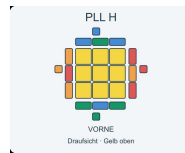


PLL · alle 21 Fälle · Spickzettel

Weiß unten, Gelb oben. VORNE liegt im Bild unten. Strich = Gegenrichtung, 2 = halbe Drehung. r/l/f = zwei Ebenen, M wie L, x/y/z = ganze Würfelrotation wie R/U/F. Immer exakt die gezeigte Fallhaltung verwenden.

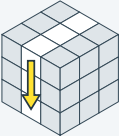
PLL H



M2 U M2 U2 M2 U M2

Zug für Zug: M2 U M2 U2 M2 U M2

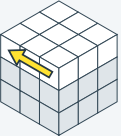
1. M2



180° · zweimal · Mitte

→

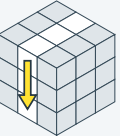
2. U



90°

→

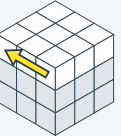
3. M2



180° · zweimal · Mitte

→

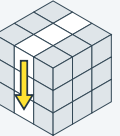
4. U2



180° · zweimal

→

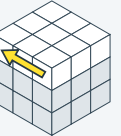
5. M2



180° · zweimal · Mitte

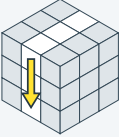
→

6. U



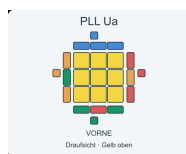
90°

7. M2



180° · zweimal · Mitte

PLL Ua



M2 U M U2 M' U M2

Zug für Zug: M2 U M U2 M' U M2

1. M2

180° · zweimal · Mitte

2. U

90°

3. M

90° · Mitte

4. U2

180° · zweimal

5. M'

90° · Mitte

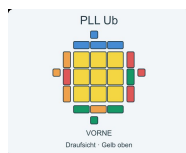
6. U

90°

7. M2

180° · zweimal · Mitte

PLL Ub



M2 U' M U2 M' U' M2

Zug für Zug: M2 U' M U2 M' U' M2

1. M2

180° · zweimal · Mitte

2. U'

90°

3. M

90° · Mitte

4. U2

180° · zweimal

5. M'

90° · Mitte

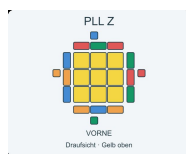
6. U'

90°

7. M2

180° · zweimal · Mitte

PLL Z

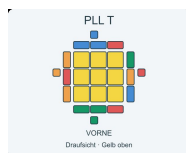


$M' U M^2 U M^2 U M' U^2 M^2$

Zug für Zug: $M' U M^2 U M^2 U M' U^2 M^2$

1. M' 90° · Mitte	→	2. U 90°	→	3. M^2 180° · zweimal · Mitte	→	4. U 90°	→	5. M^2 180° · zweimal · Mitte	→	6. U 90°
7. M' 90° · Mitte	→	8. U^2 180° · zweimal	→	9. M^2 180° · zweimal · Mitte						

PLL T

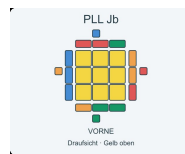


$R U R' U' R' F R^2 U' R' U' R U R' F'$

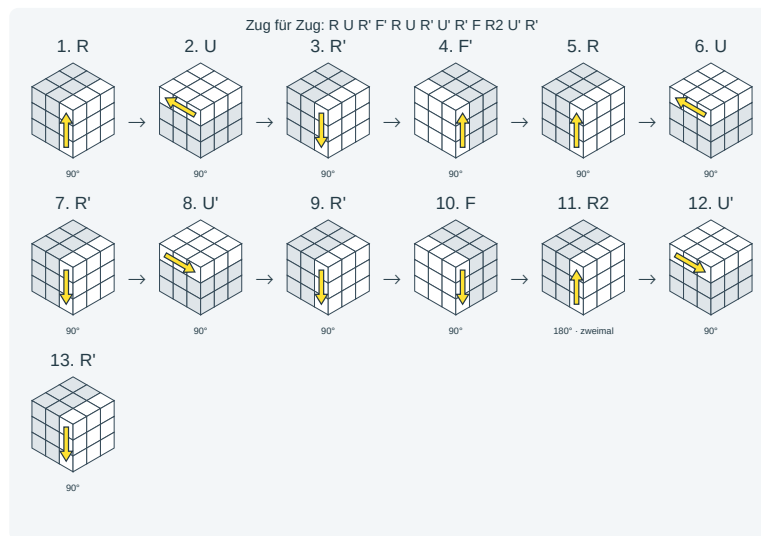
Zug für Zug: $R U R' U' R' F R^2 U' R' U' R U R' F'$

