



How-to Cardboard Building Blocks

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Cardboard Building Blocks

This set of building blocks is part of a project I have designed and built for a local community center. The Center needed a waiting-play area in the lobby for parents and kids who are waiting in-between activities. Limited time and budget constraints led me to work with simple forms and simple materials, developing a system that is not only functional but also brings out the creative side in children as they wait around.

The blocks are made from discarded cardboard and tape, they are lightweight and therefore suitable for play, enabling oversize construction. They are designed to be very strong so people can also use them for sitting. They are designed as a modular system of interlocking cubical shapes. The dimensions and proportions of the elements are such that they can be used for play as well as for sitting. The boundaries between functionality and play disappear, whereby a chair can become a train or a brick in a fortress.

Building these blocks can be a great activity for your local community. and a great feature to have around. When properly cared for, the blocks can last for a very long time.



Before you start

- Read instruction and follow them!!!
- You may either collect cardboard or buy cardboard sheets.
- If you make more than one of each type of block, I recommend you make a template of the pieces that you can trace.
- To start cut one block at a time to make sure all the dimensions are correct and that you know what you're doing.
- When cutting use extra precaution
- Although this is cardboard and it is somewhat forgiving, you need to be precise in cutting and assembly, otherwise you will be frustrated, guaranteed!!

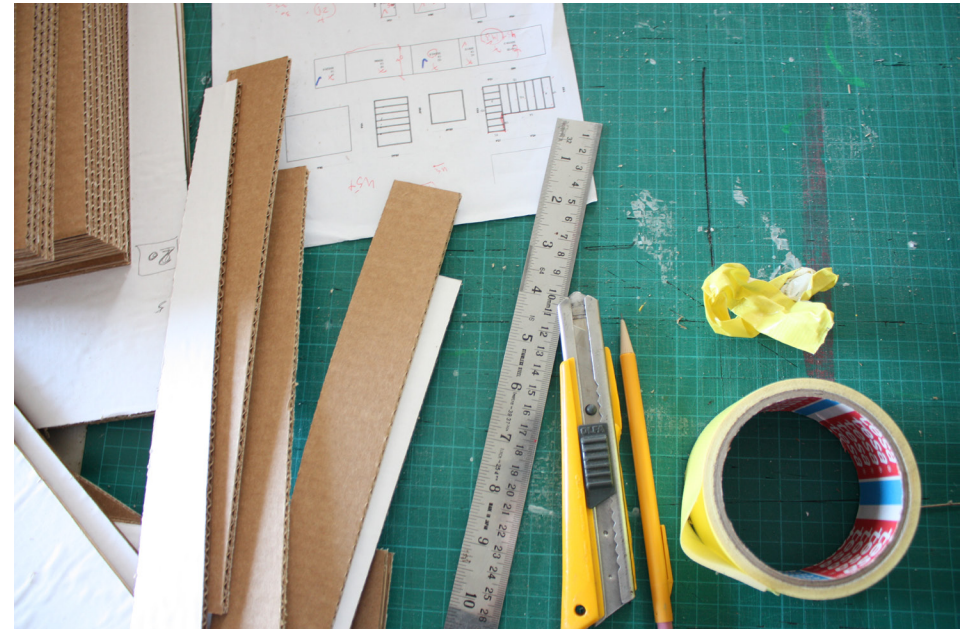
Good luck and have fun. This activity provides hours of endless imaginary play for kids, guaranteed (again)!!!!.



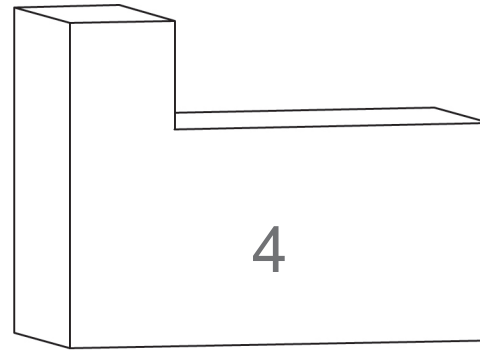
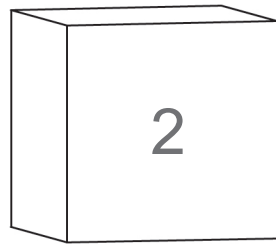
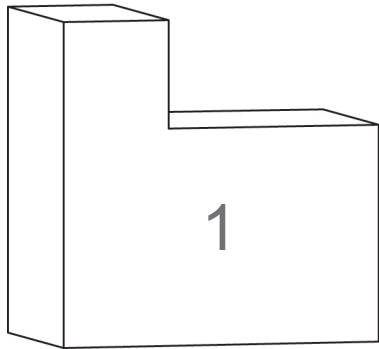
You will need:

- lots and lots of double flute corrugated cardboard*
- a good utility knife
- cutting mat
- craft glue (simple white glue)
- masking tape
- duct tape (I use Tessa)
- 100 cm + 30 cm metal rulers
- pencil
- friends to help
- time

***In all my dimensions I use 7mm double flute cardboard, if yours is different, make sure you adjust the dimensions accordingly.**



Block types



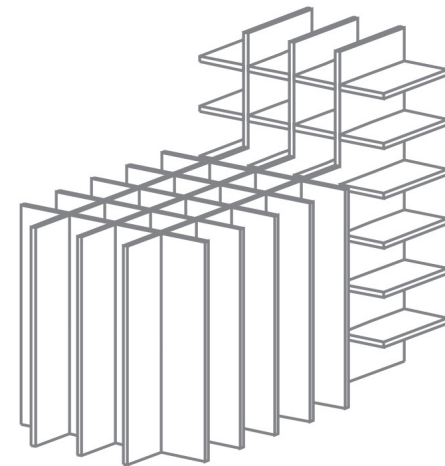
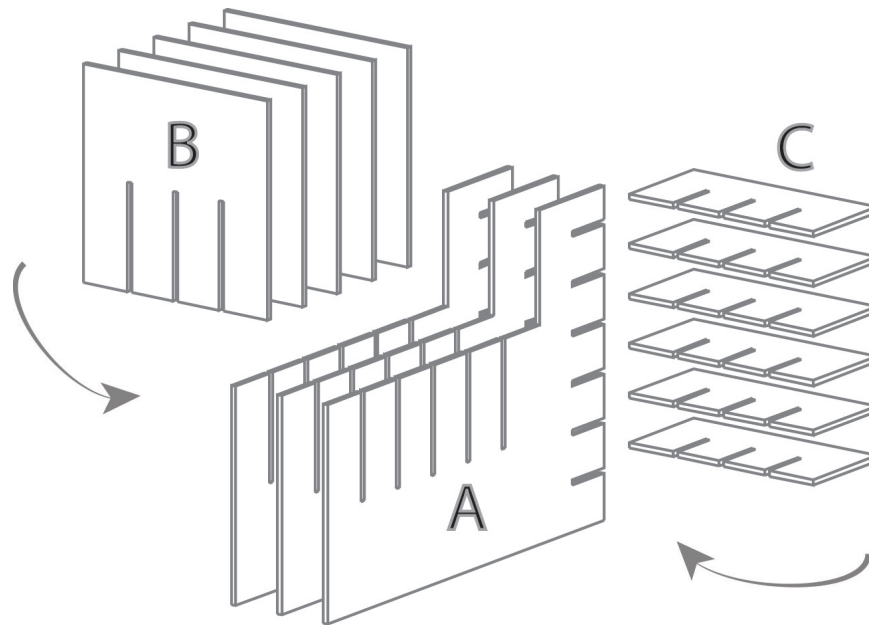
2	2
4	
3	
1	3
3	3
2	1
4	

Lets get started

blocks type 1+4:

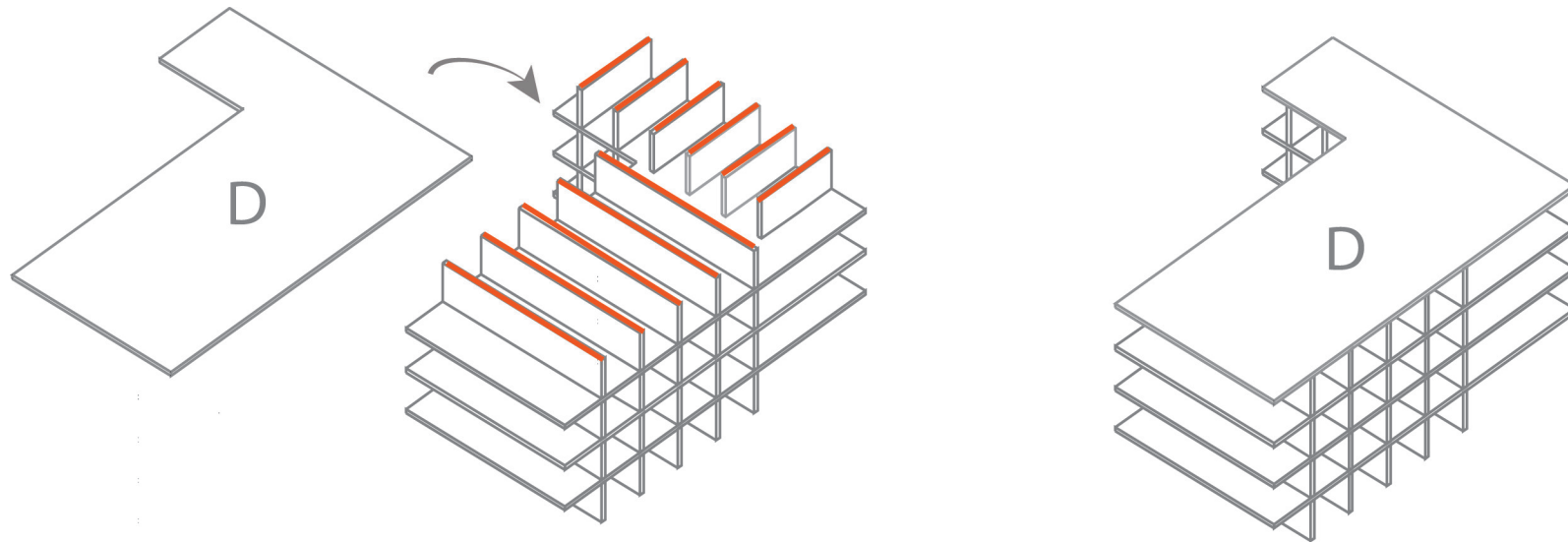
(pattern at the end of the tutorial)

1. Cut all pieces according to the diagram at the end of the tutorial
2. Mark all the pieces with pencil on the back side
3. Assemble construction - insert pieces B and C into A, creating the shape of the block which will serve as the "core"

