

Peter Renzland's Elegant Rubik's Cube Solution Method

This 4-step Method uses 3 Transforms: **Corner-Swap**, **Corner-Twist**, **Edge-Swap**.

Overview:

1. Do White Corners; 2. Place Yellow Corners; 3. Orient Yellow Corners; 4. Do Edges.

Notation :

The Face **positions** are: Up, Right, Front, Down, Left, Back.

The Face **colours** are: White, Red, Green, Yellow, Orange, Blue.

“**R**” means "turn the Right face clockwise a quarter turn", etc.

“**r**” means "turn the whole cube": $4(\text{Ur}) == \text{UFDB}$.

Transforms :

cs: $7(\text{UR})\text{U}$ (URUR URUR URUR URU) (15 turns) swap 2 (left-down) corners
ct: $12(\text{Ur})$ (UFDB UFDB UFDB) (12 turns) twist 3 (left) corners (right)
es: $3(\text{UURR})$ (UURR UURR UURR) (6 turns) swap 2 (up, right) edge pairs

Method :

1. Do the White Corners intuitively.

2. **Place the Yellow Corners**: Turn the Yellow face until at most 2 corners are displaced. Place them at Left-Down, and swap them with **cs**.

3. **Orient the Yellow Corners** (on Left face):

If 1 left facelet is yellow, put it at **LEFT**-Up-Back;

else put a yellow facelet at **UP**-Back-Left;

apply **ct**. Repeat step 3 until done. [*]

4. **Do the Edges**: To move an edge cubie, align it opposite its home cubicle (Up Front-Back); line up a helper edge-pair (already matched, or both still random) alongside (Right Front-Back); apply **es**; invert the line-up turns (having noted their face-colours). Do White, Middle, Yellow.

[*] Step 3 Short-Cut: If 1 or 3 Left Twists are needed, use the Corner Left-Twist Transform: $12(-r-U)$.