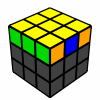
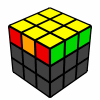
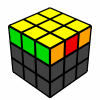
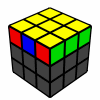
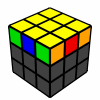
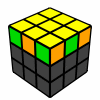
**PLL Recognition Using Only Two Sides**

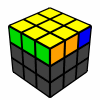
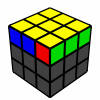
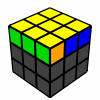
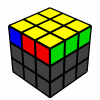
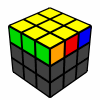
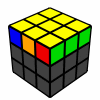
This will be a guide showing how to recognize any PLL case by only looking at two adjacent sides.  During the PLL stage of a solve, the PLL case can always be figured out by only looking those six visible stickers above the E layer. There are many ways of doing this. This guide just shows the approach that I would take.

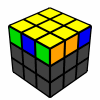
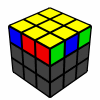
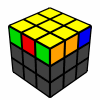
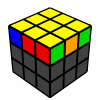
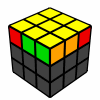
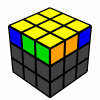
The naming system from the [PLL Wiki](http://www.speedsolving.com/wiki/index.php/PLL) will be used.

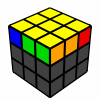
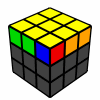
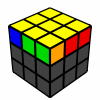
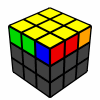
To begin, there are several easy cases that should hopefully require no explanation. If these cases are not obvious, then you’re not familiar enough with your PLLs!

**~The Easy Cases~**

**Ua:****,****Ub:,H:****Z:**

**Ja:****,****Jb:****,****F:****,**

**T:****,****Ra:****Rb:****Aa:****Ab:**

**V:****Y:****Na:****Nb:**

These cases will **not** be included in the rest of the guide.

The remaining cases will be divided into three sections based on their corner permutation.

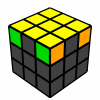
1.All corners solved.

2.Two opposite corners swapped.

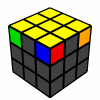
3.Two adjacent corners swapped.

The corner permutation can always be figured out by looking at the [four visible corner stickers](http://cube.crider.co.uk/visualcube.php?fmt=gif&size=100&stage=ll&fc=yyyyyyyyyldlooooooldlggggggwwwwwwwwwobrrrrrrrbrgbbbbbb&sch=yddwog).

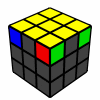
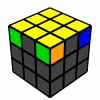
It'll be important to be familiar with your colour scheme, especially knowing the colours that are opposite of each other.



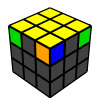
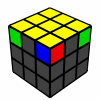
When there are [a set of ‘headlights' on each side](http://i55.tinypic.com/2d91lht.png) (two of the same corner sticker colours on a face), no corners are swapped.



When [each side has a set of two opposite colours](http://i56.tinypic.com/ngsnj4.png), two diagonal corners are swapped.



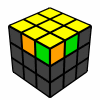
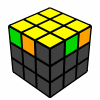
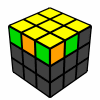
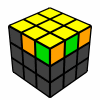
When only [one side has a set of 'headlights'](http://i56.tinypic.com/4271t.png), two adjacent corners are swapped.



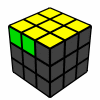
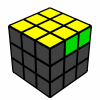
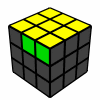
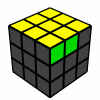
 When only [one side has a set of two opposite colours](http://i54.tinypic.com/2vwg4cl.png), two adjacent corners are swapped.

Funfact: The headlights will be on the opposite side of the side with the two opposite colours.

A 'checker pattern' will also be used sometimes to distinguish between cases. It is a pattern made by two alternating adjacent colours. They look like this:

**,****,****,**

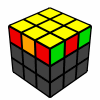
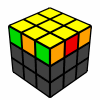
When there is a visible 2x1 block, it is located in one of two places, the 'outside' or the 'inside'. When it is on the outside, the block will include one of the two far corners, and when it is on the inside it will include the corner located in the center.

