

Andy Klise's Speedcubing Guide for Lefties!

Algorithms by Dan Harris and Erik Akkersdijk

First 2 Layers

You must solve the cross first. It can be done in 6 moves or less ~82% of the time and ≤7 moves 99.95% of the time. These are just optimal example solves; F2L should be solved intuitively.

Easy Cases (1-4)



$U' (L' U L)$
Use $(L' F' L' F)$ if no U face edges are oriented properly on final slot



$y (L U L')$
Note - this image is blue and red because a cube rotation is required

$y U (L U' L')$
Use $(F' L' F L')$ if no U face edges are oriented properly on final slot

$(L' U' L)$
Note - this image is green and red because no cube rotation is required

Reposition Edge (5-8)



$(U L' U' L) U^2 (L' U L)$



$U (L' U^2 L) U^2 (L' U L)$

$y (U' L U L') U^2 (L U' L')$
 $d' (L U L') U^2 (L U' L')$
Note - $(y U')$ and (d') are interchangeable

$y U' (L U^2 L') U^2 (L U' L')$
 $d' (L U^2 L') U^2 (L U' L')$

Reposition Edge and Flip Corner (9-14)



$y U' (L U L' U)(L U L')$
 $y^2 U (R' U) d (R U R')$



$U (L' U^2 L) y U' (L U L')$



$y U' (L U' L' U)(L U L')$
 $d' (L U' L' U)(L U L')$

$U (L' U' L U')(L' U' L)$

$y U' (L U^2 L') d (L' U' L)$
 $(L' U L U')(L' U L) U^2 (L' U L) *$
 $L U^2 L^2 U' L^2 U' L'$

$U (L' U L U')(L' U' L)$

Split Pair by Going Over (15-18)



$y (L U' L' U) y' U (L' U' L)$
 $(L' U' L) U^2 (L' U L U')(L' U L) *$
 $y' (R U' R') U^2 y' (L' U' L)$



$(L' U^2 L) U (L' U' L)$

$(L' U L U') y U' (L U L')$
 $(L' U L) U^2 (F U F')$

$y (L U^2 L') U' (L U L')$

Pair Made on Side (19-22)



$U' (L' U^2 L) U' (L' U L)$



$U^2 (L' U' L U')(L' U L)$

$y U (L U^2 L') U (L U' L')$

$y U^2 (L U L' U)(L U' L')$

Weird (23-24)



$(L' U' L U) U (L' U' L U)(L' U' L)$
 $U^2 L^2 U^2 (L U L' U) L^2$

$y (L U L' U) U' (L U L' U)(L U L')$
 $y U^2 L^2 U^2 (L' U' L U') L^2$
 $F' U' (R U L F')(R U R')$

Corner in Place, Edge in U Face (25-30)



$y' U (R U' R') d' (L' U L)$
 $(L' U L U)(L' U L U')(L' U' L)$
 $L F L' U' (L' U L) F'$
 $U (F U' F') U' (L' U L)$



$(L' U L U')(L' U L)$



$y (L U L' U')(L U L')$

$U' (L' U L) y' U (R U' R')$
 $U' (L' U L) U (F U' F')$
Note - $(y' U)$ and (d) are interchangeable

$y (L' U' L' U)(L U' L')$
 $(L' U L) U^2 (F U' F')$

$(L' U' L U)(L' U' L)$

Edge in Place, Corner in U face (31-36)



$(L' U L) y U' (L U' L')$
 $(L' U L U')(F U' F')$



$(U L' U L) U^2 (L' U L)$
 $y' U (R' U R) U^2 (R' U R')$



$(U L' U' L) y (U' L U L')$
 $U^2 (L' U L) U (F U F')$

$(L' U' L U)(L' U' L U)(L' U' L)$

$U (L' U^2 L) U' (L' U' L)$
 $U' (L' U' L) U^2 (L' U' L)$
 $d' (L U' L') U^2 (L U' L')$

$y (U' L U L') y' (U L' U' L)$
 $y' U^2 (R U' R') U' (F' U' F)$

Edge and Corner in Place (37-42)



Solved Pair



$(L' U L) U (L' U' L) U^2 (L' U L)$
 $y' (R U R') U^2 (R U' R' U) (R U R')$



$(L' U L U') y (L U L' U)(L U L')$
 $y' (R U R' U)(R U' R') U^2 (F' U' F)$

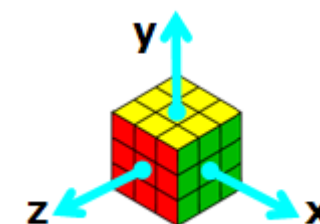
$(L' U L) d' (L U^2 L') U^2 (L U' L')$
 $(L' U' L) U^2 (L' U^2 L) d' (L U L')$

$(L' U L U')(L' U^2 L) U' (L' U L)$
 $(L' U' L) U^2 (L' U L U')(L' U' L)$

$(L' U L U') d' (L U L' U)(L U' L')$
 $(L' U' L U)(L' U L) U^2 (F U F')$



Color Coding
Green = $L' U' L U$ Family
Blue = $L' U' L U' L' U^2 L$ Family
Orange = $L' F L F'$ Family



Warning!
The Color Scheme is R/L mirrored!
Use at your own risk!



