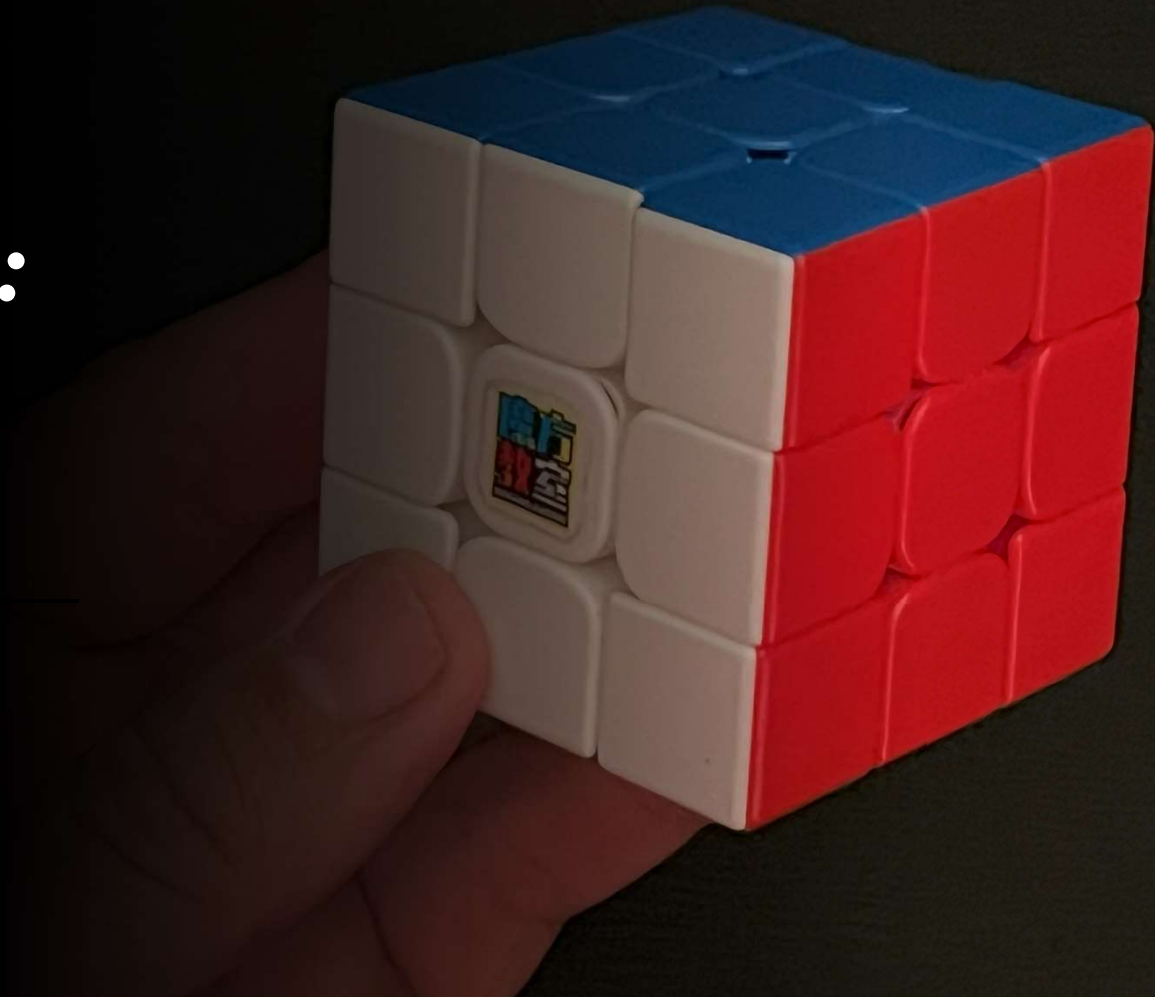
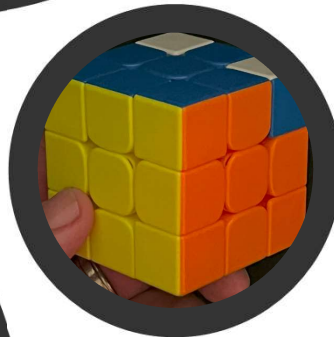
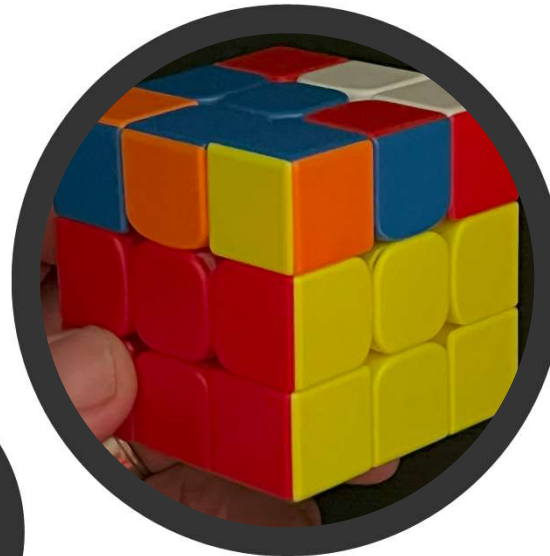

