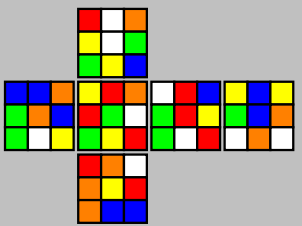
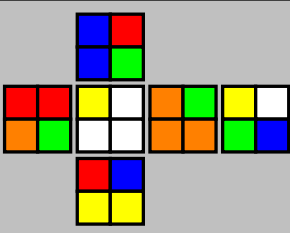
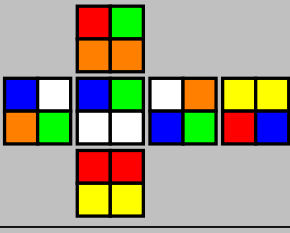
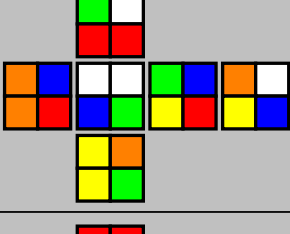
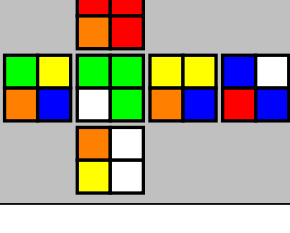
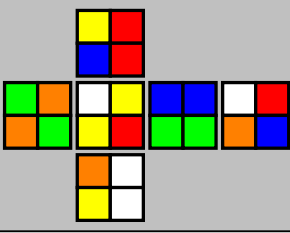
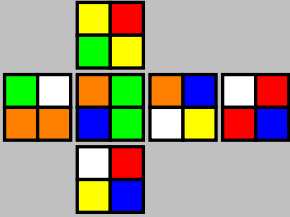
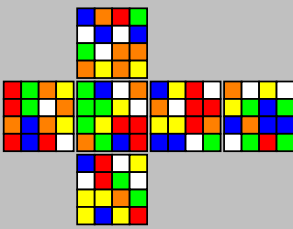
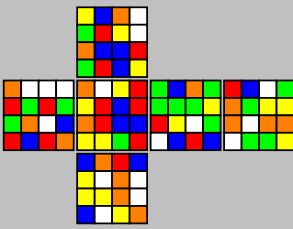
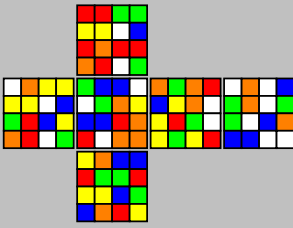
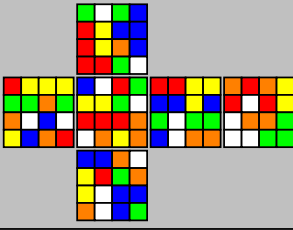
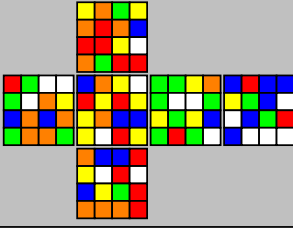
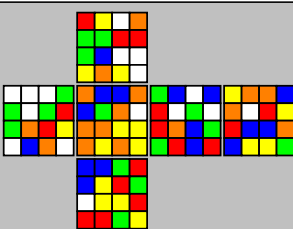
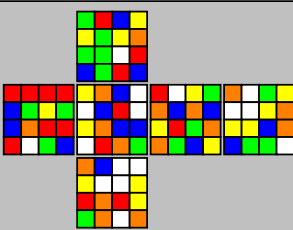


|                 |   |   |
|-----------------|---|---|
| 1.              | L2 U R2 U B2 L2 U R' U' F<br>L D L F2 D2 L2 R' B                |    |
| 2.              | D' B2 F2 R2 D F2 D R2 B U<br>L' F L2 F' R D' U L' U2            |    |
| 3.              | R F2 D2 R U L F' D' R F<br>D' R F2 R F2 D2 B2 L D2              |    |
| 4.              | B2 F2 D U2 R2 U2 F2 D B2 L2<br>U' R' F' D U L2 R F' D L<br>B'   |   |
| 5.              | F2 D2 B2 D2 R2 F2 R B2 R' U2<br>L' D U2 B L' R U' F' L' R<br>D' |  |
| Extra scrambles |   |   |
| E1.             | U2 B2 L2 F2 R F2 L B2 R<br>U2 L2 B' D' B2 R' D2 U R2<br>D2      |  |
| E2.             | F2 R2 F2 U2 B2 U R2 F2 U<br>R' F L2 D' U L' U R' B<br>U2 F      |  |

|                 |                                |   |
|-----------------|--------------------------------|---|
| 1.              | R U' F' U' F' R2 U' R U2 R' U' |    |
| 2.              | R F' U2 R' U R' U F U2 R2 F'   |    |
| 3.              | U R' U' F R2 F R U' R U R'     |    |
| 4.              | R' U' R U' R' U' R U2 R' F' U  |   |
| 5.              | R F' R' U2 R' F U2 R U R U'    |  |
| Extra scrambles |                                |   |
| E1.             | U R F' R2 U' F U2 F2 R U R     |  |
| E2.             | R' U' R U R' U' F R' U' F R    |  |

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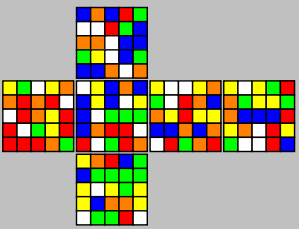
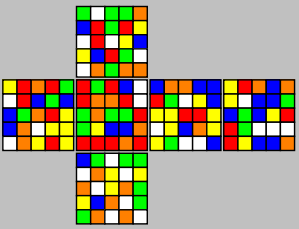
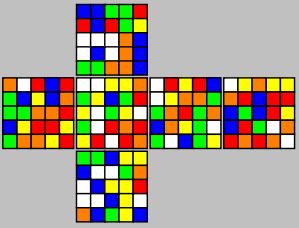
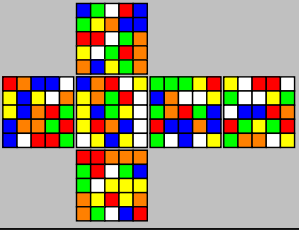
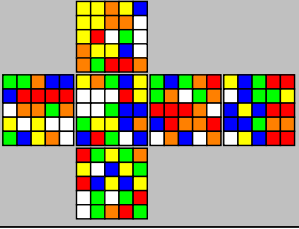
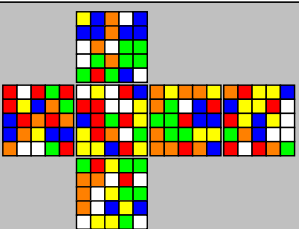
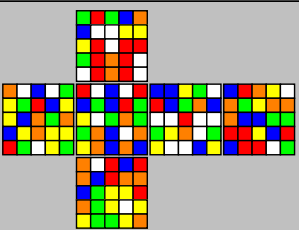
4x4x4 Cube Round 1  
NU\_CUBING\_11-22-2015

|                 |  |   |
|-----------------|--|---|
| 1.              | B' R' D2 L2 B2 R2 D2 R' B' D<br>B2 L2 U2 R2 B2 L2 F' U2 B2 F'<br>Fw2 Rw2 R Fw2 R' L B D2 R2 F2<br>Rw2 R2 L' Uw' B' Rw2 L U' L2 Rw<br>B R2 Fw F Rw' Uw' |    |
| 2.              | B2 L' B2 L' U2 F2 R' F2 L' R2<br>F2 D L' R2 U L R F' L' B'<br>F Rw2 B' D' Fw2 U2 R2 F' Rw2 Fw2<br>L2 D' Rw B2 R F2 L Uw' Fw' F2<br>Rw' Uw2 B' R F2     |    |
| 3.              | B L2 B' R2 F' R2 F2 D2 F' U2<br>R2 D L R2 U2 F' D U2 F2 R<br>F2 Fw2 Uw2 D2 Rw2 D F' U2 Fw2 B'<br>Uw2 U B2 F' R' D Rw R2 Uw F'<br>L Fw Uw R' Fw'        |    |
| 4.              | B2 L R' D2 L' F' D' B R' B2<br>L2 B2 D' U2 F2 D' F2 L2 D' R2<br>Fw2 U R D' L' U' Rw2 Uw2 R' L<br>U' R' Fw U Rw2 B' U L Uw Fw2<br>Rw2 B Rw F            |   |
| 5.              | D2 B2 L2 F2 D2 L2 R B2 R B2<br>D' F' U' R' D F' L' R2 B' L2<br>Fw2 L2 U' Rw2 D2 F' Uw2 D Rw2 B<br>D' L B2 Uw2 Rw F' Uw Rw' R' Uw2<br>Fw Uw2 Fw' B'     |  |
| Extra scrambles |  |   |
| E1.             | R' D2 R F2 D2 U2 L' B2 R U2<br>B U R2 U2 L U B' D' R' Rw2<br>Uw2 U Fw2 U F' L2 Fw2 L2 D' F2<br>Rw2 B2 Rw' U2 F' Rw' Uw' Rw Uw Rw2<br>F' L' Uw' D'      |  |
| E2.             | F' U' R2 D' R' B D' L F B'<br>L U2 B2 R' F2 R' D2 B2 D2 R2<br>Uw2 B R2 Fw2 U' F2 Rw2 F' D U2<br>F2 Uw2 U' Rw B L' U2 Rw' Fw' D2<br>R2 F Uw' Rw2 Fw     |  |

