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8 Summer 6:3
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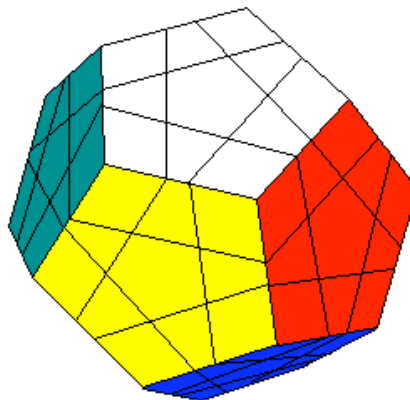
Introduction

Author: [OmnipotentEntity](#)

Greetings, this solutions was designed for those who have already solved the Rubik's Cube and have stumbled across a Megaminx somewhere and would like to solve it without learning too much more. This solution is **not** for anyone who even wants to attempt to learn how to solve the Megaminx quickly. This solution is the polar opposite of fast (your lower limit probably will be around 8 minutes per solve with this method, compare to less than 2 minutes for the record).

First off. There are actually three different sorts of Megaminxen. There are two types with 6 colors, and one type with 12 colors. If your Megaminx has 6 colors, this solution isn't for you; however, you'll be able to solve your Megaminx with this solution about half of the time (so you might just get lucky!)

So let's get to know our Megaminx better.



Axioms to keep in mind:

- The Megaminx consists of 51 individually moving parts. These include 1 axis assembly, 30 edge pieces, and 20 corner pieces.
- A center square will always remain a center square no matter how you turn the sides (this is far more apparent on a Megaminx than a Rubik's Cube).
- An edge piece will always remain an edge piece no matter how you turn the cube.
- A corner piece will always remain a corner piece no matter how you turn the cube.
- Center pieces never change their position in relation to each other. They only twist around in place, even though it looks like they change places.
- An edge piece has two stickers on it. Those two stickers will always stay next to each other. If you want to move one of the colors to another position, the other has to come too. The same idea goes for corner pieces.
- Peeling off the stickers is not the solution (in fact if you start to peel off some of the stickers but never finish putting the rest in their places, you are most likely going to cause an impossible combination and make your megaminx unsolvable). Even if you do finish replacing the stickers, you make solving the cube more difficult and awkward to a person who actually knows how to solve it since the colors are not in the same place in relation to each other.
- And finally, the one paramount to a Megaminx solver, **it now matters which way you turn the faces for a half turn**, gone are the days when all that was needed was a 2 next to a move. Now you must know to turn it either 2 left or 2 right. Keep this in mind because it's very easy to screw up if you've been solving the Rubik's Cube, because several of the algorithms from this solution are borrowed from the 3x3x3 solution.

And, of course, we all remember the difference between position and orientation. If a block is in the wrong place it's in the wrong position. If a block is in the right place but facing the wrong way it's in the wrong orientation.

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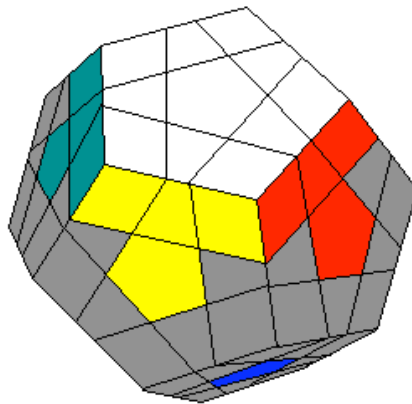
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Step 1: Solving the First Side

Author: [OmnipotentEntity](#)

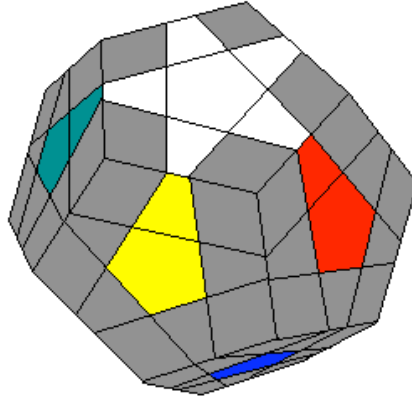
If you know how to solve a Rubik's Cube this should be a snap. If you don't I highly suggest learning the Cube before attempting a Megaminx.

