

Some Practice Scrambles for 2x2x2 Blindfolded Cubing

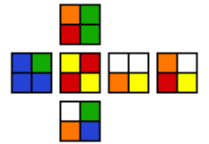
Start scramble with red in front and yellow on the top

If not already done, orient blue-red-white cube to the left-front-down position

F' T F
 F T F'
 L Y L'
 F' Y F
 L y T y' L'
 D' F' T F D
 D F² T F² D'

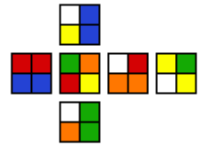
1 R D² F² L' F' R² F²

(lr bj)(unu)



2 L' F² U R F' R F' R

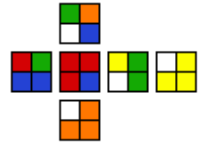
(hb nu w) M



M = turn m clockwise

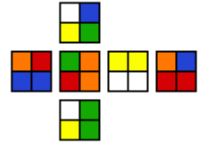
3 R F U² F U² R' D R F'

(m)(sh kz fs)



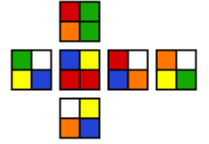
4 U² L F' R' U R' U L'

(gn ac)(kyk)



5 D' L U' F L² F' L² D² F R'

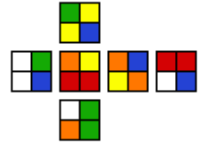
(lf wr n) S



Note - here it is best to use the Y permutation for r

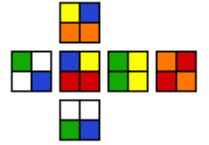
6 L F' L² D² F' D F U²

(r)(sg wc) M O



7 L D R² D² R' D R² F U'

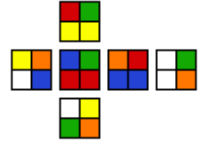
(gc)(rn ma)



There is a cycle in this one so you would expect 7 letters to remember, so why only 6?

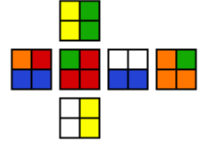
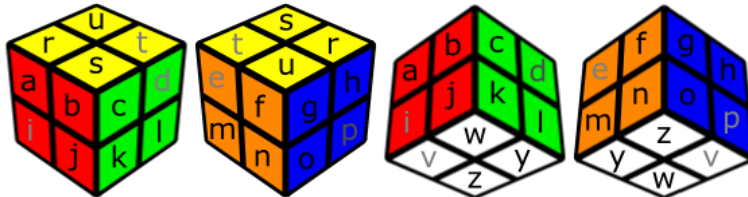
8 F' L' D L' D F² L² F' U

(kh fc)(nmz)

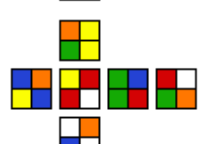


9 U² R' F² U R² U' F² R'

Don't have to rotate after scramble

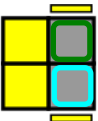


10 U' F² L' D² L' D' F² U



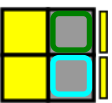
$(R U^2 R' U')(R U^2)(L' U R' U' L) = T$
 $(R U R' U')(R' F)(R^2 U')(R' U' R U) R' F'$

$y' (R U' R') U' F^2 U' (R U R') D R^2 y = Y$
 $y' F (R U')(R' U' R U)(R' F')(R U R' U') R' F R F' y$



$(R U' R F')(R F) U' F^2 R^2 U = CW$

$(R' F' R F')(U R' F R U^2) F^2 = CCW$



Setup Moves							
r	Y	v	solved	a	L' y T y' L	m	D' F' T F D
h	F T F'	i	solved	b	F' L' y T y' L F	n	L y T y' L'
a	L' y T y' L	p	solved	c	F' Y F	o	D ² F' T F D ²
s	T	w	D' F ² T F ² D	d	-	p	solved
b	F' L' y T y' L F	k	F' T F	e	-	r	Y
c	F' Y F	j	D ² L y T y' L' D ²	f	L Y L'	s	T
t	buffer	y	D ² F ² T F ² D ²	g	L F T F' L'	t	buffer
d	-	m	D' F' T F D	h	F T F'	u	y T y'
e	-	l	D L y T y' L' D'	i	solved	v	solved
u	y T y'	z	D F ² T F ² D'	j	D ² L y T y' L' D ²	w	D' F ² T F ² D
f	L Y L'	o	D ² F' T F D ²	k	F' T F	y	D ² F ² T F ² D ²
g	L F T F' L'	n	L y T y' L'	l	D L y T y' L' D'	z	D F ² T F ² D'

