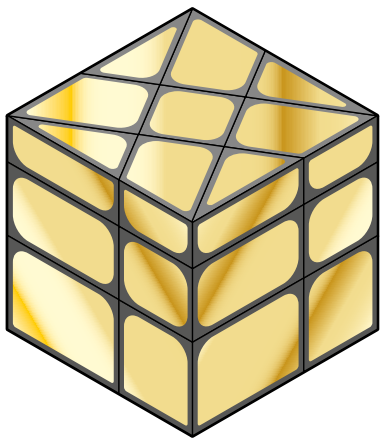
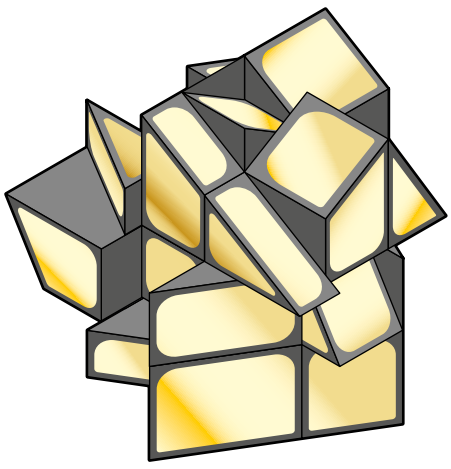
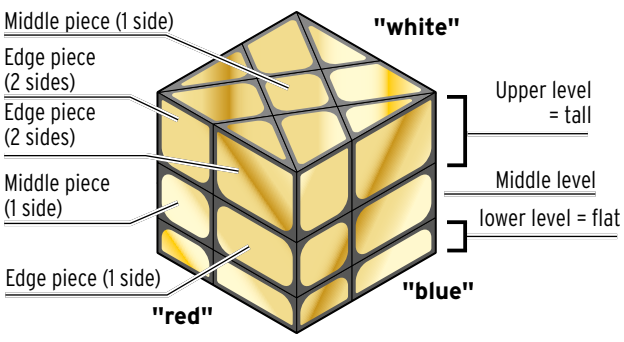
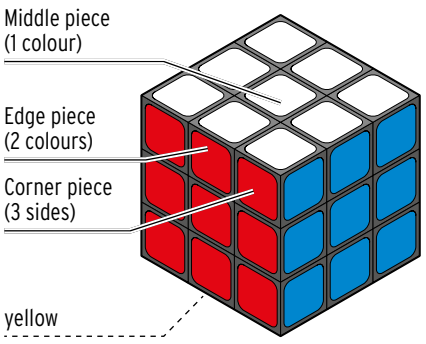
IQ-Cube "Windmill“







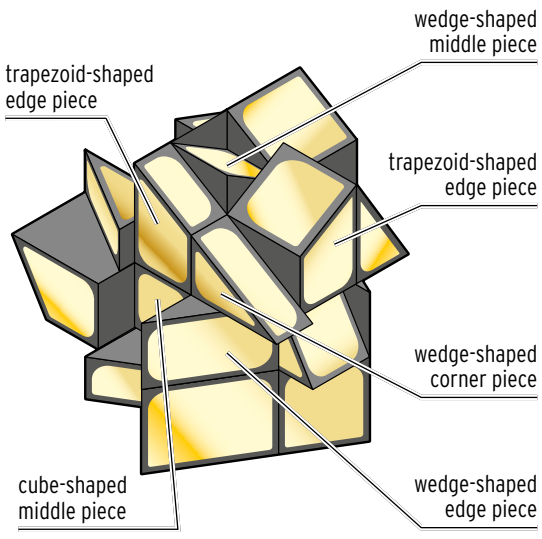


How to solve the cube

The IQ cube is made up of 6 surfaces. Two of them show have 9 panels of different sizes and the other 4 surfaces only have 6 panels.
The two opposite surfaces with 9 panels correspond to the white (= tall sections) and the yellow surface (= flat sections) of a standard magic cube. These are used for orientation and should always be held facing upwards/downwards.