1. R 90°	→	2. U 90°	→	3. R' 90°	→	4. U' 90°	→	5. R' 90°	→	6. F 90°
7. R^2 180° · zweimal	→	8. U' 90°	→	9. R' 90°	→	10. U' 90°	→	11. R 90°	→	12. U 90°
13. R' 90°	→	14. F' 90°								

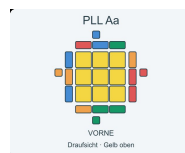
PLL Jb



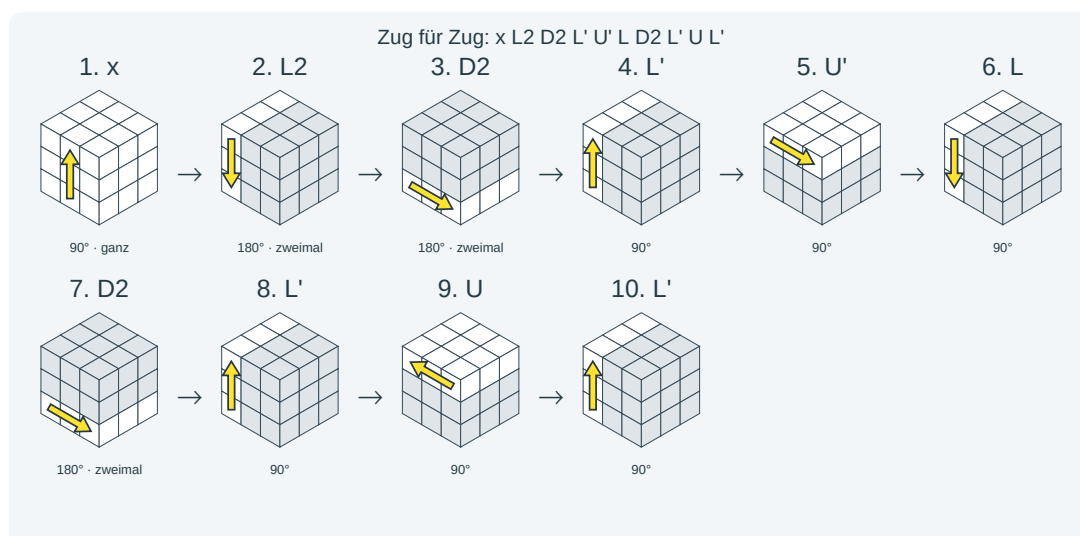
R U R' F' R U R' U' R' F R2 U' R'



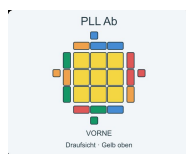
PLL Aa



x L2 D2 L' U' L D2 L' U L'



PLL Ab

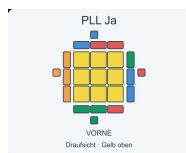


$x' L2 D2 L U L' D2 L U' L$

Zug für Zug: $x' L2 D2 L U L' D2 L U' L$

1. x' 90° · ganz	→	2. $L2$ 180° · zweimal	→	3. $D2$ 180° · zweimal	→	4. L 90°	→	5. U 90°	→	6. L' 90°
7. $D2$ 180° · zweimal	→	8. L 90°	→	9. U' 90°	→	10. L 90°				

