



# Tutorials

## Tutorial: How to repair damaged LEGO® boxes

*Text and images by: Roman Gibert*

My name is Roman and I collect mainly LEGO®, although also a few things related to the 80s. One of the main problems I face when I purchase something to add to my collection is the condition of the cardboard boxes. Many people have a set in perfect condition, but in many cases that can't be said of the box it comes in. The fact that it is made of cardboard makes it very vulnerable to wear on the printed side, to heat, pressure, and especially to humidity - in one word, to the passing of time. This means that the collectible item often doesn't look as good as you would wish it did.

For this reason, some years ago I started to restore these boxes, following the main premise of all of my collection, respecting the originality of the piece. This means that I can straighten a box, mend tears in a way you can't see them any more, glue back on broken lips, transparent plastic, etc. What I would never do is repaint or add modern elements to repair old ones. Only in extreme cases, when a part of a box is missing, will I insert a small piece of "modern" cardboard to make sure the box doesn't lose its original shape, but only in extremely limited occasions.

To sum up, the basic premise is to respect the originality and my goal is to make the object as aesthetically similar as possible to the way it was the day it was manufactured, with its print, plastic ad original cardboard.

The process is simple and the basic materials I use are:

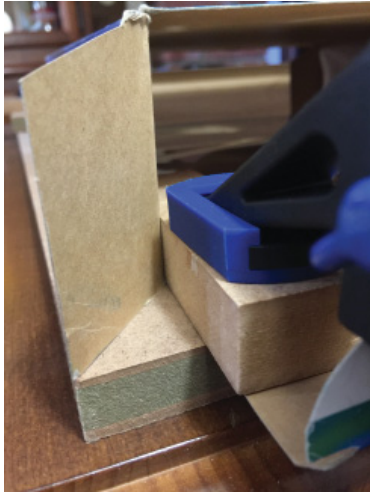
- white carpenters glue
- clamps
- tap water
- a toothbrush
- scalpel or thin paper knife or toothpicks
- strips of medium density chipboard of different lengths. Normal wood has veins that can leave marks in the cardboard we are trying to restore.
- wax paper (e.g. the paper stickers come on).
- kitchen paper and cotton swabs (to clean excess glue).

Once you have the necessary tools, the process is usually the same:

### Case of a tear

I dip my finger in white glue and pass it over the tear, taking care not to apply too much glue. After this I press both sides with my fingers and then quickly pass some moist paper over the printed side as well as the inside of the cardboard to remove any excess glue. After I have made sure the area is clean and welded, I put wax paper on both sides so the cardboard won't stick to the chipboard, and I clamp it. A few hours later the cardboard is as new again (there will always be a minimal remainder, but at first glance it will be fine).





### Creasing due to humidity or deformation by weight

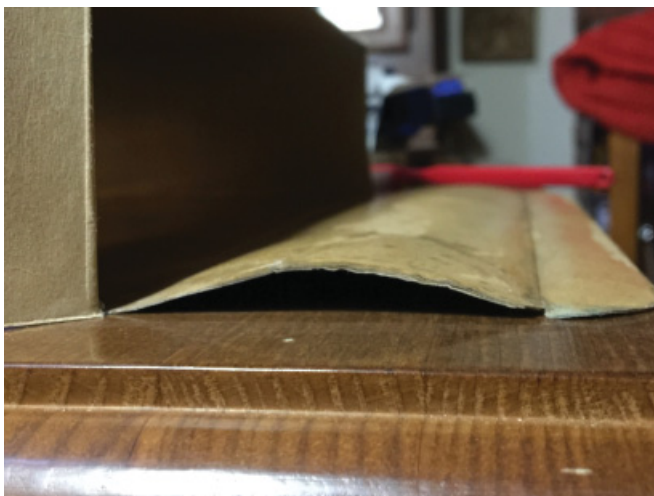


I moisten the cardboard with some water, using a toothbrush which I carefully, but repeatedly pass over the side that is not printed until I notice it has become a little soft. This requires very little time and care should be taken not to get the printed side wet (this process needs to be repeated in



steps for every part of the box, the lips, the cover, the sides, etc.).

