3x3x1 cube
Blocks method

Version 1. Updated on 28th July 2016.
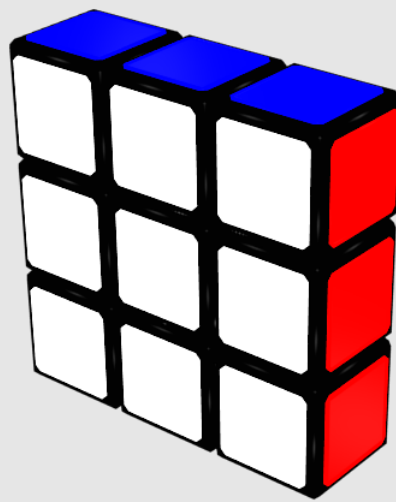
The 3x3x1 cube is actualy a cuboid, called Floppy Cube, based on a 3x3x3. In this type of cuboids the turns are always 180°, but we keep the number 2 in the notation because certain Floppy cubes allow 90° without blocking.

The pictures with red glowing shapes show what is intended, and the pictures on the very right show the final result (colouring just the well placed pieces).

Cross

In this cuboid the center pieces are fixed. Therefore, in order to solve the cross we will have just two options: The cross is solved, or we need to turn the faces F, R, B or L to solve it.
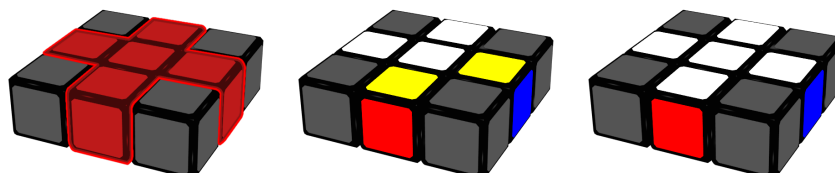

Figure 1: Left: Group of pieces that will make up the cross. Center: In this particular case we need to turn F and R faces. Right: Solved Cross.

2x2x1 block

Let's forn a 2x2x1 block; in this tutorial it is created in the front-right part. In this step there are two possibilities, being the already-solved block one of them.
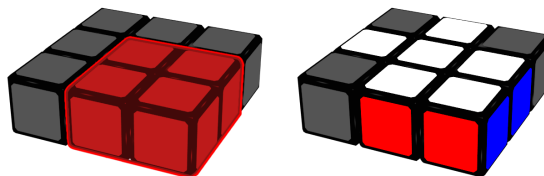

Figure 2: 2x2x1 block.

In Table 1 we have the possible positions for the corner of this 2x2x1 block, and the algorithms needed to get that block.

Table 1: Possible cases of the corner

-	L2 F2 L2 F2	F2 L2 F2 L2	F2 B2 L2 F2 B2

On the left there is no algorithm since the piece is well placed and oriented. In the rest of the cases the algorithm will be applied while holding the cube in the position shown in the pictures. Those algorithms could be shorter but this way we keep the cross well placed.

3x2x1 block

Let's create a 3x2x1 that includes the previous block. We already have the cross, so the only remaining piece is the front-left corner. There are three possibilities, being the already-solved block one of them.
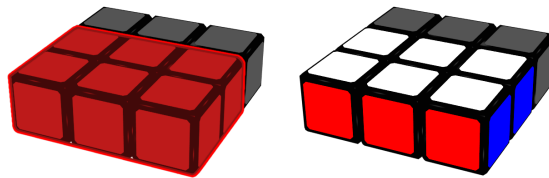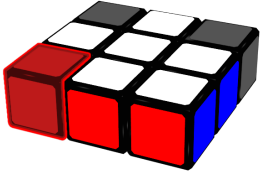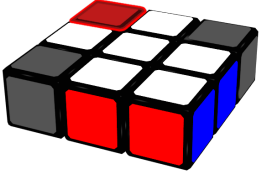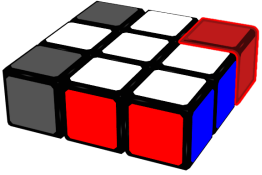
Figure 3: 3x2x1 block.

Table 2 shows the possible positions of the corner that completes the 3x2x1 block and the algorithms.

Table 2: Possible cases of the corner

-	B2 L2 B2 L2	L2 B2 L2 B2

Like in the previous block, On the left there is no algorithm since the piece is well placed and oriented. In the rest of the cases the algorithm will be applied while holding the cube in the position shown in the pictures.

Final step

These step is the easiest one because the two remaining corners get into their place automatically. There are two cases: In the first one the cube is solved; in the other one we have to turn the B face to finish it.
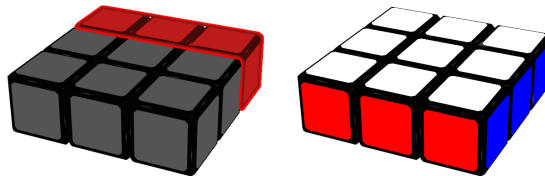

Figure 4: Last step.

By doing this, the cuboid is already solved. With some practice this cube can be solved intuitively and faster than using this method. We encourage you to try.

This guide and much more at:

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