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# 5x5x5 Cube Round 1

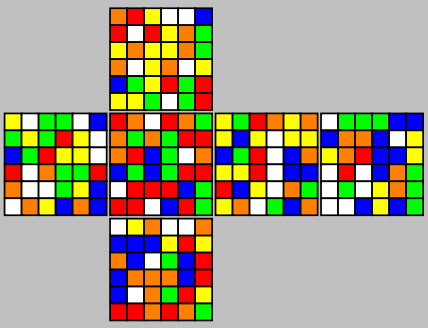
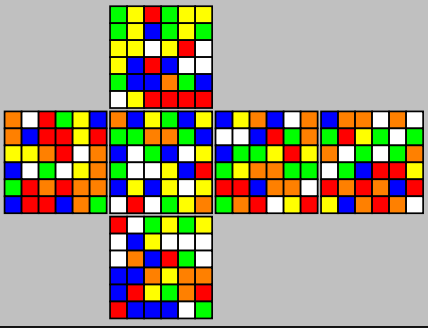
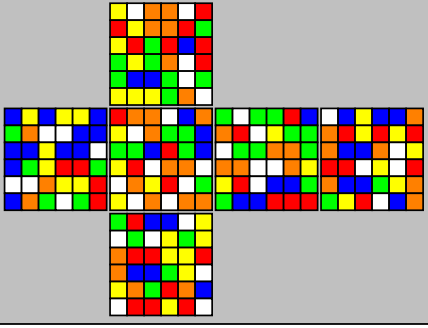
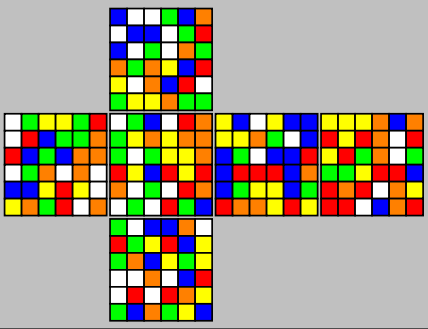
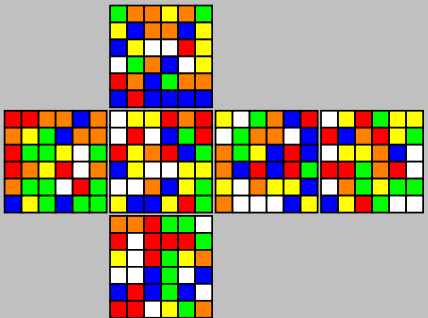
## NU\_CUBING\_11-22-2015

|                 |  |   |
|-----------------|--|---|
| 1.              | Dw2 Rw' Fw2 D' R' Bw' D' U' R' Lw Fw' U2<br>Bw Lw' U' Dw Uw2 L' F' Uw2 Lw' R' L D2<br>B U' Dw F' Uw Bw2 Rw2 Uw2 B' Rw2 L Dw2<br>U2 B2 L2 Uw' R' U Lw2 Bw' R2 Dw R B<br>F2 Fw2 U' Rw' Lw' Dw' Lw Rw2 Fw2 D' Fw2 Dw' |    |
| 2.              | R' U2 R2 F' Uw D' Dw' F' U2 Uw2 D' R<br>D R2 B' Fw2 L' U' Fw' F' Bw' U' F' Lw'<br>B2 Rw Uw2 R' Fw2 U Bw' F' Lw2 F' Rw F'<br>L' U2 Lw2 D' R' Bw2 Fw' R' U Lw2 B2 Fw'<br>Lw Dw2 L D Rw R2 Lw2 U R2 F2 D' Rw'         |    |
| 3.              | U' L2 Uw' B D2 L' B' U Bw L' D Rw2<br>Bw' Fw' R L2 B2 U' R Lw Rw2 U' Rw2 B2<br>Dw' R U Dw Fw' B' D' Rw2 D B Bw2 Fw2<br>U' R D2 Fw2 Uw2 D F2 Bw' L2 Dw Fw2 L<br>F' R2 Rw Fw Bw2 U' Lw' Bw' Lw2 F' Rw' R'            |    |
| 4.              | Uw' L2 Bw Lw F2 Dw Lw Uw2 Rw' L' F2 L2<br>Rw B' Fw2 Bw2 R2 Bw Lw' Uw2 L U' L' B2<br>F' U Dw' Fw R2 Lw' B2 F' Fw' U Rw' Fw<br>F' Uw2 R2 Lw D Rw' L Uw' R' Uw' Lw F2<br>Uw2 Bw Fw' B' L' Dw2 Uw2 D U Rw2 Fw2 B2      |   |
| 5.              | Bw' U F' Lw Bw' Lw2 Rw L' F' L Dw U'<br>Bw' L' Dw2 F2 Fw' Uw2 Rw2 D' B Bw' U Uw<br>L2 F' Lw' Uw2 Fw' Rw' Lw2 R' B Uw2 B2 Lw<br>R D' B2 D Fw D' Fw2 Uw' Lw R Uw Fw<br>Bw U' R' F' B2 Lw2 L' D B D Bw2 Lw2           |  |
| Extra scrambles |  |   |
| E1.             | Dw B' Dw Lw' Dw2 R2 U Dw' F' D' F2 L<br>Bw F2 Lw' F2 Fw' D Rw2 L' Bw Uw2 D' L<br>F' D2 Rw2 Bw L Uw Rw' R2 Fw Rw' Lw' U<br>L' B' Bw R' Lw Dw' F' Rw2 Bw Uw2 R Fw2<br>Dw' Uw2 U' Rw2 L Uw F' D B F2 Dw Lw'           |  |
| E2.             | Bw2 F' Rw' Uw2 F' Bw2 L Lw2 U D' B Uw2<br>R2 B' Lw D2 Uw Bw2 U2 Fw' U' Rw2 R Lw'<br>Uw Fw' Dw' D Fw' Lw Dw U F' D2 Dw' Fw<br>D' Rw U Rw B2 Dw B2 Rw Fw' U' Fw2 Uw'<br>F2 R' Bw' Dw2 F' Lw Rw2 Bw' R2 B2 D2 R2      |  |

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# 6x6x6 Cube Round 1

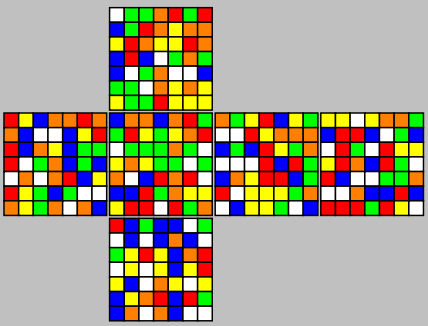
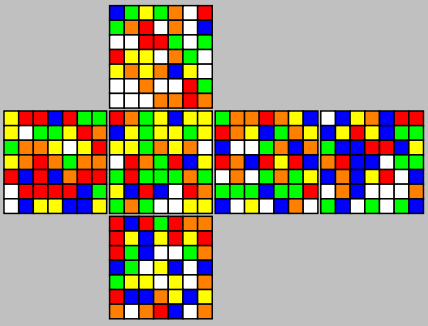
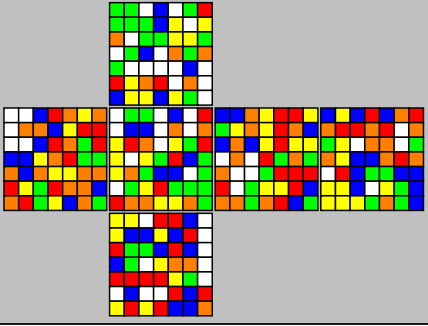
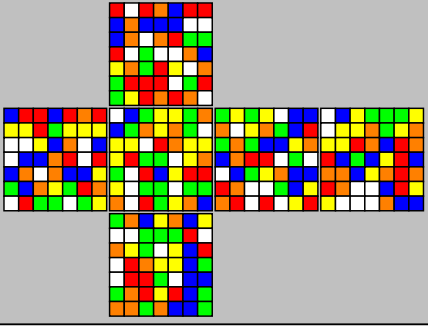
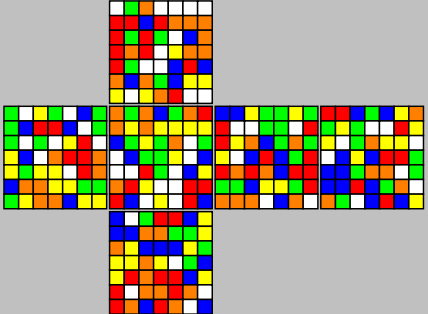
## NU\_CUBING\_11-22-2015

