

## New memorization technique for BigBLD- xcenters



Reducing the information to be memorized for the x centers is very handy, especially when we start to do 4BLD, 5BLD, 6BLD and 6BLD+.

This concept can be also applied to obliques and +centers, although it is a bit harder to trace, it works with any additional modification. SS thread discussing this topic

- 1) Structuring Elements and shape of solved x-centers
- 2) Efficient clockwise trace: I always choose the clockwise trace starting with the Lfu piece on the Left side, Rfu piece on the right side, Ubr piece on the top side, Bru piece on the back side, Flu piece on the front side and Dbl piece on the Bottom side.
- 3) Pseudo structuring elements: Avoiding U layer stickers and consider it as a pseudo structuring element. This practice is used by top solvers to force good comms. (advanced concept)

## 1. Structuring Elements

The common structuring elements (cluster of solved x-center on one side) on the F,L,R,B and D layer have to be seen. There are a few common shapes of structuring elements that are classified below.

### 1. Single solved piece (Dot case)

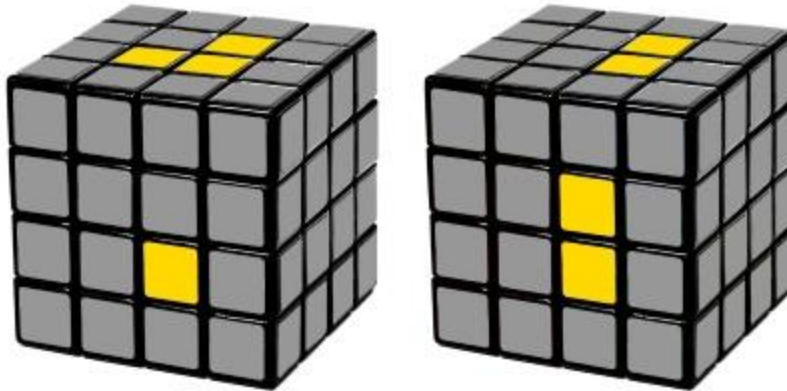
This is the hardest shape to memorize as it is just to dot that we have to see and memorise it as solved. The easiest way to memorize single dots is to use numbers to assign solved centers.

Going in the order Green, Blue, Orange, White, Red and Yellow, I assign numbers 1,2,3,4 to denote the solved center.

[illegible]

If only a few centers are having a single piece solved, then using some basic visual cues like knight move away, or rod containing solved centers x-raying through the cube or visualizing an inner corner piece solved, if say Dbl-Lbd-Bdl is solved.

**2. L shape**



**3. Inverted L shape**

**4. Mirrored L shape**

**5. Mirrored Inverted L shape**

**6. Left Line**

**7. Right Line**

**8. Top Line**

**9. Bottom Line**

**10. Diagonal**

**11. Off-diagonal**

**12. Fully solved center side**

(Rare) more common in 4BLD to get one solved center

**13. No structuring elements**

No need of memorization (Rare-Lucky case most will be getting in 5BLD as there are less solved centers there)

## 2. Beginner method to handle shapes

Use premoves to get the desired orientation of the shapes, and do extra U/U' to move the buffer piece. The premove technique can even be used as an advanced method to get faster recognition and memorization.

## 3. How to remember the structural elements fast while memo-ing

Connect shapes of two adjacent centers and have a visual sense of all the shapes we have memorised. An idea to think about is to make bigger shapes imagining a cutout of the cube along the 6 surfaces. Nicknaming the shapes for a faster association.

## 4. The difference in applying this technique to the event 4BLD and 5BLD

In 4x4, there are more solved centers, so the strategy to remember solved center changes. So in 4BLD we have to kind of switch between doing this way of memorising or just tracing out the targets and memorising (when there are too many solved centers). This method is more effective for the 5BLD event as there are a lot of x centers that are not solved.

## 5. How to trace out the memo using this method

Let **Y** denote **Yellow face**, **O** denote **Orange face**

**B** denote **Blue face**, **G** denote **Green face**

**R** denote **Red face**, **W** denote **White face**

The letter scheme I have chosen is according to my 3x3 lettering scheme of edges, so the scheme might look weird to anyone not using my lettering scheme.

<b>YG</b> - A	<b>YR</b> - B	<b>YB</b> - C	<b>YO</b> - D	<b>GY</b> - E	<b>RY</b> - F
<b>BY</b> - G	<b>OY</b> - H	<b>OG</b> - I	<b>GO</b> - J	<b>GR</b> - K	<b>RG</b> - L
<b>RB</b> - M	<b>BR</b> - N	<b>BO</b> - O	<b>OB</b> - P	<b>GW</b> - Q	<b>RW</b> - R

<b>BW</b> - S	<b>OW</b> - X	<b>WG</b> - T	<b>WR</b> - U	<b>WB</b> - V	<b>WO</b> - W
<b>OR</b> - Y	<b>RO</b> - Z	<b>GB</b> - JP	<b>BG</b> - OI	<b>YW</b> - WT	<b>WY</b> - DX

## 6. TLDR

We can memorize two targets by just using one letter. So we just have to memorise half of the information we were memorising previously.