*Solving the
Rubik's Cube:
Beginner
Method*



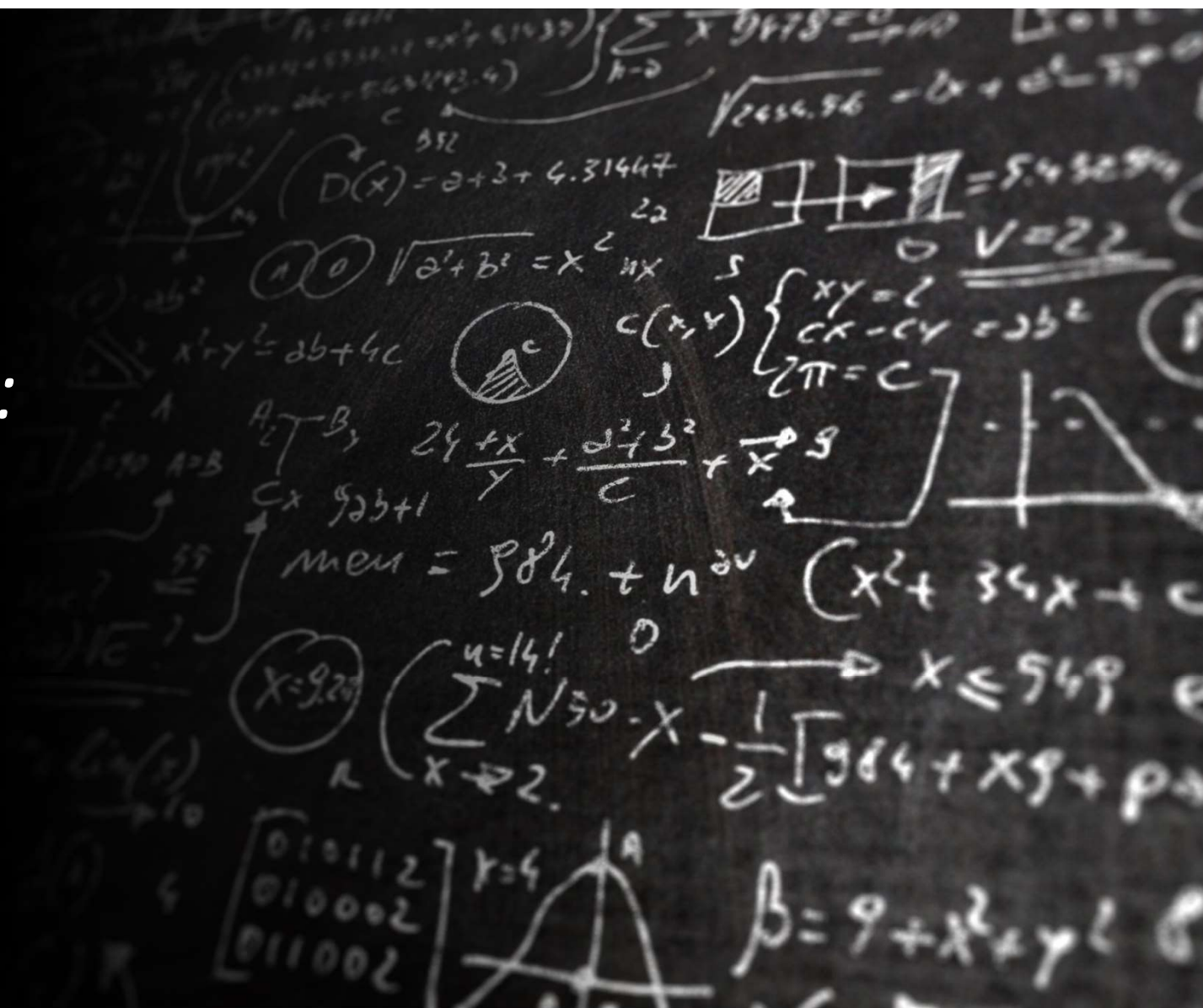


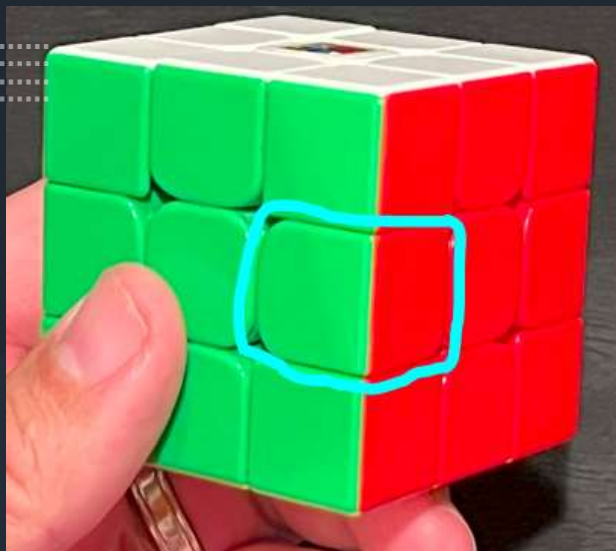
Beginner's Method: 7 Easy Steps

1. Green Cross
2. Green Corners
3. Second Layer Edges
4. Blue Cross
5. Orient the Edges
6. Position Corners
7. Orient the Corners (complete the solve!)