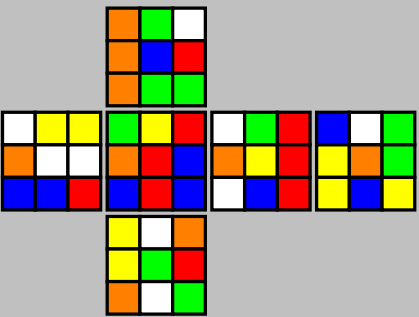
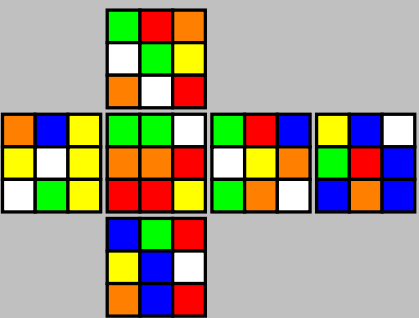
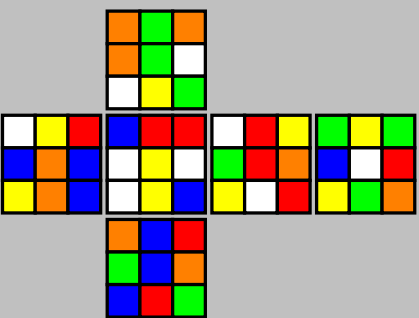
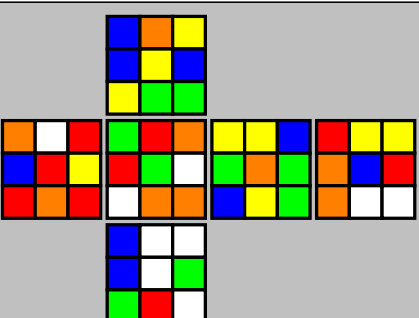
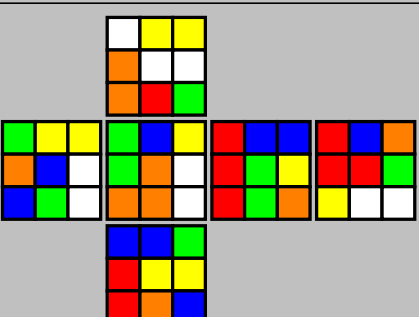
|                 |   |   |
|-----------------|---|---|
| 1.              | Uw2 Dw' U 3Uw' L Dw2 3Rw' F' B<br>3Rw2 Fw2 3Fw' D' Lw' Fw' D2 Lw2 L'<br>3Fw' R B2 F2 3Rw' Dw 3Rw' Lw Uw'<br>D Bw 3Uw' Dw 3Fw' Dw' 3Uw' Lw Fw'<br>R' U' D2 Fw Bw2 3Fw Dw F2 R'<br>L' Bw2 R Dw D' Fw B U2 Fw'<br>U' L 3Rw Dw F2 U' Dw2 Rw2 R<br>D' R Lw2 3Fw' Bw2 Rw2 U' Bw' 3Uw'<br>3Rw' F2 R2 3Uw2 Bw U2 3Uw' Bw2   |    |
| 2.              | D Rw' U2 Rw2 R Bw2 F' Fw2 U<br>Rw' Uw' L B2 Uw B2 Bw2 3Rw2 Rw<br>Dw' Rw2 Fw F' Uw' 3Uw' U2 L B'<br>Uw' 3Uw R' Dw Uw2 3Fw2 Uw' Fw Bw<br>L2 B2 L' U R2 L2 Dw 3Uw2 B<br>3Rw' B Bw' 3Rw Rw Bw F2 Rw' D'<br>Dw2 Rw' 3Uw L2 Uw' Bw2 D Rw2 Dw2<br>3Rw2 B2 R2 D2 Bw 3Fw Dw2 3Fw2 L'<br>3Uw' F' Rw2 L 3Fw2 Bw Dw 3Fw         |    |
| 3.              | Bw 3Fw2 Uw 3Rw' L' U2 D F' Fw'<br>L 3Uw' Fw' F2 L2 Uw' Lw' L' Rw<br>Fw' 3Rw' Rw R 3Fw Rw2 D B D'<br>L' R' Lw U2 Uw' 3Rw' D2 Lw Uw'<br>Fw U Lw2 3Rw2 Uw2 R Fw' L' F2<br>R2 Uw R' F' B Bw' R2 Lw F2<br>Lw2 3Rw R2 F2 U' F2 U' 3Rw' Lw'<br>D F' Lw' B2 Lw Rw' D2 U' Lw<br>3Rw' U' Bw' 3Rw2 L2 3Fw U' Bw                |   |
| Extra scrambles |   |   |
| E1.             | F2 3Fw2 Rw' Dw Lw B' D2 3Uw2 Bw<br>Dw' R D' U Rw' 3Rw 3Fw Rw' R<br>Lw2 Fw' Dw2 D L' 3Fw 3Rw' F' L<br>F' D' Fw L2 Rw' 3Uw' F' U 3Fw<br>B F' Fw L2 Bw Lw' 3Fw' U 3Rw<br>U2 L R' Lw Dw2 Rw 3Fw2 F' D'<br>Uw2 3Fw 3Rw' U Dw' R' Rw' Uw2 L2<br>3Uw F2 Lw Bw2 Uw F' R Lw2 Rw<br>D2 Fw2 R2 B Uw' F' Dw Rw'                 |  |
| E2.             | 3Uw2 Lw U 3Rw' R2 3Uw Fw L2 R2<br>Uw2 Bw' F' Uw2 F2 Bw2 3Uw' 3Fw' Bw<br>Rw Lw' Dw Lw2 R' 3Fw2 F2 U' Dw<br>L Uw2 3Fw2 R2 Bw 3Fw2 D' Uw2 U'<br>Rw' L' 3Uw2 B' Lw' D2 U' B' Fw'<br>F' Dw2 B' U' Fw2 3Rw' Bw' F' 3Rw<br>R Uw2 3Uw' Fw' F2 Bw2 Lw' 3Rw2 3Fw<br>L Rw Fw U2 3Uw' Uw L 3Fw Fw<br>Rw2 Fw' Lw Bw2 B' D' L Lw' |  |

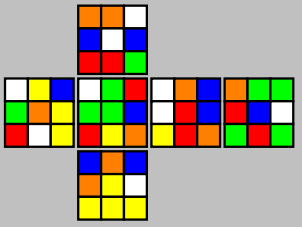
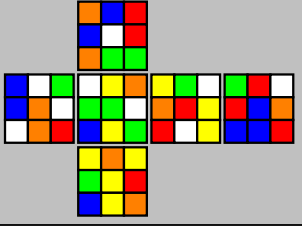
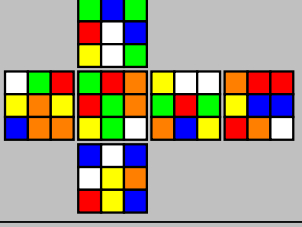
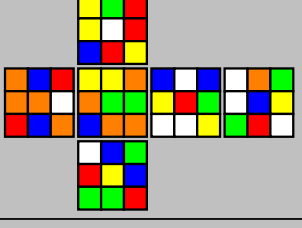
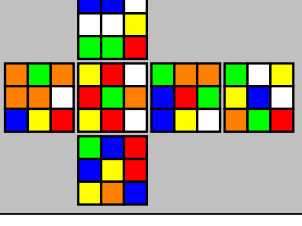
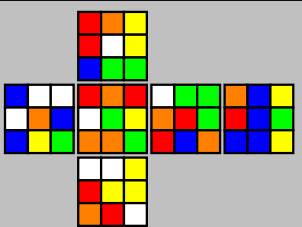
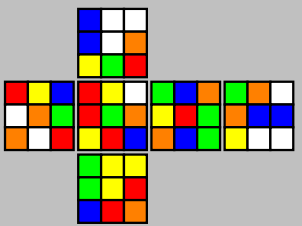
2015/08/07

# 7x7x7 Cube Round 1

## NU\_CUBING\_11-22-2015

|                 |  |   |
|-----------------|--|---|
| 1.              | L' 3Lw Lw' D' Rw' U Rw2 Dw' 3Fw' Bw2<br>Dw2 3Bw' Fw' F2 Rw' 3Fw2 R' F 3Rw' Lw<br>Fw2 3Fw D' Lw' 3Uw2 Bw2 R L' 3Lw' 3Bw<br>B Dw2 3Dw' Lw Fw R2 3Rw2 Dw B2 3Bw<br>3Rw2 F2 Rw 3Fw 3Lw Dw F L2 3Rw' U<br>3Dw2 3Rw 3Fw' Rw Bw' F2 D2 B F2 R<br>B2 F2 3Rw' 3Dw2 3Rw 3Lw' Rw 3Fw2 3Lw B'<br>R' 3Lw Uw Lw' L2 3Bw Uw' 3Fw2 3Dw2 U<br>D' Rw 3Fw Dw L2 3Dw B' 3Bw D Dw'<br>3Dw2 3Fw F2 U' 3Fw Bw2 3Rw' Fw Dw2 3Fw'             |    |
| 2.              | 3Rw' Rw2 Bw2 3Lw2 Rw Fw 3Fw2 F2 L 3Lw'<br>3Uw' 3Bw 3Lw' Fw' D2 3Uw 3Dw' 3Lw' L 3Dw'<br>Dw2 3Lw' 3Rw' Dw D2 3Dw' 3Bw' 3Rw' 3Dw2 3Lw'<br>U2 Dw Uw B Dw' 3Rw' 3Uw 3Rw' D' Uw<br>3Lw B 3Rw' F2 Dw2 Fw2 B D B2 3Fw2<br>U' 3Lw2 Fw 3Uw Rw 3Rw2 Fw2 D2 Lw' D<br>Lw2 3Lw Rw2 L' 3Bw2 U' R Bw2 Rw 3Rw'<br>F' 3Bw U Fw2 Lw' B' U L' Lw2 3Bw<br>L2 B2 R F' 3Rw2 3Bw B' Uw2 D2 3Dw2<br>Lw B' F' 3Rw F2 Uw' 3Dw2 3Bw R2 3Fw'      |    |
| 3.              | Bw2 3Lw' 3Dw' 3Bw2 B2 Uw Dw' Rw2 Dw 3Bw2<br>3Fw Bw' 3Dw' U2 Lw2 D' U2 3Bw Lw Bw<br>3Fw L F' 3Fw' 3Rw2 B Fw L B' Uw<br>U' D Rw' Lw' Fw' 3Dw2 R2 3Rw2 F2 3Bw2<br>Bw 3Fw2 3Dw2 R2 F' 3Dw2 Fw 3Rw 3Lw 3Dw'<br>Rw R Uw 3Dw' L' 3Bw 3Rw2 Fw' Uw2 3Bw<br>Fw B' L B U2 D' F' 3Lw2 R2 U2<br>R 3Rw 3Bw' 3Fw' Rw' Bw 3Uw Bw' L' R'<br>F2 3Rw 3Lw' 3Fw2 F' Lw' Fw D' 3Rw' D2<br>3Uw' 3Bw2 Dw' U 3Uw' R Bw Fw 3Rw2 3Dw2           |   |
| Extra scrambles |  |   |
| E1.             | U2 Bw F2 Uw' F2 L2 D' Uw L U2<br>Dw' Uw2 R2 3Dw' Rw 3Lw F' B Lw' Rw'<br>3Fw' Dw 3Lw 3Dw Bw' L R Lw2 3Dw 3Lw2<br>3Rw Uw' Dw' Fw U 3Rw2 Dw2 Fw2 3Fw 3Bw<br>L B Bw2 U2 3Dw2 R' L2 Bw' D2 Dw'<br>Uw 3Uw Lw Bw 3Uw 3Bw2 F' Lw' Fw Rw2<br>U2 Dw' Fw Bw2 Dw2 R2 3Dw Uw' Dw2 3Lw2<br>Dw' 3Lw' 3Uw 3Lw2 D L' B L2 3Dw F'<br>3Dw2 3Uw 3Lw F2 Dw' 3Lw Fw2 D2 Uw' B<br>Bw 3Lw Lw U2 Bw2 U' 3Uw2 Lw Dw Fw                         |  |
| E2.             | L' Rw2 B' 3Rw' Uw' 3Dw U2 Bw R2 Fw<br>3Rw 3Lw 3Fw' 3Dw2 Uw2 3Rw2 U' R' Lw' F2<br>Dw2 R2 Uw2 3Rw2 3Bw' L Rw2 3Rw' B Bw2<br>3Uw Uw' F' Uw2 3Dw' 3Fw Bw' L2 3Rw2 F'<br>3Lw2 3Rw' D Uw' B' Lw L2 3Lw Bw2 3Uw<br>3Bw2 Lw2 D2 3Rw' L' 3Lw' F' Dw' Rw2 B2<br>3Lw Bw2 D Fw' L 3Dw Uw2 Lw' Uw2 3Fw<br>3Rw2 3Lw2 3Dw 3Rw' L2 D2 Rw' R 3Lw' 3Dw<br>R2 F' 3Lw2 3Fw' Fw Bw2 Uw2 3Fw' L' R'<br>Bw U2 3Fw' Rw Bw' B' 3Rw Fw' L2 Bw' |  |

