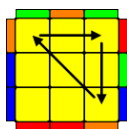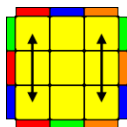## Corners Only
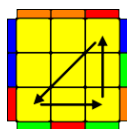
Aa, probability=1/18
l' (U R') D2 (R U' R') D2 R2
(**x'**) (R' D R') U2 (R D' R') U2 R2

Ab, probability=1/18
l (U' R) D2 (R' U R) D2 R2
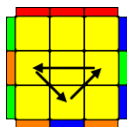(**y2**) (**x'**) (L D' L) U2 (L' D L) U2 L2

E, probability=1/36
(**x'**) [(RU'R') **D** (RUR') **D'**] [(RUR') **D** (RU'R') **D'**]

Edges Only

Ua, probability=1/18
M2 **U'** (M U2 M') **U'** M2
F2 **U** (M' U2 M) **U** F2

Ub, probability=1/18
M2 **U** (M U2 M') **U** M2
F2 **U'** (M' U2 M) **U'** F2
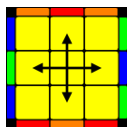
H, probability=1/72
(M2 U M2) **U2** (M2 U M2)
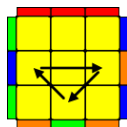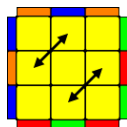
Z, probability=1/36
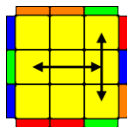M2 U M2 U (**M' U2**) (M2 U2) M' U2
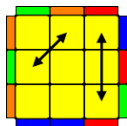(**y'**) M' U (M2 U M2 U) M' U2 M2 U'

Adjacent Corner Swap
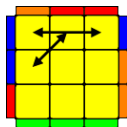
Ja, probability=1/18
(R' U L') **U2** (R U' R') **U2** (L R) U'
(**y**) (**x**) R2 F R F' R U2 r' U r U2

Jb, probability=1/18
(R U R' F') [R U R' U' R' F R2 U' R' U']

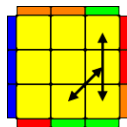**T**, probability=1/18
R U R' U' R' F R2 U' R' U' R U R' F'
R2 U R2 U' R2 U' D R2 U' R2 U R2 D'
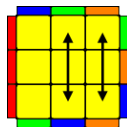
F, probability=1/18
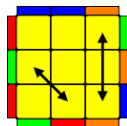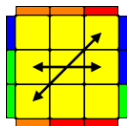(R'U'F') [R U R' U' R' F R2 U' R' U' R U R' U] R

Ra, probability=1/18
(R U' R' U') (R U R D) (R' U' R D') R' U2 R'

Rb, probability=1/18
R2 **F** R (U R U' R') **F'** R U2 R' U2 R U
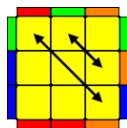(**y'**) R' U2 R U2 R' F (R U R' U') R' F' R2' U'

Diagonal Corner Swap
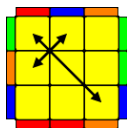
Y, probability=1/18
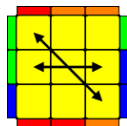**F** [(R U' R' U') (R U R' F') (R U R' U') R' F R] **F'**

V, probability=1/18
(R' U R' U') (**y**) R' F' R2 U' R' U R' F R F

Na, probability=1/72
[r' D r U2]x5
(L D L' F') TPerm without F (L D' L')

Nb, probability=1/72
R' (U R 'U' R') (F' U' F) (R U R' F) R' F' R U' R
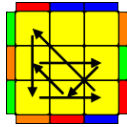
G Permutations
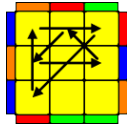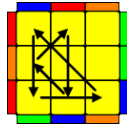
Ga, probability=1/18
D' R2 (U R' U R') **U'** R U' R2 (U' D) **R'** U R
(**y'**) (RU R'U' R') UF (RU R U' R') F' U R' U2 R

Gb, probability=1/18
D R' U R (U D') **R2** U (R' U R U') R U' R2
R' U' R (**y**) R2 u (R' U R U' R) u' R2
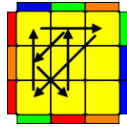
Gc, probability=1/18
D R2 U' R U' (R U R' U) R2 (U D') **R** U' R'
(**y**) F2' D' L U' L U L' D F2 R U' R'

Gd, probability=1/18
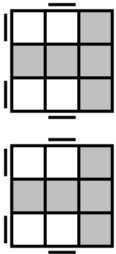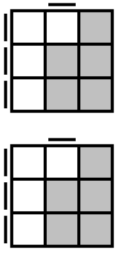D' R U R' (U' D) **R2** U' R U' (R' U R' U) R2
L U2 L' U F' (L' U' L U L) F U (L' U' L' U L)
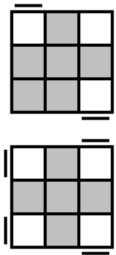
OLL 1

T1, probability=1/54
F (R U R' U') F

T2, probability=1/54
(R U R' U') (R' F R F')

P1, probability=1/54
f (R U R' U') f'

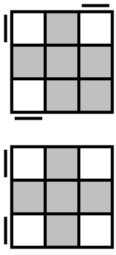**F4**, probability=1/54
F [R U' R' U'] (R U R') F'

OLL 2

Sune, probability=4/27
(R U R' U) **R** U2 R'

Pi, probability=4/27
f (R U R' U') (f' **F**) (R U R' U')

T, probability=4/27
(r U R' U')(r' F R F')
(**y'**) (**x'**) (R U R') **D** (R U' R') **D'**

Headlights, probability=4/27
R2 [**D** (R' U2) R] [**D'** (R' U2) R']

antisune, probability=4/27
(L' U' L U') **L'** U2 L
(**y'**) (R U2 R' U') R U' R'

Cross, probability=2/27
f (R U R' U')x3 f'

L, probability=4/27
F' (r U R' U') (r' F R)
(**y'**) (**x'**) (R U' R') **D** (R U R') **D'**