After moistening the cardboard, place wax paper and apply pressure to make the cardboard flat again. Let it dry for approximately 10 hours. If you do the process right, the cardboard will be as new the next day.



## Open lips or cardboard with separated layers

The process is the same as with tears, but much easier, and in most cases it will only take about 5 minutes of work.

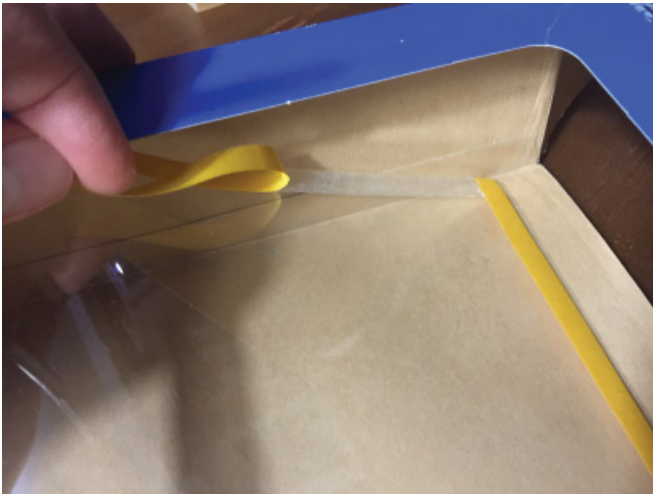


## Transparent plastic of boxes with a window

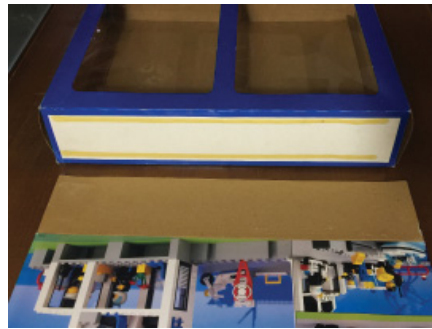
The most important thing is separating the plastic without damaging it nor creasing or otherwise damaging the box. In case you don't have it, you can buy acetate or any other kind of transparent plastic.

The process is done with transparent double sided tape (which you can easily get in any stationary shop). Take care to measure where plastic was originally glued to avoid the tape being visible on the transparent parts. The following image gives you a better view of the process.



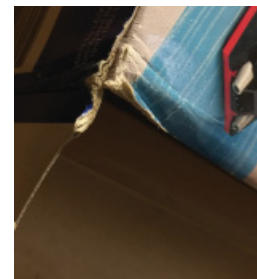
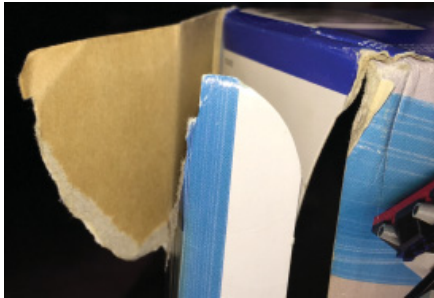
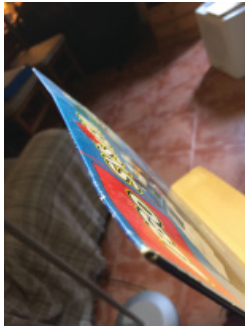


In the final part I will show you a process that combines all the steps I have mentioned above, in order to restore the cover of the box and place it back on as it had been completely detached, creased and showed signs of humidity.



I believe anyone can get more than satisfactory results in a short time using these techniques. I would advise you to practise on a modern box that can easily be replaced in case you make a mistake before you try your skills on a box that is 2 or 3 decades old.

To finish off, here are some images of before



and after :)  
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