Credits

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For more guides just like this, visit my website - <http://www.kungfoomanchu.com/>

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Orient Last Layer (Two Look)

Step 1

$F' U' (L' U L) F$
 $y^2 f' (L' U' L U) f$
 Probability = 1/2

Bonus

$F' (L' U' L U) F$
 Probability = 1/4

$F' (L' U' L U) F f' (L' U' L U) f$
 $(L F' L' F) U^2 (L F' L' F^2) U^2 F'$
 Probability = 1/8

Move to Second Look
 Probability = 1/8

Orient Last Layer (Two Look)

Step 2

All Edges Oriented Correctly

$(L' U' L U' L' U^2 L)$
 $y' (L U^2 L' U' L U' L') *$
 Probability = 4/27

$(L U L' U L U^2 L')$
 $y' (L' U^2 L U L' U L)$
 Probability = 4/27

$L' U^2 L^2 U L^2 U L^2 U^2 L'$
 Probability = 4/27

$(L' U' L U')(L' U L U')(L' U^2 L)$
 $y' L' U^2 L (U L' U' L)(U L' U L)$
 Probability = 2/27

$x (L U)(R' U')(L' U)(R U')$
 $y' x' (L' U' L) D' (L' U L) D x$
 Probability = 4/27

$(L F')(L' B)(L F)(L' B')$
 $y^2 x' D' (L' U' L) D (L' U L) x$
 $x (L U' L') D (L U L') D'$
 Probability = 4/27

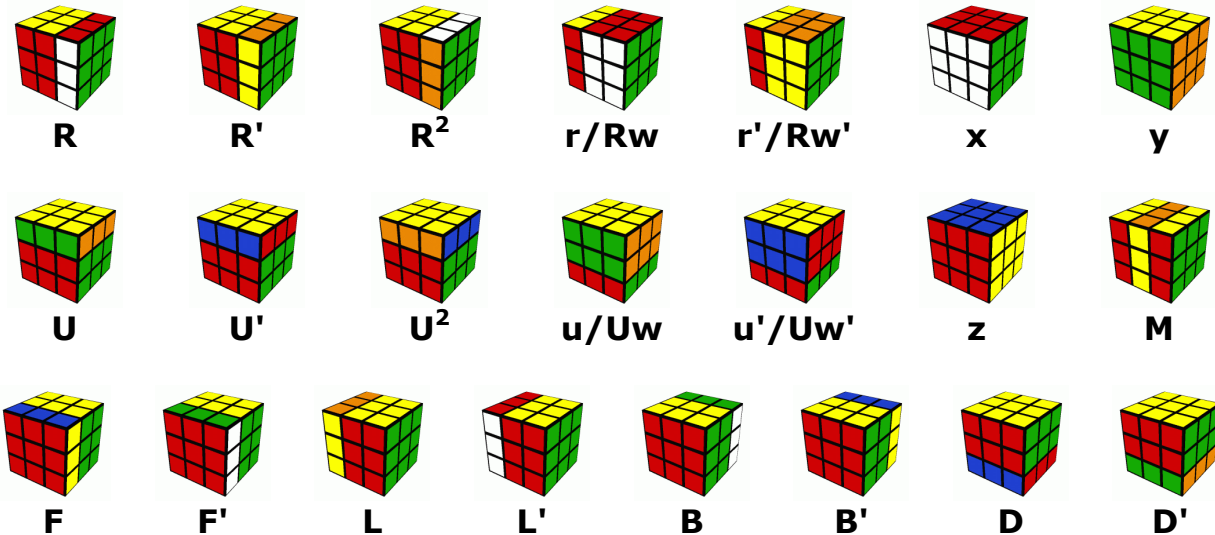
$(L^2 D')(L U^2)(L' D)(L U^2 L)$
 $y^2 (L^2 D)(L' U^2)(L D')(L' U^2 L')$
 Probability = 4/27

Solved
 Probability = 1/27

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Notation

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Permute Last Layer

* - indicates a faster alg. If this is included, then the previous alg is easier to learn

