Two Pillar Method
#TP

Introducing the Two Pillar Method: An intuitive approach for a deep understanding of the Rubik's cube. Level 1 suits beginners aged 6 and up; higher levels can be used for competition.

I designed this method to teach young children cubing, blending techniques from various sources, including my three decades of experience. While numerous variants of Jessica Fridrich's CFOP Method emerged, there is an opportunity to leverage double turns, as evidenced by the performance of elite speedcubers like Sean Patrick Villanueva reaching the world podium with the Gilles Roux's method. With modern cube technology, double turns are now as efficient as single turns, offering time-saving benefits without the previous risks of locks or unintended disassembly. The Two Pillar Method takes full advantage of double turns for both efficiency and simplicity.

You won't outgrow the TP Method, unlike the "Beginner's Method," which becomes obsolete as you progress. Initially TP is more demanding because it requires a recognition of patterns that other methods don't. I prefer this approach because it is more enjoyable to solve while understanding what you are doing and discovering better solutions by yourself during practice, as opposed to mindlessly memorizing algorithms by imitation, lacking comprehension. When you are just repeating “algs” like an automaton to develop muscle memory you are unaware of what you are doing and why. Being able to follow the piece's relative movement (cube transformation) allows you to determine the optimal path to solve any given situation. Discovering that altering the order of a method or a way to solve 2 steps in 1 go is super rewarding. In contrast, triggering optimal algs at a glance is a short-term shortcut to reduce your solve-time, but you will be missing out on the joy of the journey to master this captivating puzzle and will eventually plateau your progress until you roll back to the mindful solving.

Note for Speed Solving:
The big differentiator between the elite cubers and a “fast” cuber is their ability to identify patterns and look ahead plus their cadence (meaning the lack of pauses) in the solve. They don’t pause because they create a plan on inspection, this ability is called look-ahead. The high speed in which they turn the cube is achievable by most people, with enough practice (unlike the extremely unique speed of a sprinter like Usain Bolt which you could never achieve regardless of your effort in training). Also record solves are usually solutions with a low count of turns and this method has a lower average of turns per solve than CFOP plus more frequent step-skips (solutions in which a step is already solved and you don't need to do anything).

There are currently 4 levels for **TP** :
Level 1 will allow you to solve the cube in 50 seconds.
Level 2 will allow you to reach 40 seconds.
Level 3 will get you to 30 seconds at which point you can naturally transition to CFOP or try
Level 4 of the Two Pillar method that will get you to sub 20s in a couple of months.

Level 1

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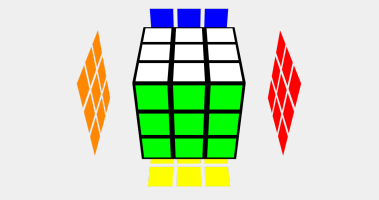
Getting Started

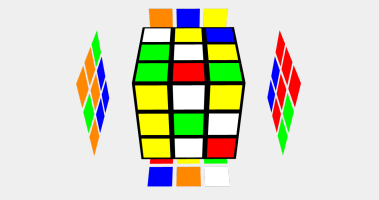
Blue texts are links to animated movement sequences (algorithms, or algs).
Click on them for a video guide you can easily follow.

We will hold the cube in the same position (Home Position) and avoid cube rotations that are confusing for beginners and a waste of time for speed solving. For this level we keep the cube in the way it is officially scrambled according to the WCA Rules: White on top and Green in Front[1].

Home Position Solved



Home Position Scrambled (example)
R U' L^2 R' D' U' L D' R^2 U^2 F U' R^2 L^2 U^2 R' U B' R D'



⚠️ You **don't need** to learn notation or memorize algorithms for **TP Method - Level 1** ⚠️
By watching the demo you can acquire the muzzle memory to solve every Step.
At least more easily than for any other method.
TP is based on the principals of minimizing memorization & maximizing intuition.
The main challenge resides in recognizing situations. To help you get charts, videos and animations.
With this method you will start anticipating the final position of the pieces and by doing so being able to choose the best alternative combination and/or shortcut to solve the cube.

💡 **Take 1 week** 💡
Learn 1 step per day and practice it several times. Although it is possible for some people to go through the 4 steps in just a couple of hours, to enjoy and understand the solving pace yourself. You want to accumulate enough practice to develop the muzzle memory, take some notes and maybe come with your own solutions. It is preferable to set a milestone of 1 week for the complete TP Method - Level 1.

*WCA notation is used for standardization. You can ignore it for now, just click on the link to the animation.[2]

[1] Level 3 will introduce color neutrality which allows us to identify and choose the colors that are most favorable to define as pillars for a shorter solution.
[2] I created a notation video so you can learn it in the future.