Housekeeping: Structure & Notation





12 Movable Edge Pieces

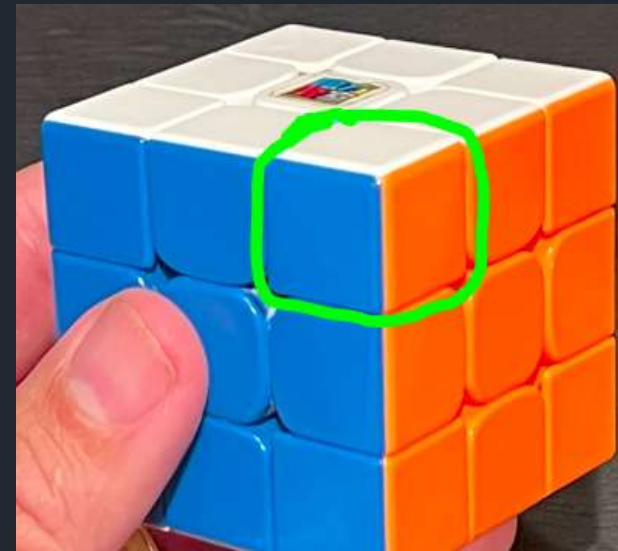
2 Split Colors

**Positioned between
Centers of those Colors**



6 Fixed Centers

**Green $\leftrightarrow$ Blue
White $\leftrightarrow$ Yellow
Red $\leftrightarrow$ Orange**

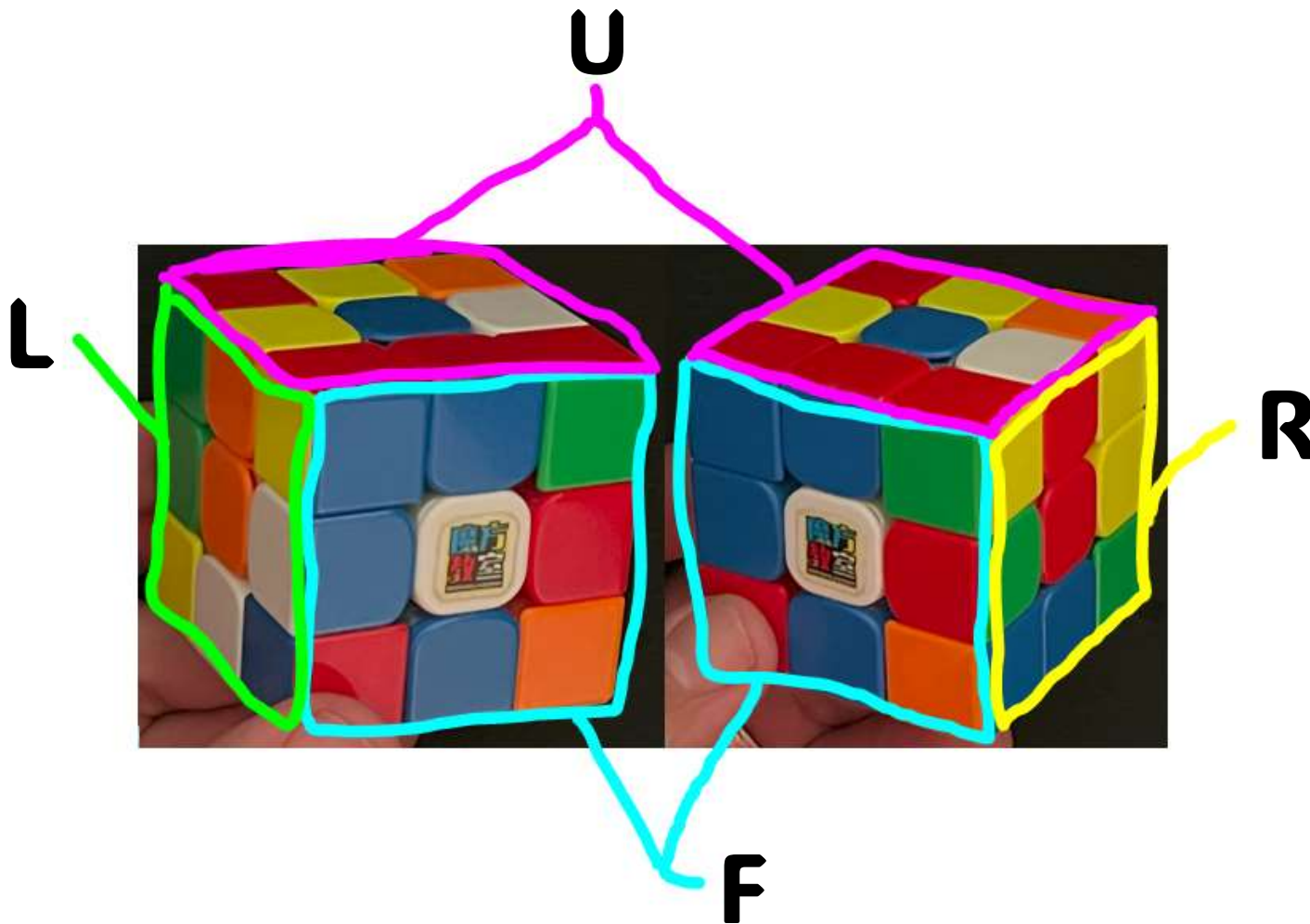


8 Movable Corner Pieces

3 Split Colors

**Positioned between
Centers of those Colors**

Structure of the Cube



Terminology: Addressing the Cube

When Facing You:

Left = L

Right = R

Front = F

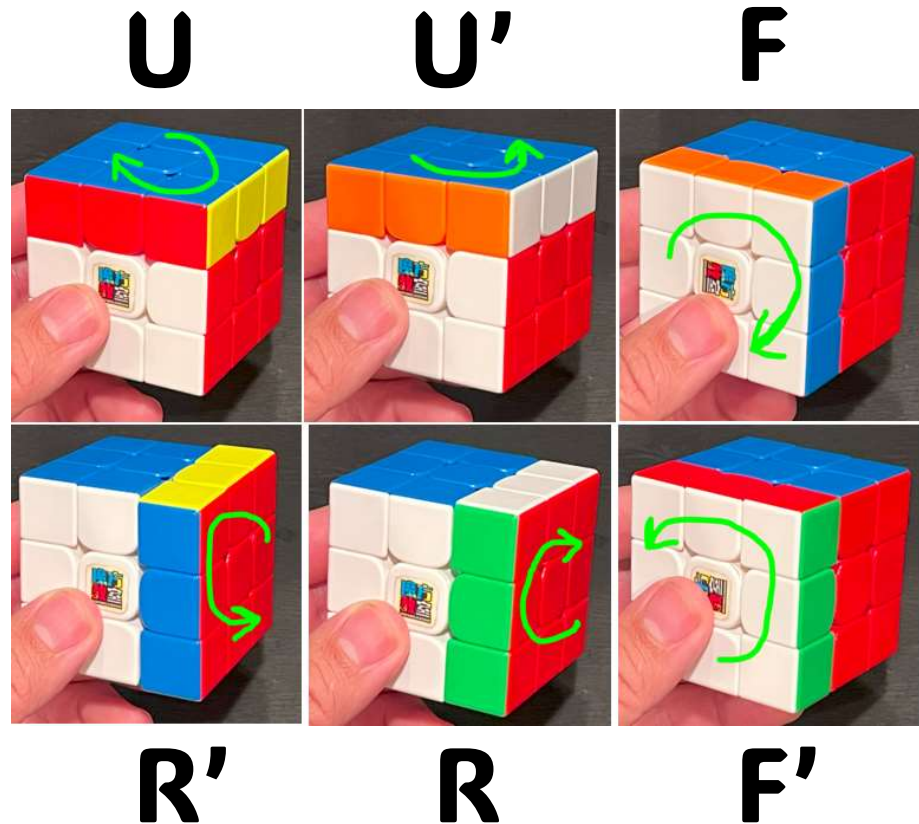
Back = B

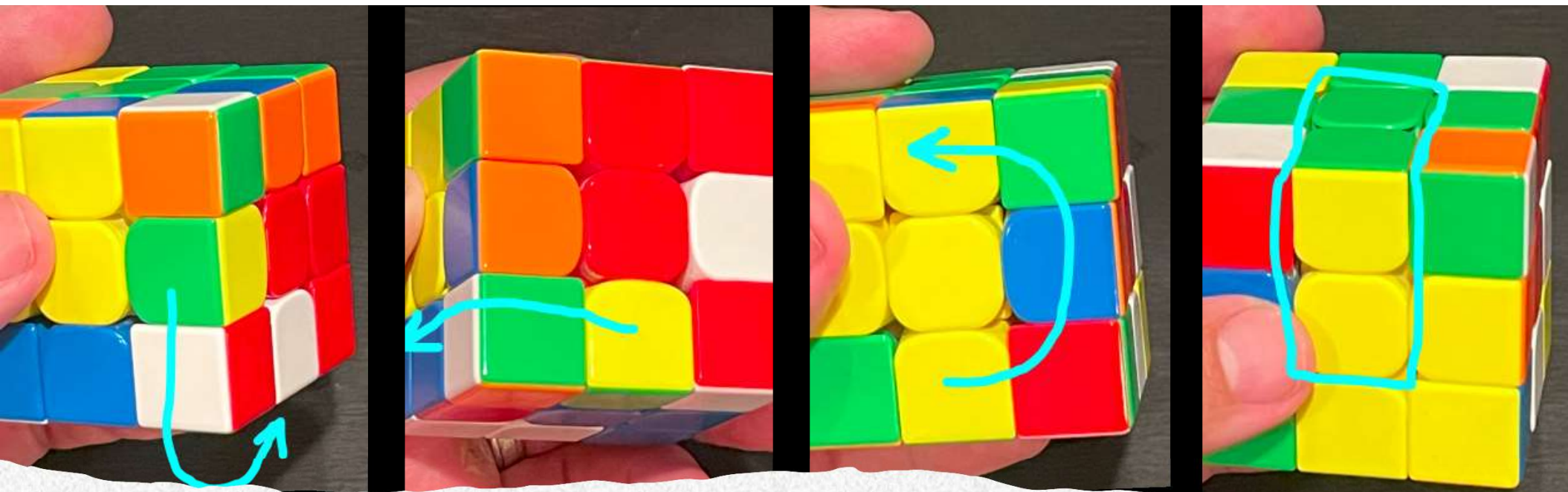
Up = U

Down = D

Notation: How We Express Algorithms in Writing

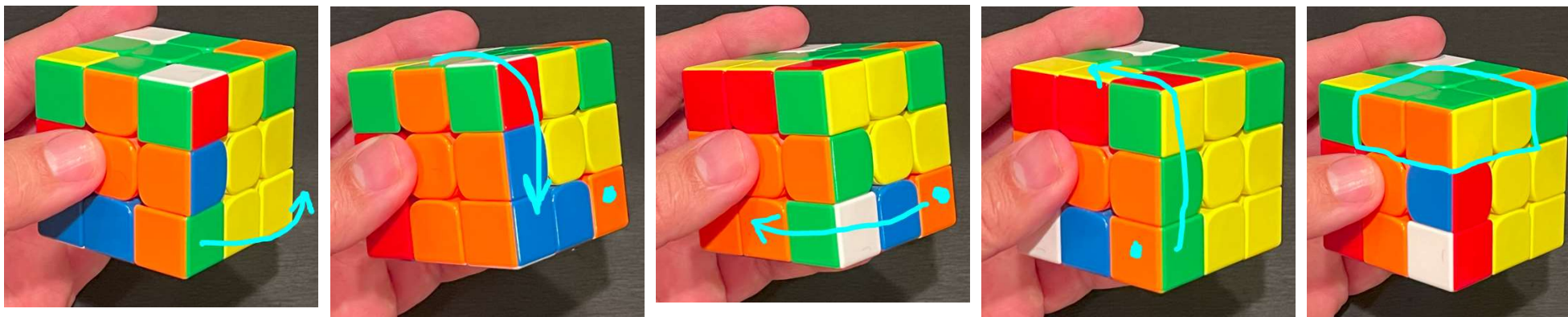
- Algorithm = a series of moves
- R, L, F, B, U, D
Letter = $\frac{1}{4}$ Turn Clockwise
- R' L' F' B' U' D'
Prime = $\frac{1}{4}$ Turn Counter-clockwise





Step 1: The Cross

- *Goal: Connect all 4 Green Edges to the Green Center .*
- *Important: Each Center must be in correct place to connect to the same-colored center on the side!*
- *No Algorithm Needed.*
- *Simply move Green Edge to the down (D) face. Then rotate D face to connect with same-colored center (here, yellow)*
- *Finally, spin connected side center and edge to the top to connect to the Cross.*
- *Repeat with all 4 Green edge pieces. (Re-do your work when necessary!)*