PLL Ja

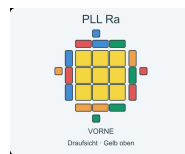


$x R2 F R F' R U2 r' U r U2$

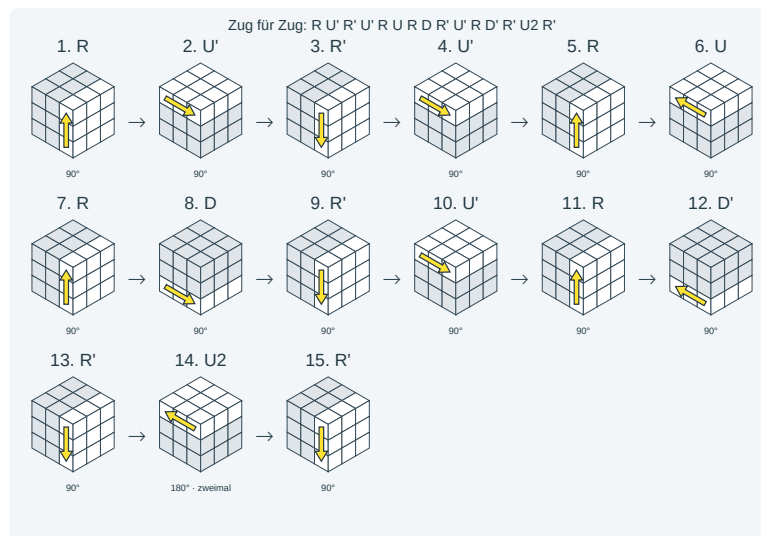
Zug für Zug: $x R2 F R F' R U2 r' U r U2$

1. x 90° · ganz	→	2. $R2$ 180° · zweimal	→	3. F 90°	→	4. R 90°	→	5. F' 90°	→	6. R 90°
7. $U2$ 180° · zweimal	→	8. r' 90° · 2 Ebenen	→	9. U 90°	→	10. r 90° · 2 Ebenen	→	11. $U2$ 180° · zweimal		

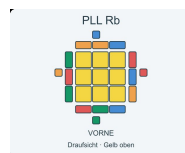
PLL Ra



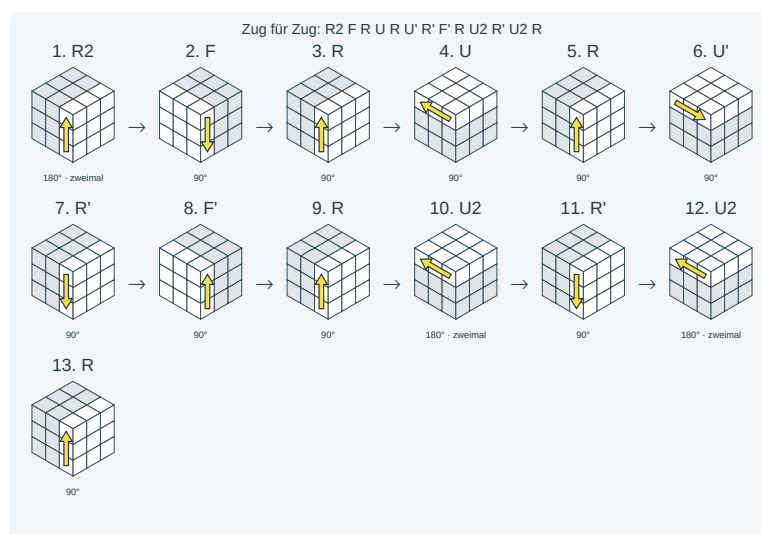
$R\ U'\ R'\ U'\ R\ U\ R\ D\ R'\ U'\ R\ D'\ R'\ U^2\ R'$