Step 1. TP - Define the 2 Pillars

We will only use a limited array of turns (R,r,l,L & U) for simplicity.
Don´t worry, these turns allow us to solve this step in less than 2 seconds.

1.1. Position the cube with White center up and Green center facing you.

Rubik's Cube centers maintain the relative positions to the opposite center so you shall have the Red center to the Right, the Orange center to the Left, the Blue center on the Back and the Yellow center on the Bottom Layer. (if these is not the case your cube has been improperly assembled or has an unorthodox color scheme)

1.2. Locate the Orange/Yellow or the Red/Yellow edge piece.

The fastest way to find a piece is looking for it sequentially. There are 12 edge pieces in the 3x3x3 cube: 4 on top, 4 on the "waist/equator" and 4 on the bottom. We will name the position of the edge piece on the Top/Back N$^{er.}$ 1 (just over the Blue center) and start counting clockwise. So position N$^{er.}$ 2 would be on the Top/Right (just over the Red center). N$^{er.}$ 5 will be on the equator between the Orange and Blue center (Back/Left) and N$^{er.}$ 9 on the Bottom/Front just under the Green center. To spot edges on the bottom tilt the cube up to peep.

1.3. Place it next to the Red or Orange center facing down to create a "pillar".

Use **R,r,l,L & U** turns to rotate the edge piece and move it around the cube.
Play with the cube, learn how it changes. The cube is already scrambled so there is no point in worrying about messing anything up.

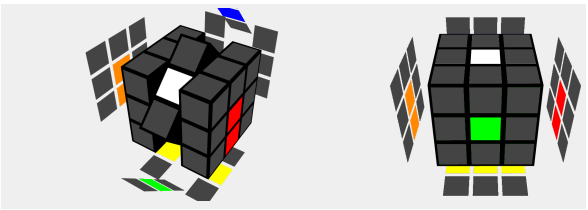
⚠️Spoiler Alert ⚠️

One Solution

*Orient the Edge piece so that the Yellow side is facing up on the Top Layer. To do this is easier to place them on the Top Back or Top Front position (N$^{er.}$ 1 & N$^{er.}$ 3) and use **"l"** or **"r"** turns (eg. link) to flip it. Once you have the Yellow face of the edge up, turn the top layer with U turns to place it over the matching center (color will match on the side). Lastly turn the whole layer down with R^2 or L^2 (twisting right or left side 180°).*

1.4. Repeat for the second pillar.

1.5. Optional: reset centers with M turns.



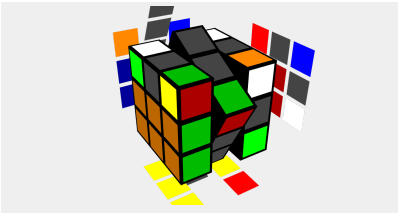
Step 2. TW - Build The 2 Walls

2.1. Place any "bi-color" edge in the key-hole position (indicated in pink)

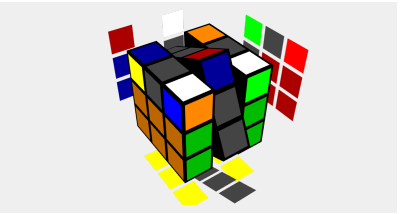
Bi-color edges are the 4 edge pieces that have no Yellow or White. With the solved cube in Home Position they are located at the "waist" or "equator" of the cube.

2.2. Pair it with matching Yellow corner piece on the Top Layer with M turns

corner piece in the front: M'



corner piece in the back: M^2

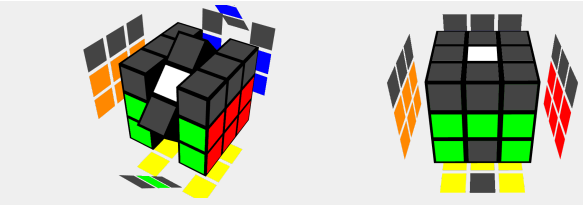


2.3. Position the pair/column with U turns and Insert it with:

Column	Opposite Insert	Adjacent Insert
Green/Red	R U' R'	r U R'
Green/Orange	L' U L	l' U' L
Blue/Red	R' U R	r' U' R
Blue/Orange	L U' L'	l U L'