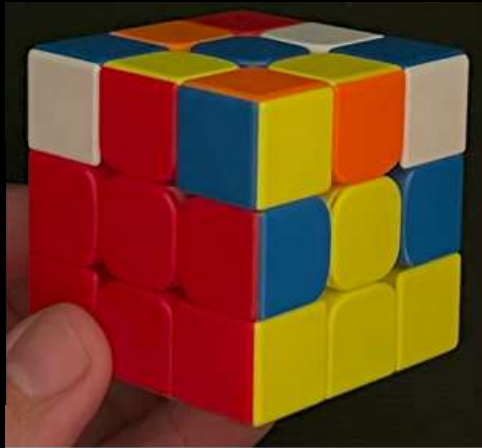
Step 2: Green Corners

- First, place Green corner at bottom between like-colored centers with Green on side
 - Second, rotate D $\frac{1}{4}$ turn toward side Green is facing (here, a D turn).
 - Third, rotate opposite side Center $\frac{1}{4}$ turn (here, a F turn).
 - Fourth, rotate D face back to original position to connect corner with lowered edge (here, a D' turn).
 - Finally, rotate connected pieces back to the top of cube (here, a F' turn).
- (Repeat for all four corner pieces)

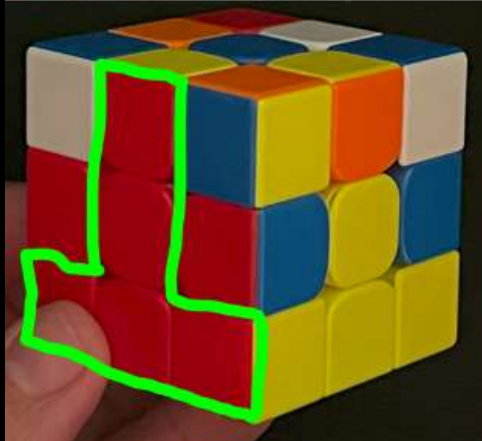
Step 3: Second Layer Edges

["T" + Algorithm(s)]