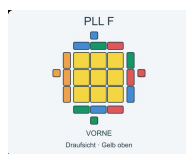
PLL Rb



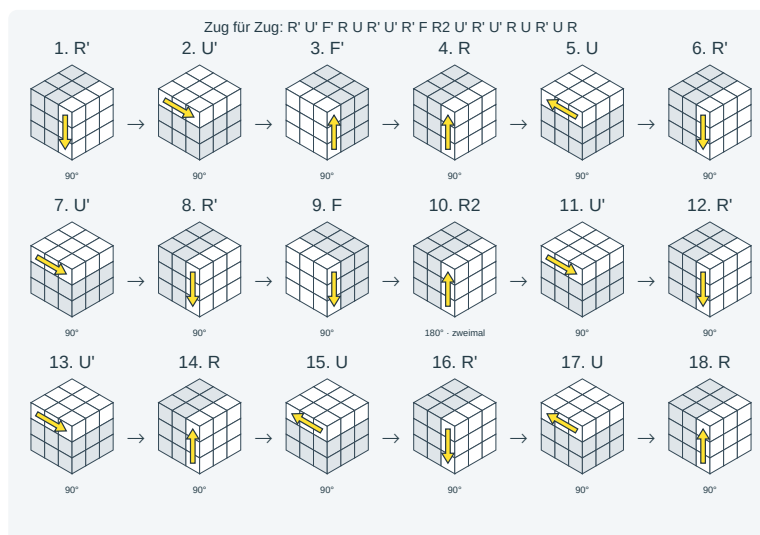
$R^2\ F\ R\ U\ R\ U'\ R'\ F'\ R\ U^2\ R'\ U^2\ R$



PLL F



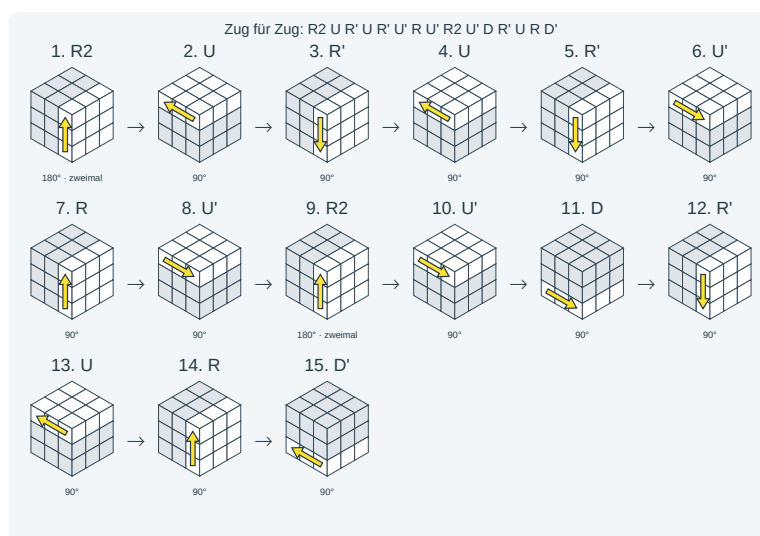
$R' U' F' R U R' U' R' F R^2 U' R' U' R U R' U R$



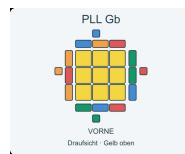
PLL Ga



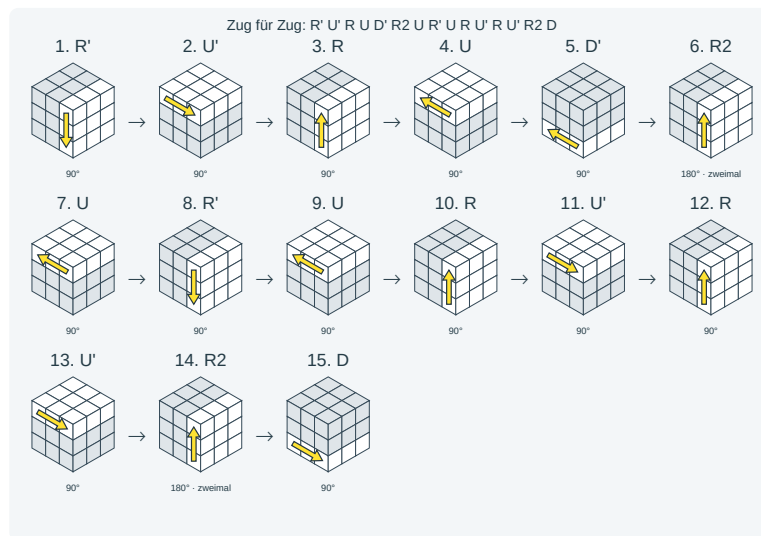
$R^2 U R' U R' U' R U' R^2 U' D R' U R D'$



