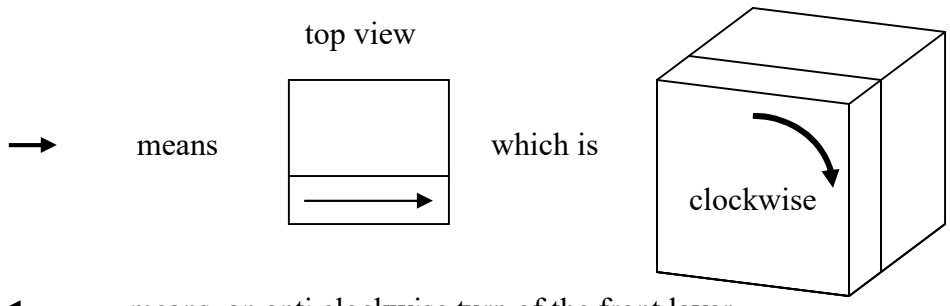
Bottom layer

We should start with the edges and the trick is to place them to the opposite top.
Here we don't have to worry about the sides of these edges.
Then we can place them one by one to the bottom with 180 degree side turns.
But before each of these side turns, first we have to turn the top so that the side colors are correct too. This way, the bottom edges will be in their places.
A bottom corner that is in the front layer top and faces its bottom color to the right or left can be turned to the bottom easily by turning the front layer clockwise or anti clockwise. This would be only a success of course if the front side of the corner is same as the center of the front. So we must turn first any such corner with a bottom colored side to match its other side to a center and hold this to front.
But this front turn then still would ruin the already fixed bottom edge there! So we need a temporary saving. This should be a back flip of two third of the bottom.
Depending on how we will turn the corner, we must turn the two left or two right layers so that the bottom goes to the back. Then we can do the front turn and then the reverse of our back saving. The other situated corners can also be changed with this.

Basic turn notations

The top is regarded as basic view for all notations of the other layer turns.
But the turns of the top itself are simply abbreviated with the 90 and 180 angles.
So 90 means a clockwise turning of the top layer and 180 is a double turn.
Front layer turns:

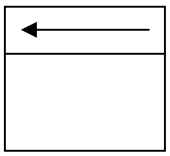
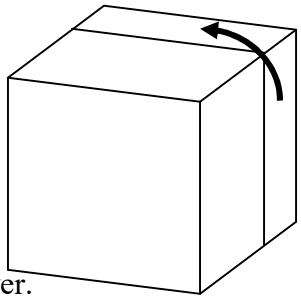


← means an anti clockwise turn of the front layer.

— means a double, that is 180 degree turn of the front layer

Back layer turns:

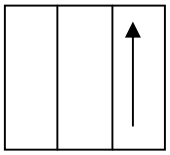
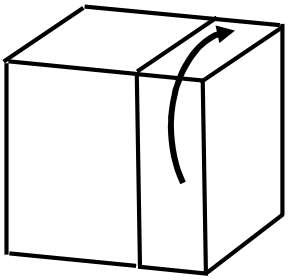
top view

◂···· means  which is 

····▸ means reverse directional turn of back layer.

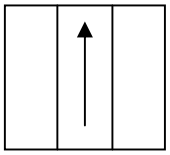
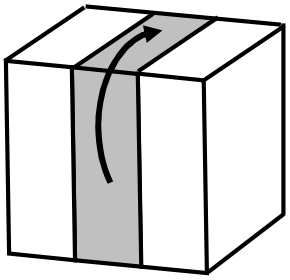
Right layer turns:

top view

↑ means  which is 

↓ means the reverse directional turn of the right layer.

Middle layer turns: top view

⇡ means  which is 

This can be achieved by first turning the middle and the right and then the right back.

⇣ means the reverse directional turn of the middle which can be done similarly by two turns.

We introduce five "turn vectors" as:

M = (↑ , ⇣) 360 = (90 , 180 , 90) 540 = (90 , 90 , 180 , 180)

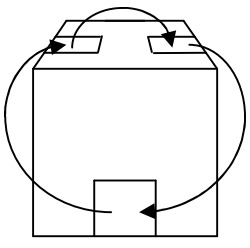
R = (↑ , ↓ , ↑ , ↓) BF = (◂···· , → , ····▸ , ←)

And x will denote the alternative application of these vectors! For example:

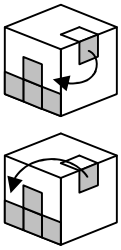
360 x (↑ , ⇣) = 90 ↑ 180 ⇣ 90 = **T** which will be our basic "triangle" trick.

The action of **T** is pretty evident.

But here it is in picture:



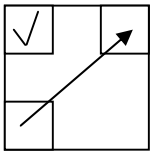
Middle edges

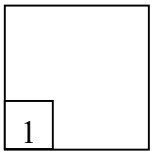


→ **T** ←

← **T** →

Top corners

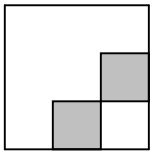
Placing:  = R x BF

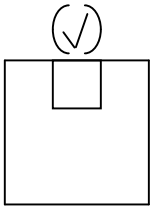
Whitening:  = R x 540

0 1 2

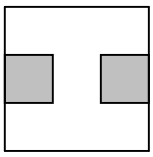
0 , 1 , 2 indicate where a white color must face if that many corners face white up.

Top edges

Whitening:  ⇣ **T** ⇡

Placing:  — **T** —

The tick means that if possible, an edge in its place must be there. If it's impossible then the trick can be applied in any position.

Whitening: 

Same as placing. It turns it into first whitening.