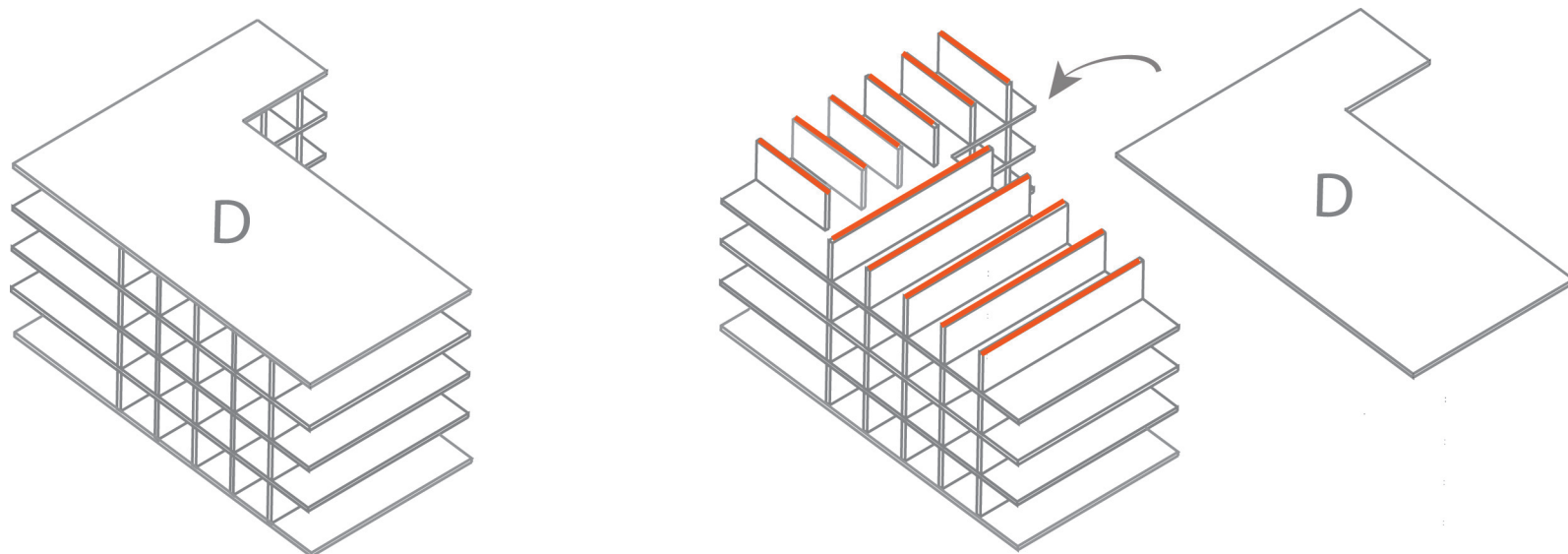


4. Layout all the pieces next to you
5. Identify each piece before you apply glue and place it onto the core. The order of assembly is very important, make sure you start with the sides that are the shape of the block, the silhouette . The rest of the pieces will fit around the block. follow each type's diagram.

6. Place the core on its side, apply glue on the edges of the cardboard. then place panel D to match the shape.
(The red lines show where to apply glue)



7. Repeat on the other side. Stand up straight and place an object against the sides so they don't fall back.

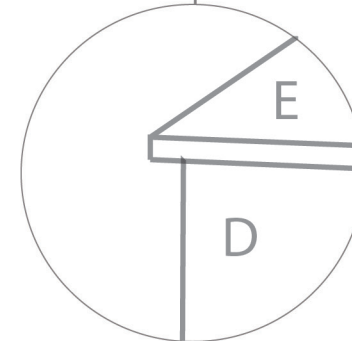
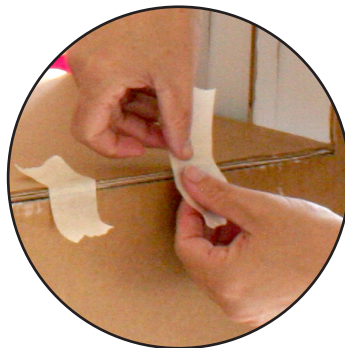
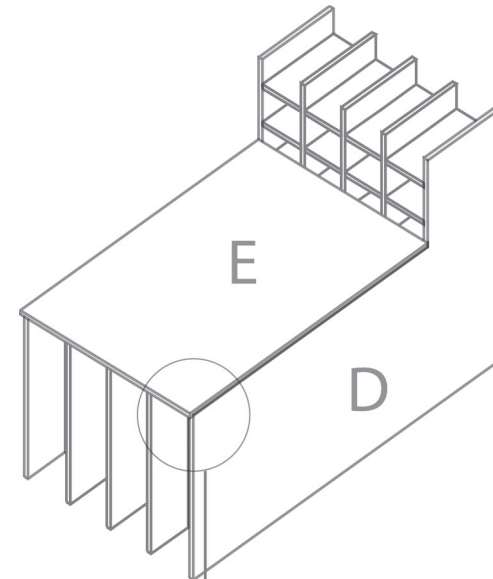
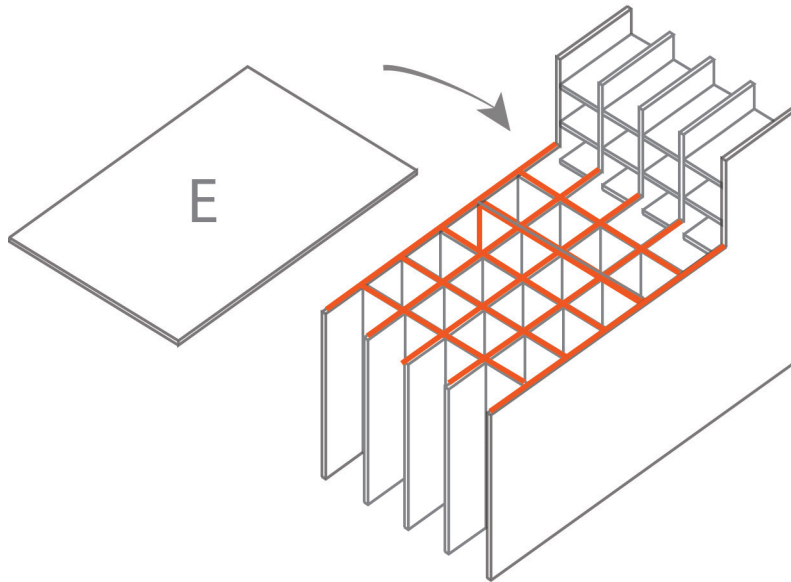


The envelope of the block follows a simple logic that all the horizontal parts are stretched from end to end (in green) while vertical parts are tucked between them (see following diagram for verification)

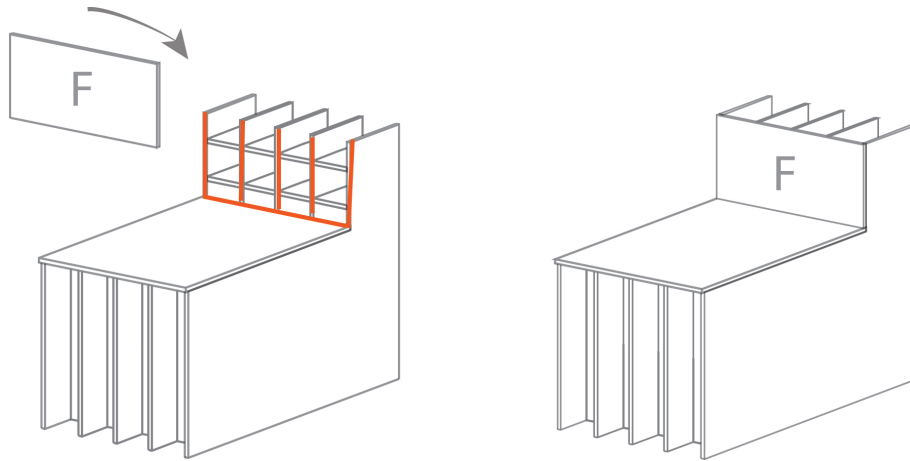


Side view of block

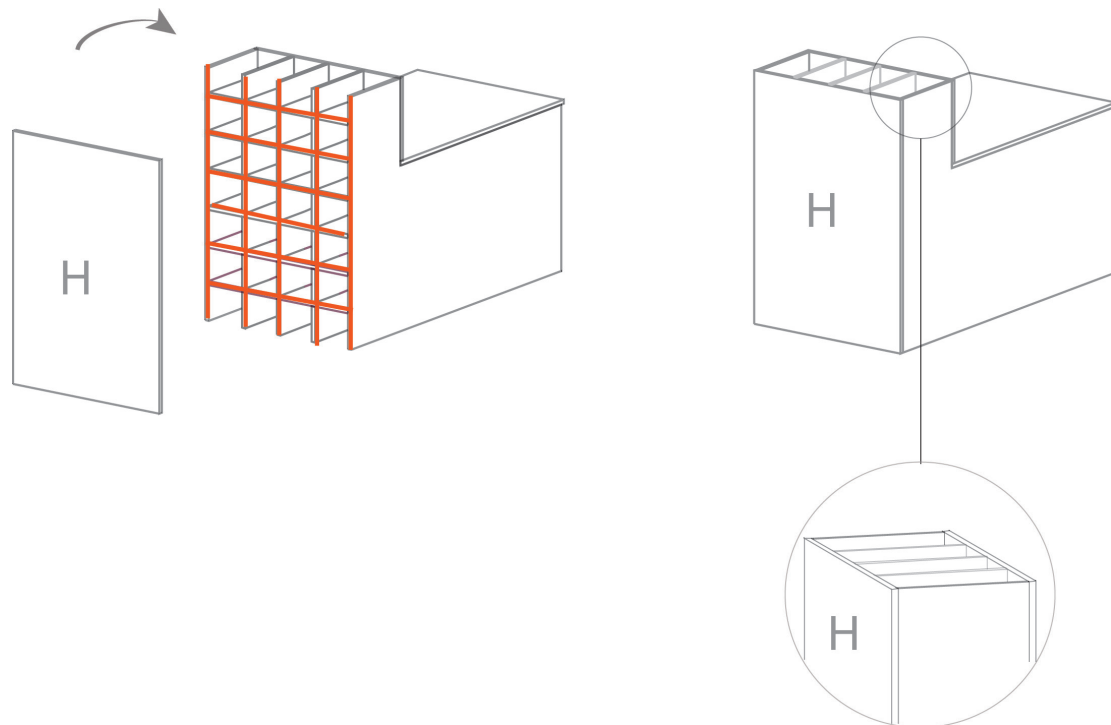
8. Apply glue as shown in red, where part E will touch. Try to avoid dripping on the sides of the block. If you do drip, wipe it quickly with a slightly damp cloth. Place panel E (follow diagram). Make sure it is tucked tight right up to the corner and overhangs 7 mm over the edge at the other end.
9. Place pieces of masking tape over the corners of part D+E. You may want to place a few. The masking tape is only temporary, and will be removed once the block is dry. Make sure you place enough of it, especially one piece at each corner.