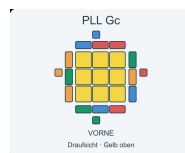
PLL Gb



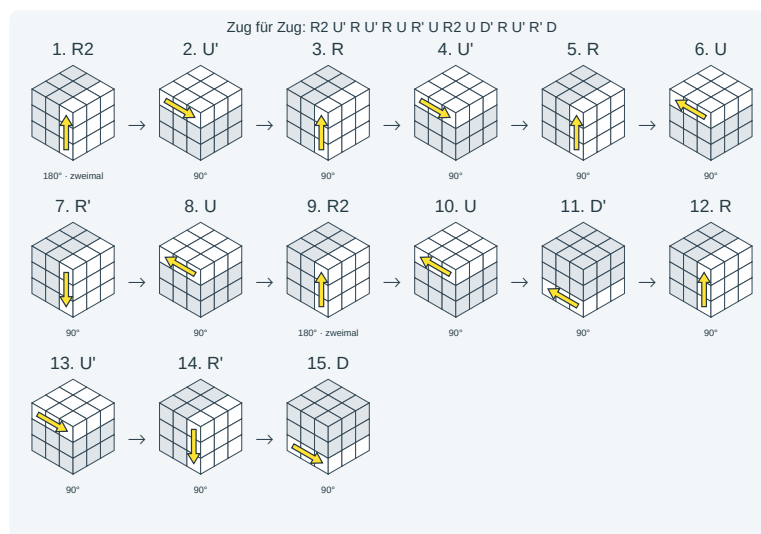
$R' U' R U D' R^2 U R' U R U' R U' R^2 D$



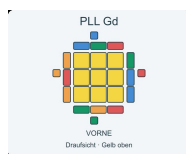
PLL Gc



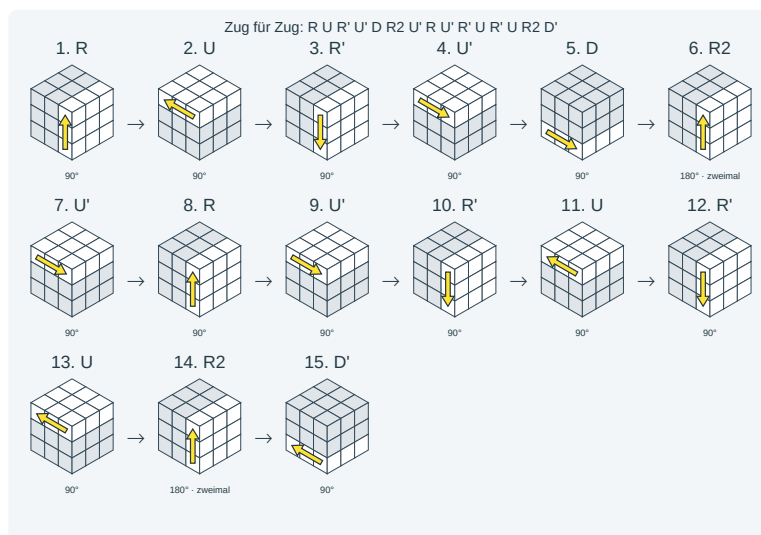
$R^2 U' R U' R U R' U R^2 U D' R U' R' D$