The color we'll be solving first is white. Don't worry if your Megaminx doesn't have a white side, some don't. Just pick a side and stick with it, and when I say "white" think "that icky shade of near blue I picked out."

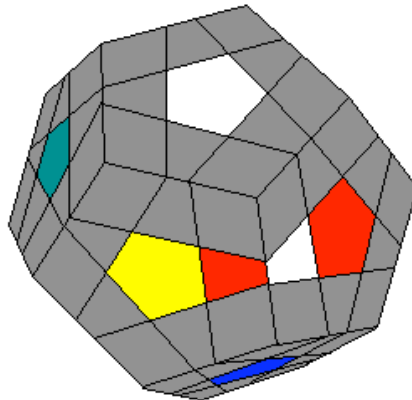


We start with the centers... oh! They're already solved, how convenient... next we move on to the white edges, remember from the Rubik's cube how they all had to line up with the centers on the other sides? Same deal here.

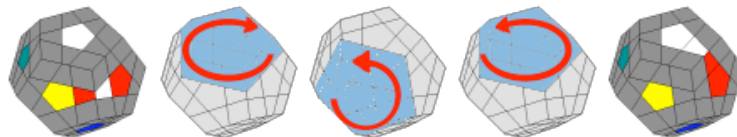
So, we begin by working all the edges to around the white side, from wherever they happen to be scattered around the Megaminx. To eventually put them at the top where they belong, in a star. Like this:



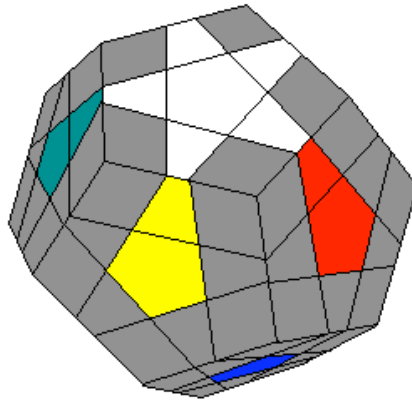
This is accomplished exactly the same as when doing the regular Rubik's cube, and just like the regular Rubik's cube you sometimes have a piece that's slightly out of place, like this:



When something like this happens do the exact same thing you did in the 3x3x3 solution. Namely:



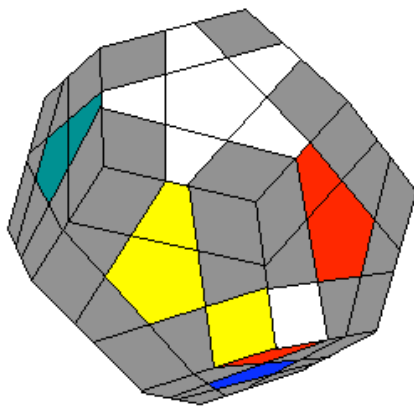
This shouldn't be much more difficult than a regular Rubik's Cube and should go rather quickly.



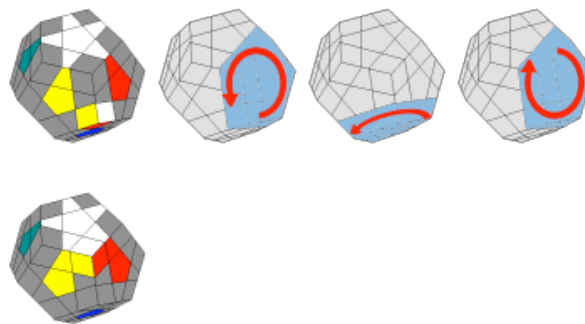
Once you're done you can go on to solving the corners.

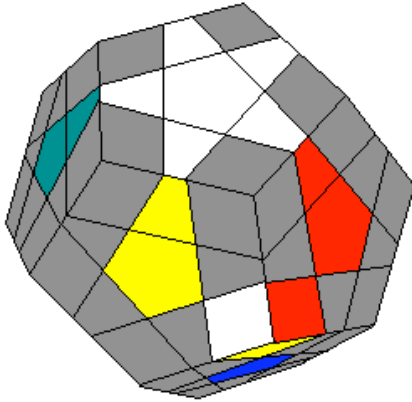
Now move the corners directly underneath where they need to go on the top layer. Remember, just as in the Rubik's Cube, all three colors have to match, or you've found the wrong corner.