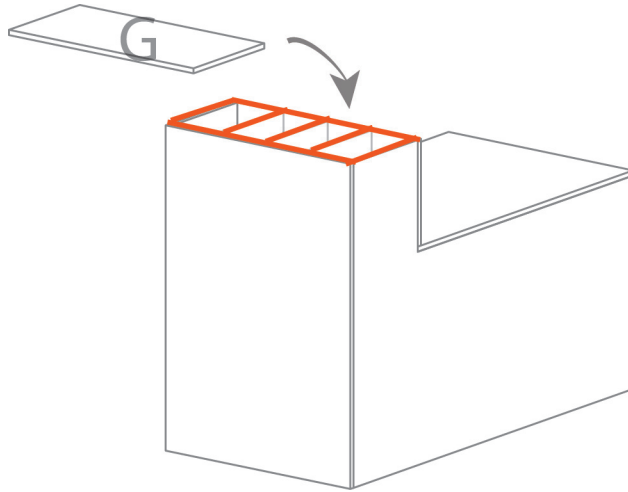
10. Apply glue according to diagram, place part F and hold with masking tape.



11. Follow with part H. Hold in place with masking tape.

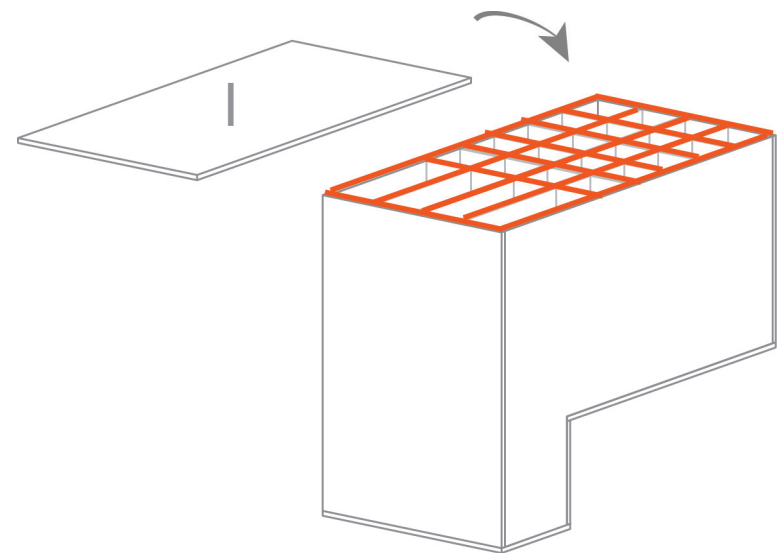
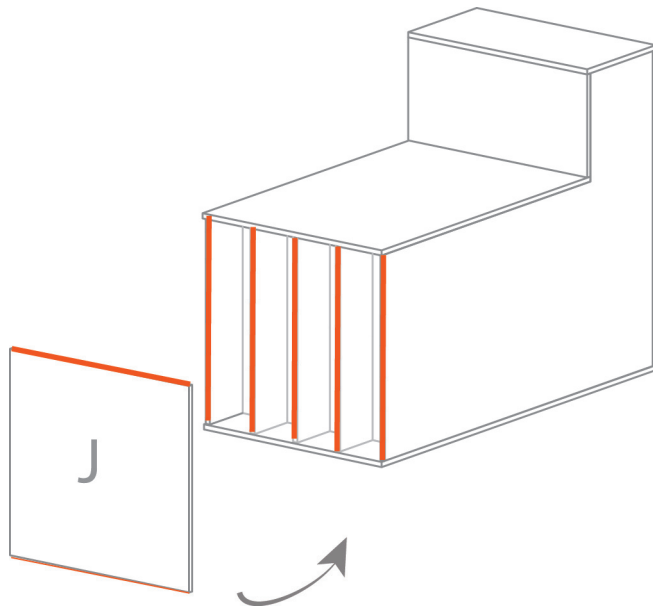


12. Glue part G. This part will go over part F+H. Hold in place with masking tape.



13. Do the same with panel I and finish with J. Turn the block around to make it easy for you to handle.

14. After all pieces are intact let dry for a couple of hours before gently removing the masking tape, taking care not to rip the cardboard. Apply duct tape around the edges.



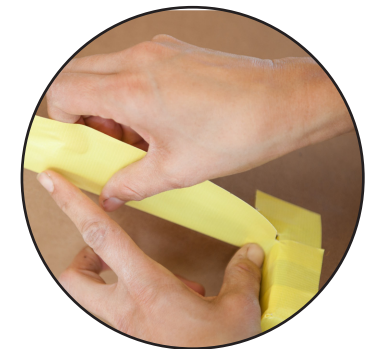
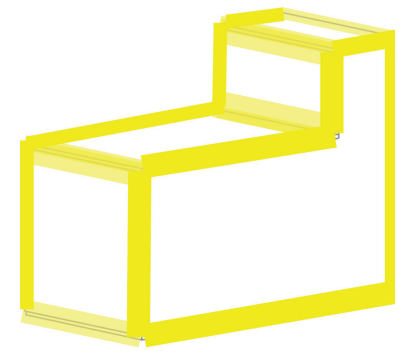
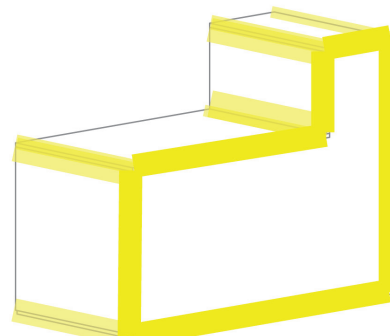
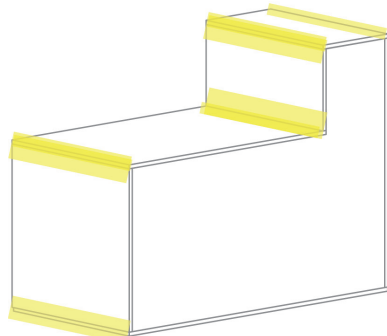
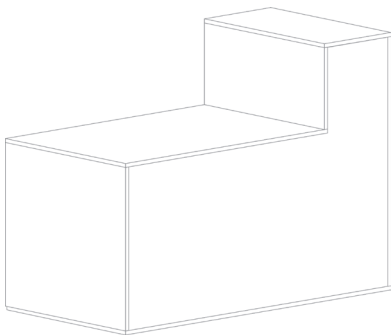
Duct tape instructions:

1. Apply tape over all the width first. Half of the width of the tape goes over one panel and the other half over the other panel.
2. After you are finished with all the width ends of the block, start working on the long ends. you may do this in segments.

Work gently with the duct tape, it has the tendency of tangling together. After applying it to a couple of sides you will develop the expertise, I promise.

Build the next and next until you have enough blocks to play with.

Enjoy

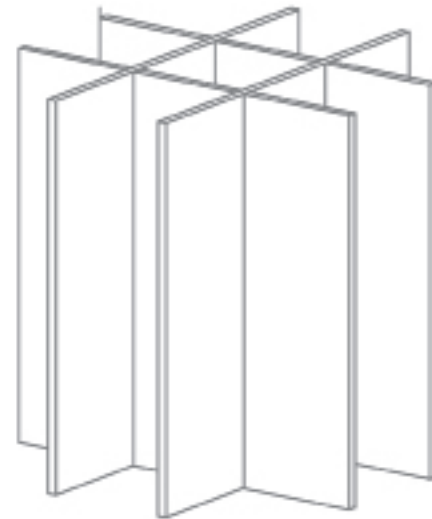
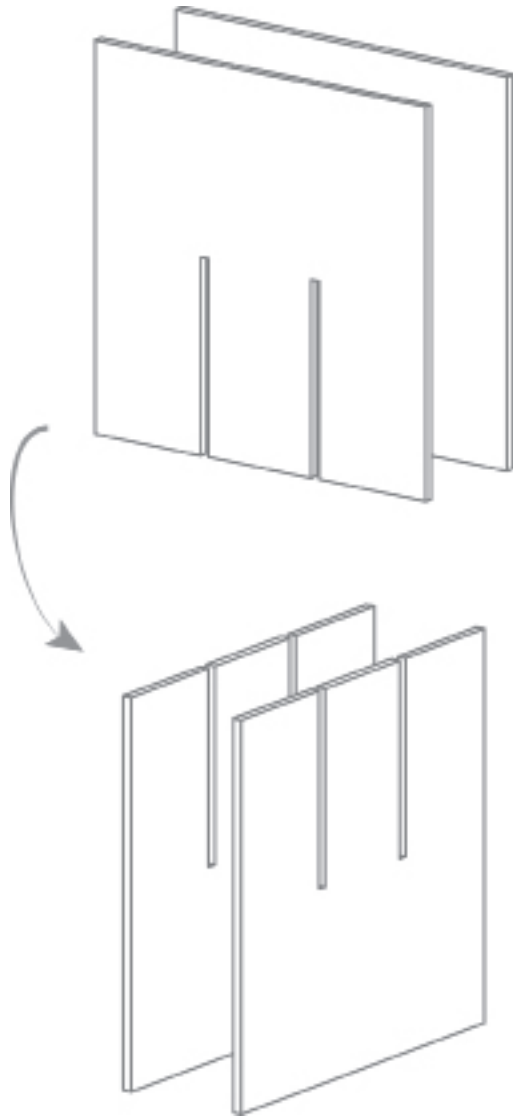


