

# The Evolution of LEGO® Sorting

*Here's a description of an evolution of LEGO collection sorting. It might be yours, at least in parts. It's certainly been mine.*

*Text by Remy Evard*

I might turn this into an essay some day, but for now it will have to begin life as a series of unsupported claims. If you have any comments or additions, toss'em in.

-----  
Let's assume you start your LEGO® collection like most of us did: with one set.

1. You don't sort your LEGO. You just keep them in the box they came in.

(Then, over time, you get another set, then another, then another. And your pile of bricks grows. How do you cope?)

2. You start sorting your LEGO. You sort it by set.

(Your collection grows.)

3. You give up on individual set boxes and toss all your LEGO in a big storage bin or a LEGO denim bag, or a couple of your large set boxes. You become very familiar with the sound of someone digging through large bricks looking for a 1x1 transparent red plate.

(Your collection grows.)

4. You begin to sort your LEGO by category: normal-looking bricks in one set box, other pieces in another box.

(And grows.)

5. Ok, you realize you actually have to sort it. You decide to sort the obvious way: by color.

(And grows.)

6. You keep sorting by color, but you get pickier about how you do it, and you start filtering out by type for the first time: probably the first things you sort out by type are minifigs and wheels. You realize you already had baseplates sorted out separately.

(Let's just assume at this point that between every paragraph, you keep adding LEGO to your collection.)

7. You cave in and actually get a storage system. Maybe it's rubbermaid bins, or piles of blue buckets, or fishing tackle boxes, or ziplocks. But now you've got a system.

8. You grow weary of digging through all the yellow bricks

looking for that one specialized yellow piece somewhere in 2 cubic feet of yellow. But you think of how much work it's going to take to split by part and you don't do it.

9. Sorting becomes difficult enough that you decide, in some cases, not to break some sets down and put them in your main pile of LEGO... instead, you store them as a set, because that set is so cool just the way it is. (Ok, so this set is from the 80s...) The pieces for that set are either in their box, or in a ziplock or something. Congratulations, you've just invented Set Archiving, and now you have two ways you store your LEGO: broken down by parts, and archived by set.

10. You give up and decide to sort your parts by type rather than by color. You go get more bins or tackle boxes or whatever your container of choice is, you dedicate an evening or a weekend or a month to it, and you split by type.

11. You have now invented your own LEGO categorization system. You have no doubt separated out bricks, plates, wheels, minifigs, slopes, and so on, but you've also clumped "things with curves" together, and doors and windshields together. You also have a category called "misc". Your categories, amazingly, don't look much like the LDraw categories.

12. You realize you have piles of stuff that don't fit easily into the categorization system: RCX bricks, train track, those huge A-shaped pieces, monorial supports, and rubber bands. You get a different sized drawer system for stuff like that.

13. Your collection is now clearly housed in many different types of containers ranging from buckets to drawers to bins to individual tackle box components.

14. You begin to develop large piles of LEGO in various states of being sorted, i.e:

- the sorted stuff
- the stuff you've kinda sorted and is ready to be put away
- piles of LEGO you aren't going to sort because you think you'll use it all to build something else anyway
- LEGO sorted some other way than the way you sorted into drawers to see if this way works better than that way did
- your building projects

- your new boxes of LEGO®, some opened, some not
- oh, and let's not forget your various models and MOCs

15. You begin to develop strong opinions on Plano vs. Stak-On and Rubbermaid vs. Sterilite.

16. The original categories you made begin to follow this life cycle:

- They grow too large to fit into their container.
- You divide the category into two categories in order to get them to fit into the containers... one for each category. (Now you have windshields, doors, and windows, each as a different category of pieces, each in their own containers.)
- You store those subcategories together, but as parts of them become too numerous or too hard to find, you split them out. So your tackle boxes now have a different compartment for each type of door.

You realize that at this point the endgame is that you will have a different compartment for every type of piece you have.

16.5. Every once in a while, you open a drawer you haven't opened in a while and discover that you've been sorting some piece into two separate places in your drawers. This throws your categorization for a loop. How exactly do you categorize the 1x2 plate with the little robot-looking thing on it? Oh no... partsref doesn't have it either, augh!

17. You rearrange your house so that you can fit your storage system into, hopefully, just one room.

18. You give up on the "one compartment for every piece" theory because you can't keep up with that. Instead, you start putting some of the similar things into shoebox-sized bins. The way you decide what to compartmentalize and what to put into bins together is to think about how long it takes to find an individual element. It's ok to dig through a pile of windshields looking for the trans yellow blacktron hood. It's not ok to dig through a pile of slopes looking for the specialized corner cap slope.

18.5. You document your categories so you don't get lost.

19. You develop a multi-stage sorting system. It may take a piece several hops before it ends up in its final resting spot, but it's a bit more efficient to sort this way, and you can do some of it while watching a video.

20. Bizarrely enough, you actually give up and go back to sorting by color. Only this time, you sort by color after sorting by piece. So you now have a bin for yellow 1x3 plates, and a bin for black 1x3 plates, and so on.

21. Finally you create an "overflow" system of buckets, where, if the bin of 1x3 yellow plates is full, you just add any additional ones into that overflow bucket, along with other plates. (One of the first indicators that you should do this was that you didn't have a compartment big enough to hold all your LEGO horses...)

22. You begin to toss most pieces directly into overflow.

23. You now have what, to a stranger, would be a bizarre sorting system. You have some parts thrown together in bins by type. You have some parts split out with a separate bin for

each part. You have some parts split out with a separate bin for each color. You even have some parts split out by how old they are: red 1x2s from the 60s, red 1x2s from the 70s, new red 1x2s that hold really well, and all the other red 1x2s. And you have an alphabetized pile of large buckets for the overflow pieces and another one for the 1st stage of sorting.

23.5. That stranger would also think you were certifiably insane. Or at least retentive.

24. You start looking for a new house. One with a large basement.

25. Vision recognition becomes interesting to you.

26. You begin to long for the day when you could sit at your desk and actually reach every piece you owned without getting up.

27. You decide to keep a special set or two at your desk, away from the huge sorting system, just to play with a few great sets without having to sort them. And then you add another cool set. Pretty soon you're digging through 3 inches of bricks trying to find that 1x1 transparent red plate and you think about sorting your bricks...

Of course, somewhere along the way, you probably quit buying just sets, and started to do things like:

- Buy LEGO sets in bulk, to the point where you have 10s to 100s of unopened boxes.

- Work on very large construction projects.

- Acquire other people's collections.

- Run large auctions over the net.

And those bring up entirely new sorting challenges.... but those won't be written about tonight, at least not by me.

-r'm

Remy Evard / [evard@mcs.anl.gov](mailto:evard@mcs.anl.gov)