**T + Right
Algorithm:**



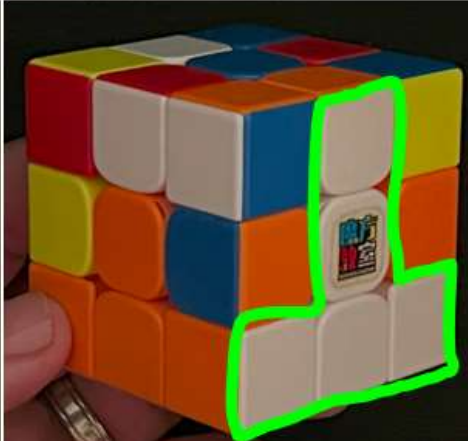
**U R U' R'
U' F' U F**



**T + Left
Algorithm:**

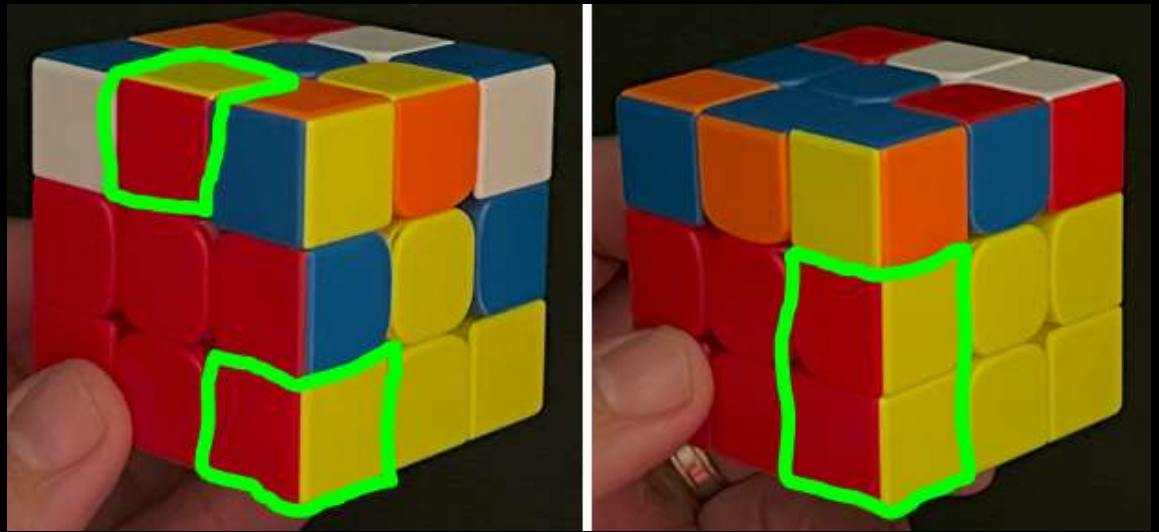


**U' L' U L
U F U' F'**

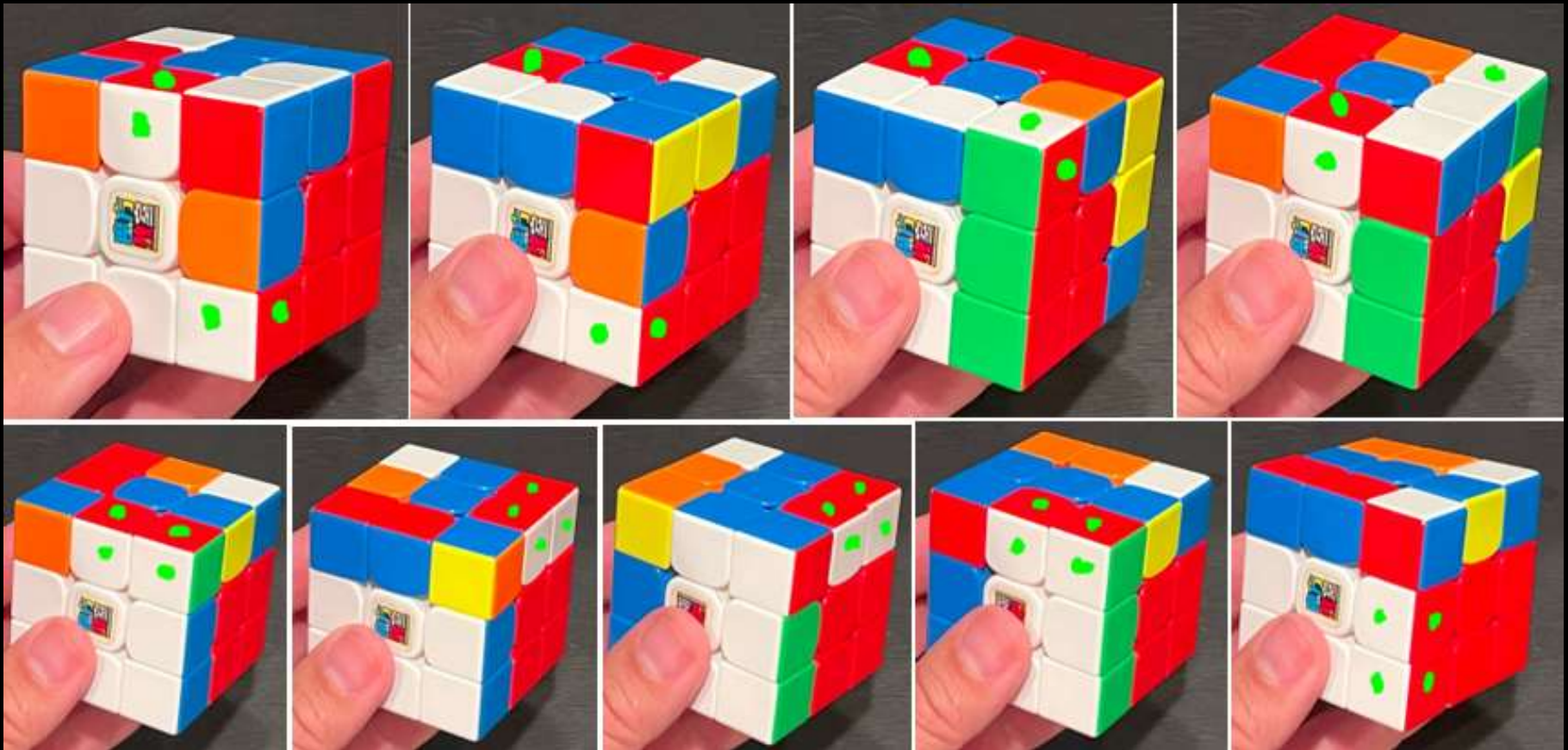


Buddy System

- Move the Buddy Out of Way
- Bring the Floor Up
- Bring the Buddy Back
- Connect the Buddies
- Move the Buddies Out of the Way
- Bring the Floor Up
- Insert Buddies
- Lower Buddies to the Floor



Buddy System



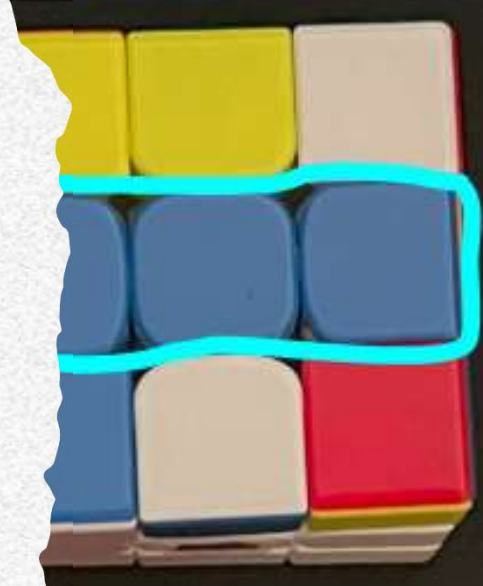
Step 4:
Opposite Cross

**Four Options. Always
in same order:**

Dot/Arrow/Line/Cross

Algorithm:

F R U R' U' F'





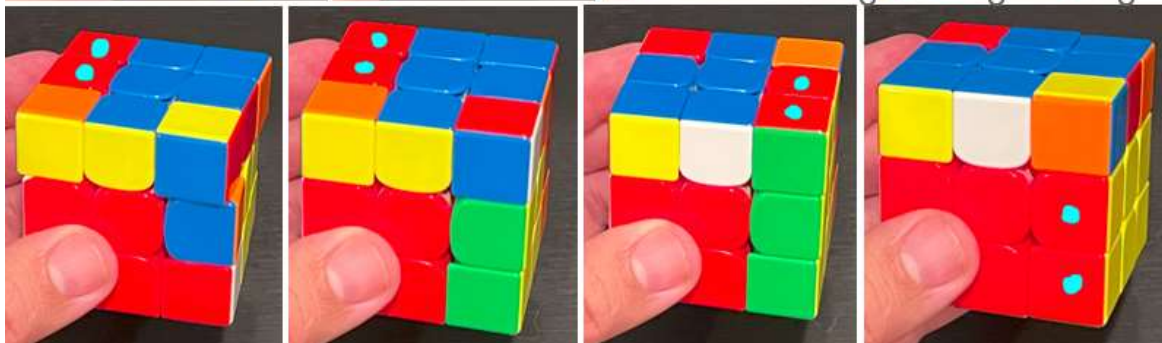
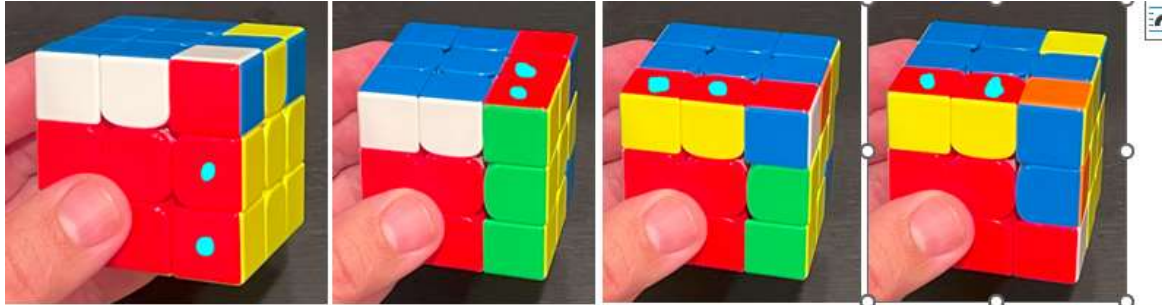
Step Five: Orient the Edges (Fix the Cross)