|                 |   |   |
|-----------------|---|---|
| 1.              | L2 D2 U2 B' U2 B'<br>U2 R2 B' L2 B' U<br>L' B R' F' U F'<br>D' R' U' Rw' Uw |    |
| 2.              | L U2 B2 U2 F2 L2<br>B2 R F2 R' B' D'<br>B R' D' U' R D<br>F R' F2 Rw Uw'    |    |
| 3.              | U2 R F2 L D2 L' R' B2<br>U R' D2 F' D' L2 B2 F<br>D L' F2 Rw                |   |
| Extra scrambles |   |   |
| E1.             | D L2 B2 F2 D' R2<br>D L2 D2 L2 R D2<br>R2 B D' L F U2<br>R' D U Rw2 Uw2     |  |
| E2.             | D' B2 U' R2 D2 R2<br>F2 L2 B2 U F' U'<br>L B2 D' B L2 R'<br>D R2 Uw'        |  |

|                 |  |   |
|-----------------|--|---|
| 1.              | U B2 D R2 D L2 F2 R2 F2 R'<br>B U F L' R B2 L2 R               |    |
| 2.              | B R2 B' L2 F' U2 R2 F' R2 B2<br>D2 R U L' D' B' D2 F' D F      |    |
| 3.              | R2 F2 R2 F' L2 U2 B D' R2 F<br>D2 B2 D B D2 R' U' R2           |    |
| 4.              | F U2 F' R2 D2 R2 U2 B2 F' D'<br>L2 F' L' R B' L2 D' U R2       |   |
| 5.              | U2 R2 B2 F D2 B U2 F' D2 F'<br>L U2 F' R' D' U' B2 R' F' D2    |  |
| Extra scrambles |  |   |
| E1.             | F2 D' F2 R2 D2 L2 U' F2 U<br>B' F' D B' R' U2 R' B2 U'<br>L B2 |  |
| E2.             | R2 U' R U B D' F U' D2<br>R' U2 D2 B2 U2 B' U2 B' R2<br>D2     |  |



## Fewest Moves

- Notate your solution by writing one move per bar.
  - To delete moves, clearly erase/blacken them.
  - Face moves F, B, R, L, U, and D are clockwise.
  - Rotations x, y, and z follow R, U, and F.
  - ' inverts a move; 2 doubles a move. (e.g.: U', U2)
  - w makes a face move into two layers. (e.g.: Uw)
  - A [lowercase] move is a cube rotation. (e.g.: [u])
- 
- You have 1 hour to find a solution.
  - Your solution length will be counted in OBTM.
  - Your solution must be at most 80 moves, including rotations.
  - Your solution must not be directly derived from any part of the scrambling algorithm.

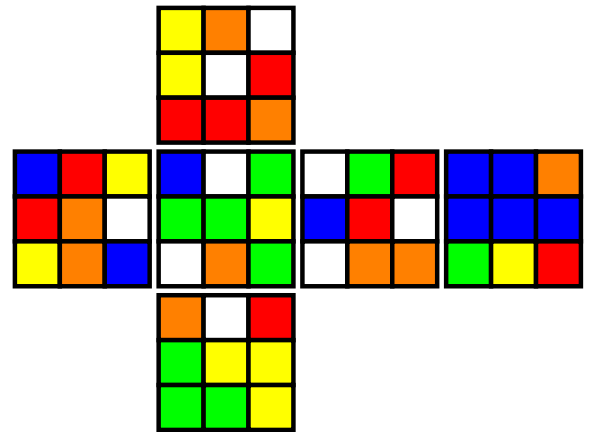
NU\_CUBING\_11-22-2015  
3x3x3: Fewest Moves Round 1  
Scramble 1 of 3

Competitor: \_\_\_\_\_

WCA ID: \_ \_ \_ \_ \_

DO NOT FILL IF YOU ARE THE COMPETITOR

Graded by: \_\_\_\_\_ Result: \_\_\_\_\_



Scramble: B2 F' R2 U2 B2 F' U2 R F' L2 U' F2 U' R' U B2 D U

This image shows a full page of blank graph paper. The grid consists of evenly spaced horizontal and vertical lines forming small squares across the entire area. There are no margins, text, or other markings on the page.

NU\_CUBING\_11-22-2015  
3x3x3: Fewest Moves Round 1  
Scramble 2 of 3

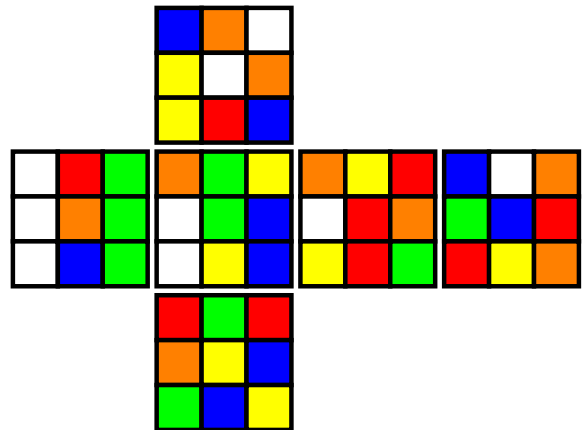
- Notate your solution by writing one move per bar.
  - To delete moves, clearly erase/blacken them.
  - Face moves F, B, R, L, U, and D are clockwise.
  - Rotations x, y, and z follow R, U, and F.
  - ' inverts a move; 2 doubles a move. (e.g.: U', U2)
  - w makes a face move into two layers. (e.g.: Uw)
  - A [lowercase] move is a cube rotation. (e.g.: [u])
- 
- You have 1 hour to find a solution.
  - Your solution length will be counted in OBTM.
  - Your solution must be at most 80 moves, including rotations.
  - Your solution must not be directly derived from any part of the scrambling algorithm.

Competitor: \_\_\_\_\_

WCA ID: \_ \_ \_ \_ \_

DO NOT FILL IF YOU ARE THE COMPETITOR

Graded by: \_\_\_\_\_ Result: \_\_\_\_\_



Scramble: U L2 U2 R2 F2 U R2 D' B2 D2 L U' F' R' B L2 R' U2 L' R2 U2

[illegible]

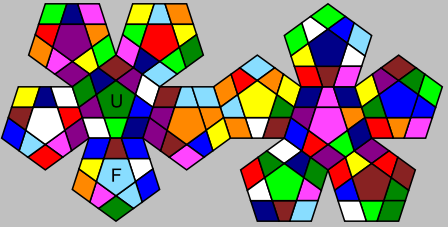
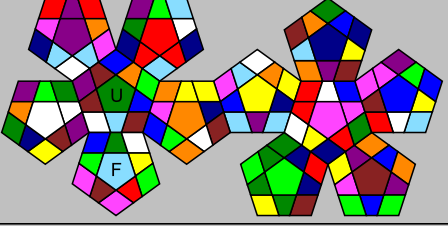
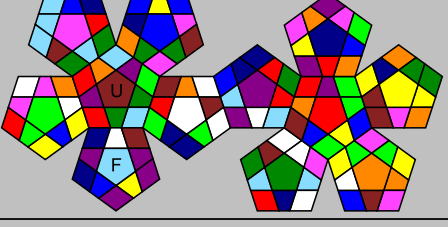
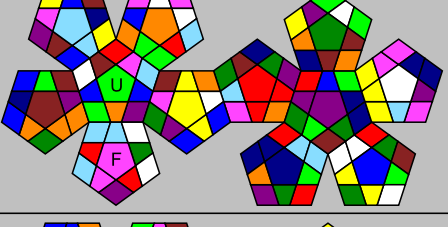
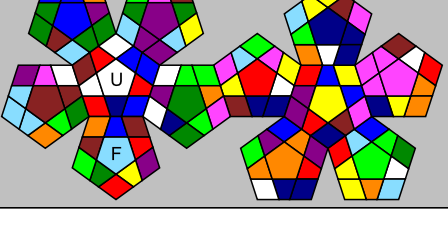
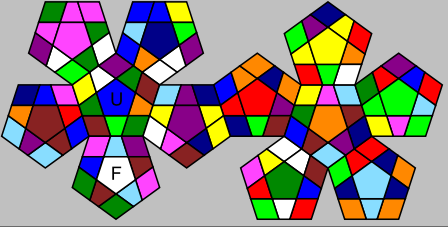
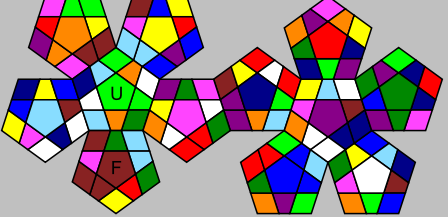