Lets get started

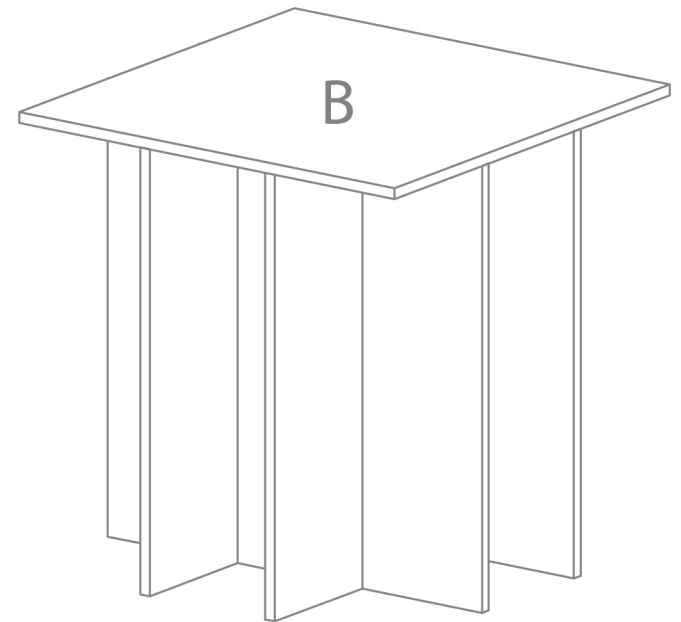
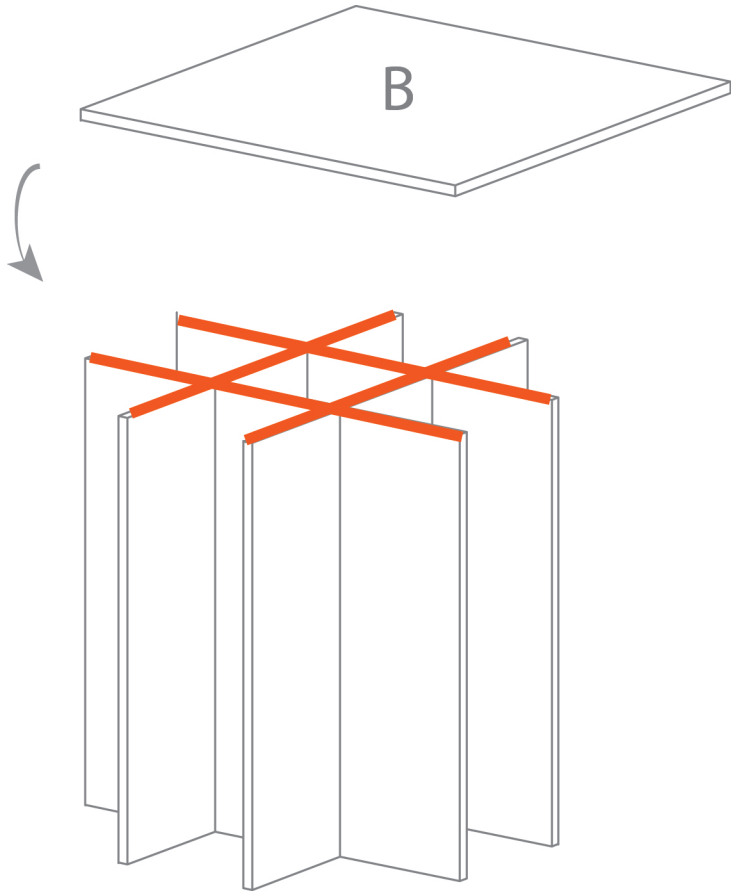
blocks type 2+3:

(pattern at the end of the tutorial)

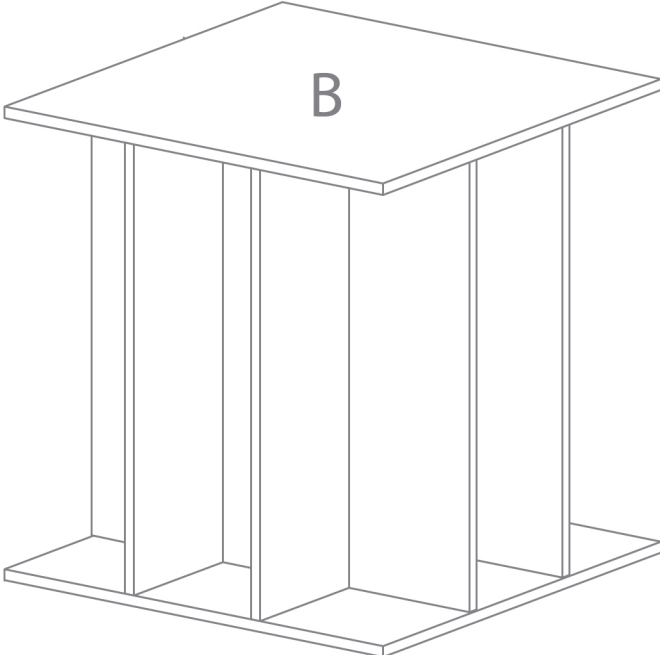
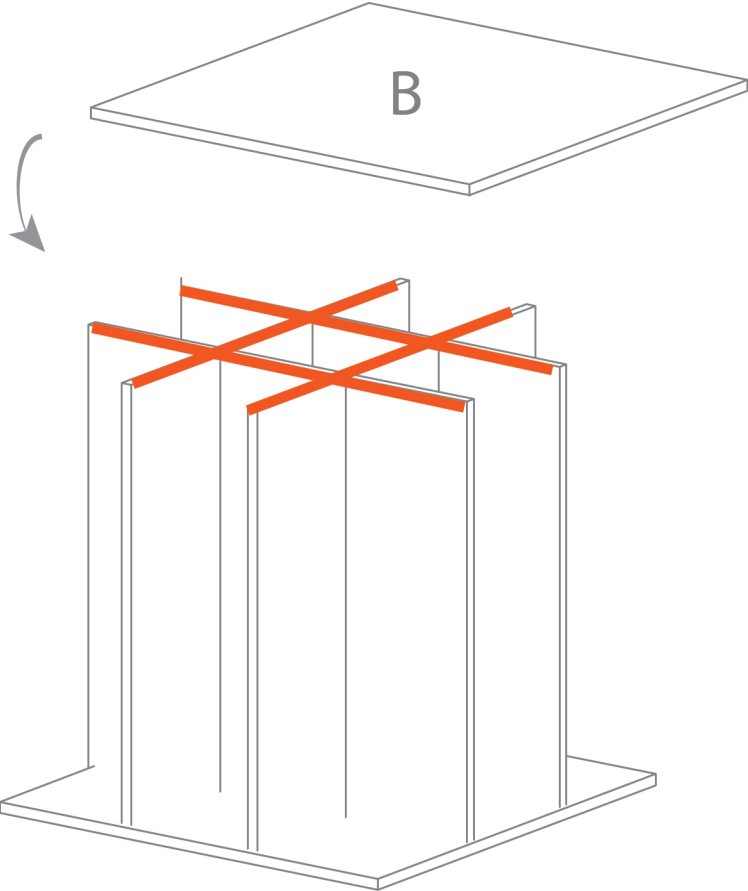
1. Cut all pieces according to the diagram at the end of the tutorial
2. Mark all the pieces with pencil on the back side
3. Assemble construction - insert pieces A, creating the shape of the block which will serve as the "core"



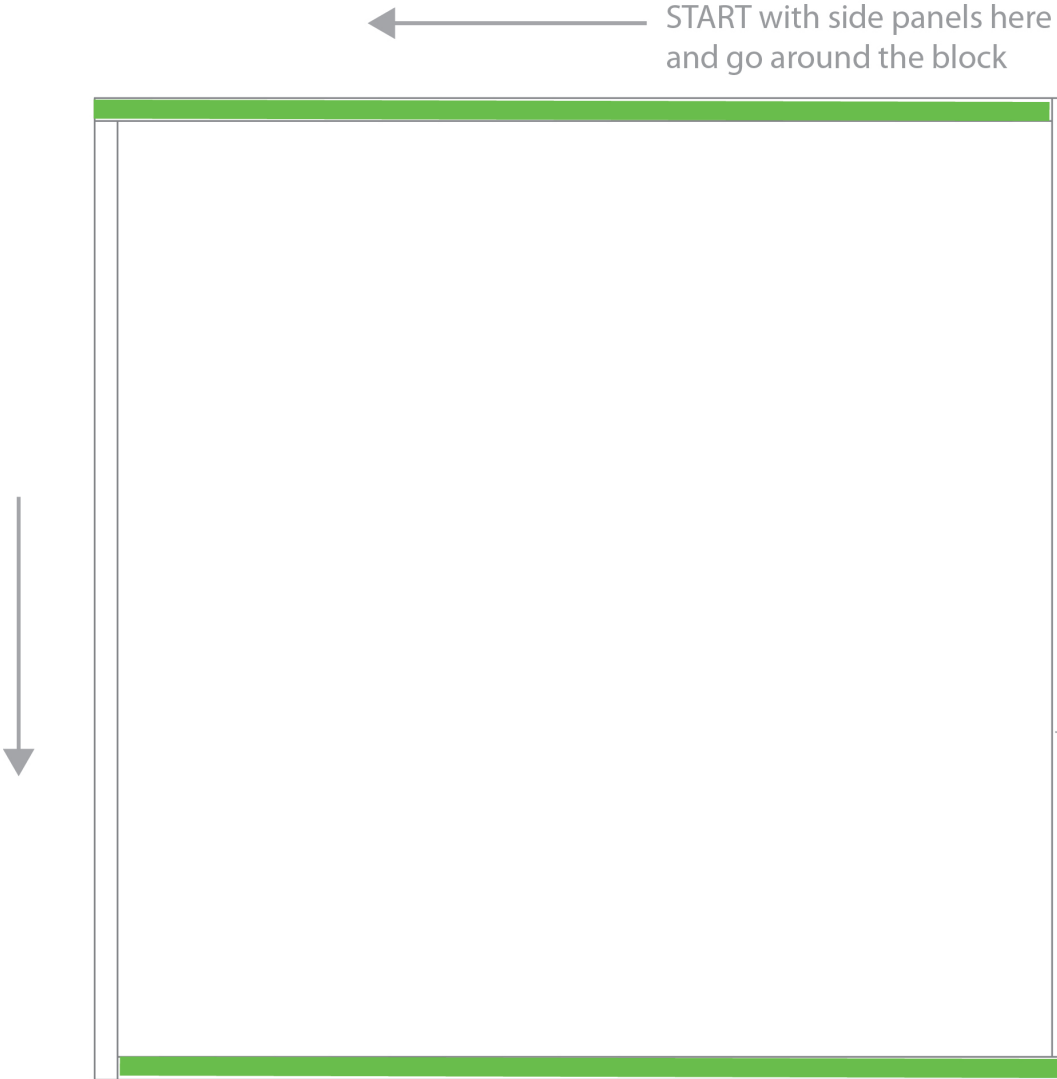
1. Apply glue on the edges of the cardboard, then place panel B to match the shape.