In this way, we can have say 20 targets (assuming 4 targets being solved), encoded in 10 letters, or just 5 letter pairs or just 3 memory elements (two letter quads and one letter pair)

Assuming we get mastery over tracing and encoding via repetitive practice, the memorization+review will only take 10 seconds for the x-centers and it can even be stored in our long term memory. We will also have to remember the structuring elements well otherwise we do not know where the solved centers were.

This method does take some time to getting used to, and even after getting used to we use a bit more brainpower in the encoding process, so I am not sure if we have a significant improvement in performance to make this the outright best method as compared to tracing each sticker and assigning one letter to each sticker.

Do you think it is feasible? I have not done that many 5BLD attempts in the last 2 years, and currently when I use this technique, it does take a bit of my brain power and focus, and my memo slows down a bit even though there is less info to be memorised.

## 7. Video of me explaining the technique

[Advanced x-center Memo technique](#)

## 8. Example

To make sense of this map, I will take the [9 cubers 1 scramble](#) video, and walkthrough of the xcenter memo I used the classical way, and then using the technique shown in the video.

Scramble:

L2 R Dw B' F2 Fw2 Lw' Bw2 L' Dw' Fw L' B U Rw2 L' Bw' U' B R Bw' L' Lw Bw' U' B L2 Bw' Rw'  
Bw R U L Rw2 Dw' F2 L2 D' Lw2 Bw' Rw D2 Fw2 U2 B' F2 Dw F' Fw2 Dw D' R2 Fw' Bw Rw'  
Bw2 Fw' Rw D' Fw

Ubr x-center trace on this scramble:

Ubr-Ufl-Bur-Lbu-Ufl , float

Ubl-Fur-Dbl-Bdl-Ufr-Ruf-Bdr-Ldf-Fdr-Rbu-Dbr-Rdb-Fdl-Rdf-Lbd-Dfr-Ubr

The sentence that I had with (one target = one letter) normal is (eiga ltpa kqnv jurm woxa)

Eigenvalues letter paper kaynav jurm by woza

**eiga** - Ubr-Ufl-Bur-Lbu-Ufl

**ltpa** - Ubl-Fur-Dbl-Bdl-Ufr

**kqnv** - Ubl-Ruf-Bdr-Ldf-Fdr

**jurm** - Ubl-Rbu-Dbr-Rdb-Fdl

**woxa** - Ubl-Rdf-Lbd-Dfr-Ubr

Now, coming to the method described in the video,

Xcenter trace from the Ubr buffer, using this two targets = one letter scheme,

Structuring element memo (solved pieces): FHT (LFu,Bul,DBl)

Memo: wexf njso baZ

Sentence: Fssst, we are exceptional with using ninja soap named baza.

**we** - Ubr-Ufl-Bur-Lbu-Ufl

**xf** - Ubl-Fur-Dbl-Bdl-Ufr

**nj** - Ubl-Ruf-Bdr-Ldf-Fdr

**so** - Ubl-Rbu-Dbr-Rdb-Fdl

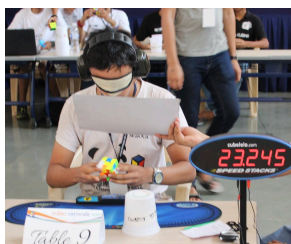
**baZ** - Ubl-Rdf-Lbd-Dfr-Ubr

Today reduction in memo,

eiga ltpa kqnv jurm woxa = (visual fht) wexf njso bz

So the original memo of, 5 letter quads becomes 2 letter quads and one letter pair, reduction of half in memo. The only downside is the increased ambiguity with the new method and the extra brain power we have to use to make sure we traced the two targets = one letter memo properly.

## 9. About Me



Hi, I am Abhijeet.

I am a Master's student in Machine Learning and planning to do a Ph.D. in Theoretical Astrophysics sometime later. I have been speedcubing for over 7 years and I know how to solve a Rubik's Cube since 2008. I procrastinated a lot before finally deciding to commit to this method. Since I am already a few years into it, I will not be looking back. If this method fails

to improve over 3-style, the side-fruit that I will cherish over is the extensive use of letter quads in my memo.

Contact me at mail ID: [5stylerepertoire@gmail.com](mailto:5stylerepertoire@gmail.com)