You should be left with one of these three situations.

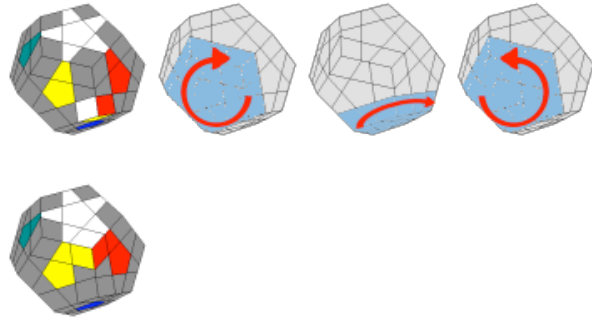


White sticker is facing right:

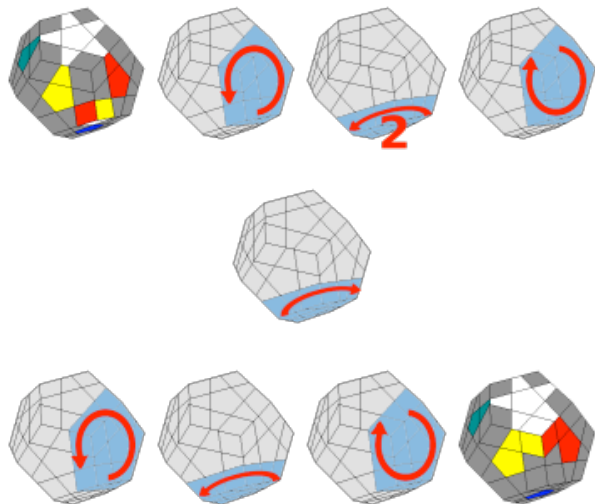
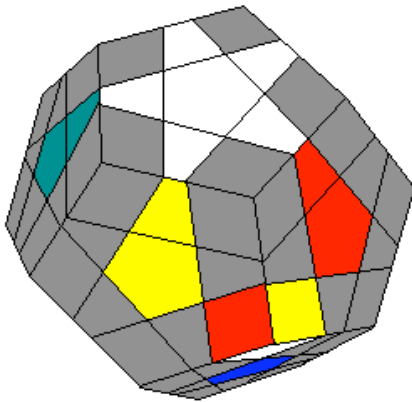




White sticker is facing left:

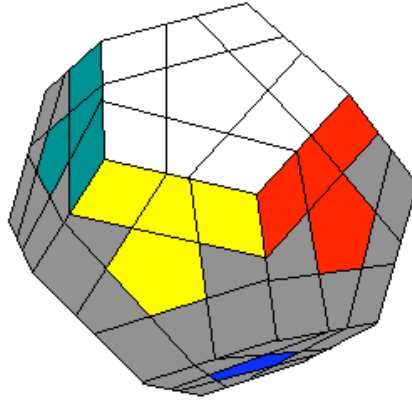


White sticker is facing down:*



Repeat this for each corner until all five are solved.

*If you recall the 3x3x3 solution used a different algorithm. I cannot use this algorithm because it relies on the cube having four sides. This is a slower algorithm, but it works on both the Megaminx and the Rubik's Cube. If you attempt the 3x3x3 only move on the Megaminx you'll take the other top corner in the right, front side out of the top layer. So you can use it if you haven't placed that piece yet (There are three "2" moves in that algorithm, the most correct way to perform that move on a Megaminx is to do the first "2" move counterclockwise, and other two "2" moves clockwise.) **If you're confused by this paragraph, just stick with the safe way.**



HOORAY!!!