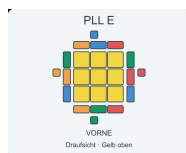
PLL Gd



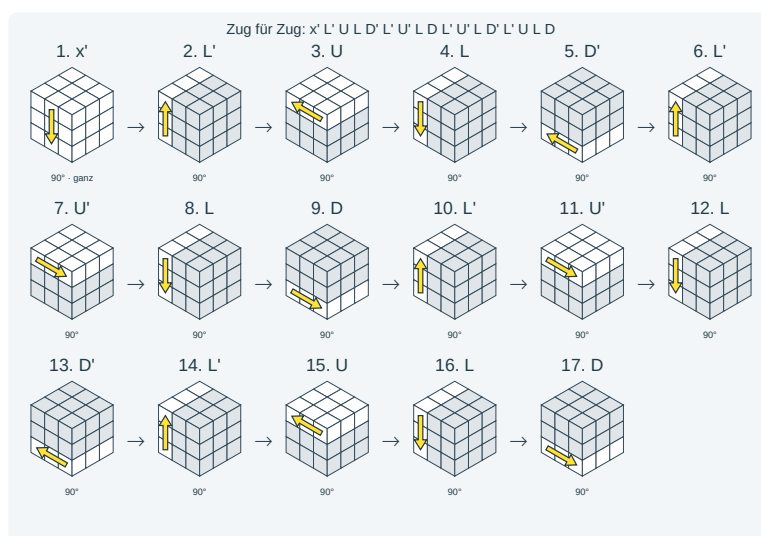
$R \ U \ R' \ U' \ D \ R^2 \ U' \ R \ U' \ R' \ U \ R' \ U \ R^2 \ D'$



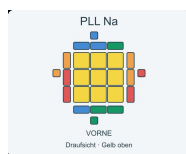
PLL E



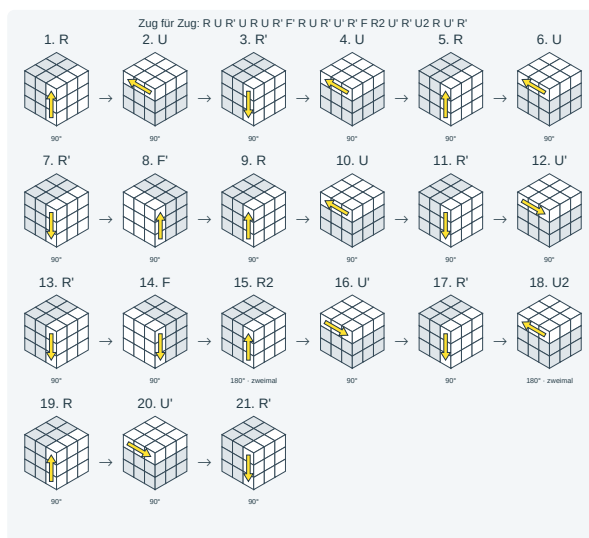
$x' \ L' \ U \ L \ D' \ L' \ U' \ L \ D \ L' \ U' \ L \ D' \ L' \ U \ L \ D$



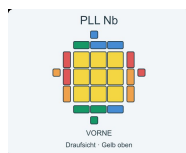
PLL Na



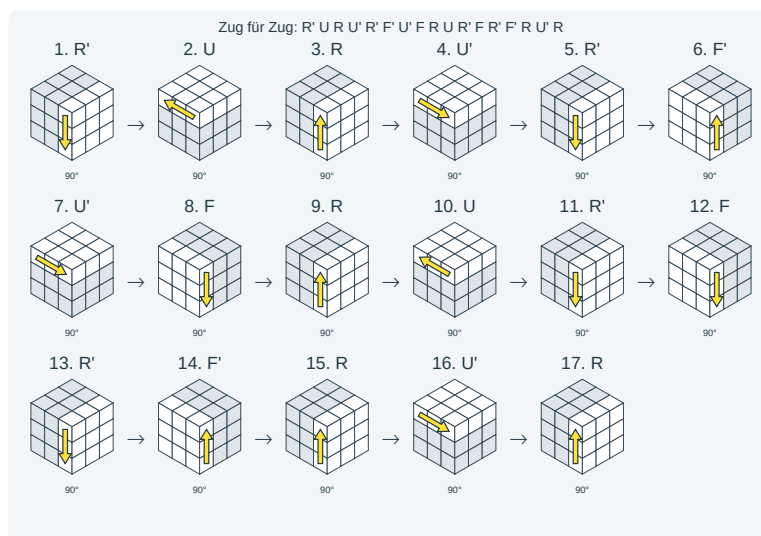
$R\ U\ R'\ U\ R\ U\ R'\ F'\ R\ U\ R'\ U'\ R'\ F\ R^2\ U'\ R'\ U^2\ R\ U'\ R'$



