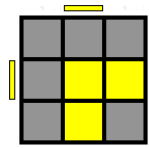
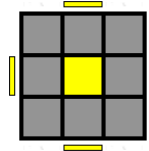


Orient Last Layer (Two Look)

Step 1

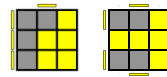


$f (R U R' U') f'$
Probability = $\frac{1}{2}$



$[F (R U R' U') F'] [f (R U R' U') f']$
Probability = $\frac{1}{8}$

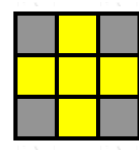
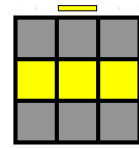
Bonus



$F (R U R' U') F'$
Probability = $\frac{1}{4}$



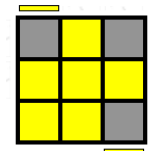
Move to Second Look
Probability = $\frac{1}{8}$



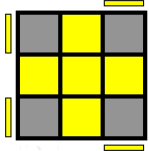
Orient Last Layer (Two Look)

Step 2

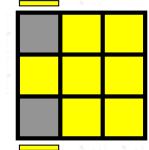
All Edges Oriented Correctly



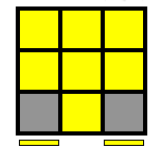
$(R U R' U) R U^2 R'$
Probability = $\frac{4}{27}$



$[f (R U R' U') f'] [F (R U R' U') F']$
 $R U^2 R^2 U' R^2 U' R^2 U^2 R$
Probability = $\frac{4}{27}$



$(r U R' U') (r' F R F')$
Probability = $\frac{4}{27}$



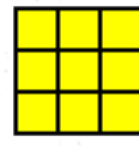
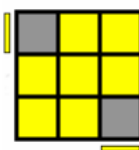
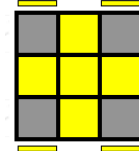
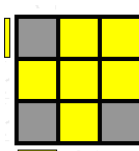
$R^2 [D (R' U^2) R] [D' (R' U^2) R']$
Probability = $\frac{4}{27}$

$R U^2 R' U' R U' R'$
Probability = $\frac{4}{27}$

$F (R U R' U') (R U R' U') (R U R' U') F'$
 $y (R' U' R) U' (R' U R) U' (R' U^2 R)$
Probability = $\frac{2}{27}$

$F' (r U R' U') (r' F R)$
Probability = $\frac{4}{27}$

Solved
Probability = $\frac{1}{27}$



Notation



R



R'



R²



r/Rw



r'/Rw'



x



y



U



U'



U²



u/Uw



u'/Uw'



z



M



F



F'



L



L'



B



B'



D



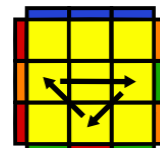
D'

For great speedsolving video tutorials, visit -
<http://www.badmephisto.com> or
<http://www.youtube.com/user/badmephisto>

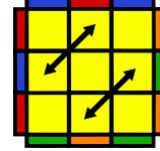
For more printable guides just like this,
visit - <http://www.kungfoomanchu.com>

Permute Last Layer

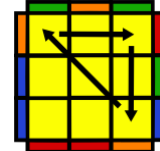
Permutations of Edges or Corners Only



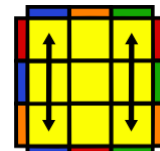
$R^2 U (R U R' U') (R' U') (R' U R')$
Ub - Probability = $\frac{1}{18}$



$M^2 U M^2 U M' U^2 M^2 U^2 M' U^2$
 $U^2 (R U R' U) (R' U' R' U) (R' U' R' U) R^2 U R$
Z - Probability = $\frac{1}{36}$



$x [(R' U R') D^2] [(R' U R') D^2] R^2$
Aa - Probability = $\frac{1}{18}$



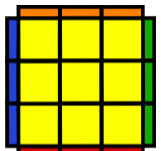
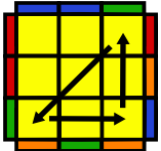
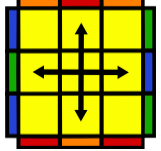
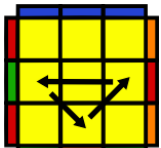
$x' [(R' U' R') D (R U R')] D' [(R U R') D (R' U' R')] D'$
 $x' [(R' U' R') D (R U R')] U^2 [(R' U R) D (R' U' R)]$
E - Probability = $\frac{1}{36}$

