

Teraminx: Reduction method

STEP 1: REDUCE CENTERS 1-10

Bottom: White →

Lower level: yellow → blue → red → green → purple

Upper level: orange → lime → pink → beige → sky

Top layer: grey



Inner ring around center; add:

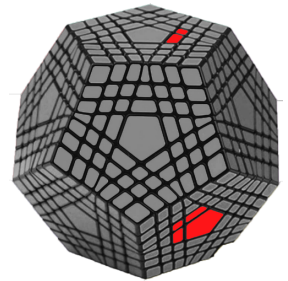
- Edge piece
- Corner & edge (block)
- Corner & edge
- Corner & edge
- Corner, edge & corner

Outer ring

- Corner, edge, & corner (block)
- Corner, corner, edge, corner
- Corner, corner, edge, corner
- Corner, corner, edge, corner
- Corner, corner, edge, corner, corner

Method to build centers:

- Bring edge piece to grey layer, top face
- Bring corner pieces to two layers below top face
- Build blocks on top grey face, on back side from target color.
- Transport back to final location (in target center) in one move (e.g. $Rw2'$)



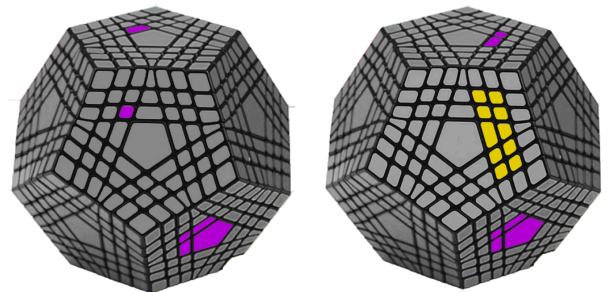
Red center: Use green & purple area for wide moves (to avoid disrupting completed centers)

Green center: Use purple area for wide moves (to avoid disrupting completed centers)

Purple center, Inner ring

To insert Inner Ring corner & edge block:

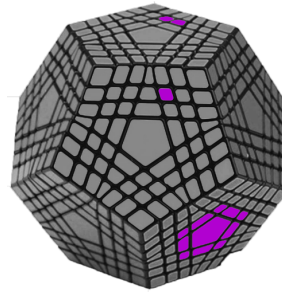
- Lw' to build corner & edge block (disrupts red & green centers)
- U to move purple block CW
- Lw to re-align red & green centers
- $Rw2$ to bring yellow block towards grey top
- U to bring purple block in place (on top face)
- $Rw2'$ to bring purple & yellow blocks into correct position
- dRw' to reposition purple center for next block



Purple center, Outer ring

To build & insert *corner, edge & corner* block:

- NB. Use carefully moves to not disrupt yellow center



NB.

- If necessary, disrupt completed centers and correct immediately
- Double check regularly that completed centers have not been disrupted accidentally
- If alignment of corner (on sides of top face) and edge pieces (on top face) does not work, try rotating F 90, 180, deg etc and rechecking possible alignments....

Reduce last two centers (11 & 12)

Goal: Create triplets (for all outer layer edge pieces)

Step 1: Build triplets for first three edge pieces (and put in place in center if possible)

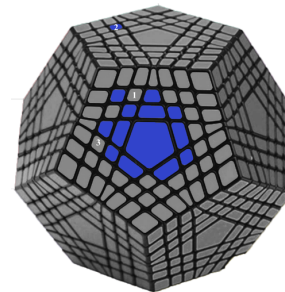
Algorithm 1: Outer ring: pair left corner piece to edge piece

Step 1 – Get blue & grey pieces (1 & 2) in place

- NB. have # 2 be an unattached piece

Step 2 – make sure there piece # 3 is grey

1. **Lw** : attach piece # 1
2. **F'** : rotate front face
3. **L'** : bring completed part up (1 slice, center layer 1)
4. **F** : return the front face (brings #3 to orig spot of #1)
5. **L-inner'** : return inner slice (i.e. bring inner part up (1 slice, center layer 2)
6. Completed triplet is now in grey face



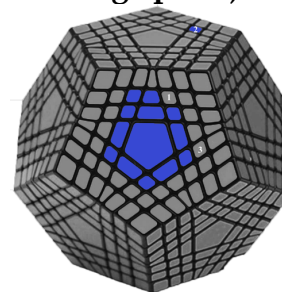
Algorithm 2: Outer ring: complete triplet (pair right corner piece to edge piece)

Step 1 – Get blue & grey pieces (1 & 2) in place

- NB. have # 2 be an unattached piece

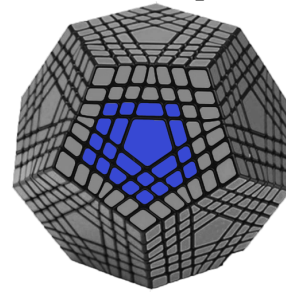
Step 2 – make sure there piece # 3 is grey

7. **Rw'** : attach piece # 1
8. **F** : rotate front face
9. **R** : bring completed part up (1 slice, center layer 5)
10. **F'** : return the front face
11. **R-inner** : return inner slice (1 slice, center layer 4)
12. Bring completed pair back to front face to finish triplet



Step 2: Build triplets for remaining edge pieces (and put in place in center if possible)

- Pair remaining single pieces with triplets to create quartets
- Then create quintets to complete the center.