Step 1:
Position Correct
Edges at R & B

Step 2: Algorithm
R U R' U R 2U R' U

Follow the Pieces Around the Top

R U R' U



R 2U R' U



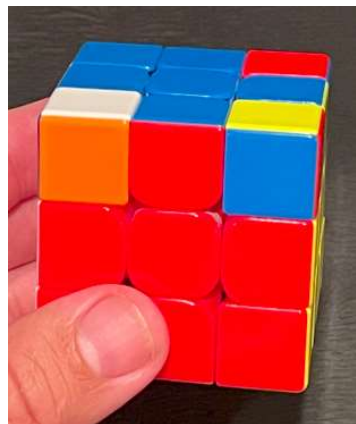
Step Six: Position the Corners

- *Find 1 Solved Corner and Position to the Front/Upper Corner*
- *If No Solved Corners, Just Do the Algorithm!*
- *Algorithm:*

U R U' L' U R' U' L



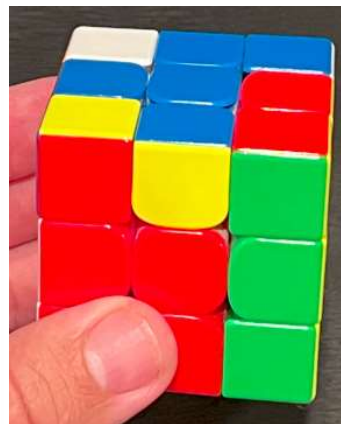
Step Six: What It Looks Like...



U



R



U'



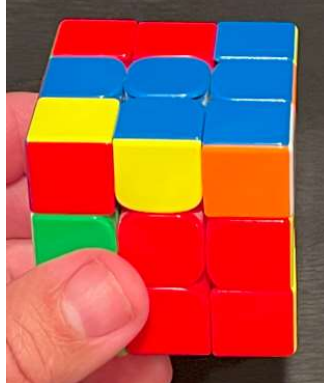
L'



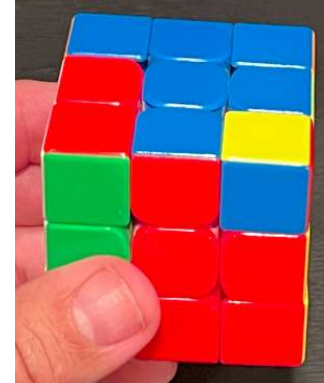
U



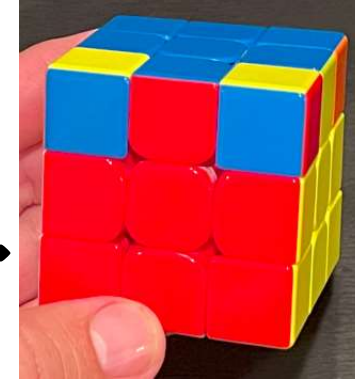
R'