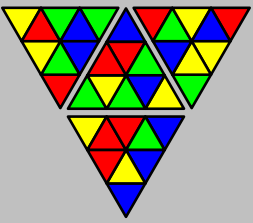
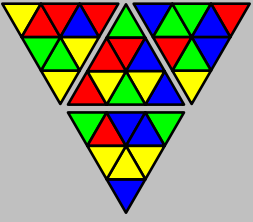
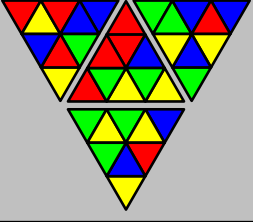
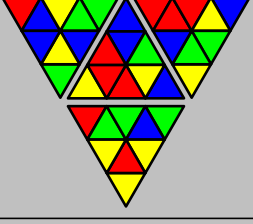
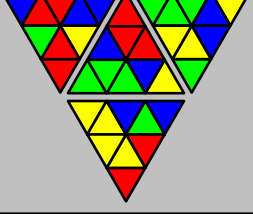
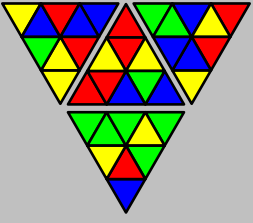
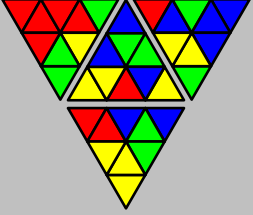
|                 |   |  |
|-----------------|---|--|
| 1.              | F' D2 F' B' D F' L2 U'<br>R' U2 L2 D' B2 U2 R2 B2<br>D R2 U' L2 |  |
| 2.              | U' B2 D U F2 U R2 F2<br>L2 B R F' R2 F D' L'<br>B' D' L         |  |
| 3.              | U2 B R2 B' L2 B2 L2 U2<br>B' L2 U' F L D R F'<br>U2 F R B R'    |  |
| Extra scrambles |   |  |
| E1.             | D2 R' L' U2 B D' B' L2<br>B' R L' D' L2 F2 D' F2<br>U' B2 R2    |  |
| E2.             | B2 L' U2 D F' R' F2 R'<br>D F' B2 R2 U B2 U2 F2<br>B2 U' F2 R2  |  |


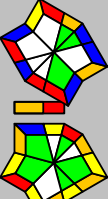
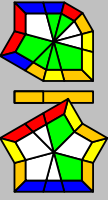
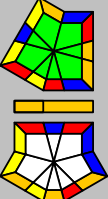

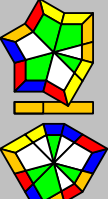

2015/08/07

# Megaminx Round 1

## NU\_CUBING\_11-22-2015

|                 |   |   |
|-----------------|---|---|
| 1.              | R-- D-- R++ D++ R-- D-- R++ D++ R-- D-- U'<br>R++ D++ R++ D++ R++ D++ R++ D++ R-- D++ U<br>R-- D++ R++ D++ R-- D-- R++ D++ R-- D++ U<br>R-- D++ R-- D++ R-- D-- R++ D++ R-- D++ U<br>R++ D-- R-- D-- R-- D-- R-- D-- R-- D++ U<br>R-- D-- R++ D-- R++ D++ R++ D++ R-- D-- U'<br>R++ D-- R-- D-- R-- D-- R-- D-- R-- D++ R++ D++ U |    |
| 2.              | R-- D-- R++ D-- R++ D++ R-- D-- R-- D-- U'<br>R-- D++ R-- D++ R-- D-- R++ D-- R++ D-- U'<br>R++ D-- R++ D-- R-- D++ R++ D++ R-- D-- U'<br>R++ D-- R-- D++ R++ D++ R++ D-- R-- D++ U<br>R++ D++ R++ D-- R++ D-- R-- D-- R-- D-- U'<br>R++ D++ R-- D++ R-- D-- R++ D-- R++ D++ U<br>R++ D++ R-- D++ R-- D-- R-- D-- R++ D-- U'      |    |
| 3.              | R-- D++ R-- D-- R-- D++ R-- D++ R++ D++ U<br>R++ D-- R++ D-- R-- D++ R-- D-- R-- D-- U'<br>R-- D++ R-- D++ R-- D-- R-- D-- R++ D++ U<br>R++ D-- R-- D++ R-- D-- R++ D-- R-- D-- U'<br>R-- D++ R-- D-- R-- D-- R-- D++ R-- D-- U'<br>R-- D-- R-- D++ R-- D++ R-- D-- R++ D-- U'<br>R++ D-- R-- D++ R-- D++ R++ D-- R++ D-- U'      |    |
| 4.              | R++ D-- R++ D-- R++ D-- R++ D++ R++ D++ U<br>R-- D-- R++ D++ R-- D-- R-- D++ R-- D++ U<br>R++ D-- R-- D++ R++ D-- R-- D-- R-- D-- U'<br>R++ D-- R++ D++ R-- D++ R-- D-- R++ D++ U<br>R-- D++ R++ D-- R-- D-- R++ D++ R-- D++ U<br>R++ D++ R-- D-- R++ D-- R++ D++ R++ D-- U'<br>R-- D-- R++ D-- R-- D-- R-- D++ R++ D-- U'        |   |
| 5.              | R-- D-- R++ D-- R++ D++ R++ D-- R-- D++ U<br>R++ D++ R-- D-- R++ D-- R-- D++ R++ D++ U<br>R++ D++ R-- D++ R-- D++ R++ D++ R-- D++ U<br>R++ D-- R++ D-- R++ D-- R-- D++ R++ D-- U'<br>R++ D++ R-- D-- R-- D++ R++ D++ R-- D-- U'<br>R++ D++ R-- D-- R++ D-- R++ D++ R++ D++ U<br>R-- D++ R++ D++ R++ D++ R-- D++ R-- D-- U'        |  |
| Extra scrambles |   |   |
| E1.             | R++ D++ R++ D-- R-- D++ R-- D-- R++ D++ U<br>R++ D-- R++ D-- R-- D-- R++ D++ R++ D-- U'<br>R++ D-- R-- D++ R-- D-- R++ D-- R-- D-- U'<br>R++ D++ R++ D++ R++ D++ R-- D++ R-- D-- U'<br>R-- D++ R-- D++ R-- D-- R++ D-- R++ D++ U<br>R-- D++ R++ D-- R++ D++ R-- D-- R-- D-- U'<br>R++ D++ R-- D++ R-- D-- R++ D++ R-- D++ U       |  |
| E2.             | R++ D-- R++ D-- R-- D++ R-- D-- R-- D-- U'<br>R-- D-- R-- D++ R++ D-- R-- D-- R-- D++ U<br>R-- D++ R++ D-- R-- D-- R++ D-- R-- D++ U<br>R-- D-- R-- D++ R-- D-- R++ D++ R-- D-- U'<br>R++ D++ R-- D-- R-- D-- R++ D++ R++ D++ U<br>R++ D++ R++ D-- R-- D++ R++ D-- R-- D++ U<br>R++ D++ R-- D++ R++ D-- R-- D-- R-- D++ U         |  |

|                 |                                       |   |
|-----------------|---------------------------------------|---|
| 1.              | B R U' L' U' R L B L' B U u' l r' b'  |    |
| 2.              | B L' B L U' L' U B' U' B' R u l' r b' |    |
| 3.              | U' R U L' B' L' U R L' U R l r b      |    |
| 4.              | B' R' B R U' L' B' R B' L' U' l r b'  |   |
| 5.              | B U B' L' B L' B' U' R' L' U' r' b    |  |
| Extra scrambles |                                       |   |
| E1.             | L B' U R B' L' U L U' R' U r' b       |  |
| E2.             | U B R' U B' U R' U' L' U R u r'       |  |

|                 |  |   |
|-----------------|--|---|
| 1.              | $(-3, 2) / (6, -3) / (3, 0) / (4, -2) /$<br>$(0, -1) / (-3, -3) / (5, -2) / (4, 0) /$<br>$(-4, 0) / (2, -1) / (-1, 0) / (-5, -5)$                  |    |
| 2.              | $(4, 0) / (0, 3) / (5, 5) / (1, -2) /$<br>$(-3, -1) / (-3, 0) / (3, 0) / (3, -3) /$<br>$(-1, -5) / (-3, -2) / (-3, 0) / (-5, 0)$                   |    |
| 3.              | $(4, 0) / (2, 2) / (-5, -5) / (-3, 0) /$<br>$(0, -3) / (-4, -3) / (0, -3) / (0, -3) /$<br>$(-3, -2) / (0, -1) / (-4, 0) / (-2, 0) /$<br>$(1, 0)$   |    |
| 4.              | $(4, 0) / (2, -4) / (-2, -5) / (-3, 0) /$<br>$(0, -3) / (-1, -3) / (0, -3) / (-2, -1) /$<br>$(0, -2) / (2, 0) / (0, -4) / (1, 0) /$                |   |
| 5.              | $(0, -1) / (-3, 0) / (-2, -5) / (3, -3) /$<br>$(3, 0) / (2, -4) / (1, 0) / (-3, -3) /$<br>$(-3, 0) / (6, 0) / (0, -4) / (-4, 0) /$<br>$(-2, -5)$   |  |
| Extra scrambles |  |   |
| E1.             | $(0, 2) / (-5, -2) / (0, 3) / (-1, -4) /$<br>$(-2, -5) / (0, -3) / (-1, 0) / (-3, 0) /$<br>$(-3, -1) / (0, -5) / (0, -4) / (-1, -4) /$<br>$(4, 0)$ |  |
| E2.             | $(1, 0) / (-1, 2) / (0, 3) / (6, 0) /$<br>$(-2, -2) / (3, 0) / (3, -4) / (-3, -3) /$<br>$(3, 0) / (0, -2) / (0, -4) / (2, 0) /$<br>$(-4, 0)$       |  |

