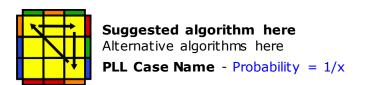


# **One-Handed PLL Algorithms**

Developed by Feliks Zemdegs and Andy Klise

#### **Algorithm Presentation Format**



Round brackets are used to segment algorithms to assist memorisation and group move triggers.

Moves in square brackets at the end of algorithms denote a U face adjustment necessary to complete the cube from the states specified.

It is recommended to learn the algorithms in the order presented.

#### **Permutations of Edges Only**



z (U' R U' R') (U' R' U' R) U R U2' y2 z U2' R U (R U' R' U') (R' U' R U')

**Ub** - Probability = 1/18

(R U' R U) R U (R U' R' U') R2 y2 (R2 U' R' U') R U R U (R U' R)

**Ua** - Probability = 1/18





y (R' U' R U') (R U R U') (R' U R U) R2 U' R' [U2] R2 U2' R U2' R2 U2' R2 U2' R U2' R2

Z - Probability = 1/36

H - Probability = 1/72



## **Permutations of Corners Only**



x (R' U R') D2 (R U' R') D2 R2 x' x' U2' R2 (U' L' U) R2 (U' L U') x

Aa - Probability = 1/18

x R2' D2 (R U R') D2 (R U' R) x' x' z (R U' R) z' R2 (U' L U) R2 U2' x

Ab - Probability = 1/18





y R2 U R' U' y (R U R' U') (R U R' U') (R U R') y' R U' R2 x' (R U' R' D) (R U R' D') (R U R' D) (R U' R' D') x

E - Probability = 1/36

## **Swap One Set of Adjacent Corners**



(R U' R' U') (R U R D) (R' U' R D') (R' U2' R') [U'] (R U R' F') (R U2' R' U2') (R' F R U) (R U2' R') [U']

Ra - Probability = 1/18

(R' U2' R' D') (R U' R' D) (R U R U') (R' U' R) [U'] (R' U2' R U2') R' F (R U R' U') R' F' R2 [U']

**Rb** - Probability = 1/18





(R' U L' U2) (R U' R' U2' R) L [U'] y' z (U' R2 U R U' R2) z' (R U' L U R')

Ja - Probability = 1/18

R U2' R'U' R U2' L' U R'U' L

**Jb** - Probability = 1/18





(R U R' U') (R' F R2 U') R' U' (R U R' F')

T - Probability = 1/18

y' (R U R' U') (R' U R U2') L' (R' U R U') L (U' R U' R') (R' U' F') (R U R' U') (R' F R2 U') (R' U' R U) (R' U R)

**F** - Probability = 1/18



#### **Swap One Set of Diagonal Corners**



 $\begin{array}{l} (R'\ U\ R\ U')\ x'\ (U\ R\ U2'\ R')\ (U'\ R\ U'\ R')\ U2'\ (R\ U\ R'\ U') \\ (R'\ U2'\ R\ U2')\ L\ U'\ R'\ z\ R\ U'\ R\ U\ R'\ D\ R\ U' \end{array}$ 

**V** - Probability= 1/18

F (R U' R' U') (R U R' F') (R U R' U') (R' F R F')
y (R U R2 U) L' U2 R U' R' U2' L (R U' R U' R')

Y - Probability = 1/18





(L U' R U2' L' U R') (L U' R U2' L' U R') [U'] (R U' L U2' R' U L') (R U' L U2' R' U L') [U']

Na - Probability = 1/72

(R' U L' U2 R U' L) (R' U L' U2 R U' L) [U] (L' U R' U2 L U' R) (L' U R' U2 L U' R) [U]

**Nb** - Probability = 1/72



## **G Permutations (Double cycles)**



**R2** U (R' U R' U') (R U' R2) D U' (R' U R D') [U] R2 u (R' U R' U') R u' R2 z (U' R U)

Ga - Probability = 1/18

y' (R' U' R U) D' (R2 U R' U) (R U' R U') R2 D [U'] y' (R' U' R) y (R2 u R' U) (R U' R u') R2

**Gb** - Probability = 1/18





R2 U' (R U' R U) (R' U R2 D') (U R U' R') D [U']

Gc - Probability = 1/18

**D' (R U R' U') D (R2 U' R U') (R' U R' U) R2 [U]** (R U R') y (R2 u' R U') (R' U R' u) R2

**Gd** - Probability = 1/18