U

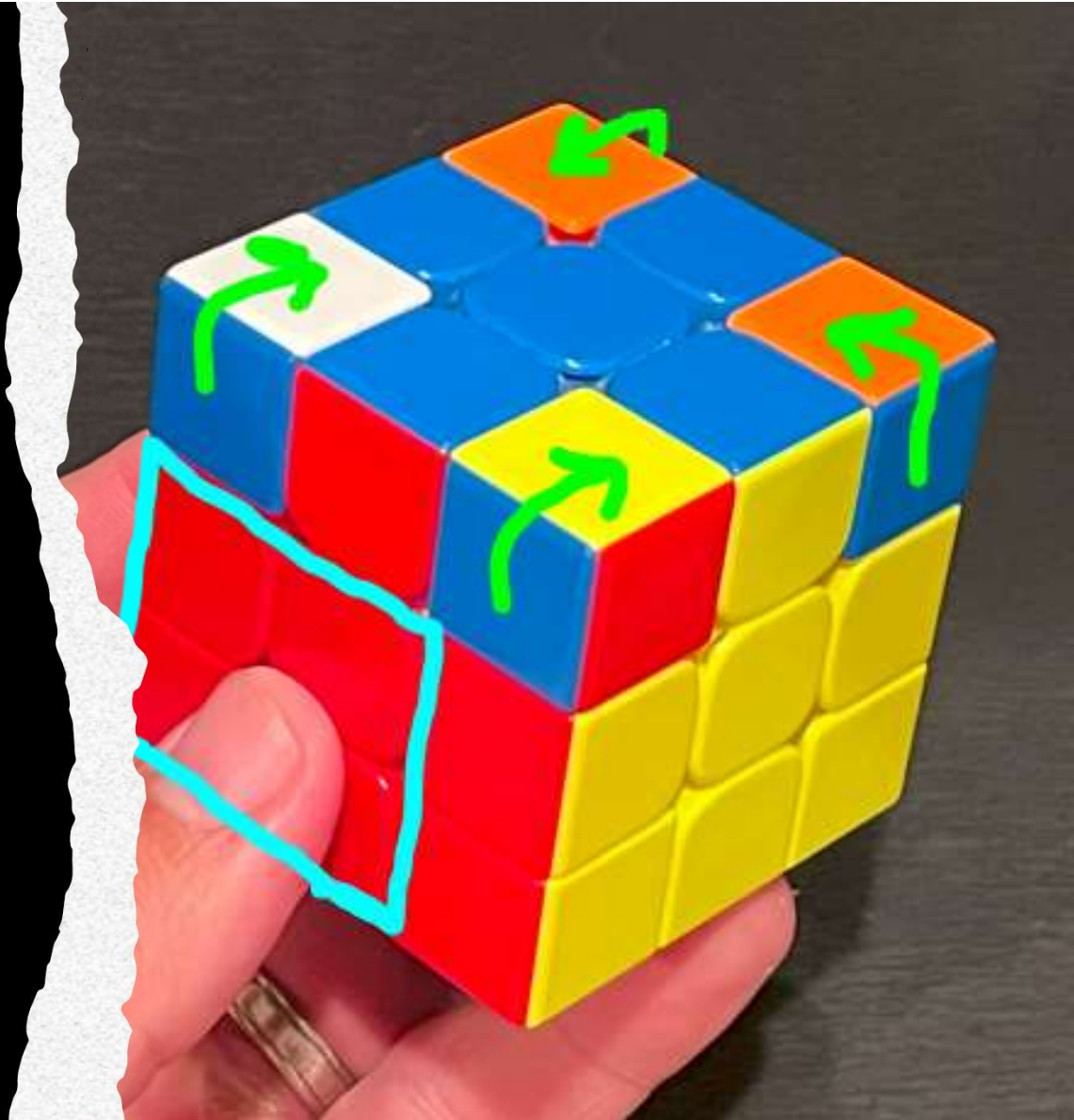


L

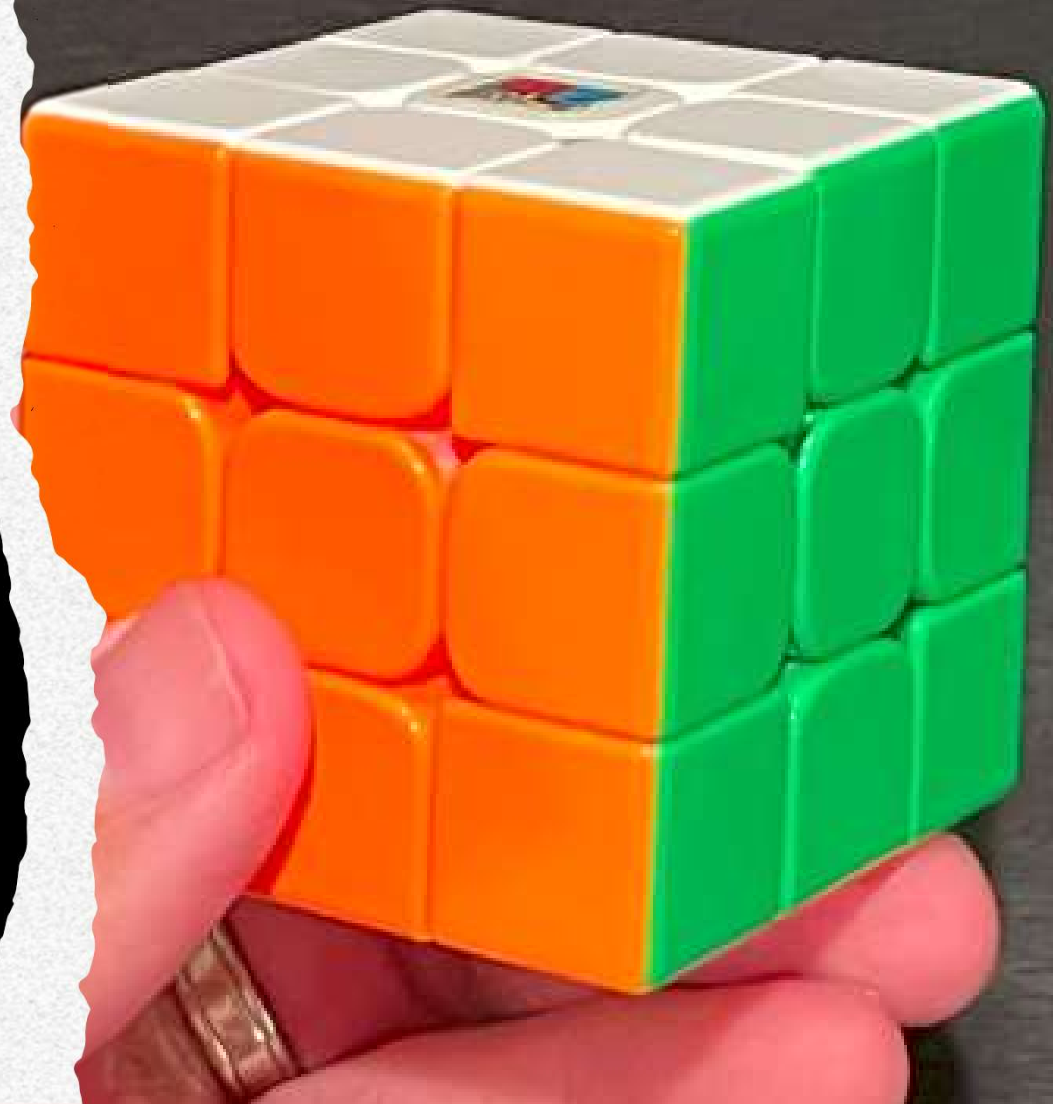


Step Seven: Orient the Corners (Solved!!)

- Pick Any Color to Hold as "F"
(and keep it at F until solved)
- Rotate U until an unsolved
Corner is at the Right/Upper
- Algorithm: $R' D' R D R' D' R D$
- Repeat with each corner until
solved
- When you switch between
unsolved corners, make sure the
bottom/left square stays in
place!



You Did it!



Full Solve Video