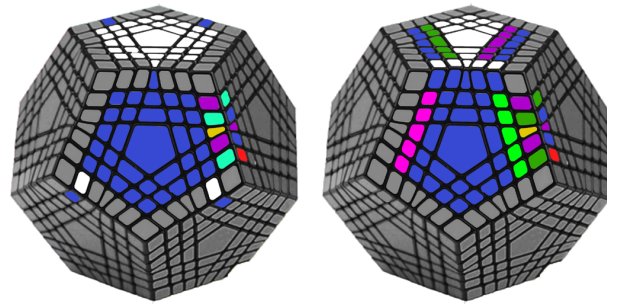
Build edge blocks (all except last 2 or 3)

Goal: reduce edge blocks so all 5 pieces are the same color; they don't need to be aligned w/ centers at this stage

NB. Only move outer rings in first 2 steps below

Steps:

- Place the 4 corner pieces in appropriate slices to match central edge piece (triangle) after appropriate slice moves
- With target edge block on top (12:00), have edge block at 3:00 be unsolved
- Conduct appropriate slice moves to build edge block
- $U' R U$ to replace completed edge with unsolved block
- Correct previous slice moves (NB. Do carefully, and confirm that centers have not been disrupted)



Build last 3 edge blocks

3rd to last: focus on making 1 edge; build it piece by piece, correct centers with each move

2nd to last: focus on matching pieces to pieces (not building edge block per se)

e.g. make triplet, then reverse orientation of the triplet; see if that matches up with remaining corresponding pieces of the edge block;

If edge & corner pieces are misaligned, take out flipped piece(s), and cycle through making and breaking up several edge blocks, with the goal of aligning pieces. Eventually, all edge blocks will (hopefully) come into alignment.

Solve like megaminx

- Get all edge blocks in place except last 5 on top and one adjacent (used to move others around)
- Do one in back first (the opposite the vertical edge block)
- Do the two adjacent to the back edge next
- To cycle 3 edges on top layer, e.g. move grey blue 1 face to the right (on top layer):
 - Position: flat face in back, angled edge facing front
 - $R_F U R' U'$, where R_F = Front Right (39 min)
- To move edge (on top face) (that is flipped) two spaces to the left:
 - Position: flat face in back, angled edge facing front
 - R'_F , to move green edge into vertical holding space
 - L_F , to move yellow edge out of way
 - R_F , to move yellow edge to the right
 - L'_F , to move green edge back into vertical holding space
 - U' , to move target position next to green edge
 - L'_F , to move green edge into horizontal position

- U & L_F, to undo those moves
- *Edge piece series* (cycle vertical edge piece with horizontal (on top face))
 - L_F' , to move edge in vertical holding space to top face
 - U
 - L_F, to move green edge back into vertical holding space
 - U'
- Then do remaining three. Two edge blocks should be correctly oriented, one will not be.
- *Edge piece series*: Place incorrect one in vertical space below top grey face, and cycle the three edge blocks until correctly oriented.
 - R_F
 - U'
 - R_F'
 - U'

Cycle Corners (cycles 3 pieces, orientation "rolls")

Position: Hold with flat side in back, corner piece directly in front

CW (2 in back & 1 in front right)
 U' L' U R U' L U R'



Position: Hold with flat side in back, corner piece directly in front

CCW (2 in back & 1 in front left)
 U R U' L' U R' U' L

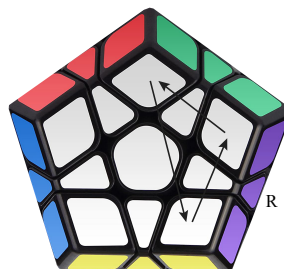
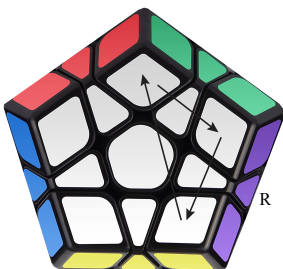


NB. If necessary, can do set up move (rotate face) to place corner in proper position to do algorithm; replace orig face when done.

Corner permutation (does not change face orientation). See complete lists..

U F' R' F R U' R' F' R² U R' U' R' F R

R' F' R U R U' R² F R U R' F' R F U'



Solve # 1 (2020.05.25)

Got to a stage where it was completely solved except 3 corner pieces which were in the correct locations but need to be flipped:

- White Red Blue
- Grey Sky Orange
- Grey Pink Beige

I tried multiple attempts to flip the corners with the above methods, ended up disrupting some edges. After correcting all edges, 4 corner pieces (2 sets) were in the correct locations but need to be flipped (see photos). Both sets had the headlight orientation as seen below.

The following megaminx algorithms from CubeSkills worked for both sets of corners. The corner orientation algorithm resulted in the two pieces flipping such that they had the correct face color, but were in the wrong locations, and a new third piece with correct orientation but wrong location. The permutation algorithm cycled them all into the correct locations.

Corner orientation



$(R U R' U') (R' F R U)$
 $(R U' R' F')$

Corner permutation



$BR' R2' (U L U' R) (U L' U' R)$
 BR

Sources

Teraminx tutorial by Twisty Puzzling, [youtube.com/watch?v=EksEK3eqemg](https://www.youtube.com/watch?v=EksEK3eqemg)