

Part 4: Solve the top layer

7 | Orientation of the top layer edges

This step only deals with the orientation of the top layer (gray side) edges. Permutation will be dealt with in the next step.



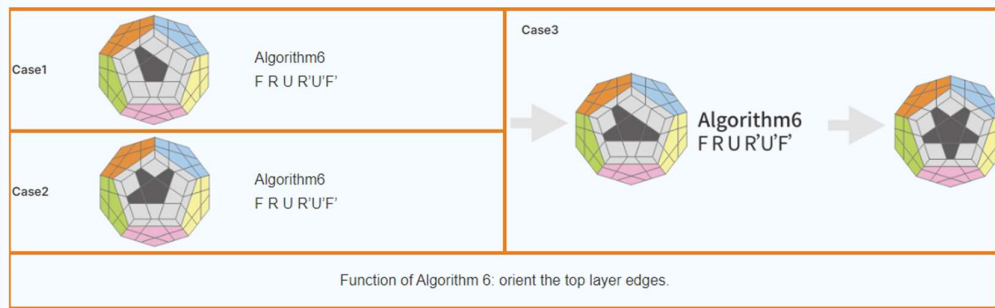
Solving Angle: Place the gray side at U. Depending on the number of top edges with correct orientation, place the sides per cases given below.

Steps:

(Below diagrams are vertical view)

STEP1 When encountered with case 1 or 2, execute Algorithm 6 once to transform into case 3.

STEP2 With case 3, execute Algorithm 6 once to solve the orientation of all top layer edges.



8 | Permutation of the top layer edges



Solving Angle:

Place the gray side at U. Depending on the number of top edges with correct permutation, place the sides per cases given below.

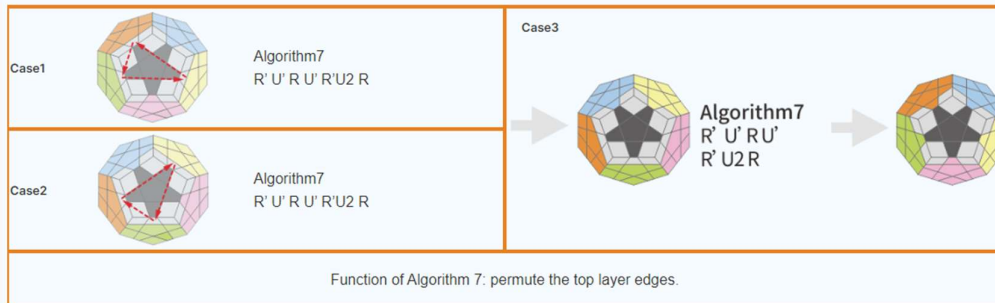
Steps:

(Below diagrams are vertical view)

Rotate and observe the top layer to locate correct top edges.

STEP1 If there's only 1 correct edge, execute Algorithm 7 once from any direction to transform into case 1 or 2 where there are 2 correct edges (with 1 incorrect edge in between). With case 1 or 2, execute Algorithm 7 once again to transform into case 3 where there are 2 correct edges next to each other.

STEP2 With case 3, Execute Algorithm 7 once so that all edges are solved.



9 | Orientation of the top corners

This step only deals with the orientation of the top layer (gray side) corners. Permutation will be dealt with in the next step.








Solving Angle: Place the gray side at dR, and the target corner in the down right corner of F (operating slot).



Steps:

STEP1 Make dR turns to move a corner with wrong orientation to the operating slot. Execute Algorithm 8 once or twice to rotate the corner until it orients correctly.

	<p>Algorithm 8 (R U R' U') (R U R' U')</p>			<p>Algorithm 8 (R U R' U') (R U R' U')</p>		
<p>Function of Algorithm 8: rotate the corner in operating slot 120° clockwise.</p>						

STEP2 Repeat Step 1 on all other incorrect corners one by one to orient all corners.

Tips

In this step, only focus on the corners needing to be dealt with in the operating slot. The other sides will be temporarily scrambled during the process and will be restored automatically when corners are all oriented.

10 | Permutation of the top corners

Permute the top (gray side) corners one by one. The Megaminx is solved!



Solving Angle: Place the gray side at dR, and the target corner in the down right corner of F (operating slot)








Steps:

Execute (dR+Algorithm 9) and (dR+Algorithm 10) in turns, until all corners have been solved.

STEP1 Make dR turns to move an incorrect corner to the operating slot and execute Algorithm 9 once.

STEP2 Make dR turns to move the target position of the target corner (now on the upper left corner of F) to the operating slot, and execute Algorithm 10 to solve it.

Repeat Step 1 and Step 2 until all corners are solved.

			<p>Algorithm 9 R U R'</p>		<p>dR turns</p>		<p>Algorithm 10 R U' R'</p>		<p>dR turns</p>		<p>Repeat</p>
<p>Function of Algorithm 9: to move the upper right corner to the down right corner and down right corner to the upper left corner of F. Algorithm 10 does the contrary.</p>											

Tips

1. In Step 2, to place which corner in the operating slot depends on whether there is incorrect top corner (gray corner) in the upper left corner or upper right corner of F. If yes, then move the target position of the target corner to the operating slot; otherwise just move any incorrect corner to the operating slot.

2. In this step, only focus on the corners needing to be dealt with and what should be at the operating slot. The other sides will be temporarily scrambled during the process and will restore automatically when all corners are solved.