Continue to [Step 2](#)

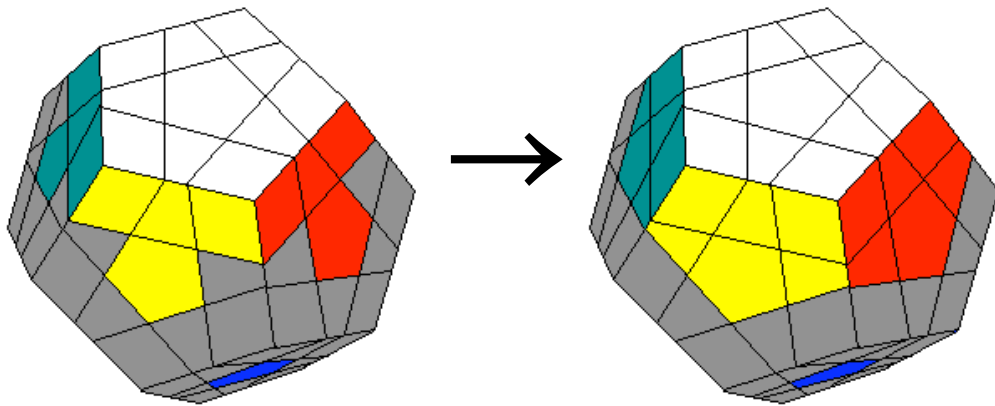
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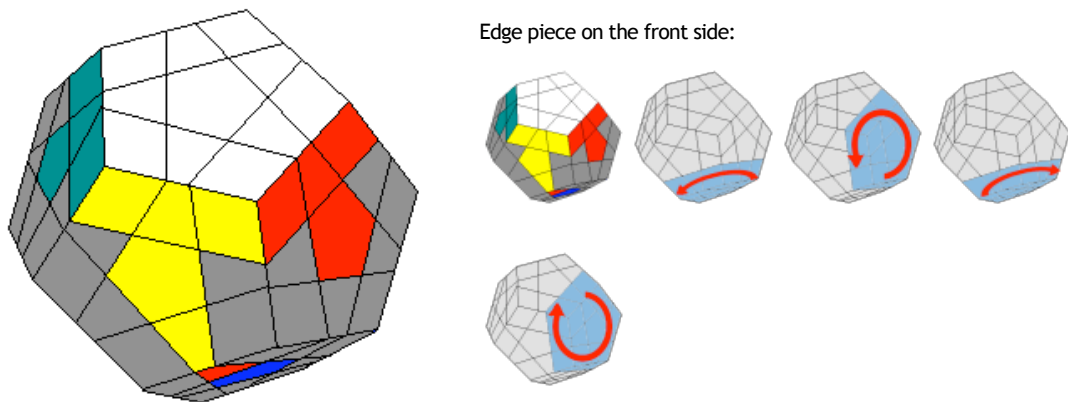
Step 2: Solving the Next Layer

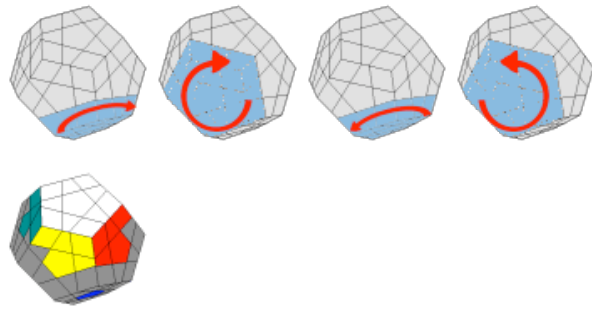
Author: [OmnipotentEntity](#)



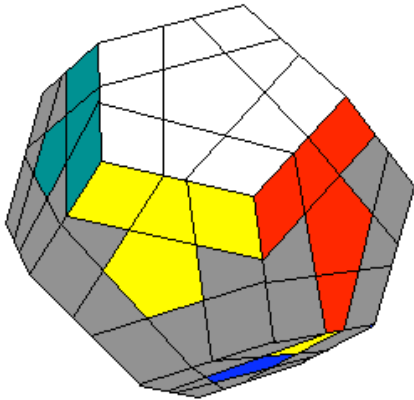
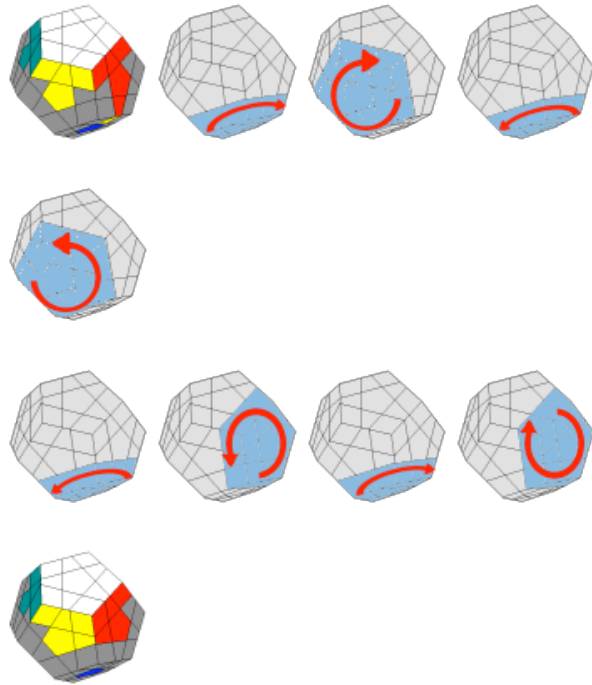
Our next goal.

