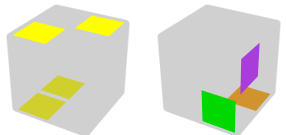


2x2 1-Look

Assume first face is yellow. Most L/R mirror cases are not included. Left image shows the case, right shows prediction by the suggested algorithm. First predict OLL: track any 3 white stickers; Then predict EG: track any 3 non-white stickers on any 3 white pieces. For the cases where all the yellow pieces are in first layer, one can do U move first to make better EG.

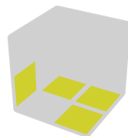

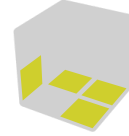

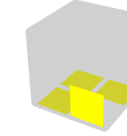

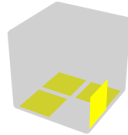
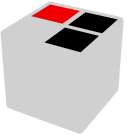
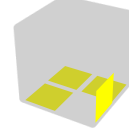
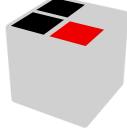
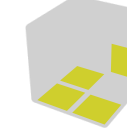
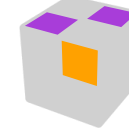
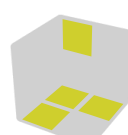
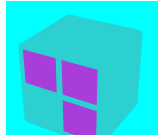
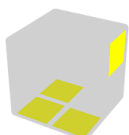
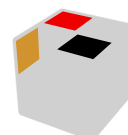


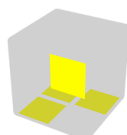
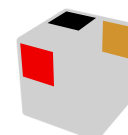
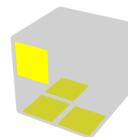

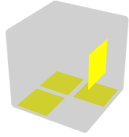
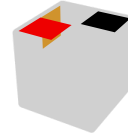
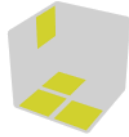
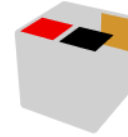
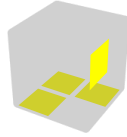
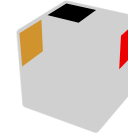
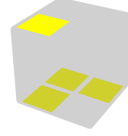
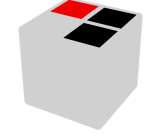
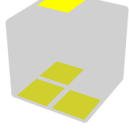

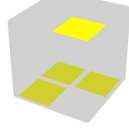
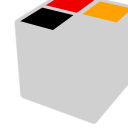
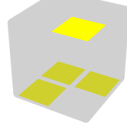
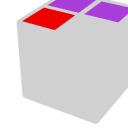


R U R' U R2 **y2 z (+, F)** *

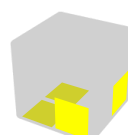

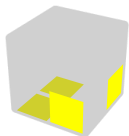

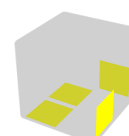
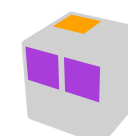
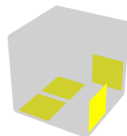
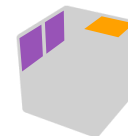
Alternative algorithms

Alg of left image **R U R' U R2** moves purple, green, orange pieces in right image by **y2 z, y2 z +, y2 z F**. Notation: fixed piece, piece by pure rotating, twist piece, piece by 1 or 2 moves, piece by 2 moves. case with 3 relatively fixed piece [8], same case*. + = CW, - = CCW.

Bar [36] LS (Last Slot) [5]