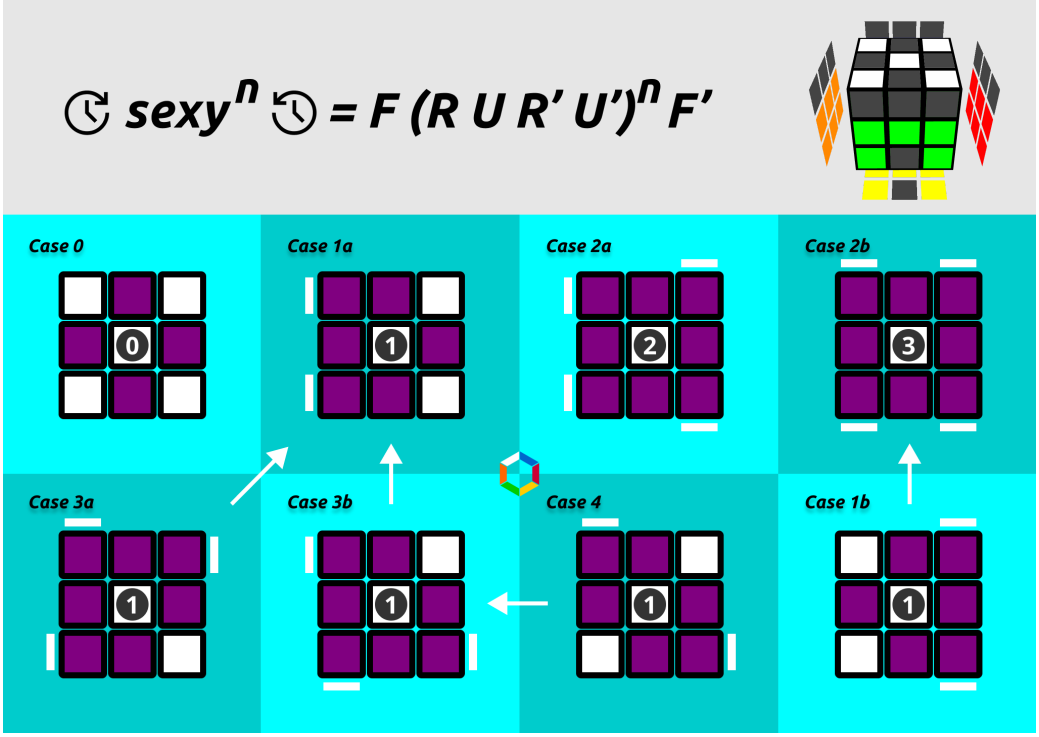
2.4. Repeat 3 times.

2.5. Reset centers with M turns.



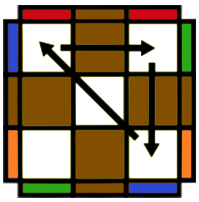
Step 3. LFC - Last 4 Corners

3.1. Orient Corners with: F (R U R' U') F' a.k.a. F *sexy move* F' [3]



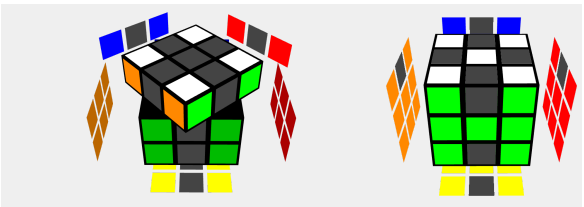
3.2. Permute Corners with an "A-permutation".

If there is a side with 2 corners with matching colors on one side, turn the top layer with U turns to put that side in the back.



(l' U R')
(D² R U' R' D²)
(R l)

