

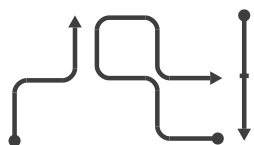
PLL-1L

CFOP (Fridrich) Method: Permutation of Last Layer - 1 Look.

Edges Only



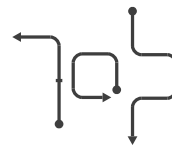
PLL-Ua



$(R U' R) U R U R U' R' U' R_2'$



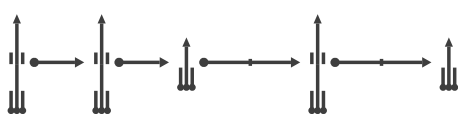
PLL-Ub



$R_2 U (R U R' U') R' U' R' U R'$



PLL-Z



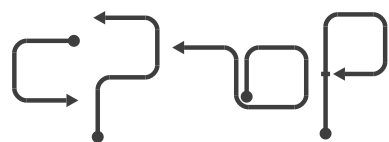
$M_2' U' M_2' U' M' U_2' M_2' U_2' M'$



PLL-H



$M_2' U' M_2' U_2' M_2' U' M_2'$



$(U R' U') R U' R U R U' R' U R U$
 $(R_2 U' R' U)$

Corners Only



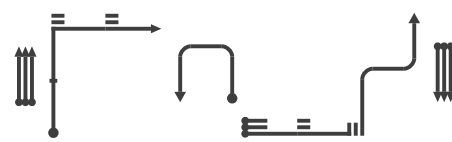
PLL-Aa



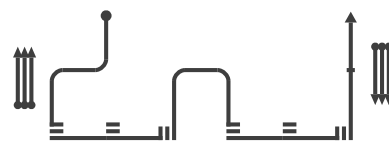
$l' U R' D_2 R U' R' D_2 R_2 x'$



PLL-Ab



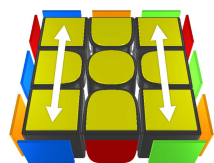
$x R_2 D_2 R U R' D_2 R U' R x'$



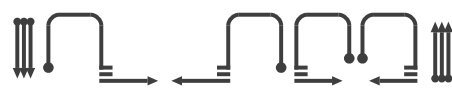
$x R' U R' D_2 R U' R' D_2 R_2 x'$



$l' R' D_2 R U R' D_2 R U' R x'$

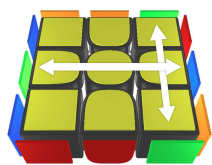


PLL-E

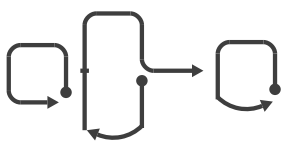


$x'(R U' R' D) (R U R' D') (R U R' D)$
 $(R U' R' D') x$

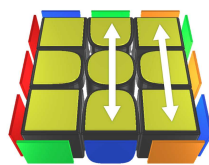
Corner and Edge Swap



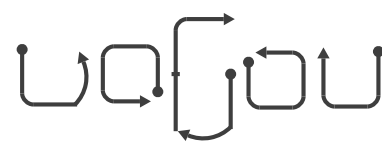
PLL-T



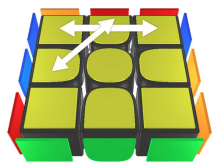
$(R U R' U') R' F R^2 U' R' U' (R U R' F')$



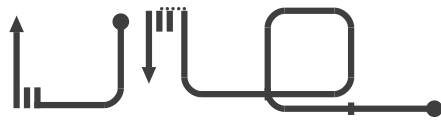
PLL-F



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



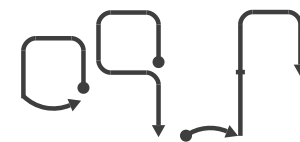
PLL-Ja



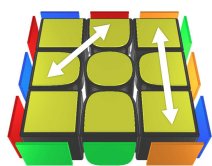
$R' U L' U^2 R U' R' U^2 R L$



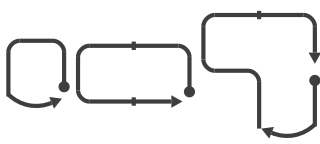
PLL-Jb



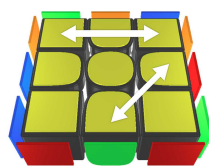
$(R U R' F') (R U R' U' R') F R^2 U' R'$



