

Algorithm Finder

An **Algorithm Finder** is a computer program written in Microsoft Excel VBA that can be used to find algorithms for NxNxN cubes. The main application is to ease building algorithm databases for NxNxN Cube Synthesizers. The program can also be used to find algorithms for designing pretty patterns or solving some parts of a cube. The program computes *all* occurrences of a series of algorithm templates, using a [brute-force search](#). All core subroutines are NxNxN scalable ie. they can be re-used to build other Algorithm Finders for higher (or lower) order cubes. Algorithm Finders for 3x3x3, 4x4x4, 5x5x5, 6x6x6, 7x7x7, 8x8x8, 9x9x9, 10x10x10, 11x11x11, 15x15x15 and even higher order cubes can be *freely* downloaded by clicking links in the table below:

| Cube Order | Download AlgorithmFinder – Microsoft Excel 2007 |
|------------|---|
| 3 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder3.xlsm |
| 4 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder4.xlsm |
| 5 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder5.xlsm |
| 6 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder6.xlsm |
| 7 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder7.xlsm |
| 8 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder8.xlsm |
| 9 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder9.xlsm |
| 10 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder10.xlsm |
| 11 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder11.xlsm |
| 15 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder15.xlsm |
| 27 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder27.xlsm |
| 30 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder30.xlsm |
| 31 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder31.xlsm |
| 33 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder33.xlsm |
| 55 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder55.xlsm |
| 66 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder66.xlsm |
| 81 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder81.xlsm |

Notes

Type **Ctrl + Shift + S** to start the program and **Ctrl + Break** to stop it if execution time is too long.

Do not use long templates, but use short templates instead.

Download Related Documents

| | |
|----|---|
| 3 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder3.pdf |
| 4 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder4.pdf |
| 5 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder5.pdf |
| 6 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder6.pdf |
| 7 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder7.pdf |
| 15 | http://www.mementoslangues.fr/CubeDesign/AlgorithmFinder/AlgorithmFinder15.pdf |

Download Related Textures (for [CubeTwister](#))

| | |
|---|---|
| 3 | http://www.mementoslangues.fr/CubeDesign/CubeImages/NumberedCubeTexture3x.png |
| 4 | http://www.mementoslangues.fr/CubeDesign/CubeImages/NumberedCubeTexture4x.png |
| 5 | http://www.mementoslangues.fr/CubeDesign/CubeImages/NumberedCubeTexture5x.png |
| 6 | http://www.mementoslangues.fr/CubeDesign/CubeImages/NumberedCubeTexture6x.png |
| 7 | http://www.mementoslangues.fr/CubeDesign/CubeImages/NumberedCubeTexture7x.png |

E-mail: For any question or comment, please contact: ml (at) mementoslangues.com

Example: 3-Edge Swap

Execution Time (Minutes:Seconds)

| 3x3x3 | 7x7x7 | 11x11x11 | 15x15x15 |
|---|-------|----------|----------|
| 0:19 | 1:39 | 2:04 | 3:17 |
| Template: (X2 Y) [(Z P Z'), MQ] (X2 Y)' – 5 Loops | | | |