2015/08/07

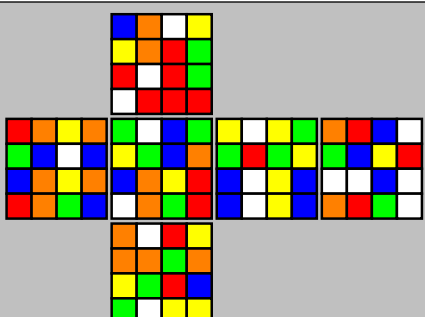
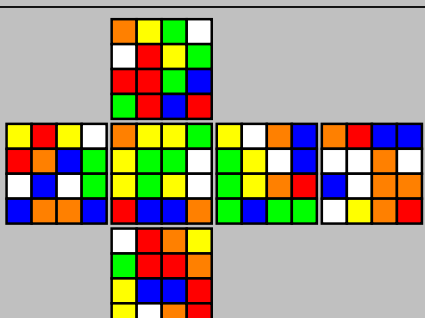
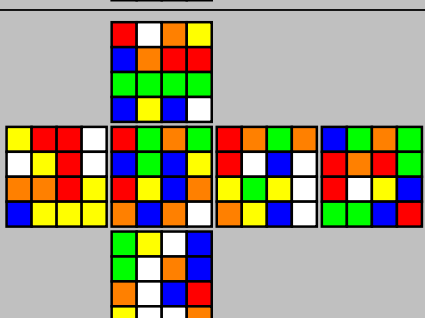
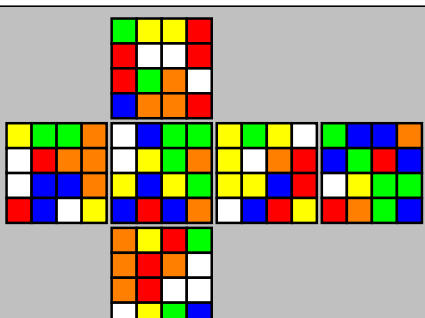
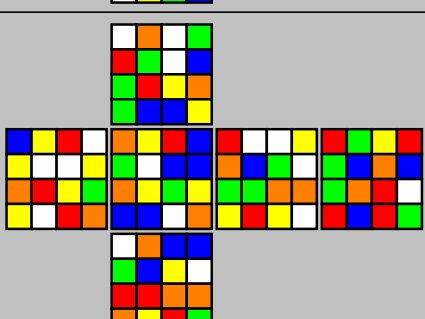
Rubik's Clock Round 1  
 NU\_CUBING\_11-22-2015

|                 |  |  |
|-----------------|--|--|
| 1.              | UR2- DR0+ DL1- UL3+ U1-<br>R1- D4- L6+ ALL2+ y2<br>U4+ R3+ D5- L4- ALL4+<br>UR DL    |  |
| 2.              | UR1+ DR4+ DL6+ UL4+ U0+<br>R4- D4- L2+ ALL2+ y2<br>U2- R5- D3- L1+ ALL6+<br>UR DL    |  |
| 3.              | UR5+ DR4+ DL4+ UL3- U2+<br>R3- D1+ L0+ ALL1- y2<br>U5+ R5- D4- L4- ALL5+<br>UR DL    |  |
| 4.              | UR5+ DR4- DL1- UL2+ U0+<br>R6+ D1+ L2+ ALL1+ y2<br>U5+ R4- D1+ L2- ALL1-<br>DR UL    |  |
| 5.              | UR0+ DR2- DL6+ UL5+ U4-<br>R6+ D1+ L5- ALL3- y2<br>U5+ R1+ D1+ L3+ ALL4-<br>DR       |  |
| Extra scrambles |  |  |
| E1.             | UR0+ DR3- DL4+ UL5+ U1+<br>R2+ D3- L4+ ALL3- y2<br>U2- R3+ D2- L5+ ALL5-             |  |
| E2.             | UR4+ DR0+ DL3- UL4- U2-<br>R0+ D4- L6+ ALL4+ y2<br>U3- R4- D4- L2- ALL1-<br>UR DR DL |  |



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4x4x4 Cube: Blindfolded Round 1  
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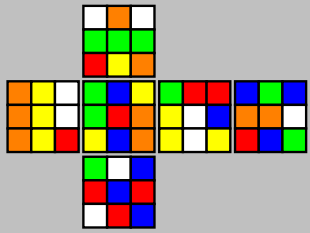
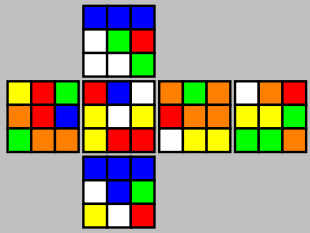
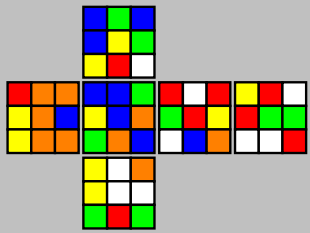
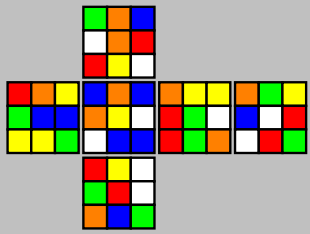
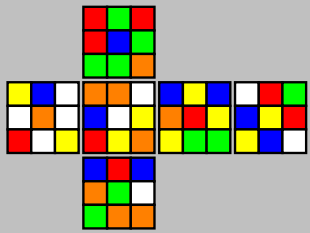
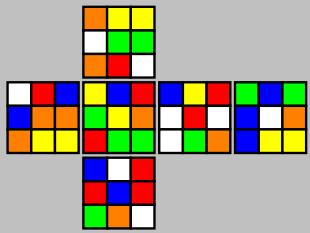
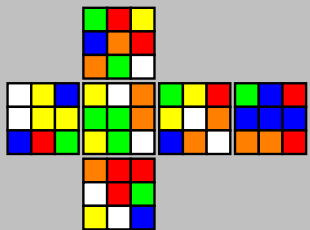
|                 |                            |   |
|-----------------|----------------------------|---|
| 1.              | F' L2 D' L' B D L2 D       |    |
|                 | B R2 U' R2 L2 U2 L2 F2     |   |
|                 | U F2 D Rw2 Uw2 Rw2 D L     |   |
|                 | R' D' R Uw2 Fw2 B2 R Fw'   |   |
|                 | U2 Fw' U2 R F Uw' Fw B     |   |
|                 | Uw Fw2 R2 U' z' y2         |   |
| 2.              | U' F' U F2 U' L' F2 B      |    |
|                 | R' F U2 L2 F2 D R2 D       |   |
|                 | L2 F2 R2 Uw2 L2 Fw2 D' B'  |   |
|                 | Rw2 L2 Uw2 Rw2 D' B2 U' R  |   |
|                 | B' Rw' Uw2 Rw' R' Fw Rw' L |   |
|                 | F2 D Rw B2 z y2            |   |
| 3.              | B' L' F2 D' L B' U2 B      |   |
|                 | F' R' B2 D2 L2 B' L2 D2    |   |
|                 | F' L2 F' Rw2 D2 F' U2 Fw2  |   |
|                 | L2 Uw2 R2 Fw2 F Uw2 U Rw'  |   |
|                 | F2 D2 Rw R' F2 Fw' D' L2   |   |
|                 | U' Fw2 Rw' Fw' y2          |   |
| Extra scrambles |                            |   |
| E1.             | U B L D' F' L F2 L'        |  |
|                 | B R' F U2 L2 B L2 B        |   |
|                 | U2 F2 L2 R2 Fw2 Uw2 D F    |   |
|                 | U R2 B' U Rw2 U' L2 B      |   |
|                 | Rw' Fw2 R2 U R Uw R' Fw'   |   |
|                 | Uw' B' Uw' D2 U2 x'        |   |
| E2.             | F L' B2 L2 D R2 F U'       |  |
|                 | L F D2 L2 B2 F2 L' D2      |   |
|                 | L U2 R' U2 Rw2 F D' U2     |   |
|                 | Fw2 D' B Uw2 F2 Rw2 D F2   |   |
|                 | Rw F2 D' Fw2 Rw Fw R2 Uw   |   |
|                 | D2 U' Fw' B2 D y           |   |