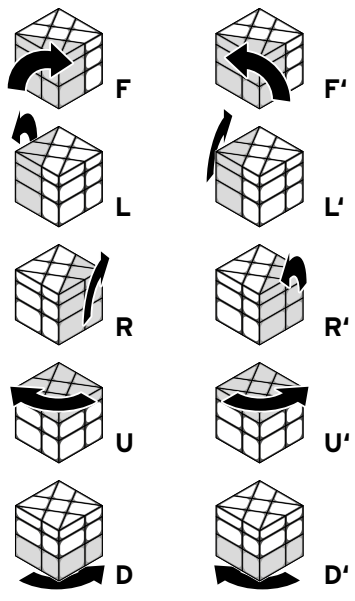
For orientation it helps to pay attention to the shape and number of the golden sides of the pieces:

- There are no pieces with 3 golden sides.
-  The **edge pieces** of the upper and lower levels are trapezoid-shaped and have 2 golden sides.
-  The **corner pieces** of the upper and lower levels are wedge-shaped and have 2 golden sides.
- The **middle and edge pieces** of the middle level are either trapezoid or wedge shaped and have 1 golden side.
- The **middle pieces** of the upper and lower levels are cube-shaped and are the only ones to have one single, square-shaped side.



⚠ Due to the peculiar shape of the cube, the pieces may become slightly stuck as they move and excessive force will cause them to break apart. Therefore, do not use force to turn the sections but instead try to feel where the joints are.

Important: To ensure that the algorithms used at the end work, start out with the **tallest** level positioned on the opposite side to the flattest level, but which also comprises 9 panels.



Turning movements and algorithms

turn clockwise

F = front
L = left
R = right
U = up
D = down

2F = 2x front

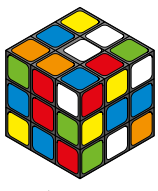
turn anti-clockwise

F’ = front
L’ = left
R’ = right
U’ = up
D’ = down

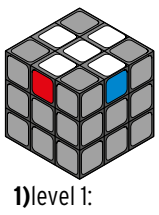
2F’ = 2x front

Solving the cube in 8 stages

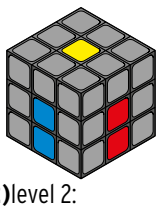
Solution steps – beginning with the tallest ("white") level at the top.
In step 2 and from step 4, the cube is held with the "white" surface facing downwards.



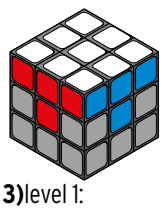
cube unsolved



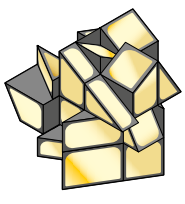
1)level 1: solve edges (white cross)

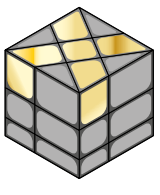


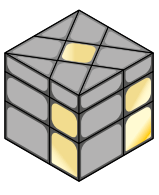
2)level 2: **turn the cube over** align middle pieces

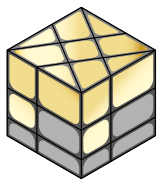


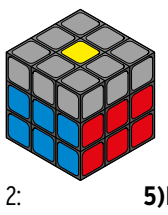
3)level 1: **turn the cube over** solve corner pieces



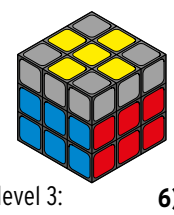




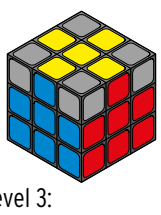




4)level 2: **turn the cube over** solve edge pieces

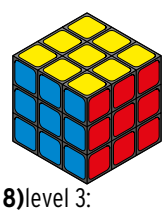


5)level 3: align edge pieces (yellow cross)