| | | | |
|--|---|--|--|
|   <p>F' R' F R U</p> <p>= y L' F' L F = y2 z F' R' U R</p> |   <p>R U R' F' U</p> <p>= y' F R F' R' = y2 z U R U' F'</p> |   <p>R' U R U R' y F R</p> | |
|   <p>F R U' R' U'</p> <p>= y' R F R' F' = y2 z' F L U' L'</p> |   <p>R' F' R F U'</p> <p>= y F' L' F L = y2 z' U' L' U F</p> |   <p>R U' R' U' R y' R' F'</p> | |
|   <p>R U2' R' z2 x</p> |   <p>R' U' R U', U' R</p> <p>= y' F' L' F = y2 R' F' R</p> |   <p>R U' R' U', R U'</p> <p>= y' F R' F'</p> |   <p>R' F R F' F R, R' U</p> <p>= y F' R U R'</p> |
|   <p>R' U2 R z2 x'</p> |   <p>R U R' U, U' R'</p> <p>= y' F R F'</p> |   <p>R' U R U, R' U</p> <p>= y' F' L F = y2 R' F R</p> |   <p>F R' F' R R' F', F U'</p> <p>= y R U' R' F</p> |
|   <p>R2 U' R2' U'</p> |   <p>R2 U R2' U</p> |   <p>R2 U R2' U, U'</p> <p>U' R2</p> |   <p>R2 U R2' y' U'</p> <p>U' F2 R2</p> |

DD [4]

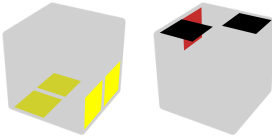
| | | | |
|--|--|--|--|
|   |   <p>*</p> |   |   <p>*</p> |
|--|--|--|--|

2x2 1-Look [59]

$\sqrt[3]{\begin{matrix} \blacksquare & \blacksquare & \blacksquare \\ \blacksquare & \blacksquare & \blacksquare \\ \blacksquare & \blacksquare & \blacksquare \end{matrix}}$ CubeRoot

Advanced

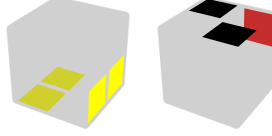
$R' U^2 R$
 $U' R'$



$R' U R^2 U'$
 R

UR'

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

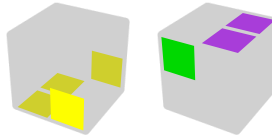


$R U' R^2 U$
 R'

$R' U$

z -> other case

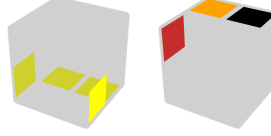
$R U^2 R' U$
 R



$R U^2 R^2 U$
 R^2

$y^2 -$

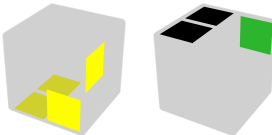
$R U R' U^2$
 R



$F R^2 U$
 R^2

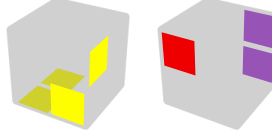
F, U'

UD - 1 move D [6]



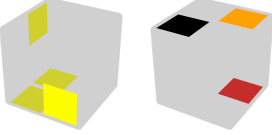
$R^2 F' R F$

-



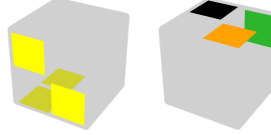
$R' F R U'$
 R'

$x' L^2$



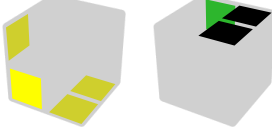
$R U R' U'$
 R^2

R^2, U'



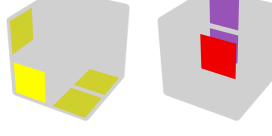
$R' U' R U$
 R'

$-, U$



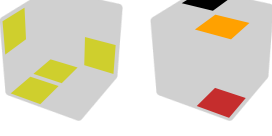
$L^2 F L' F'$

+



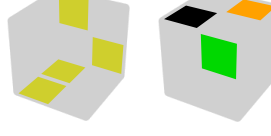
$L F' L' U L$

$x' R^2$



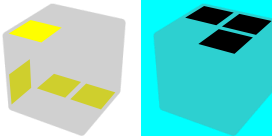
$R' U' R U$
 R^2

R^2, U

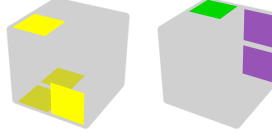


$R U R' U'$
 R

$+, U'$

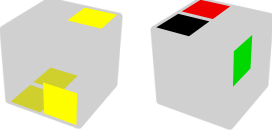


$R^2 U' R' U$
 $R' F'$



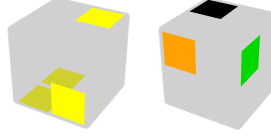
$R U' R^2$

$x' -$



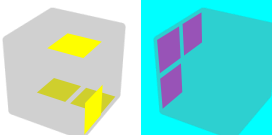
$R' U R U'$
 R'