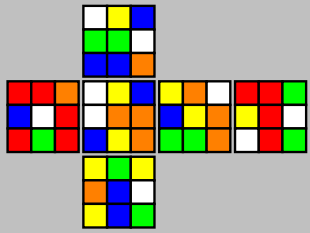
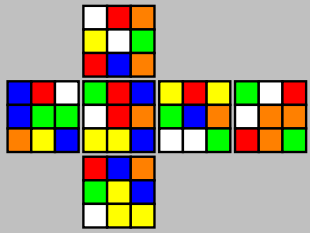
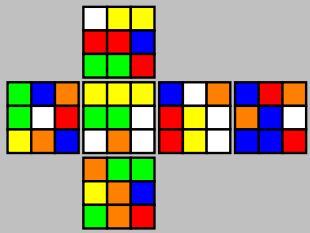
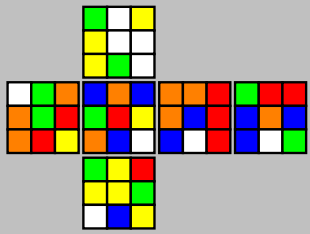
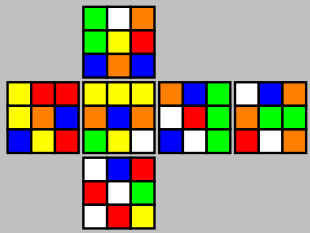
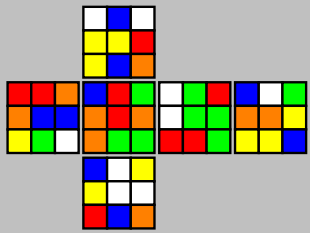
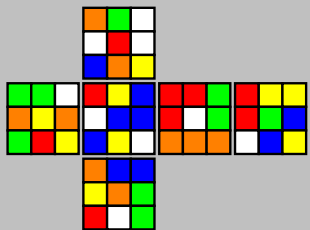
2015/08/07

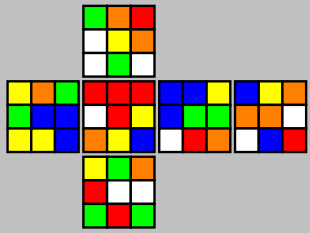
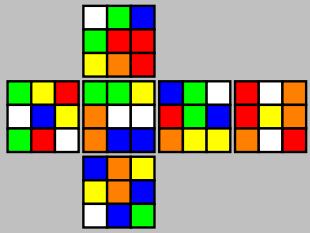
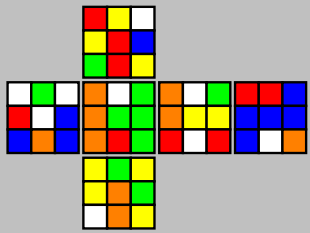
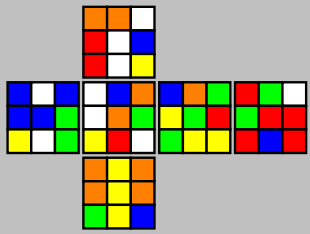
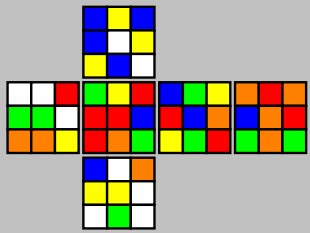
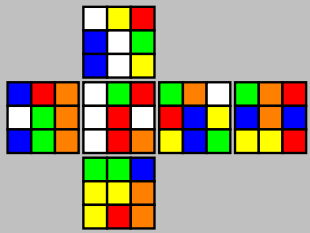
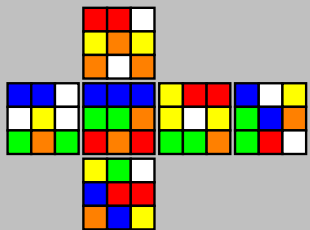
# 5x5x5 Cube: Blindfolded Round 1

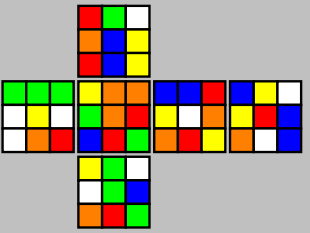
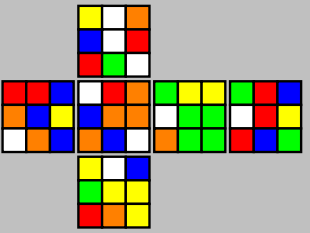
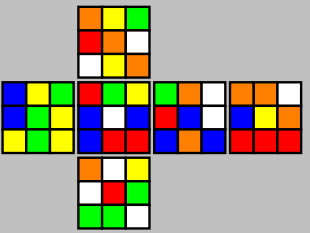
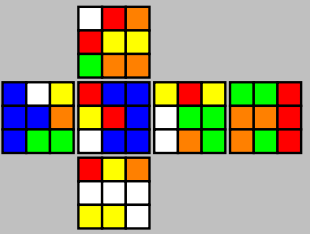
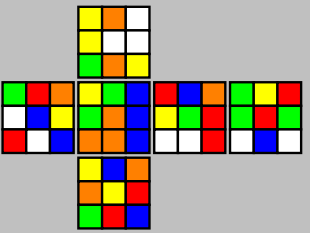
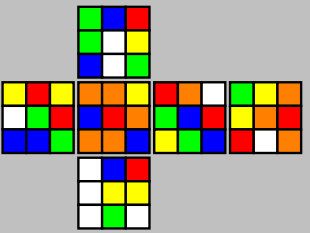
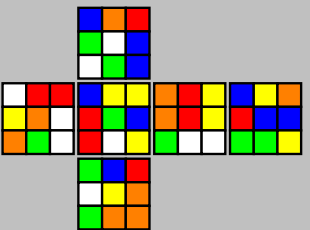
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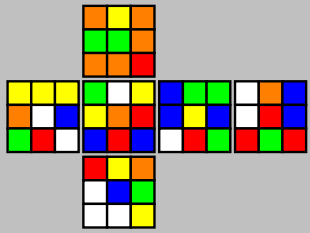
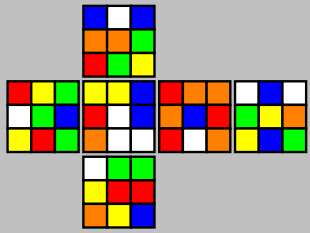
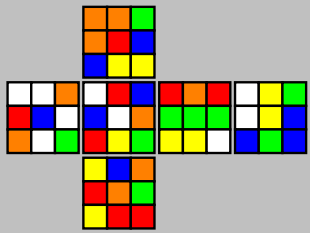
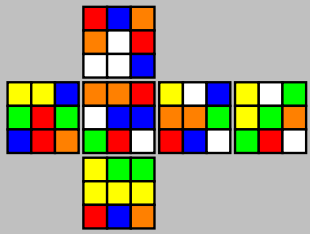
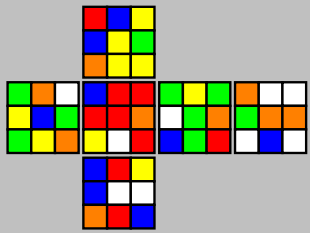
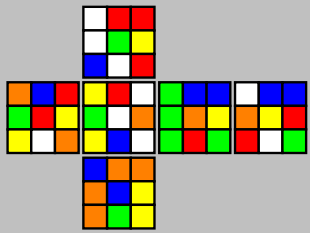
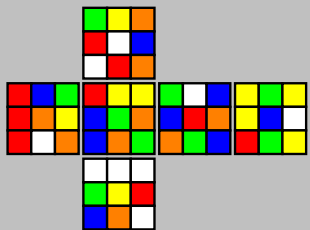
|                 |     |     |     |     |      |      |     |     |
|-----------------|-----|-----|-----|-----|------|------|-----|-----|
| 1.              | D2  | R   | B'  | Rw  | F    | Rw'  | R2  | Bw2 |
|                 | D   | R2  | Lw  | Dw2 | F'   | Lw'  | Uw  | Fw  |
|                 | B2  | D2  | Dw2 | R2  | Dw   | Fw2  | R   | Rw  |
|                 | Bw2 | B   | F   | U   | Bw2  | B2   | L'  | Lw2 |
|                 | Rw' | R   | Dw  | Lw2 | R'   | Bw2  | Rw2 | Bw' |
|                 | R   | Dw' | U'  | Uw' | L'   | U'   | F   | R2  |
|                 | Lw' | F'  | Dw2 | R   | Dw'  | R'   | B'  | D'  |
|                 | Bw' | Dw  | B'  | R2  | 3Rw2 | 3Uw2 |     |     |
| 2.              | Dw' | U'  | Lw  | D   | Fw2  | U'   | Lw2 | Rw2 |
|                 | U'  | F2  | U2  | Dw2 | Bw   | Lw2  | Rw  | Bw' |
|                 | Rw2 | F'  | Rw  | L2  | Uw   | U'   | Lw' | Rw' |
|                 | L'  | Fw' | L   | Uw2 | B'   | D'   | Fw  | D2  |
|                 | B2  | Dw  | Uw' | B'  | Fw   | U    | Rw2 | D   |
|                 | R2  | Bw2 | Uw2 | F2  | Bw2  | B2   | Fw  | Lw  |
|                 | F'  | L'  | R'  | Dw' | R'   | D'   | Bw' | Rw' |
|                 | R2  | U2  | L2  | B2  | 3Fw' | 3Uw' |     |     |
| 3.              | Uw  | Lw2 | D2  | R'  | Lw'  | U'   | Dw2 | Bw2 |
|                 | L2  | Dw  | Bw' | F'  | L'   | Lw2  | Fw2 | F   |
|                 | Dw2 | F2  | Rw' | L   | U2   | Lw2  | R'  | Dw2 |
|                 | Fw2 | Rw2 | Bw2 | R'  | Uw'  | Bw2  | Uw  | D'  |
|                 | B   | D   | L2  | Lw2 | Uw2  | D    | U   | Lw' |
|                 | F   | Dw2 | Bw  | R2  | B'   | Fw   | Uw2 | D2  |
|                 | F2  | R2  | L2  | Fw' | R2   | D2   | Uw' | Lw' |
|                 | R   | Dw  | Fw2 | B'  | 3Rw' |      |     |     |
| Extra scrambles |     |     |     |     |      |      |     |     |
| E1.             | U2  | L2  | D   | U   | Uw2  | Dw   | L2  | Dw  |
|                 | Uw  | U'  | Rw' | R2  | Bw2  | L2   | Uw  | L   |
|                 | Uw  | B'  | Uw' | Fw  | Lw2  | Fw   | D   | Bw' |
|                 | R   | L   | Rw' | Uw2 | B'   | Lw'  | Uw' | Rw2 |
|                 | L   | U   | Uw2 | Fw  | Uw'  | R    | Fw' | Lw2 |
|                 | Rw' | Uw2 | Dw' | Fw2 | Lw2  | R'   | U2  | Rw' |
|                 | U   | L   | B2  | F'  | Uw2  | Rw   | R   | Dw' |
|                 | D   | Fw  | L2  | Dw  | 3Rw  | 3Uw' |     |     |
| E2.             | Dw2 | B'  | F2  | L'  | D    | R2   | B2  | U2  |
|                 | F'  | Rw2 | D   | Dw2 | U2   | F    | L   | Lw2 |
|                 | D'  | Rw  | Lw' | F'  | Lw'  | B'   | Dw2 | F'  |
|                 | Dw' | F2  | U'  | D   | Uw'  | Lw2  | Rw' | F   |
|                 | L   | Bw  | B'  | Uw2 | Lw   | F'   | U   | B'  |
|                 | Bw' | Fw2 | D'  | Fw  | L'   | R2   | B   | Fw  |
|                 | Lw' | U   | Uw' | Rw' | Bw   | U2   | Bw' | Uw2 |
|                 | Dw2 | B'  | U2  | Fw2 | 3Fw' | 3Uw' |     |     |