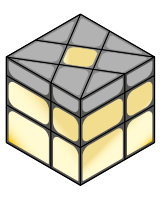


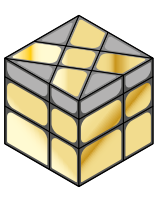
6)level 3: arrange edge pieces

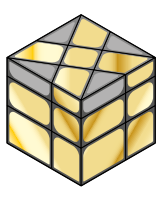
7)level 3: arrange corners

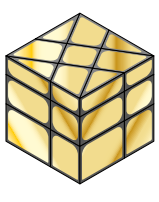


8)level 3: solve corners









Always position the cube as illustrated and hold it in this position as you carry out the algorithm!

1) Level 1 - solve edges (the "white" cross)

Find the thickest middle piece ("white") and rotate the cube so that it at the top.

Position the "white" edge pieces above the corresponding middle pieces:

a) from below the middle piece (a) into position at the top

D - R - F' - R'

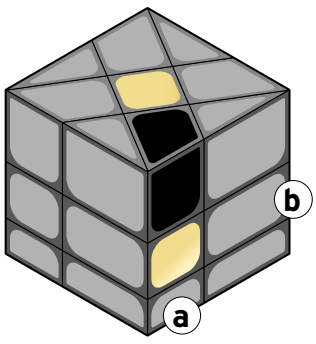
b) from beside the middle piece (b) towards the bottom at first (a) ...

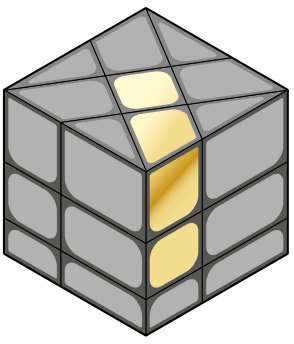
R' - D' - R

... then into position at the top

D - R - F' - R'

Once the edge piece is moved into position, turn it towards the bottom once again (**F**) and repeat algorithm **a)**.





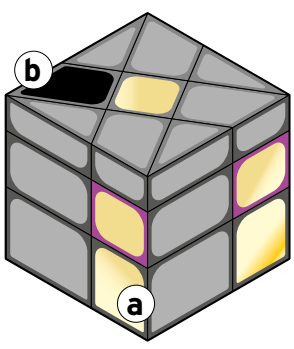
2) Level 2 - moving the middle pieces

The middle pieces in the second level are all in position but may be rotated. Now align these properly.

Flip the cube onto its head ("yellow" at the top)!

Ensure that the edge piece already solved (a)is on the left at the top (b) so that it is not rotated further from its correct position:

2F' - U

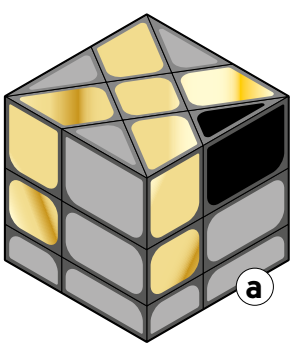


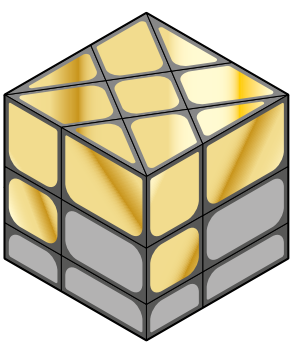
Align the middle piece.

2F (repeat until correct)

Move the edge piece into position on the right at the bottom (a):

U' - 2F



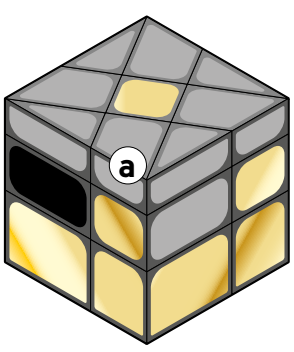


3) Level 1 - solve corners

Turn the cube over onto its head again ("white" on top).

