Pyramorphix Solution

Solution by David Singmaster and Andrew Southern.

Thank you for buying the Pyramorphix from Meffert's. Before completely scrambling the puzzle you should always try a few experimental moves out first. You will find that the Pyramorphix can be placed in 7 different shapes. The rest of the combinations are due to colors on the sides. The idea of the Pyramorphix is to either return it to one color per side from a random position in the fastest time or least number of moves, or to create the best pattern of a shape in the least number of moves.

The unscrambling challenge can be broken into 4 parts:

1) Get the Tetrahedron (pyramid) shape.
2) Solve two corners.
3) Solve the last two corners.
4) Solve the center triangles.

Using these four steps it is possible to solve this puzzle on your own with a bit of time and effort.

Terminology

Corner Piece

Centre Triangle

It is worth noting that the colors used in the pictures are only to help recognition and the moves will work equally as well on the Pyramorphix when it has different colors substituted for the ones in the pictures.
Step 1: Getting the Tetrahedron

Learn and follow the shape diagram below to get the Pyramorphix into a Tetrahedron. Once you have learned how to view the puzzle from the correct side, you'll soon be able to get it into a Tetrahedron from any position.

Bullfrog  Bishop's Mitre  Sombrero

Dextro  Laevo

Frog
The Tetrahedron.

You may think that Dextro and Laevo look the same. This is because they are mirror images of each other, hence they are named after optical isomers in chemistry.

Follow the diagram to the Tetrahedron, then proceed to step 2.

**Step 2: Solving two corners.**

If two corners are already in position, as shown below proceed to step 3.

If this isn't the case find the edge which contains all four colors and twist appropriately. As with all diagrams in this solution, the colors on the Pyramorphix may not necessarily be the same as the diagram, e.g. what is blue may be red on your pyramorphix.
Step 3: Solving the last two corners.

If all corners are now solved then proceed to step 4.

If the two unsolved corners both have the same color on the same side of the Pyramorphix, then proceed to step 3b. Otherwise follow this set of moves until the Pyramorphix is ready to proceed to step 3b or step 4:

Step 3a:
n.b.: Some positions need this series of moves repeating before the final two corners are complete or the puzzle is ready for Step 3b.

Step 3b:

START
Step 4: Solving the center triangles

Orientate the Pyramorphix as indicated and perform the move. If you have just one center solved, it does not matter which starting orientation you use, just that during the third move the centers are positioned so that none match their corners.

Repeat this turn until either all center triangles match the corners or none match any.
CONGRATULATIONS!

You have now solved the Pyramorphix!

Where do you go from here? This is just one step in the journey that lies ahead. There are always more challenges in life. You may want to start timing yourself at solving the Pyramorphix, or you may well see how many pretty patterns you can create with it. You may indeed wish to move on to the harder and more devious puzzles in our range. However you solved it, be it with or without help, be proud of what you have done. I find that puzzle solving also helps in highly recognized fields, like diagnostics in Medicine, problem solving in Engineering, building a case in Law, so give yourself a pat on the back, and don't rest until you reach your fullest potential.

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