$-, U$



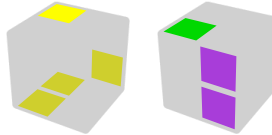
$R^2 F' R F'$

$-, F R$



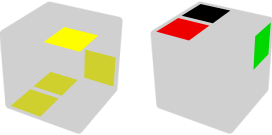
$R U R' U'$
 F

z



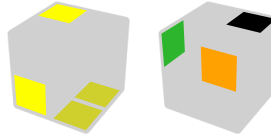
$R' U R^2$

$x +$



$R U' R' U$
 R

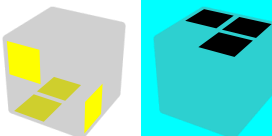
$+, U'$



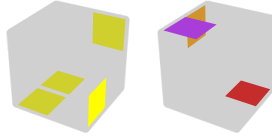
$L^2 F' L' F$

$+, F' L'$

UD - 3 move D [6]



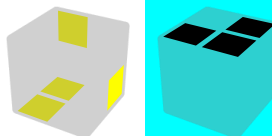
$F R U' R U$
 R^2



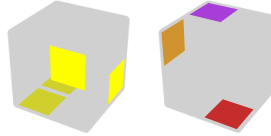
$R^2 U R'$

$y (F^2, R')$

U z y -> other case



$B' R' U R'$
 $U' R^2$



$R^2 U' R$

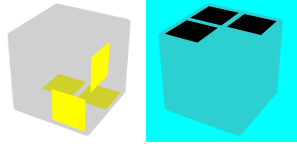
$y' (B^2, R)$

U' z y' -> other case

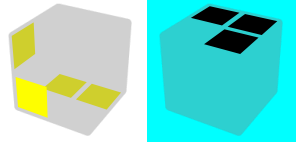
2x2 1-Look [59]

$\sqrt[3]{\begin{matrix} \text{Red} & \text{Blue} \\ \text{Blue} & \text{Red} \end{matrix}}$ CubeRoot

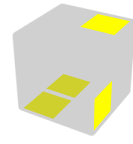
Advanced



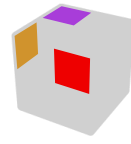
$R' D R$
 $= y' F' R F$



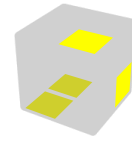
$L D' L'$
 $= y' F U' R'$



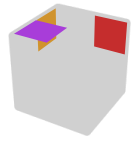
$R U' R$



$y' (B, R)$

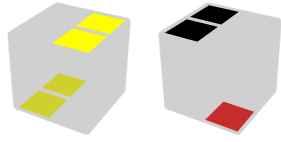


$R' U R'$

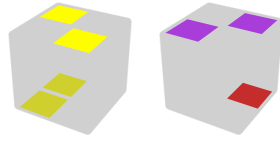


$y (F', R')$

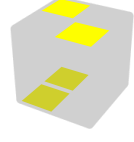
UU - 2 Up [2]



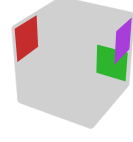
$R2$ $R2$



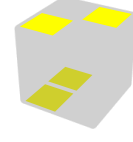
$R2 U' R2'$
 $U' R2$ $y' B2$
 $U' R2 U R2' U R2$