Move the corner piece you need into position (a). Repeat the algorithm as many times as you need to move the corner piece into the correct position:

R' - D' - R - D (repeat until completely correct)



4) Level 2 - solve edges

Flip the cube once again so that "white" is at the bottom and "yellow" at the top.

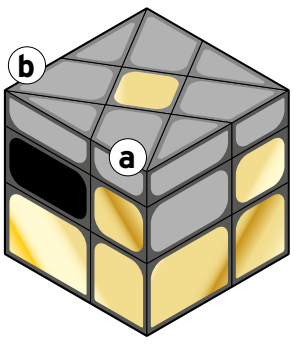
There are three possible cases:

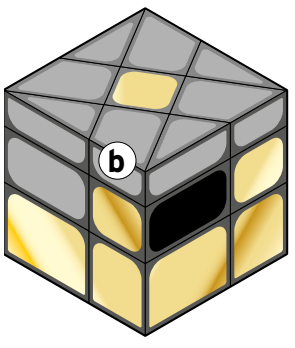
Case 1 + 2: The edge piece you need is in the upper level.

Move this edge piece into position via its corresponding middle piece (a).

To see whether the edge piece comes into position the right way around, twist the front to the left just once (**F'**). Then move the front back into position (**F**).

Case 1) If **yes**, move the edge piece into position on the **left**:



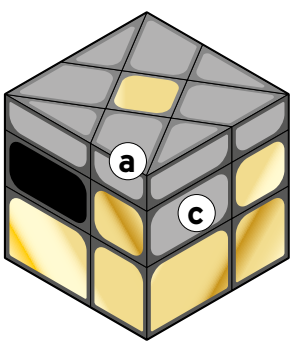


U' - L' - U - L - U - F - U' - F'

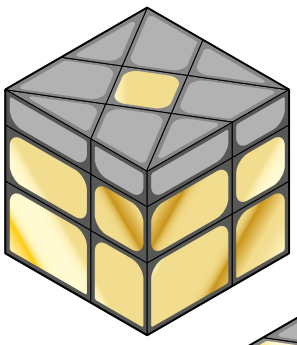
Case 2) If **not**, rotate ...

... **1x U** (edge piece from (a) to (b)),
... then the entire cube so that the edge piece is back at the front,
then move the edge piece into position on the **right**:

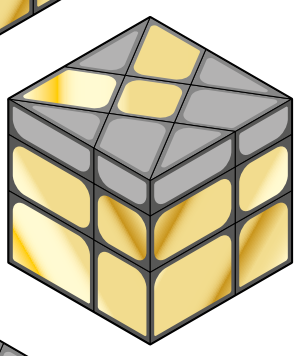
U - R - U' - R' - U' - F' - U - F



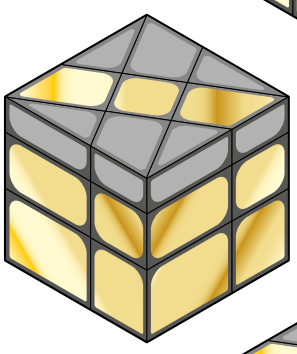
Case 3) If the edge piece is at the side on the middle level (c), but the wrong way around or in the wrong position, first use one of the algorithms shown above to move any other edge piece from the upper level into the same position in order to shift the edge piece you wish to correct is shifted out of its current position (a). Then proceed as described in Case 1 or 2 .



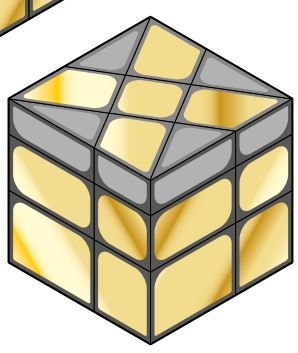
Point



Corner



Line



Cross

5) Level 3 – moving edge pieces ("yellow" cross)

The cube will now fall under one of 3 possible cases:
Point = none of the 4 edge pieces is correctly positioned.
Corner = two adjacent edge pieces are correct.
Line = two opposite edge pieces are correct.