Firstly, find all of the edges you need scattered about the Megaminx and line them up underneath the place where they are intended to go. There are two possibilities and the moves are exactly the same as the 3x3x3:





Edge piece on the right side:

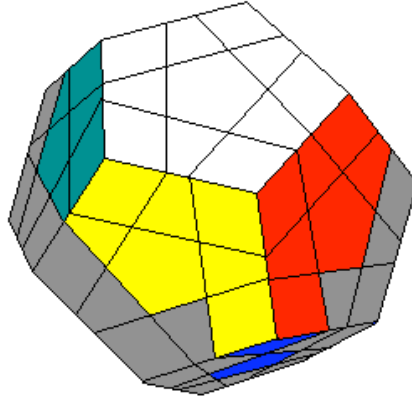


That was short and easy.

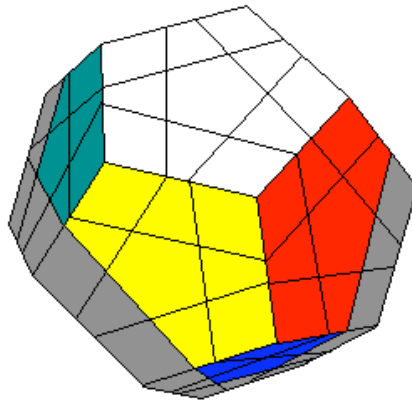
Take a break now, the next step will be long and confusing.

Now we extend the solved area to all but the very last side using only the moves we know from this step and part 1 and just a little bit of creative thinking.

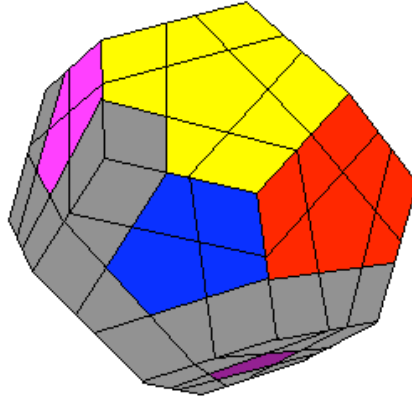
First we extend the solved portion like this:



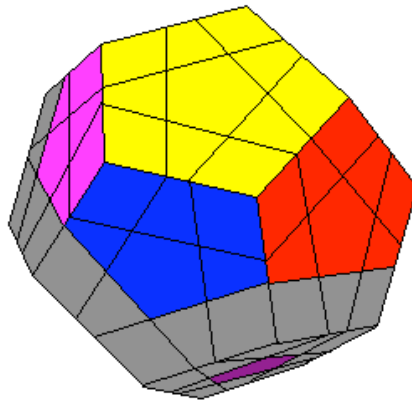
Now add the edges:



Now do these last two steps for the one to the left or to the right of it (the angle has been changed, to protect the innocent):



Finally, close it up like this:



Now repeat for the rest of the sides you can do this on. You'll want to keep the unsolved space as compact as possible, you don't want to have gerrymanders. You should get stuck with 2 or 3 sides left, though you can make it to one with some head thinking. Our second to last step will cover how to get from here to the last side.