2. Repeat on the other side.



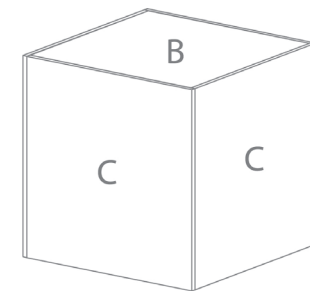
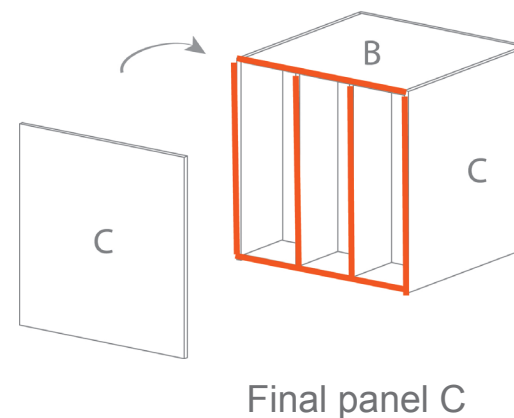
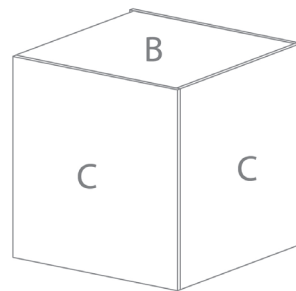
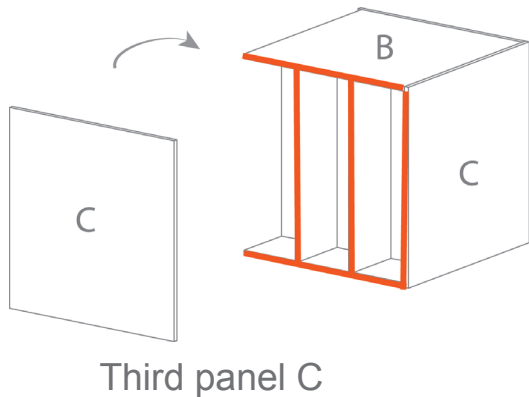
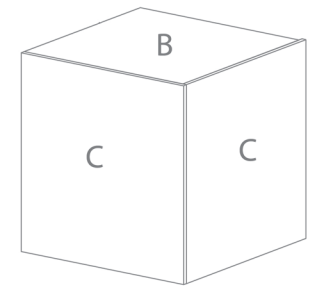
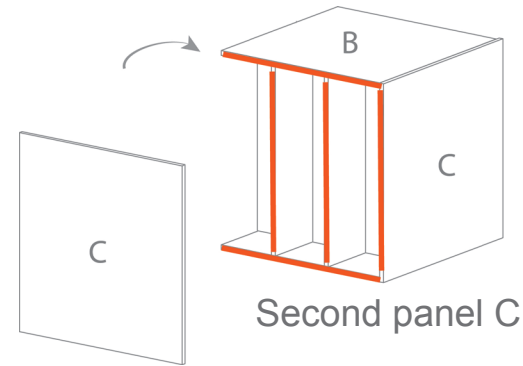
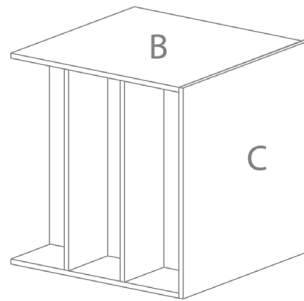
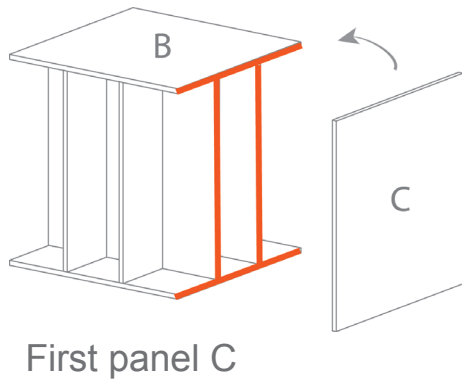
The envelope of the block follows a simple logic that all the top and bottom of the block - part B, are tucked between 4 X parts C that surround them (see following diagram for verification)



Top view of block

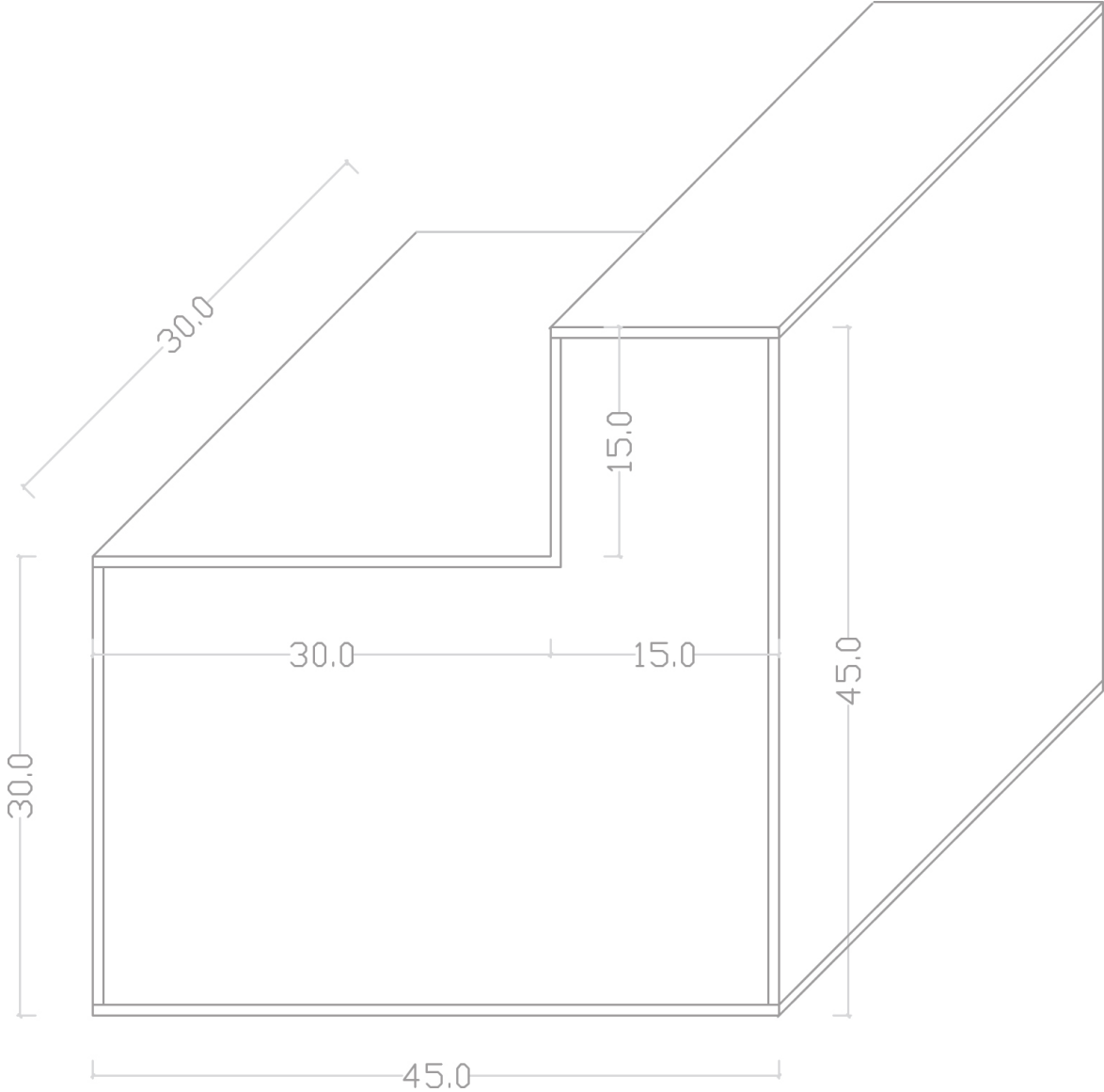
3. Apply glue as shown in red, where part C will touch. Try to avoid dripping on the sides of the block. If you do drip, wipe it quickly with a slightly damp cloth. Place panel C (follow diagram). Make sure it is tucked tight right to one end and overhangs 7 mm over the edge at the other end.
4. Place pieces of masking tape over the corners of part B+C. You may want to place a few. The masking tape is only temporary, and will be removed once the block is dry. Make sure you place enough of it, especially one piece at each corner.
5. continue with the next panel C and the next till you complete the block

6. After all pieces are intact let dry for a couple of hours before gently removing the masking tape, taking care not to rip the cardboard. Apply duct tape around the edges. For duct tape follow instructions shown above.



Block type 1 - overall dimensions

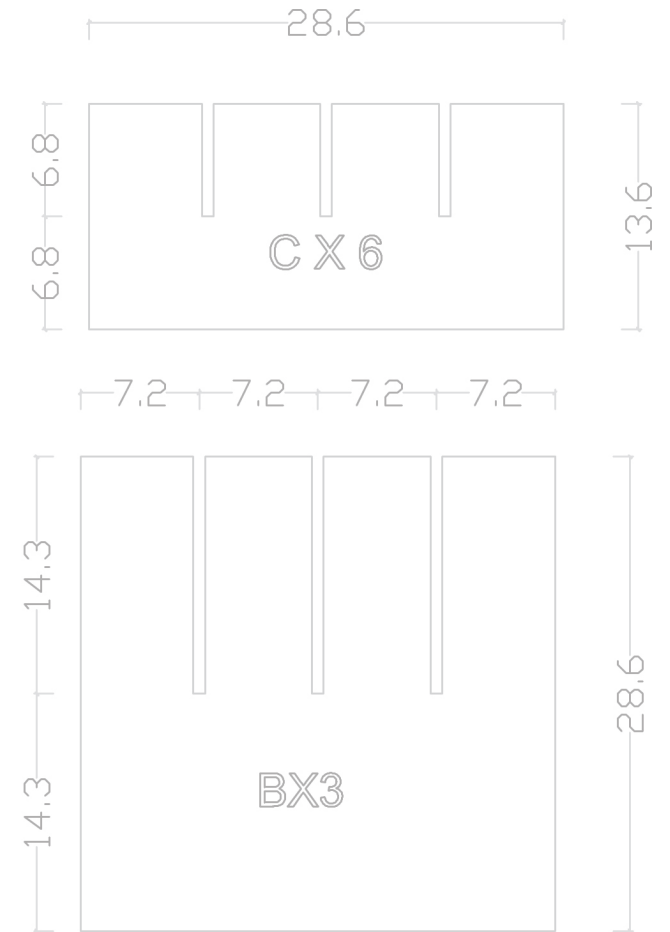
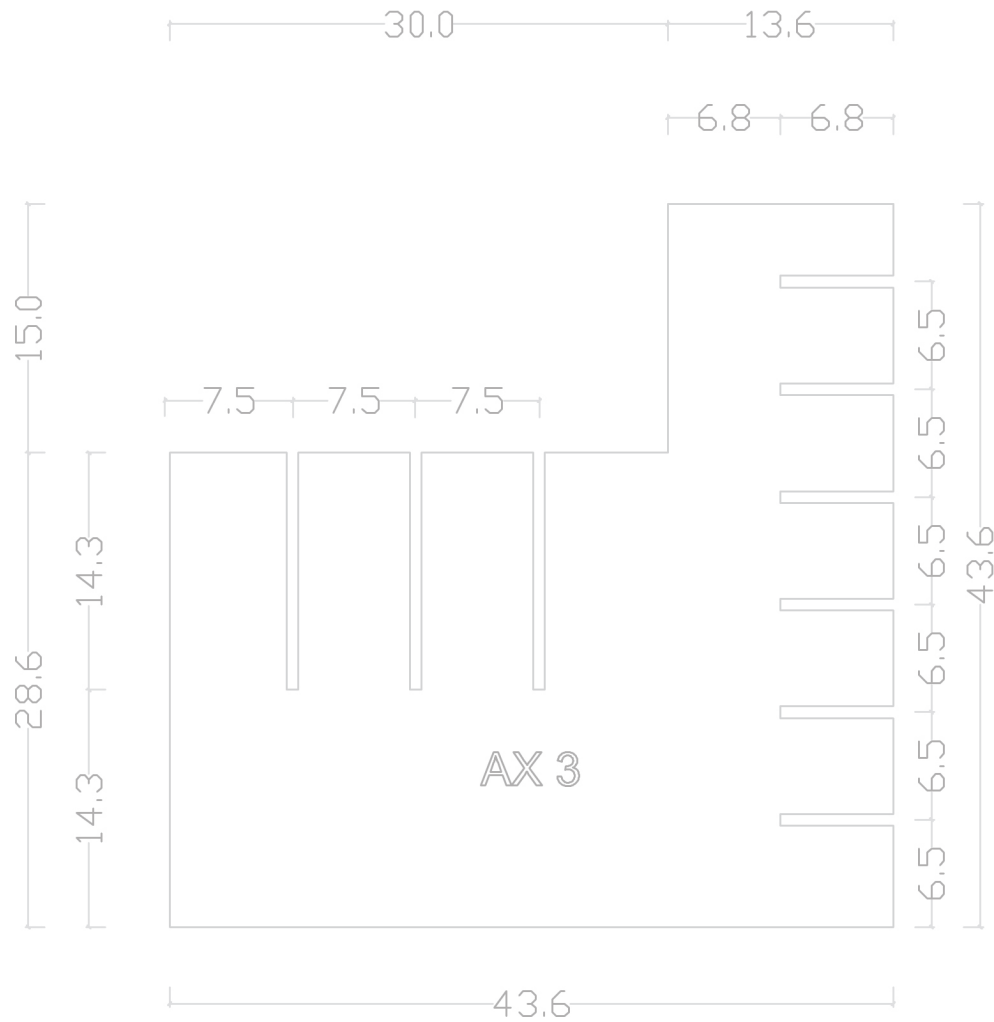
All dimensions are in CM