Permutations of Edges or Corners Only

$L^2 U' (F' B) L^2 (F B') U' L^2$
 $y' (L^2 U')(L' U' L U)(L U)(L U' L) *$
 $y' (M^2 U M) U^2 (M' U' M^2)$
Ub - Probability = 1/18

$L^2 U (F' B) L^2 (F B') U L^2$
 $y (L^2 U)(L U L' U')(L' U')(L' U' L) *$
 $y' (M^2 U' M) U^2 (M' U' M^2)$
Ua - Probability = 1/18

$x' F' (L' U L U')(D' L)(D' U)(L U' L') D^2$
 $(L U L' U) L' U' (L' U L U') L' U' L^2 U L (U^2) *$
 $y' (M^2 U M') U^2 M^2 U^2 (M' U' M^2)$
Z - Probability = 1/36

$(M^2 U M^2) U^2 (M^2 U M^2)$
 $(L M^2 L') U (L M^2 L') U^2 (L M^2 L') U (L M^2 L')$
H - Probability = 1/72

$x (L U' L) D^2 (L' U L)(D^2 L^2)$
Aa - Probability = 1/18

$x (L^2 D^2)(L' U' L) D^2 (L' U L')$
Ab - Probability = 1/18

$x' (L' U L) D' (L' U' L) D (L' U' L) D' (L' U L) D$
 $L^2 U' L y' (L' U L U') * 3 y' L' U L^2 *$
 $x' (L' U L) D' (L' U' L) u^2 (L U' L') D' (L U L')$
E - Probability = 1/36

Solved
 Probability = 1/72

Swap One Set of Adjacent Corners

$(R' U^2)(R U^2)(R' F)(R U R' U')(R' F' R^2 U')$
 $y^2 (L' U^2)(L U^2)(L' B)(L U L' U')(L' B' L^2 U') *$
 $z' (U' L^2)(U L^2)(U' F)(U L U' L')(U' F' U^2 L')$
 $y' (L' U L U)(L' U' L') D' (L U L') D (L U^2 L)(U)$
Ra - Probability = 1/18

$(L U^2)(L' U^2)(L F')(L' U' L U)(L F L^2 U)$
Rb - Probability = 1/18

$(L' U)(R U')(L U^2)(R' U)(R U^2) R'$
 $y^2 (L U^2 L') U' z' D (L^2 U')(L D' L' U) z *$
Ja - Probability = 1/18

$(R U')(L' U)(R' U^2)(L U')(L' U^2) L$
 $(L' U' L F)(L' U' L U)(L F')(L^2 U)(L U) *$
Jb - Probability = 1/18

$(L' U' L U)(L F')(L^2 U)(L U L' U') L F$
T - Probability = 1/18

$(L U' L' U) L^2 y (L U L' U') y' x (L' U' L U) L^2 B$
 $y' (L U F)(L' U' L U)(L F')(L^2 U)(L U L' U') L U' L' *$
 $y^2 (L U^2 L) d (L F)(L^2 U L U')(L F')(L' U) F'$
F - Probability = 1/18

Swap One Set of Corners Diagonally

$(L U' L U) y' (L F)(L^2 U)(L U' L F')(L' F')$
 $(L U' L U) x^2 y (L U' L U) r' (L' U L U') L' U'$
V - Probability = 1/18

$F' (L' U)(L U L' U')(L F)(L' U' L U)(L F' L' F)$
 $F' L' U' (L' U^2 L)(R U' L' U)(R' U^2)(L^2 F)$
Y - Probability = 1/18

$[(R' U) L' U^2 (R U') L] * 2 U$
 $z' (L U' L) D' (L^2 U L')(U' D)(L D' L^2 U L' D) *$
Na - Probability = 1/72

$[(L U') R U^2 (L' U) R'] * 2 U'$
 $(L U' L' U)(L F U)(F' L' U')(L F' L F)(L' U L') *$
Nb - Probability = 1/72

Double Spins

$(L^2 u')(L U' L U)(L' u) L^2 y (L U' L')$
Ga - Probability = 1/18

$(R^2 u)(R' U R' U')(R u') R^2 y (L' U L)$
 $y^2 (L^2 u)(L' U L' U')(L u') L^2 y' (L' U L) *$
Gc - Probability = 1/18

$(L' U' L) y (L^2 u)(L' U L U')(L u') L^2$
Gd - Probability = 1/18

$(R U R') y' (R^2 u')(R U' R' U)(R' u) R^2$
 $y^2 (L U L')(U' D)(L^2 U')(L U' L' U)(L' U) L^2 D' U *$
 $(R U R') y (L^2 u')(L U' L' U)(L' u) L^2$
Gb - Probability = 1/18