(The position of the middle pieces underneath does not matter yet!)

Depending on the starting position, perform the algorithm 1-3 times. The cube must be held as illustrated each time it is performed.

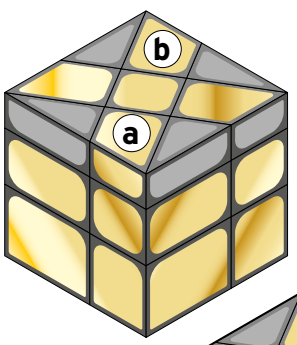
Point: 1x F – R – U – R' – U' – F' = Corner

Hold the cube with the corner to the left at the back.

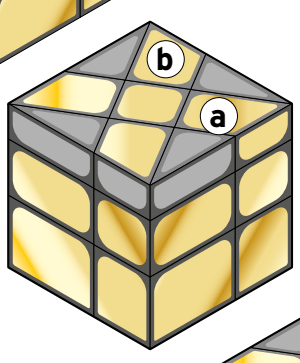
Corner: 1x F – R – U – R' – U' – F' = Line

Hold the cube so that the line goes from left to right.

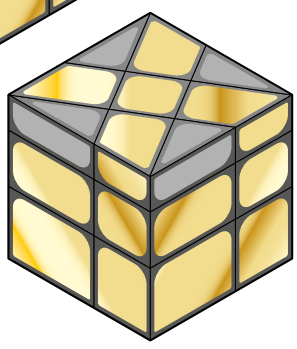
Line: 1x F – R – U – R' – U' – F' = Cross



opposite



around a corner



6) Level 3 – arrange edges

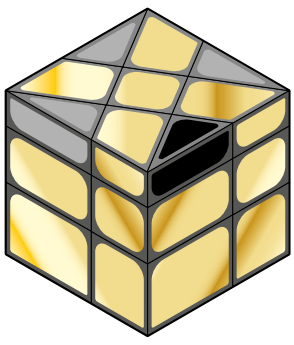
The edges must now be replaced so that they end up positioned above the correct middle pieces of the vertical surfaces.
To do this, first turn the upper level until there are two matches.
The cube will now fall under one of 2 possible cases:

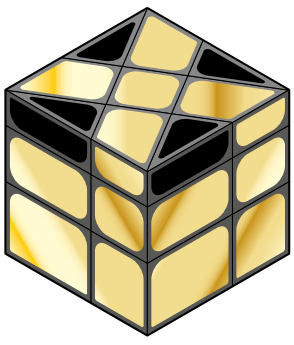
The two correctly positioned edge pieces (a/b) are either on opposite sides or around a corner. Depending on the starting position, perform the algorithm 1–2 times. The cube must be held as illustrated each time it is performed.

opposite: 1x R – U – R' – U – R – 2U – R' – U = around a corner

around a corner: 1x R – U – R' – U – R – 2U – R' – U

All 4 edge pieces are now correctly positioned above the middle pieces.





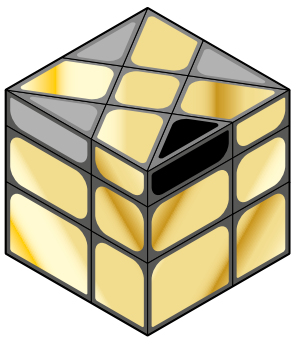
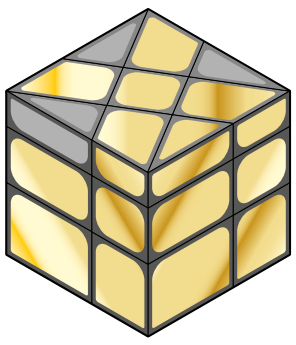
7) Level 3 – arrange corners

Find a corner piece that is already correctly positioned.
Important: Only the corner position of the piece is important, it does not matter whether it is the wrong way round or not.