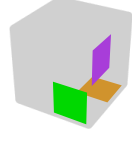
$R' U' R U'$
 $R2'$



$y2 z (-, B2)$ *

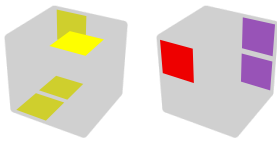


$R U R' U$
 $R2$

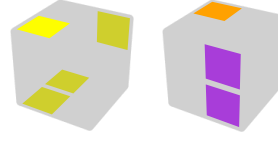


$y2 z (+, F)$ *

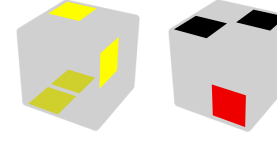
UU - 1 Up [6]



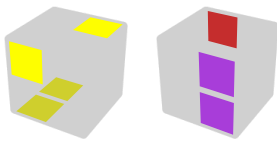
$R' U2 R'$ $z2 x' R2$



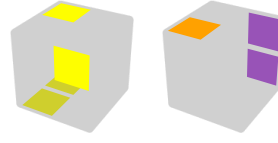
$R' U' R2$ $x L U'$ *



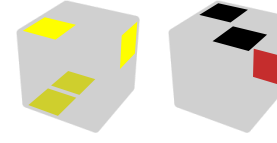
$R' U R U' R$ R *



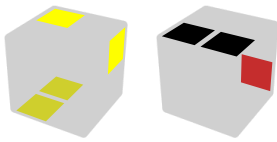
$R U2 R$ $z2 x R2$



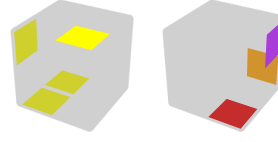
$R U R2'$ $x' L' U$ *



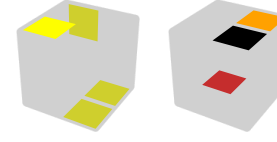
$R U' R' U R'$ R' *



$R2' U R U' R$ R'

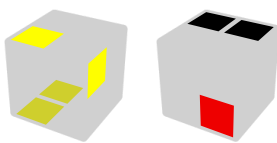


$R' U' R'$ $y2 z (B', L')$ *

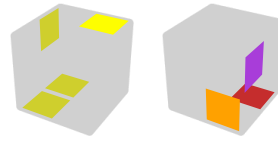


$L' F U' F'$ $R2, U'$ *

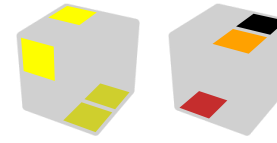
$= y' F' R U' R' = y2 R' F R' F'$



$R2 U' R' U R'$ R

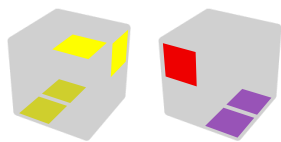


$R U R$ $y2 z (F, L)$ *

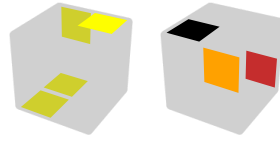


$L F' L F$ $L2, U$ *

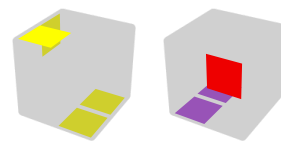
$= y' F R' F R = y2 R F' U F$



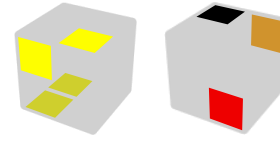
$R2' F R$
 $U' R'$ $x2 L$



$R2 U R' U'$
 R $R', R U'$ *

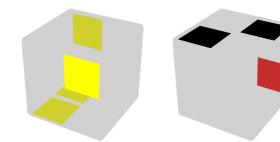
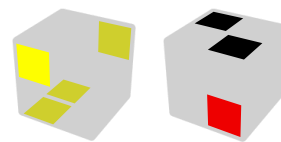
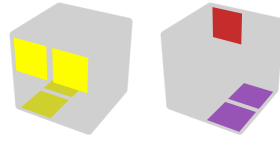
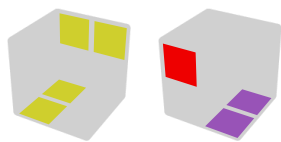