Outside block:**,** Inside block: **,**

1. EPLLs

Possible Cases: Ua, Ub, Z

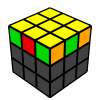
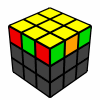
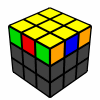
•When there is [an edge sticker that is the opposite colour of the corner stickers between it](http://i56.tinypic.com/106zzav.png), it is a U perm.

**Ua:** **Ub:**

If  both colours are adjacent colours to the corner stickers around them, count the number of unique colours that appear.

•When there are three colours, it's a U perm

•When there are four colours, it's a Z perm

**Ua:****Ub:****Z:**

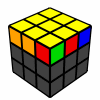
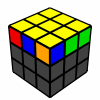
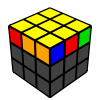
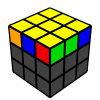
2. Diagonal CP

Possible Cases: V, Y, E

If there is one visible 2x1 block, look at where the block is located.

•When [the block is located on the outside](http://i55.tinypic.com/2wbw049.png), it's a V perm.

•When [the block is located is in the inside](http://i52.tinypic.com/20a84sx.png), it is a Y perm.

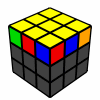
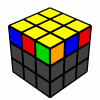
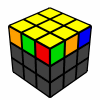
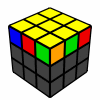
**V:****,****Y:****,**

If there is no visible block, look around for checker patterns.

•When there's [a checker pattern in the inside](http://cube.crider.co.uk/visualcube.php?fmt=gif&size=100&stage=ll&fc=yyyyyyyyyrbdoooooodrbgggggggwwwwwwwwwobrrrrrrrbrgbbbbbb&sch=yddwog), it's a V perm.

•When there's a [checker pattern on the outside](http://cube.crider.co.uk/visualcube.php?fmt=gif&size=100&stage=ll&fc=yyyyyyyyydrboooooorbdgggggggwwwwwwwwwobrrrrrrrbrgbbbbbb&sch=yddwog), it's a Y perm.

•When there's no checker pattern, it's an E perm.

**V:****Y:****E:****,**

3. Adjacent CP

Possible Cases: Aa, Ab, F,Ga, Gb, Gc, Gd Ja, Jb, Ra, Rb,T

This section will be divided into five parts.

A. No visible set of headlights, one visible block.

B. Two visible blocks, no visible set of headlights.

C. No visible blocks, one set of visible set of headlights.

D. One visible block, one set of visible set of headlights.

E. No visible blocks, no visible set of headlights.

 A. Headlights (0), Block (1)

Possible Cases: Gb, Gd, Aa, Ab, Ga, Gc Ra, Rb, T

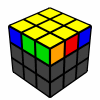
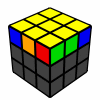
 Look at the corner sticker on the same side as the block.

• Case 1: If it is the opposite colour of the block, the PLL must be Gb, Gd, Aa or Ab.

• Case 2. If it is not the opposite colour of the block, the PLL must Ga, Gc, Ra, Rb or T.

 If you get case 1, look at the location of the block.

• if [the block is on the inside](http://i56.tinypic.com/rvvkwl.png), then it's a G perm

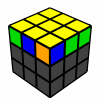
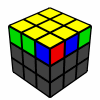
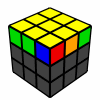
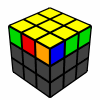
**Gb:****Gd:**

• if [the block is on the outside](http://i56.tinypic.com/iepk5e.png), it is either a G perm or an A perm.

To distinguish between the G perms and the A perms when the block is on the outside, look at the colours of the two edge stickers.

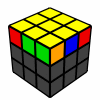
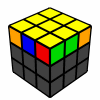
• if [they are opposite colours](http://i54.tinypic.com/2rqzgqf.png), it's a G perm

• if [they are not opposite colours](http://i51.tinypic.com/j73jpw.png), it's an A perm

**Gb:****Gd:****Aa:****Ab:**

 If you get case 2, look at the location of the block.