Block type 1 - structure pieces

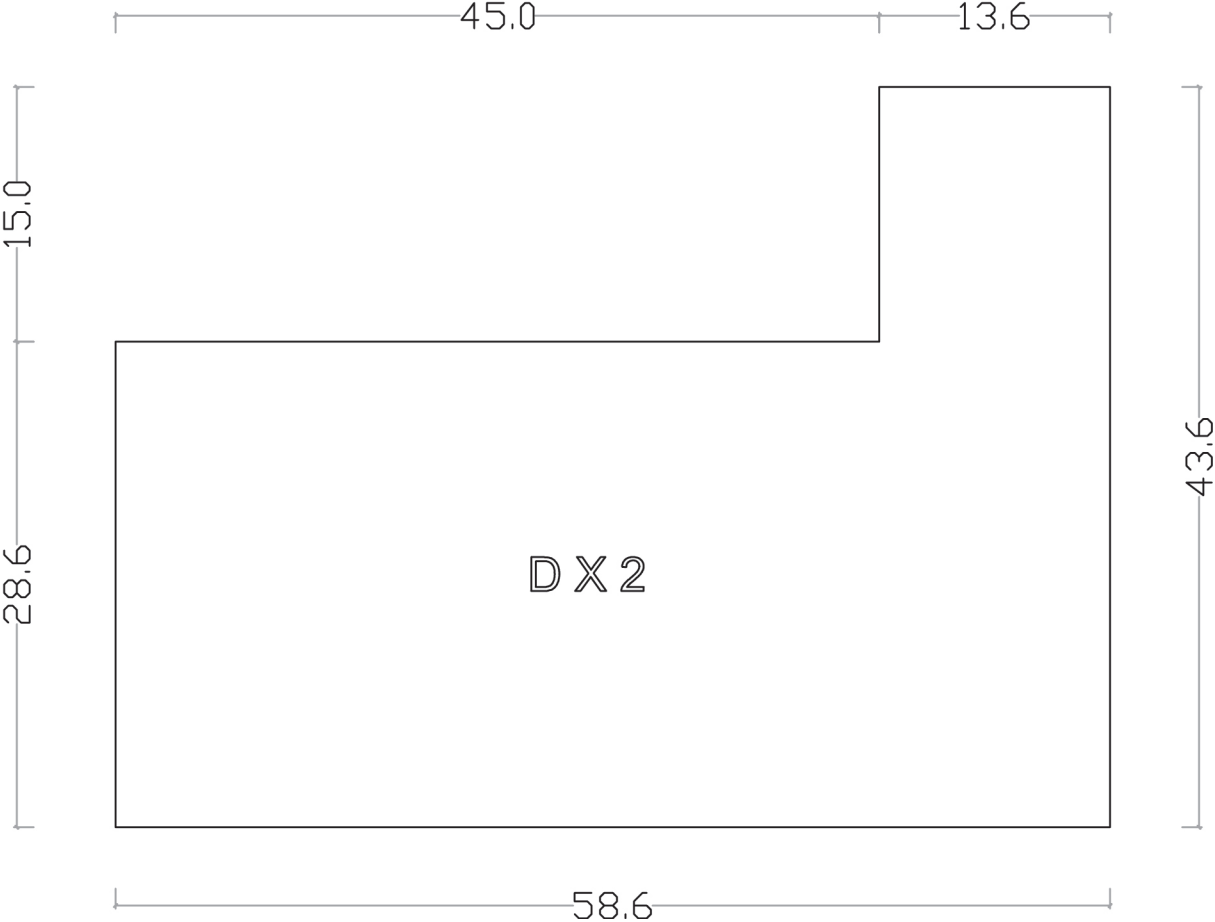
All dimensions are in CM

Please note: the width of the slots are the width of your cardboard



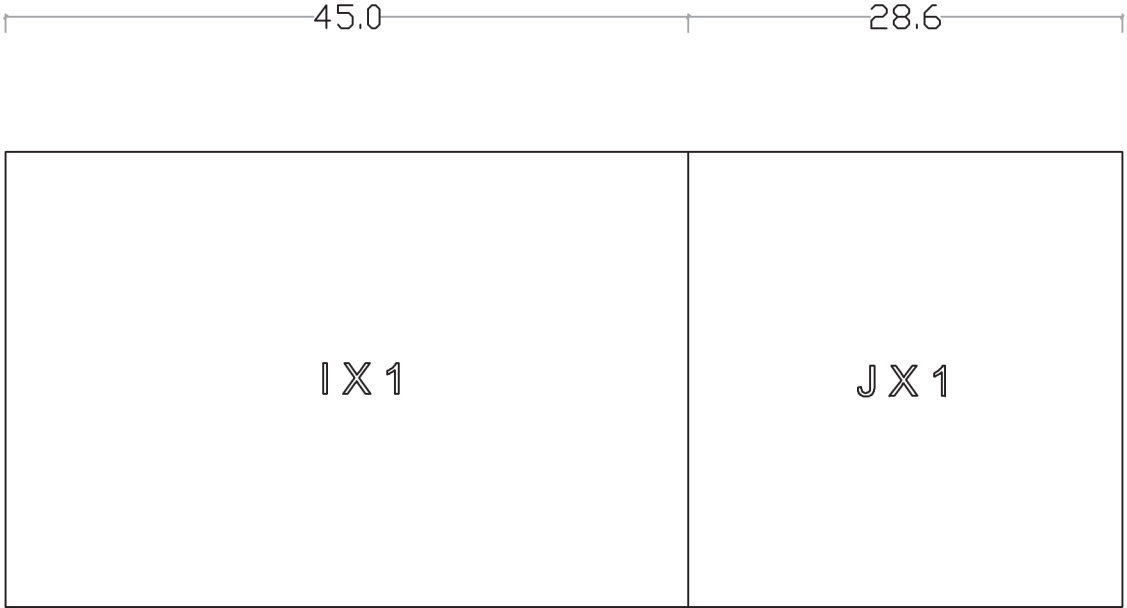
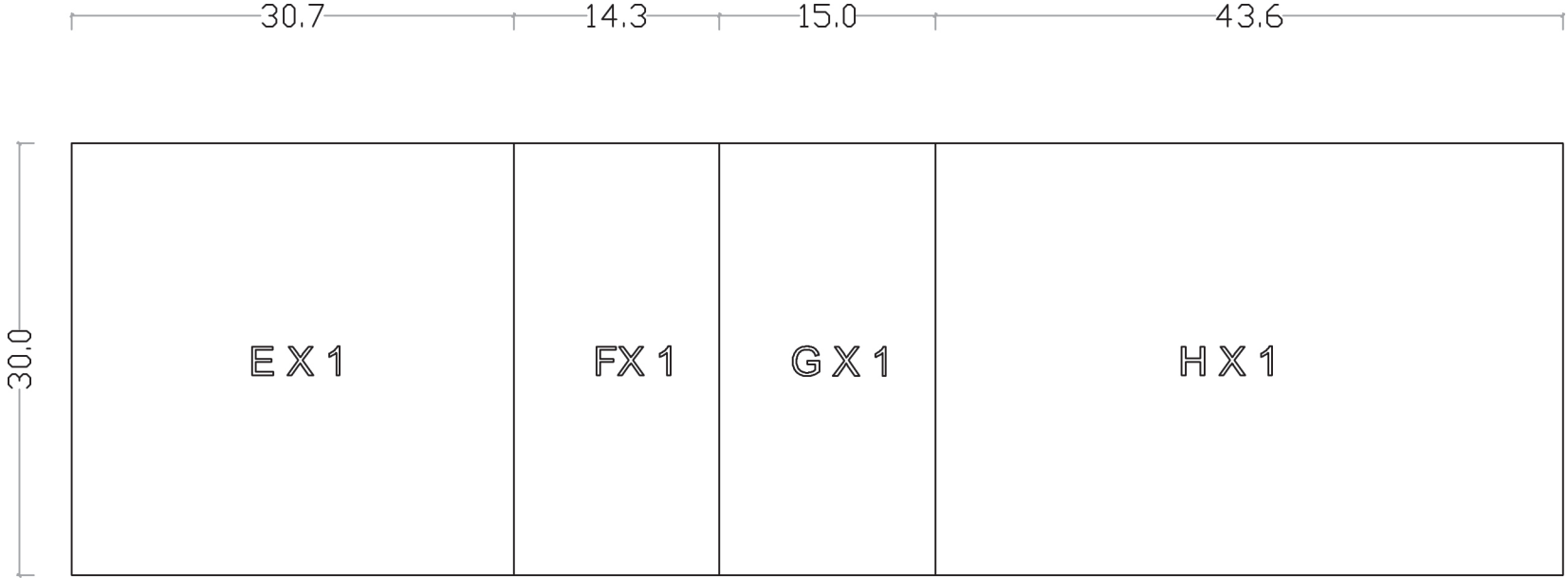
Block type 1 - front and back