Solutions

1	D L y T y' D' L' Y or L ² D L ² -T L ² D' L ² F' L' y T y' L F D ² L y T y' D ² L' y T y' L y T y' L' y T y'	2	F T F' F' L' y T y' L F L y T y' L' y T y' D' F ² T F ² D D' F' y CW y' F D	3	D' F' T F D T F T F' F' T F D F ² T F ² D' L Y L' T	4	L F T F' L' L y T y' L' L' y T y' L F' Y F F' T F D ² F ² T F ² D ² F' T F	5	D L y T y' L' D' L Y L' L' y T y' L D' F ² T F ² D Y L y T y' L' CW
6	Y T L F T F' L' D' F ² T F ² D F' Y F D' F' CW F D D ² F' CW F D ²	7	L F T F' L' F' Y F Y L y T y' L' D' F' T F D L' y T y' L	8	F' T F F T F' L Y L' F' Y F L y T y' L' D' F' T F D D F ² T F ² D'	9	(lg)(skhb) D L y T y' L' D' L F T F' L' T F' T F F T F' F' L' y T y' L F	10	(r)(klj)(unf) Y F' T F D L y T y' L' D' D ² L y T y' L' D ² y T y' L y T y' L' L Y L'

Definitions (where x = any letter $a-z$)

- **Position "x"** = the location on the cube defined in the 4 labeled cube pictures above
- **Sticker "x"** = the sticker that belongs in position x
- **Cubie** = one of the 8 physical pieces of the puzzle. Each cubie contains 3 stickers in 3 different positions

Goal - solve the cube by serially swapping the position of two stickers until the cube is solved

Orientation - locate the blue-red-white cubie and orient it so that the white sticker is on the down face and the blue sticker is on the left

- This piece is now "solved", solve the rest of the cube in relation to this piece.

Memorization

- Use scramble 1 (R D² F² L' F' R² F²) for this walk through
- You start at position t , determine which sticker is at position t , in this case it is l , thus you remember l and then go to position l and repeat the process.
 - Once at position l , you determine which sticker is at position l , in this case it is r , thus you remember r and then go to position r and repeat.
 - Once at position r , you determine which sticker is at position r , in this case it is b , thus you remember b and then go to position b and repeat.
 - Once at position b , you determine which sticker is at position b , in this case it is j , thus you remember j and then go to position j and repeat.
- Once at position j , you determine which sticker is at position j , in this case it is t . Any time you arrive at sticker t , d or e , you skip them, you don't commit them to memory, instead you add a ")" and start a new cycle. So far you will have memorized (lrbj)
- Now you start a new cycle. You have the option of picking a sticker on any cubie that you have not dealt with yet. In this case you can pick from the up-back-left cubie or the down-back-left cubie. If you pick sticker u , it won't require any setup moves (this will make sense after you read below). So you pick u and remember u , then you determine which sticker is at position u , in this case it is n , thus you remember n and then go to position n and repeat.
 - Once at position n , you determine which sticker is at position n , in this case it is u , thus you remember u and since u is on the cubie where you started this cycle, you are done and you add another ")". Thus you remember (unu) for this cycle
- If any cubie is located in its correct place, but rotated, you would remember any sticker on that cubie and the direction it would need to be rotated one turn to be in the right position. Here we don't have any rotated cubies. These are noted by capital letters.
- Thus all we have to remember is (lrbj)(unu). I find it helpful to remember the letters as pairs.
- Note - each cycle you add to the solve causes you to remember 1 extra letter

Solving Goal - swap the sticker in position t with the position where the sticker located in position t belongs. Thus you do a setup move to bring position that position (x) to either position s , u or r , then perform an algorithm that swaps either position s , u or r with t and then do the reverse of the setup move.

Solving Process

The first cycle is (lrbj), so you have to deal with l first. This means you figure out which position (r , s , or u) is the easiest place to put l . In this case, it is position u because it only requires two turns, D L. Then you perform an algorithm to swap positions u and t (which will actually be swapping stickers l and r), this means that you must rotate the cube clockwise on the y -axis, perform the **T** algorithm ((R U² R' U')(R U²)(L' U R' U' L)), rotate the cube back on the y -axis counterclockwise and undo the setup move by doing L' D'. You will notice sticker r is now in position t and thus you must repeat the process to get position r in either position s , u or r so you can perform an algorithm to swap it with position t . You repeat this process for every letter that you memorized. In this case (lrbj)(unu).

The rest of the solve:

- To place sticker r (currently at position t) in position r , no setup moves required, perform algorithm **Y**
- To place sticker b (currently at position t) in position b do F' L' to place sticker b in position u , perform y T y', undo setup move L F
- To place sticker j (currently at position t) in position j , do D² L to place sticker b in position u , perform y T y', undo setup move L' D²
- Now sticker t is actually in position t , but you have to replace sticker t with the next letter you memorized, in this case u . You just repeat the process in the bullet above for each letter left, in this case u , n then u again

If you have a cubie that is in the correct location but is rotated, then you bring any sticker on that cubie up to position s with a setup move, and do either **CW** or **CCW**, then undo that setup move. You should either deal with rotated cubies either at the beginning or end of the solve.