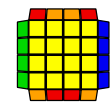
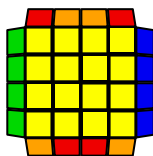


4x4 PPLL Algorithms (Parity PLL)

Cube Master YouTube <http://bit.ly/35ZsCR6>PLL, start thumb from back, any angle*.

EPLL [5]

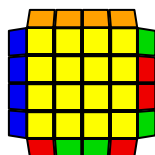
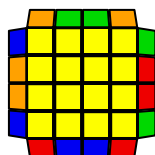
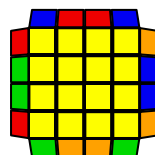
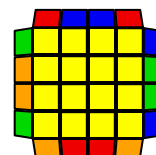


Opp 1/72

$$(P) = r2 R2' U2 (2R2 u2)2 [U2]$$

$$(P3) = r2' F2 U2' R2 r2' U2' F2 r2 \text{ (big)}$$

$$(P2) = u2 \underline{r2} U2 r2 R2' U2 \underline{r2} u2$$

Adj
1/36O+
1/144O-
1/144W
1/36

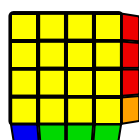
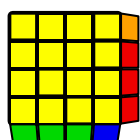
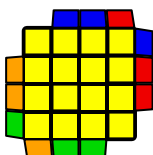
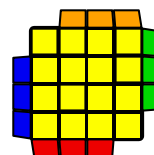
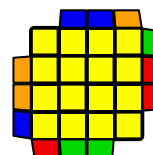
$$R U R' U' (P) U' R U' R'$$

$$(P) (M2' U M2' U M' U2 M2' U2 M') = (P) (Z)^*$$

$$(P) (M' U M2' U M2' U M' U2 M2') [U] = (P) (Z)^*$$

$$(R' U R' U' R3' U' R' U R U) r2' U2 (2R2 u2)2 [U2] = (U+) (P)$$

Diag Swap [5]

Sa
1/36Sb
1/36X
1/144pN
1/72Q
1/144

$$(Y) (P)$$

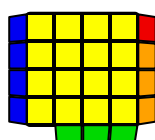
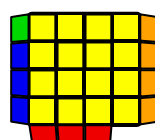
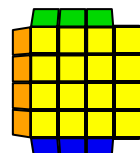
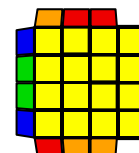
$$(Y) U' (P)$$

$$(R' U' R' D' R U' R' D R U' R' D' R U' R' D) r2 U2 (2R2 u2)2 = (E) (P)^*$$

$$(F R U' R' U' R U' R' F') U' (P) U' (R U' R' U' R' F R F')$$

$$(F R U' R' U' R U' R' F') r2 R2' U2 2R2 u2 2R2 (R U' R' U' R' F R F') u2^*$$

Adj Swap [12]

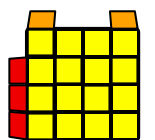
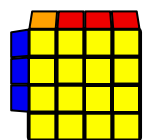
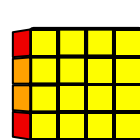
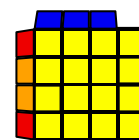
Pa
1/36Pb
1/36pJ
1/36M
1/36

$$(J) U (P)$$

$$(P) (J)$$

$$(T) U' (P)$$

$$(T) (P) / y2 (P) (T)$$

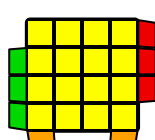
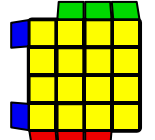
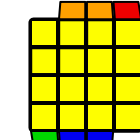
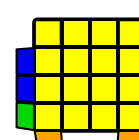
Ka
1/36Kb
1/36Da
1/36Db
1/36

$$(x R' U R' D2 R U' R' D2 x') r2 U2 (2R2 u2)2 = (A+) (P)$$

$$(x' R U' R D2 R' U R D2 x) r2 U2 (2R2 u2)2 = (A-) (P)$$

$$(F R U' R' U') (P) (R U R2' F' R U R U' R')$$

$$(R U R' F' R U R' U' R' F R2 U' R3') r2 R2' U2 (2R2 u2)2 = (J) (P)$$

Ba
1/36Bb
1/36Ca
1/36Cb
1/36

$$(P) U' (J) / y2 (P) U (J)$$

$$(R U R' U' R' F R2 U' R3') r2 U2 (2R2 u2)2 (U R U R' F')$$

$$(R2' F2 R U2 R U2' R' F R U R' U' R' F) r2 U2 (2R2 u2)2 = (Gc) (P)$$

$$(R' U2' R U2' R' F R U R' U' R' F') r2 U2 (2R2 u2)2 = (Rb) (P)$$