$(R' U') (R U) (R U) (R' U') R' U' R^2$
Ua - Probability = $\frac{1}{18}$

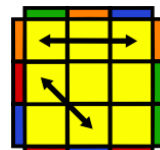
$M^2 U M^2 U^2 M^2 U M^2$
H - Probability = $\frac{1}{72}$

$x' [(R' U' R) D^2] [(R' U R) D^2] R^2$
Ab - Probability = $\frac{1}{18}$

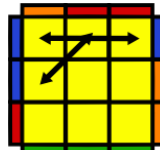
Solved
Probability = $\frac{1}{72}$



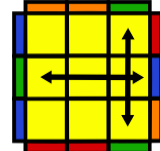
Swap One Set of Adjacent Corners



$(L U^2 L' U^2) (L F') (L' U' L U) (L F) L^2 U$
Ra - Probability = $\frac{1}{18}$



$(R' U' L') (U^2 R U' R' U^2) (R L U')$
Ja - Probability = $\frac{1}{18}$

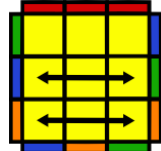
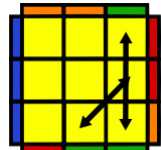
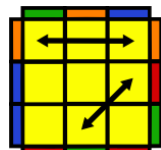


$(R U R' U') (R' F) (R^2 U' R') U' (R U R' F')$
T - Probability = $\frac{1}{18}$

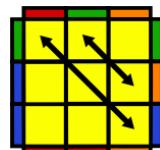
$(R' U^2 R U^2) (R' F) (R U R' U') (R' F') R^2 U'$
Rb - Probability = $\frac{1}{18}$

$(R U R' F') [(R U R' U') (R' F) (R^2 U' R') U']$
Jb - Probability = $\frac{1}{18}$

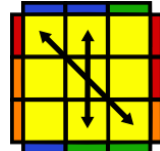
$(R' U^2 R' d') (R' F') (R^2 U' R' U) (R' F R U' F)$
F - Probability = $\frac{1}{18}$



Swap One Set of Corners Diagonally



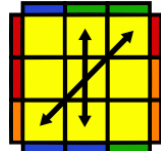
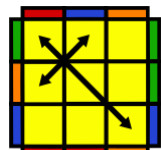
$(R' U R' d') (R' F') (R^2 U' R' U) (R' F R F)$
V - Probability = $\frac{1}{18}$



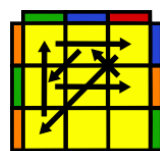
$[(L' U' R) U^2 (L' U' R')] [(L' U' R) U^2 (L' U' R')] U$
 $y (R' U' R' U) (I U) (F' U' R' F') (R' U' R U) (I' U' R')$
Na - Probability = $\frac{1}{72}$

$F R U' R' U' (R U R' F') [(R U R' U') (R' F R F')]$
Y - Probability = $\frac{1}{18}$

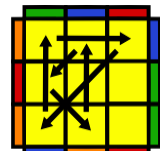
$[(R' U' L') U^2 (R' U' L')] [(R' U' L') U^2 (R' U' L')] U'$
Nb - Probability = $\frac{1}{72}$



Double Spins



$R^2 u R' U' R' U' R u R^2 (y' R' U' R)$
Ga - Probability = $\frac{1}{18}$



$(R U R') y' R^2 u' R' U' R' U' R' u R^2$
Gd - Probability = $\frac{1}{18}$

$R^2 u' R' U' R' U' R' u R^2 (y R U' R')$
Gc - Probability = $\frac{1}{18}$

$(R' U' R) y R^2 u' R' U' R' U' R' u R^2$
Gb - Probability = $\frac{1}{18}$