If no corner pieces are correctly positioned, use the algorithm once and then look for the correct corner piece.

Hold the cube so that this correct corner is facing the front. Perform the algorithm as many times as you need until all corner pieces are positioned in their respective corners.

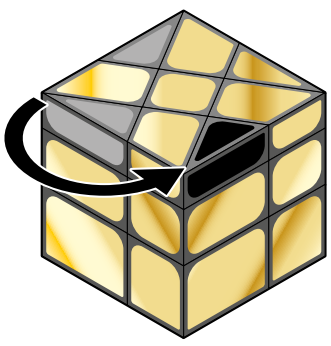
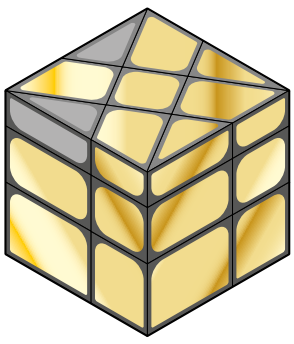
U – R – U' – L' – U – R' – U' – L

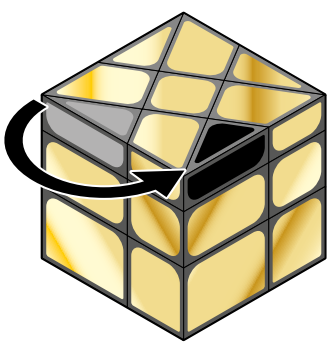
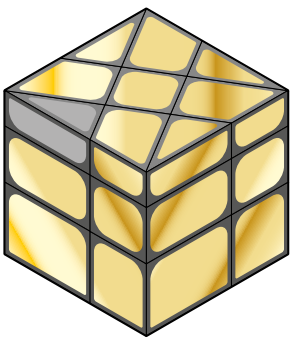
8) Level 3 – solve corners

Hold the cube so that the first corner stone you wish to solve is facing the front. **Important: in between the algorithms, do not move the cube itself any more, only move the uppermost level!** While doing so, do not be disconcerted if the cube looks irreparably mixed up... keep carrying out the algorithm until all of the pieces are correctly in position.

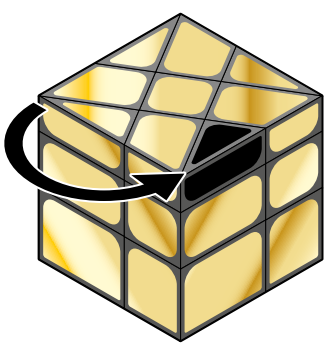
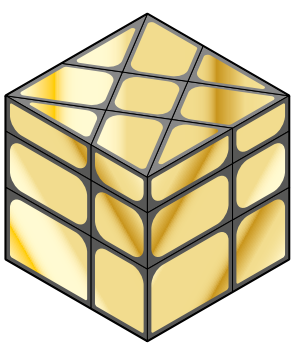
1. Repeat the algorithm as many times as you need until the corner piece is completely correct: **R' – D' – R – D (repeat until the corner piece is completely correct)**

2. Rotate the upper level anticlockwise until the next misaligned corner piece is facing the front: **U' (until the next misaligned corner piece is facing the front)**
3. Repeat the algorithm as many times as you need until the corner piece is completely correct: **R' – D' – R – D (repeat until the corner piece is completely correct)**

4. Rotate the upper level anticlockwise until the next misaligned corner piece is facing the front: **U' (until the next misaligned corner piece is facing the front)**
5. Repeat the algorithm as many times as you need until the corner piece is completely correct: **R' – D' – R – D (repeat until the corner piece is completely correct)**

... and so on until all corner pieces are correctly aligned.

You may need to rotate the upper level one more time so that all of the panels line up with each other – All done!

Product number: 606 180

Made exclusively for:
Tchibo GmbH, Überseering 18,
22297 Hamburg, Germany

CE

WARNING. Not suitable for children under 36 months. Small parts. Risk of choking.