$L2 F' L' U$
 L $x2 R'$

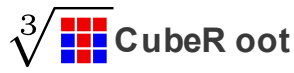


$R2' U' R U$
 R' $R, R' U$ *

UU - 0 Up [7]



2x2 1-Look [59]



CubeRoot

Advanced

R2 U2' R'

z2 R

R2' U2' R

z2 R'

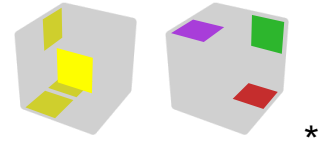
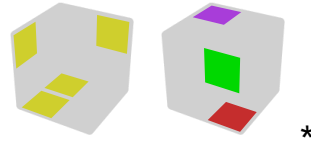
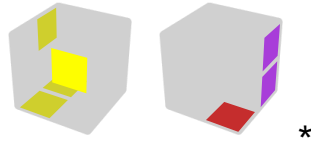
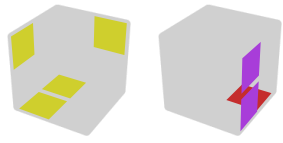
R U' R U
R'

R U'

R' U R' U'
R

R' U

U' R' U' R2 U R'
U' R U R2' U' R



R U R U2'
R'

z' B

R' U' R'
U2' R

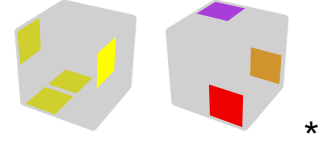
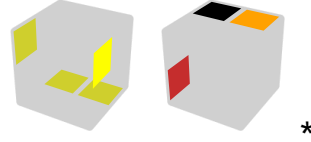
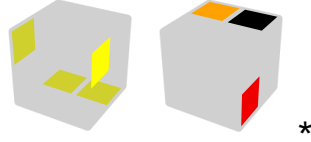
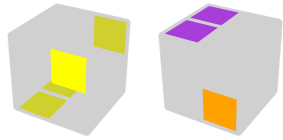
z' F'

R2 U' R'

y' (+, B2)

R2' U R

y' (-, F2)



R U2' R2'
U' R2
= R' U2' R2 U R2'

y2 L U'

F' R2 U'
R2'

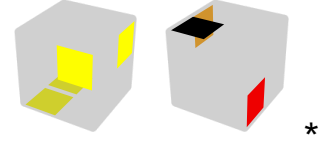
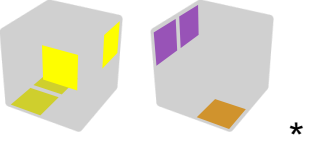
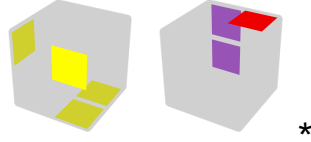
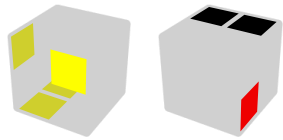
F', U'

F L2' U L2

F, U

R U' R' U
R' U' R
= R' U R U' R U R'

y' (B, B')



R U' R U
R2'

F'

L F' L' U
L' U' L2

x' R

R' U R'
U2' R

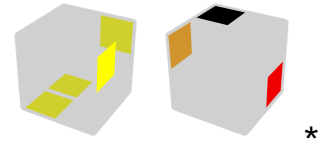
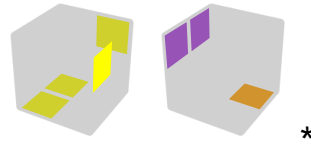
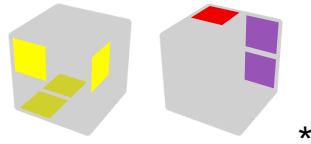
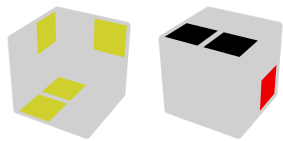
z y' D' F

R' U' F R
F'

F', B'

R' U2 R' U' R

R' U2 R' U R



R' U R' U'
R2

B

R' F R U' R
U R2'

x' L'

R U' R U2'
R'

z y D B'