All dimensions are in CM



Block type 1 - envelope pieces

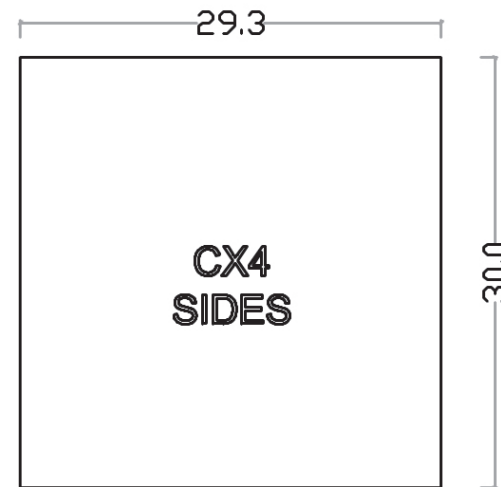
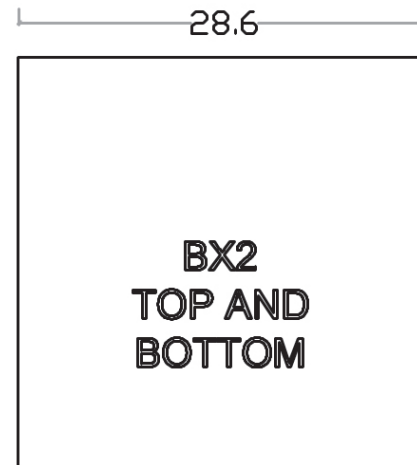
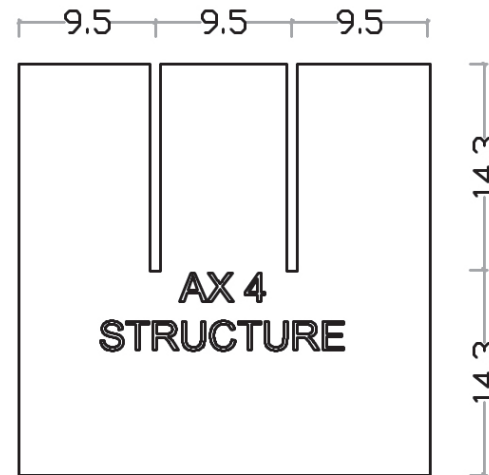
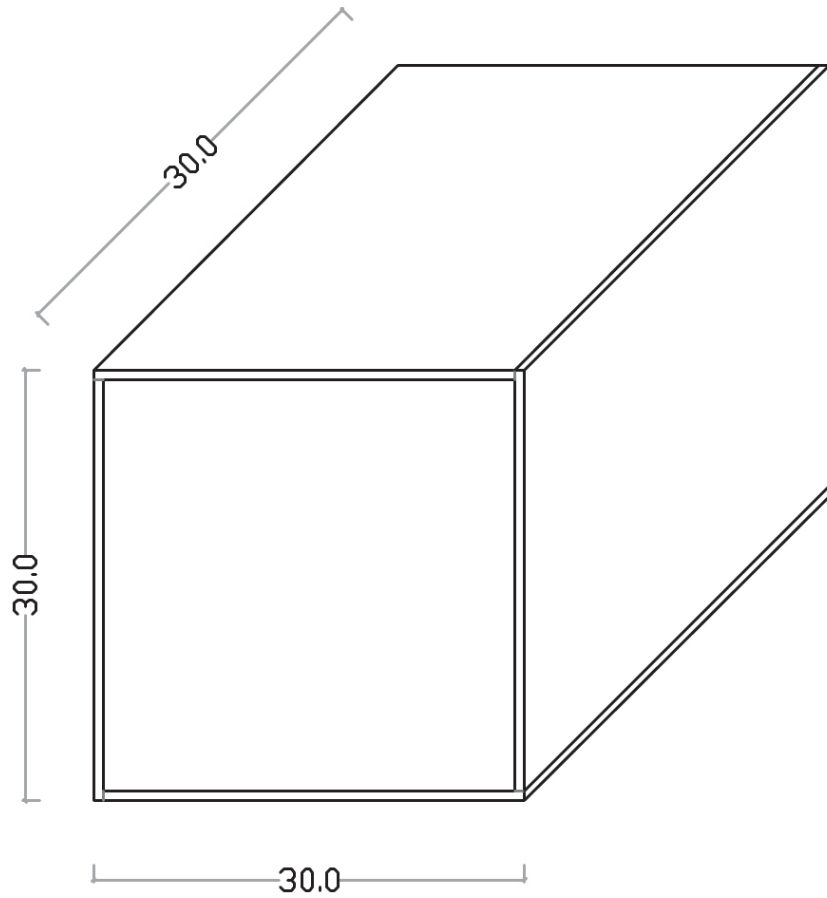
All dimensions are in CM



Block type 2

All dimensions are in CM

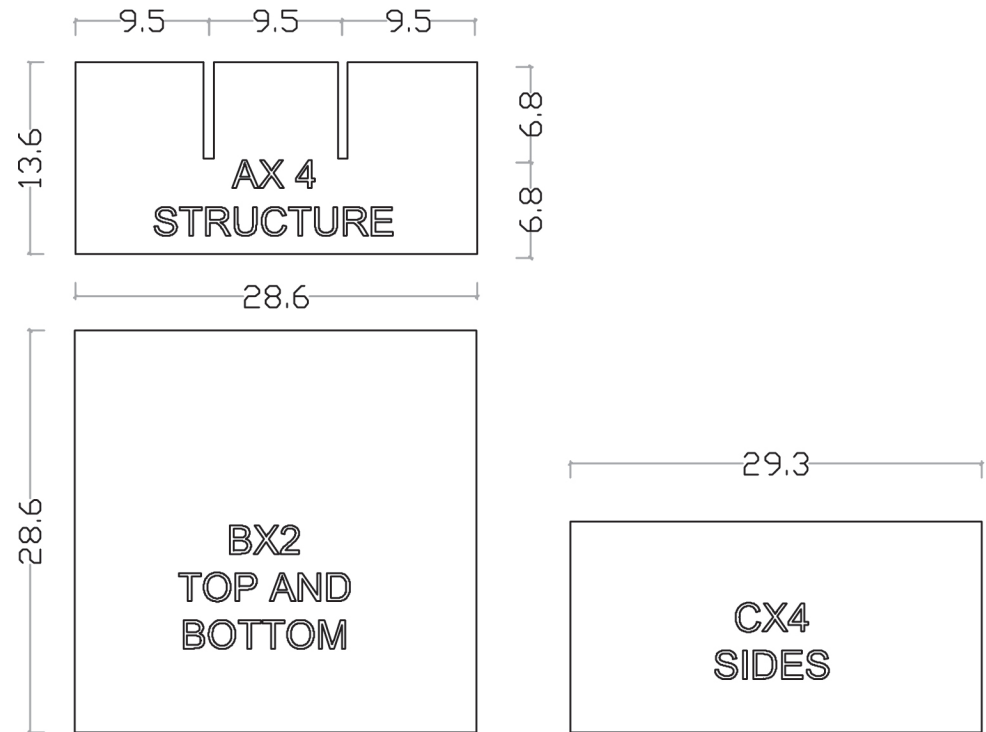
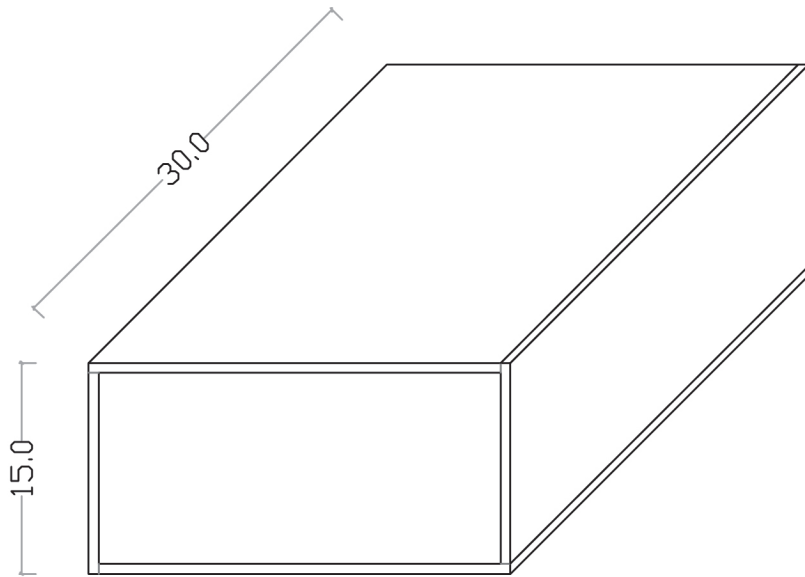
Please note: the width of the slots are the width of your