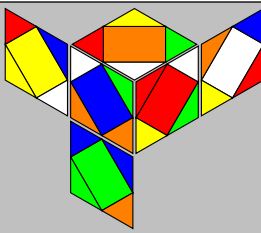
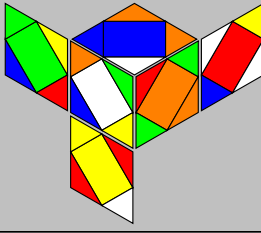
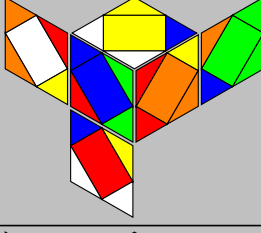
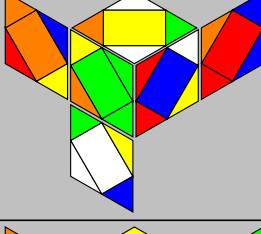
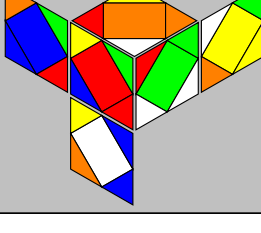
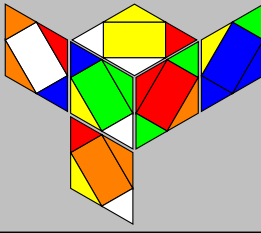
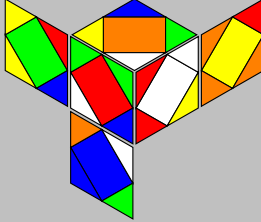
|    |   |   |
|----|---|---|
| 1. | F2 U L2 R2 U F2 U L2 D2 U'<br>L F' U F2 U B' L' B2 U' F<br>Rw Uw    |    |
| 2. | D' U R2 D' U' F2 L<br>D2 B F' R' F' L U<br>B' U2 R' F' Rw Uw2       |    |
| 3. | U2 R2 D' F2 R2 U B2<br>U' L2 R' B L2 U' B<br>F2 D' B' U2 R' U Rw2   |    |
| 4. | R2 D F2 U R2 F' R2<br>F' D L D2 R' D2 F'<br>D2 L' D Fw Uw'          |   |
| 5. | D' U2 B2 D' F2 L2 B2<br>D2 F' U2 L' U' R2 B<br>R2 F2 D U' B' U2 Rw' |  |
| 6. | F' L2 B' R2 F L2 B' F' D R2<br>F2 D2 L D' R' B F' L2 D B'<br>Rw     |  |
| 7. | L2 B2 L2 D F2 D U F2 U' L2<br>B' R2 F D' L2 F L2 R' F2 R'<br>Fw     |  |

|     |  |   |
|-----|--|---|
| 8.  | B D2 R2 F' R2 B2 F'<br>D2 F L' B F' L' R2<br>F D B' F' R' D Rw<br>Uw'    |    |
| 9.  | F2 R2 U2 L2 R B2 L' D F D<br>U L R' U B2 U2 F' L Uw                      |    |
| 10. | F2 U2 F2 D' U2 L2 U<br>L2 F R F2 L B2 L<br>R2 D' L2 B L Fw'              |    |
| 11. | U2 L2 R' F2 R' D2 U2 F2 D L'<br>B U B R F' D2 U' F2 R2 Uw                |   |
| 12. | U2 R2 F U2 B U2 L2<br>F' R' D2 F D' F' L'<br>B U L R U2 Rw2              |  |
| 13. | F2 U2 F2 D' B2 D U'<br>F2 U' B R' F' R2 B<br>R2 U2 R' U' B2 Rw2 Uw       |  |
| 14. | D R2 D B2 R2 D B2<br>R2 B2 R2 U2 F' R B'<br>U2 R B R' D' F2 R<br>Fw' Uw2 |  |

|     |  |   |
|-----|--|---|
| 15. | F2 U2 R' B2 F2 D2 L2<br>R D2 F' D' F' D L2<br>B' L D' F' R2 U Rw2<br>Uw    |    |
| 16. | L2 R2 D2 F' U2 F R2<br>B' F2 L' B' D' L' F2<br>U' R B2 R' D' R' Fw'<br>Uw' |    |
| 17. | D' U2 R2 D' F2 D L2<br>F2 U' B D R D F<br>U R D B2 L2 D Fw'<br>Uw'         |    |
| 18. | U R2 U2 R2 F2 U' F2<br>L2 U L' F U' B R<br>U R' D B' F' U' R<br>Uw'        |   |
| 19. | L' B2 R B2 D2 U2 L2 D2 B2 L<br>U L' R F2 D' B' U2 R2 D' R2<br>Uw           |  |
| 20. | F2 R2 U2 B2 F2 U' B2 U' B' L2<br>D B2 R D' B' L U L' F2 Uw                 |  |
| 21. | B2 R2 F R2 B R2 U2 B2 D2 B2<br>L' F2 U R2 U2 B' U' B2 D' R<br>D Fw         |  |

|     |   |   |
|-----|---|---|
| 22. | D2 B' L2 B2 F' D2 B'<br>R2 U' B2 L2 B L' D2<br>B' D' U L D2 Rw' Uw'     |    |
| 23. | L' D2 L F2 L' B2 F2<br>L' D' F L2 B2 L' D'<br>B2 U' L U B2 Uw'          |    |
| 24. | F2 U2 B2 R2 D' R2 F2 R2 F' D'<br>R2 D2 U L2 B' R' F' D L R'<br>Fw Uw    |    |
| 25. | R2 D L2 U' F2 D2 B2<br>L F' L' R2 D2 F' L2<br>F' D' L2 F2 Rw2 Uw        |   |
| 26. | U' R2 B2 L2 U R2 D2<br>U B2 U' R2 B' L' U<br>B2 F' U' B2 U2 R' F<br>Uw' |  |
| 27. | D L2 D' R2 D' R2 F2 L2 D2 F<br>R D R F U' L B U' L R2<br>Uw             |  |
| 28. | D L2 U2 F2 U' B2 L2 B2 F' L<br>R' F L' D' F2 D B F2 U2                  |  |

|     |  |   |
|-----|--|---|
| 29. | D2 L2 F' U2 B' D2 B2<br>L2 B2 R2 F' U B' R'<br>U B' L F L' U Rw<br>Uw'       |    |
| 30. | B2 D2 R B2 R D2 L U2 F2 L2<br>R' B' U L2 D2 L' D2 R D' F'<br>L2 Fw Uw        |    |
| 31. | F2 U' B2 L2 B2 F2 R2<br>D' L2 D2 L' U' B R'<br>B2 L' D' R' F L D'<br>Fw' Uw' |    |
| 32. | F2 L2 R2 U F2 R2 U'<br>B2 U2 F U2 F L' B'<br>L' R U L' D L' F'<br>Uw2        |   |
| 33. | B L2 U2 B2 U2 B2 R2<br>U2 F' R2 F R U' L'<br>D2 B2 F2 D B' Rw2 Uw            |  |
| 34. | B2 L B2 R2 U2 F2 L<br>D2 L' D U2 B' F D2<br>B' R2 B L2 R' D Rw<br>Uw2        |  |
| 35. | F2 B' R U2 B2 L' U' L2 F' D2<br>F2 B2 L D2 L U2 F2 L D2 F2                   |  |

|                 |                              |   |
|-----------------|------------------------------|---|
| 1.              | L R B U L' R' U' L' U' L U   |    |
| 2.              | L R B L U L B L' R' L R      |    |
| 3.              | L R L B U R B L' U' R' L'    |    |
| 4.              | L R L' U' R' L U B' L' B R'  |   |
| 5.              | L R B' R' U' B U' L' R U' B' |  |
| Extra scrambles |                              |   |
| E1.             | L R L R' L' U' B R B' R B'   |  |
| E2.             | L R L' R L' R B U R U R'     |  |