Continue to [Step 3](#)

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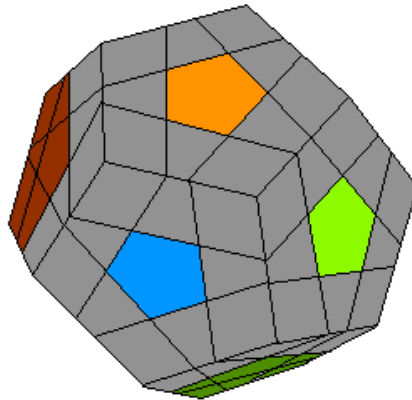
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Step 3: Everything before the last row

Author: [OmnipotentEntity](#)

Good news is for this update you don't have to learn any new algorithms. Just one new concept. And that one you've probably inferred already if you've played with a cube at all.

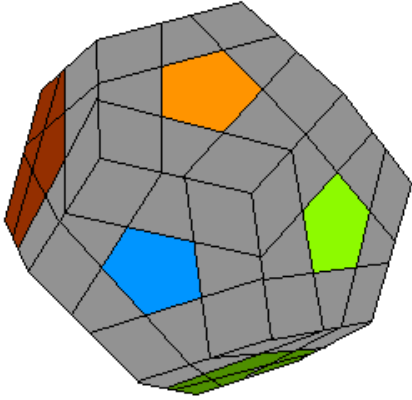
So, if you've been following my instructions you should be at a cube that looks like the following picture, where the sides shown are the only unsolved sides.



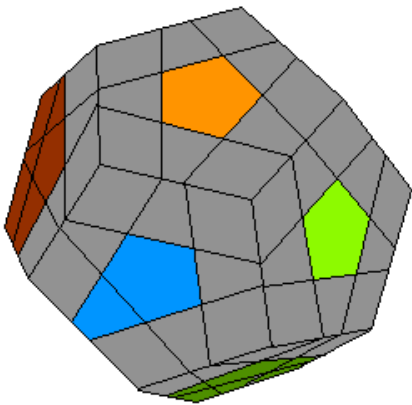
If you have more unsolved sides then you still have sides that can be solved with the methods in step two, or you've Gerrymandered your unsolved sides. Either way, with some imagination in the latter case, you can still get all the way to the next step using only the techniques in this step.

Here follows a quick synopsis of the next entire next step. You can probably infer exactly what you need to do from this, but if you run into trouble a [verbose explanation of this step](#) follows the images:

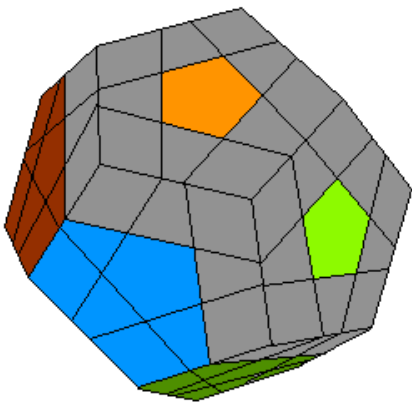
1.



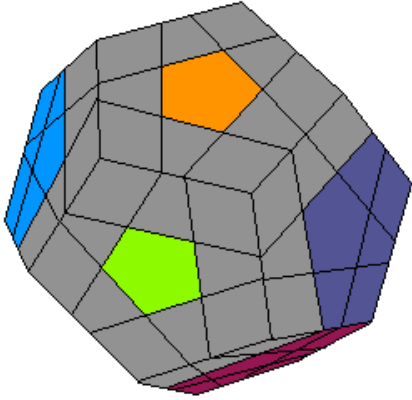
2.



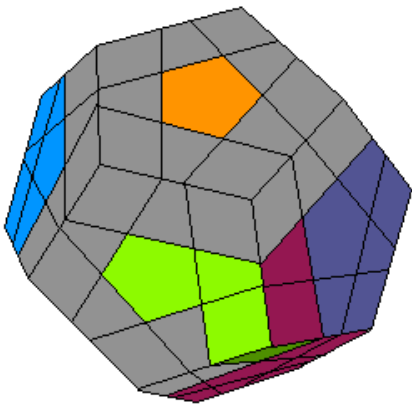
3.



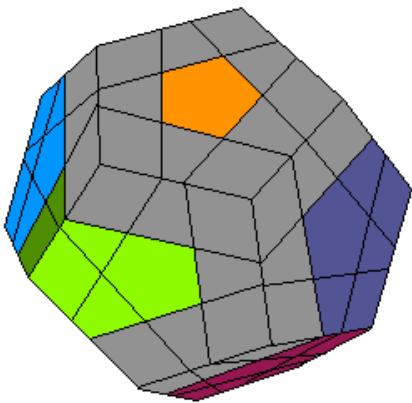
4.