Block type 3

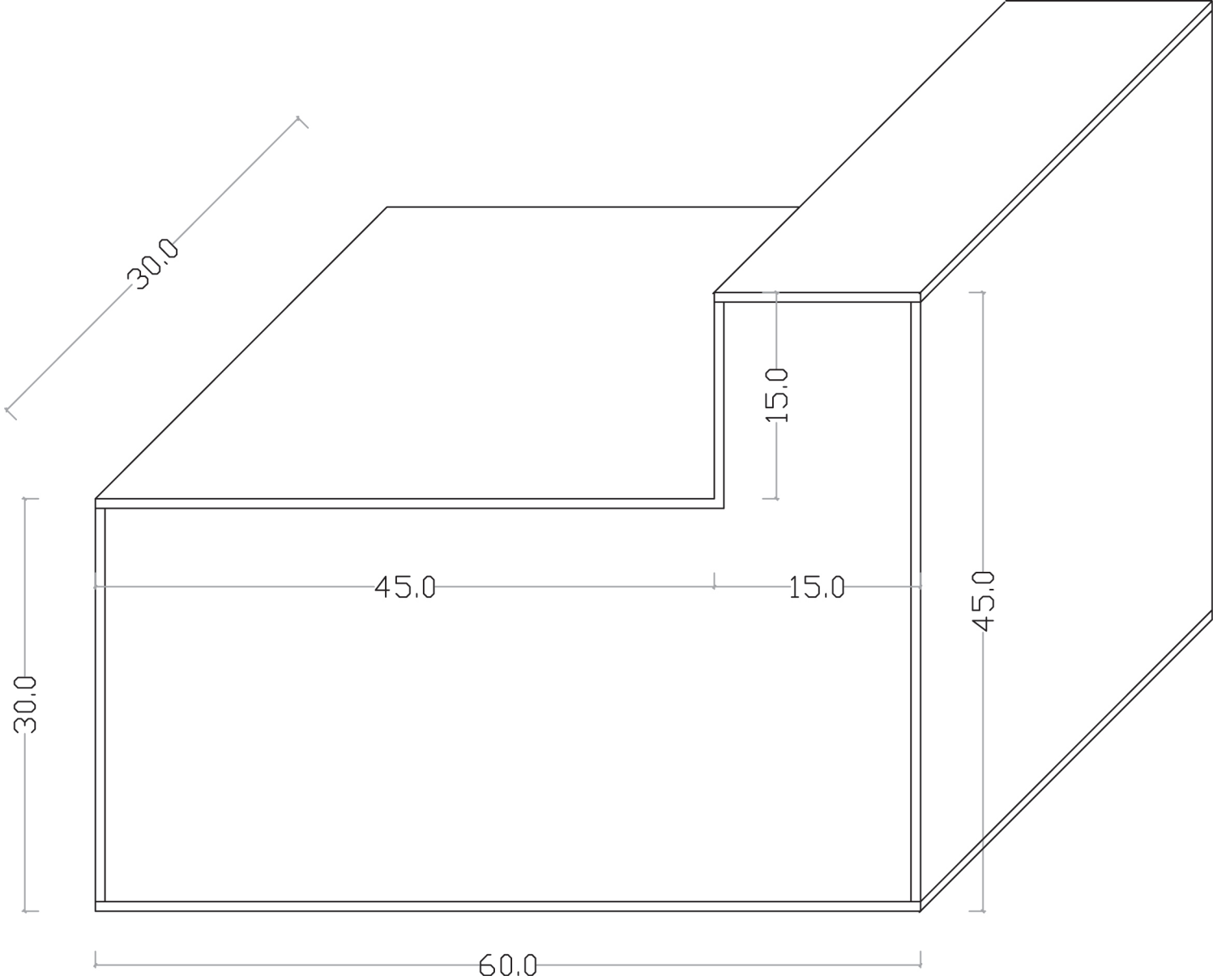
All dimensions are in CM

Please note: the width of the slots are the width of your



Block type 4 - overall dimensions

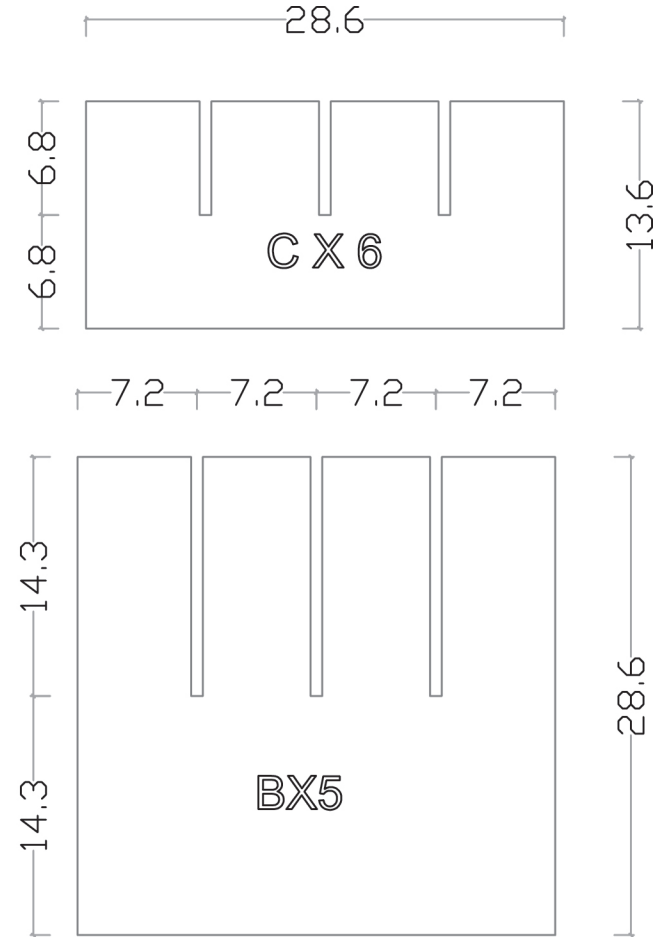
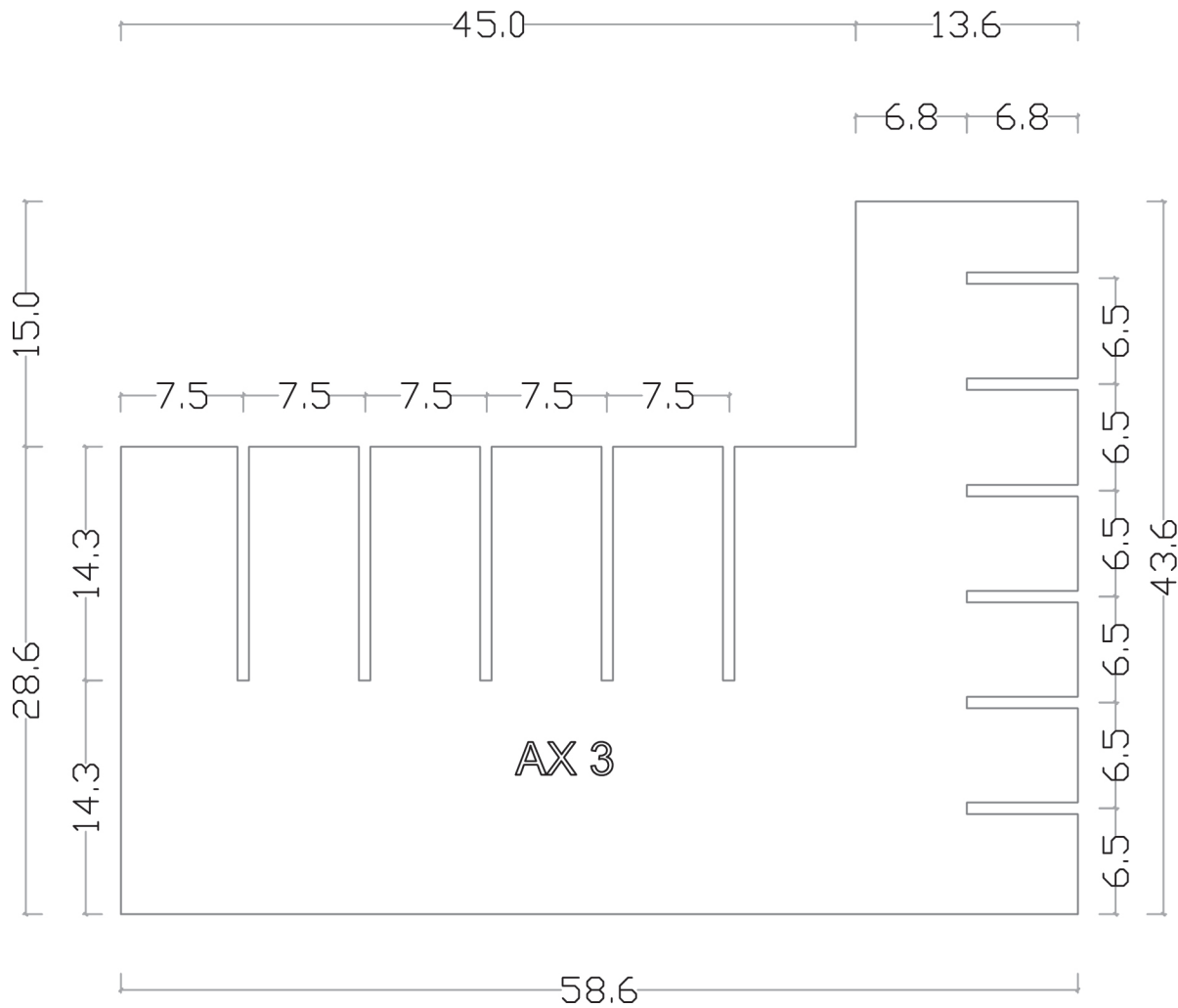
All dimensions are in CM



Block type 4 - structure pieces

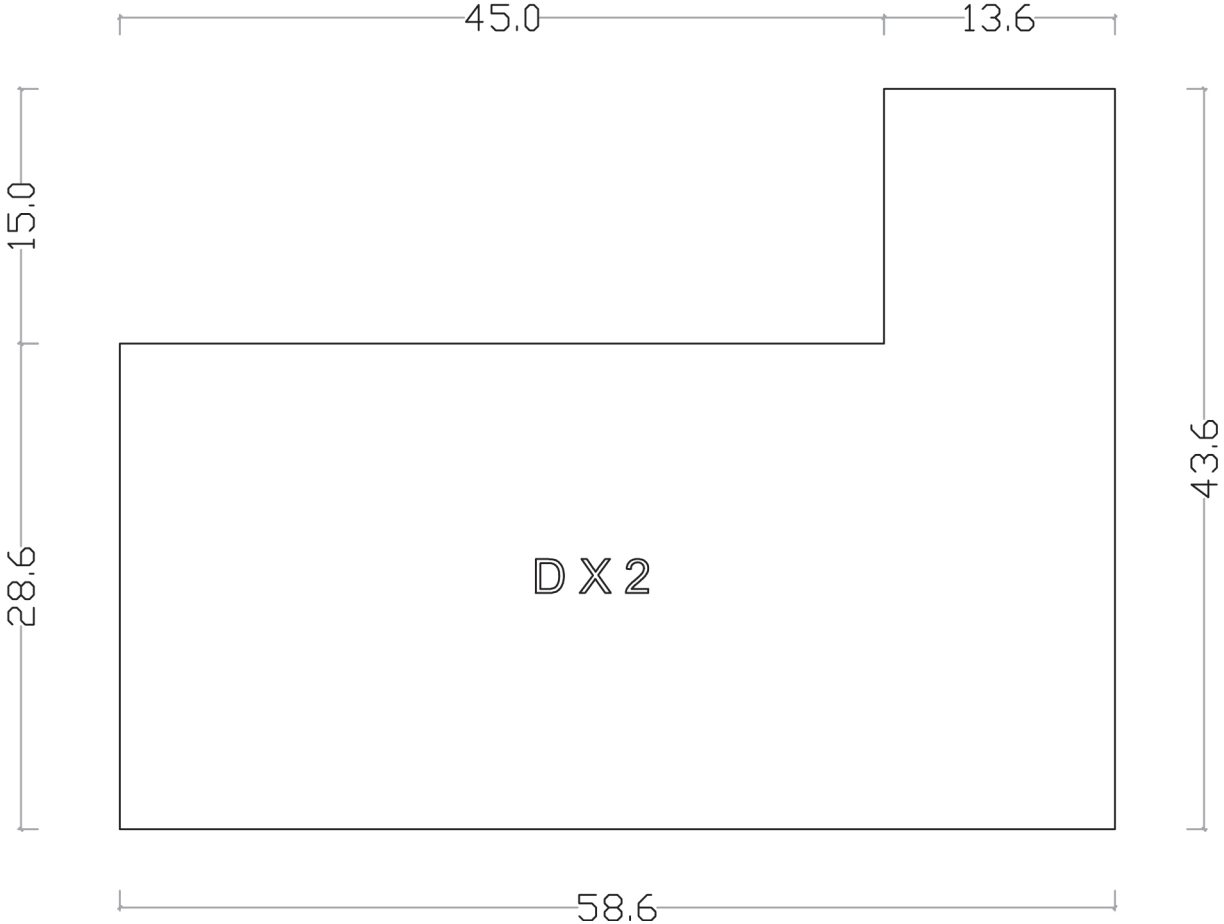
All dimensions are in cm

Please note: the width of the slots are the width of your cardboard



Block type 4 - front and back

All dimensions are in CM



Block type 4 - envelope pieces