 • if [the block is on the inside](http://i52.tinypic.com/2q8696w.png), then it's a G perm

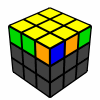
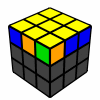
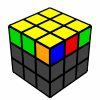
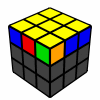
**Ga:****Gc:**

• if the block is on the outside, it is either an R  perm or a T perm.

To distinguish between the R perms and the T perm when the block is on the outside, count the number of unique sticker colours.

• if they are three colours, it's an R perm

• if they are four colours, it's a T perm

**Ra:****Rb:****T:****,**

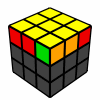
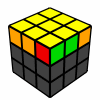
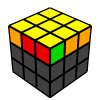
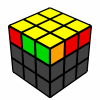
B. Headlights (0), Block (2)

Possible Cases: Ja, Jb

 These are both J perms. To tell them apart, look at the orientation of the blocks on each side.

 •if the [blocks are towards the left](http://i51.tinypic.com/ir7trq.png), it's the Ja perm

• if the [blocks are towards the right](http://i53.tinypic.com/2zoyc7m.png), it's the Jb perm

**Ja:****,****Jb:****,**

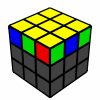
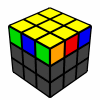
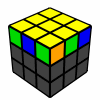
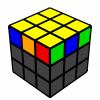
C. Headlights (1), Block (0)

Possible Cases: Gb, Gd, Ga, Gc, Ra, Rb, Aa, Ab

  Look at the edge sticker in between the headlights.

• Case 1: If [it is the opposite colour of the headlight](http://i52.tinypic.com/a2ud75.png), the PLL must be Gb or Gd.

• Case 2. If [it is not the opposite colour of the headlights](http://i54.tinypic.com/zxwdjk.png), the PLL must Ga, Gc, Ra, Rb, Aa or Ab.

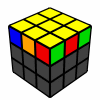
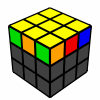
**Gb:****,****Gd:****,**

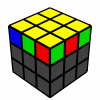
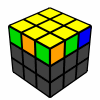
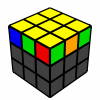
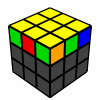
If you get case 2, look at the location of the colour of the edge stickers.

• if [they are opposite colours](http://i52.tinypic.com/2zxqjxl.png), it's Ga or Gc.

• if [they are adjacent colours](http://i52.tinypic.com/5frxcm.png), it's an R perm or an A perm.

To distinguish between the R perms and the A perms, look for a checker pattern. The R perms will have a [checker pattern](http://i54.tinypic.com/icl2yh.png) and the A perms will not.

**Ga:****Gc:**

**Ra:****Rb:****Aa:****Ab:** 

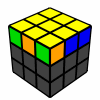
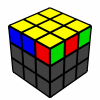
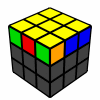
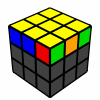
 D. Headlights (1), Block (1)

Possible Cases: Aa, Ab, Ga, Gc

Count the number of unique sticker colours that appear.

• if there are three, it's an A perm

• if there are four, it's Ga or Gc

**Aa:****Ab:****Ga:****Gc:**

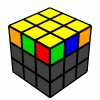
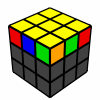
E. Headlights (0), Block (0)

Possible Cases: Ra, Rb, F, Ga, Gc

Look at the colour of the edge stickers.

•Case 1: if [there are opposite](http://i55.tinypic.com/x244cx.png), it's an R perm

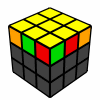
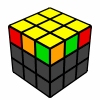
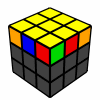
•Case 2: if [there are not opposite](http://i55.tinypic.com/2467tjs.png), it's an F perm or a G perm.

**Ra:****Rb:**

If you get case 2, look for a checker pattern.

• If there's [a checker pattern](http://i51.tinypic.com/9giry8.png), it's an F perm

• If there's no checker pattern, it's Ga or Gc.

**F:****,****Ga:****Gc:** 