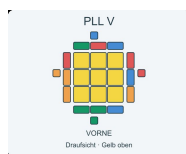
PLL Nb



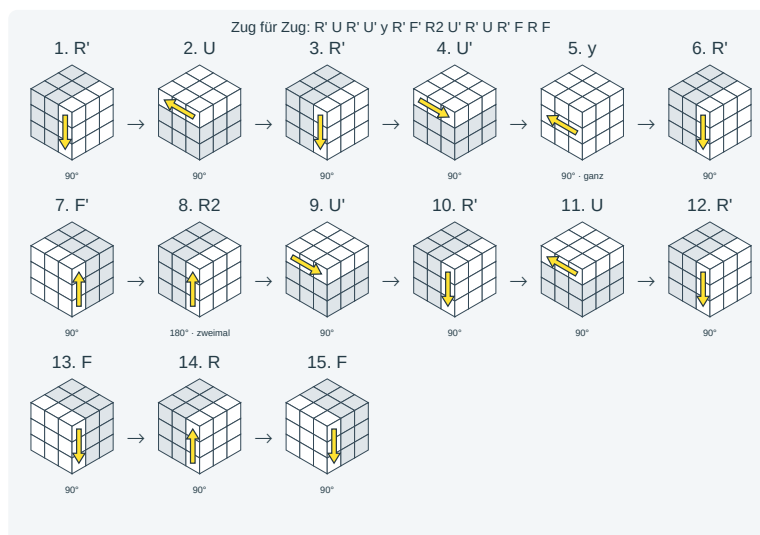
$R'\ U\ R\ U'\ R'\ F'\ U'\ F\ R\ U\ R'\ F\ R'\ F'\ R\ U'\ R$



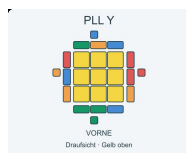
PLL V



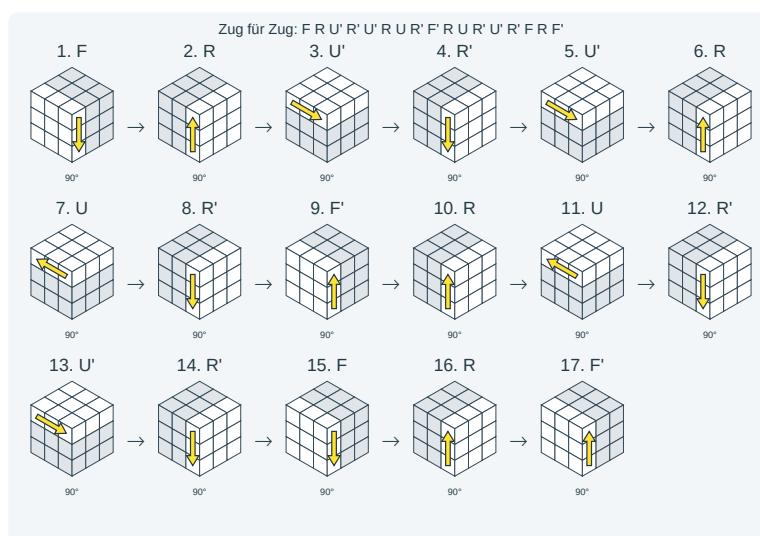
$R' U R' U' y R' F' R^2 U' R' U R' F R F$



PLL Y



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



Eigene Fallgrafiken für groods.de. Diese Übersicht ergänzt die ausführliche Erklärung. Bei OLL auch die gelben Seitenfelder, bei PLL alle Seitenstreifen vergleichen.