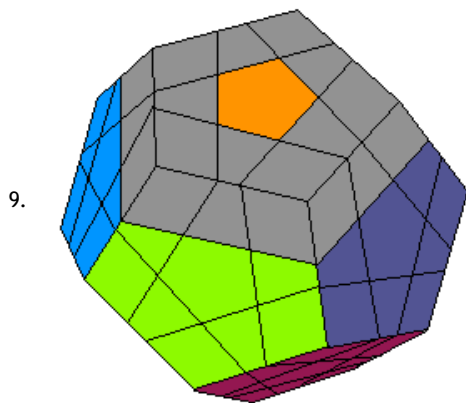
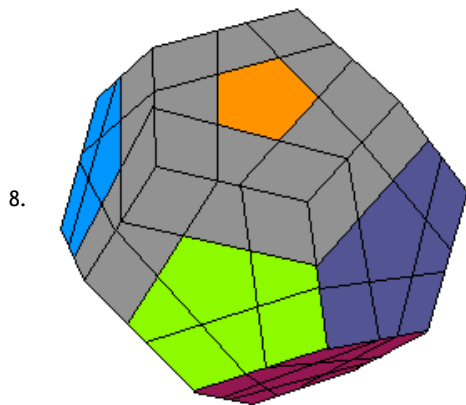
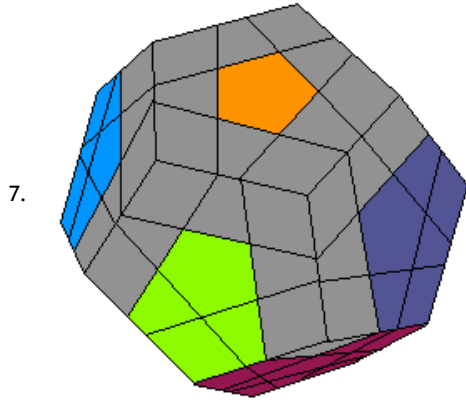


5.



6.





Ok so first we find the appropriate edge piece and place it in one of the three edges within the unsolved portion which is farthest away from middle of the unsolved region. (See [images #2](#) for details)

Next, we insert the proper corners and the proper edges into place, just like we did in Step 2. By first placing the corners, and then

placing the edges. (Image #3)

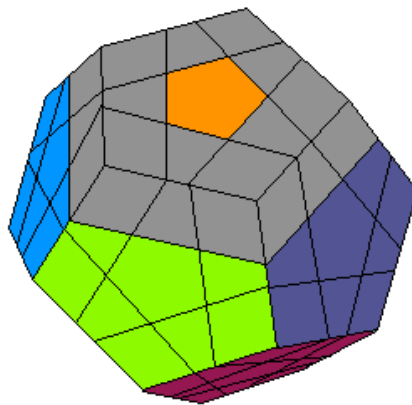
Now we only have two unsolved sides left, next we're going to exercise the new concept. This concept is incredibly simple, and I feel almost like a heel for making even a small deal about it. Stated simply is, "If you're in a situation where the algorithm you have doesn't reach the pieces you need you can move the pieces around, perform the algorithm, and then move the pieces back as if nothing ever happened." For quite a few algorithms this concept holds, but not all. In a few situations it messes things up. But a good rule of thumb is, if you don't move any "non-gray" squares into areas affected by the algorithm nothing bad will happen. "Non-gray" means squares that haven't been positioned yet, and show up gray in my diagrams.

So, we now use this concept to position the corner that should go in the farthest point in a corner closer to the bottom side. We then place the edge that's supposed to be right next to far corner, next to the far corner in it's new home. (See image #5 for elucidation).

Now, reposition the out of place corner to sit on the opposite side of the side your working on (image #6). Then position the edge piece that belongs with that corner. (image #7).

Finally, position the corner in it's correct home. Then fill in the left and right the normal way (corners then edges).

Congratulations, one side (and one step) left.