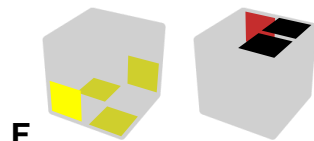
R U F' U'
F

B, F

R U2 R U R'

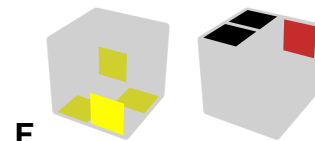
R U2 R U' R'

(T)CLL [4]



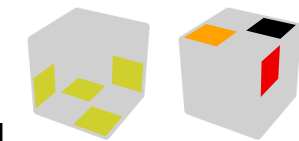
F
R2 U R' F'
R'

L



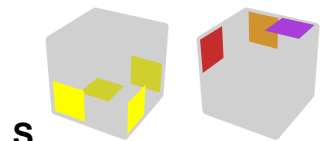
F
L2' U' L F
L

R'



L
R2 U R2'
F'

F', U

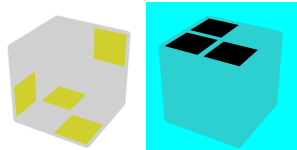


S
F U2 R

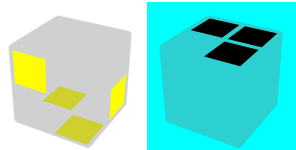
y2 (B, R)

Easy Checker [12]

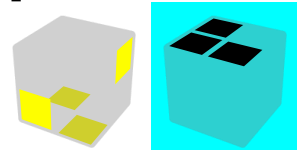
UD [6]



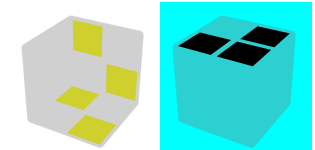
R D R'



R F R'

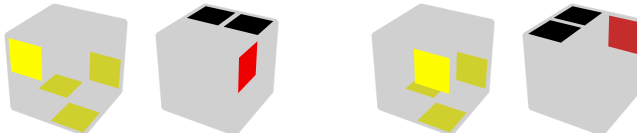


F' R' F



x R U R'
F' R'

U' R F U R'



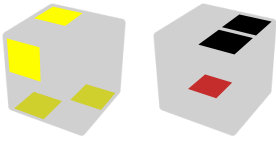
$x U' R U'$
 $R' U x'$

F'

$x R U' R'$
 $U R' x'$

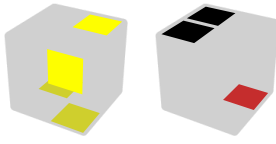
R'

UU [6]



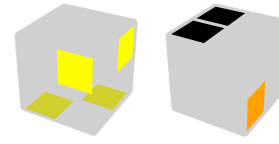
$x U L U' L$
 x'

$L2$



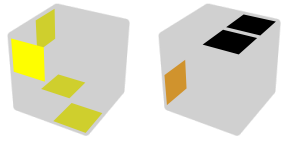
$x U' R' U$
 $R' x'$

$R2$



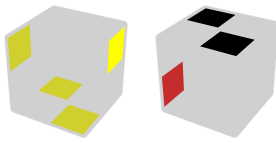
$x2 R U' R'$
 $U L' x$

$D R'$



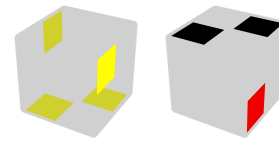
$x2 L' U L$
 $U' R x$

$D' L$



$R2' F R2$

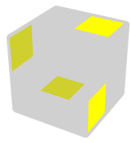
F



$L2 F' L2$

F'

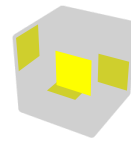
Others [7]



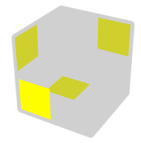
$F R2$



$R' F' R'$
 $F' U' R'$



$F' U2 R$



$R2 F' R'$



$U' F' R2$



$U F' R2$



$R F U2 R$