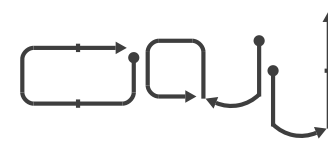
PLL-Ra



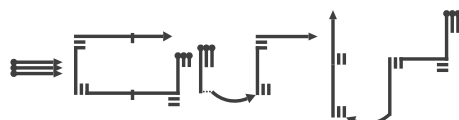
$(R U R' F') R U^2 R' U^2 R' F R U R U^2 R'$



PLL-Rb



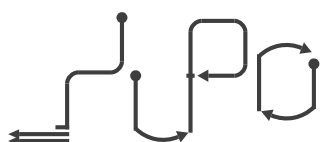
$R' U^2 R U^2 R' F (R U R' U') R' F' R^2$



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



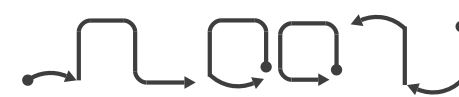
PLL-V



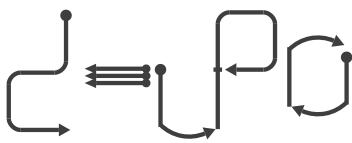
$R' U R' d' R' F' R^2 U' R' U R' F R F$



PLL-Y



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



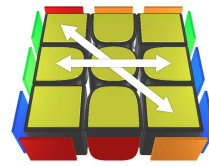
$R' U R' U' y R' F' R^2 U' R' U R' F R F$



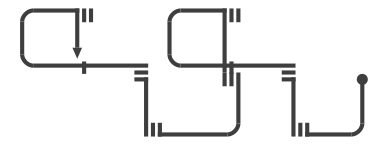
PLL-Na



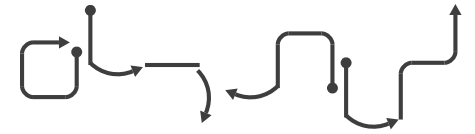
$R U R' U (R U R' F') (R U R' U') R'$
 $F R^2 U' R' U^2 R U' R'$



PLL-Nb



$R' U L' U^2 R U' L R' U L' U^2 R U'$
 L

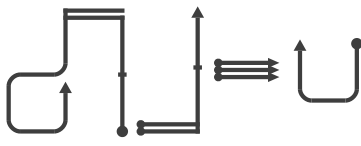


$(R' U R U') R' F' U' F R U R' F R' F'$
 $R U' R$

Corner and Edge Cycle



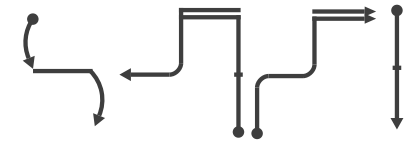
PLL-Ga



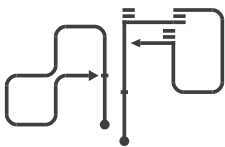
$R^2 u R' U R' U' R u' R^2 y' R' U R$



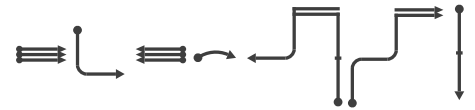
PLL-Gb



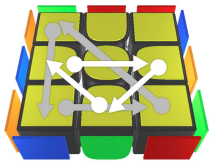
$(F' U' F) (R^2 u R' U) (R U' R u') R^2'$



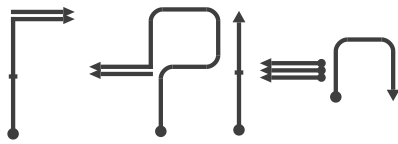
$R^2 U R' U R' U' R U' R^2 D U' R' U$
 $R D'$



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



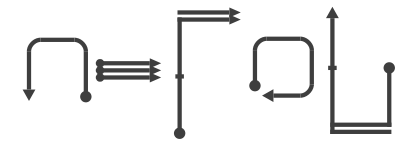
PLL-Gc



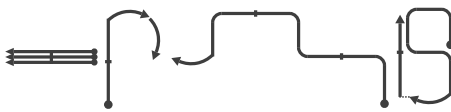
$R^2 u' R U' R U R' u R^2 y (R U' R')$



PLL-Gd



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



$y^2 R^2 F^2 R U^2 R U^2 R' F R U R'$
 $U' R' F R^2$



$R U R' U' D R^2 U' (R U' R' U) R' U$
 $R^2 D'$