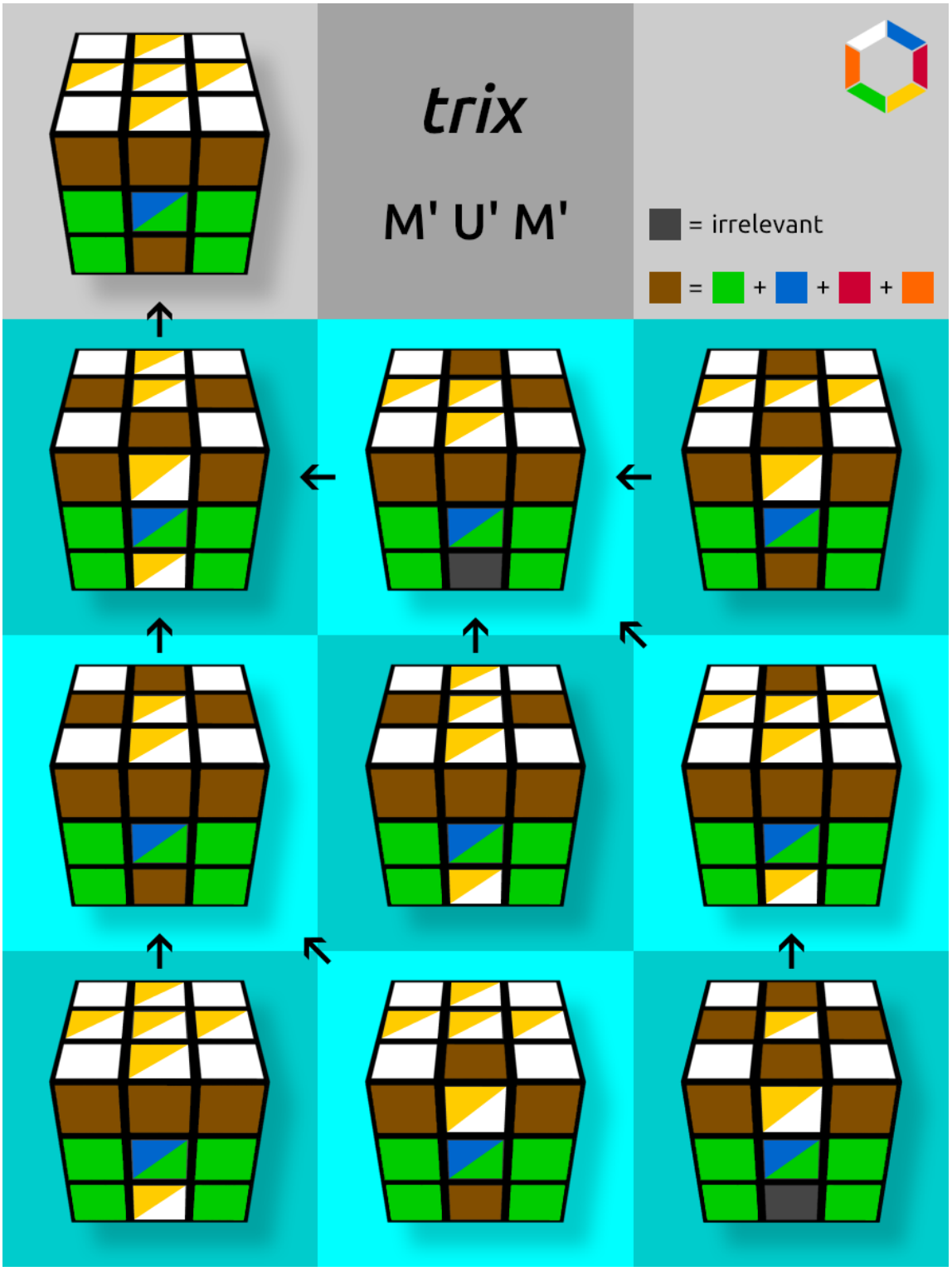
3.3. Optional: align corners with U turns.



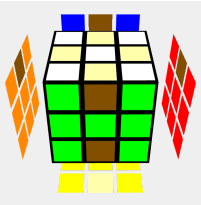
[3] We use names like "sexy" to describe a sequence of turns that can be performed really fast. These sequences are called "triggers".

Step 4. LSE - Last 6 Edges

4.1. Orient last 6 edges with: M'U'M' a.k.a. *trix*

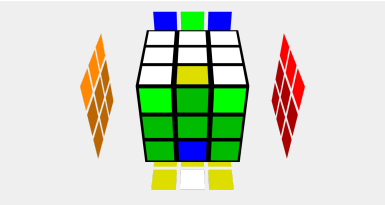


4.2. Reset centers with M^2 turn (White center to the Top Layer).

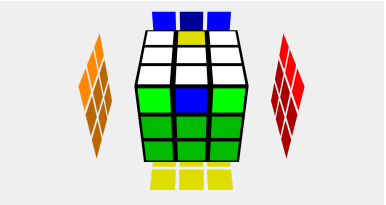


4.3. Swap Top/Bottom edges.

M' U² M



M U² M'



4.4. Align corners with U turns (likewise 3.3)

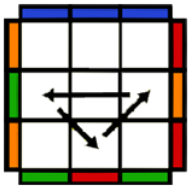
4.5. Not-a-Parity

If you see this situation you need to swap the Blue/Yellow and Green/Yellow edges.

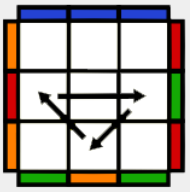
(M²' U²)
(M²' U²)

4.6. Permute the Top edges with a U-perm.

If there is a side with a correct edge rotate the cube to place it in the back. Otherwise use any of this algs randomly (follow animation if you can't read notation yet)
You can do any and re-apply if necessary.



(M²' U)
(M U² M')
(U M²')



(M²' U')
(M U² M')
(U' M²')

Solved, congratulations!