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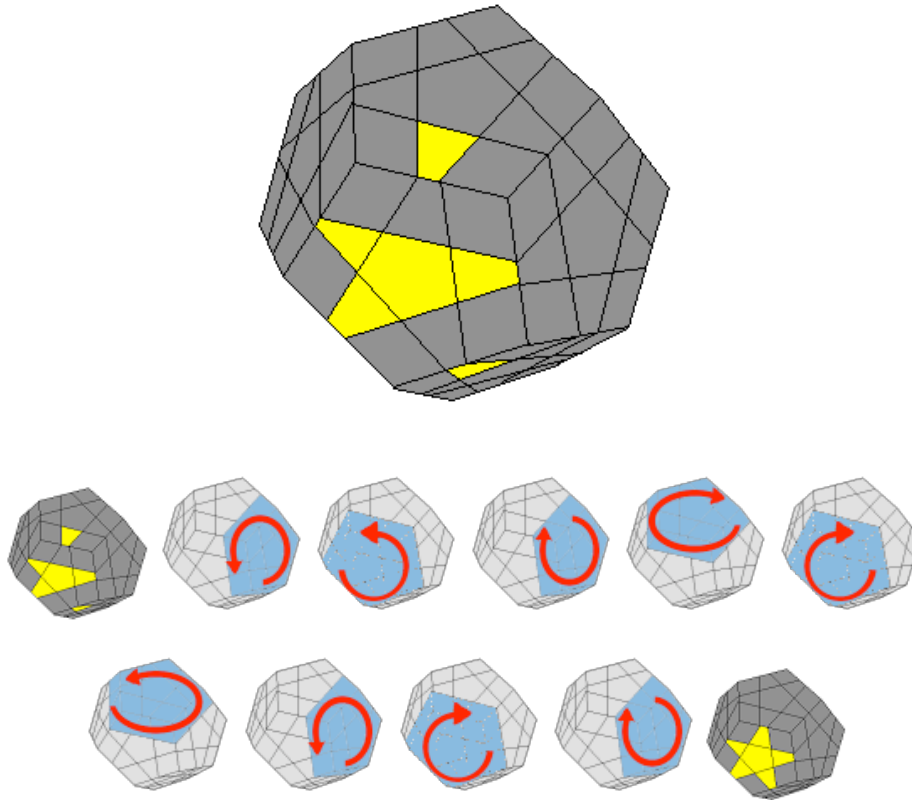
Step 4: Solving the last row

Author: [OmnipotentEntity](#)

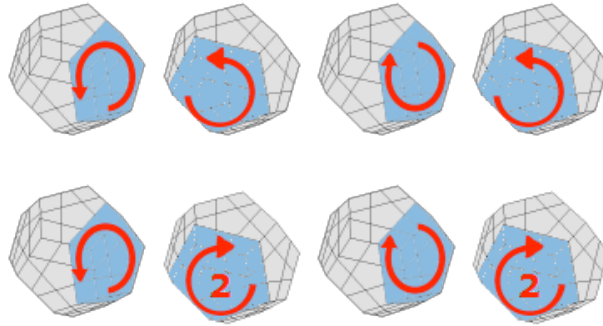
Here we are at last at the final step to the solution. It took me a while to write it up, mostly because I was embarrassed at how terrible of a solution it is. But it's easy to memorize and that's what counts. It's done in 2 steps really. The first step involves orienting the edges correctly and the second step involves positioning and then orienting the corners and positioning the edges all in one move with one move. How does that work? Well, the only caveat is you have to do that one move quite a number of times.

The first move you may recognize as corner switch move on the 3x3x3. If you studied how the move worked on a 3x3x3 you'd know that it also changed the orientation of two of the edges. Well on the megaminx that's about all the use you can get out of it.

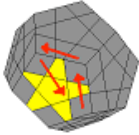
(yellow represents the last remaining color to be solved)



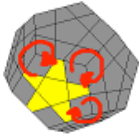
And the last move, which you will hate, you may recognize as the three corner orientation move from the 3x3x3. Only on the megaminx it works a bit differently. If you do it once it permutes three corners, if you do it three times it orients three corners, and if you do it 9 times (!) it permutes four edges.



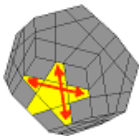
Doing this move once will do this:



Doing this move three times will do this:



Doing this move nine times will do this:



So by using these two moves in the various required combinations, you will have a solved megaminx.

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