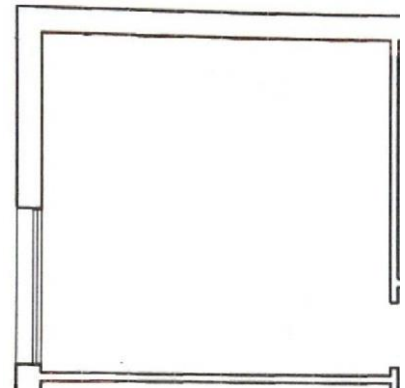


We had a problem: how to maximize room space (square room, 16 m², or 172 ft²) for 2 kids (5 and 2 years).

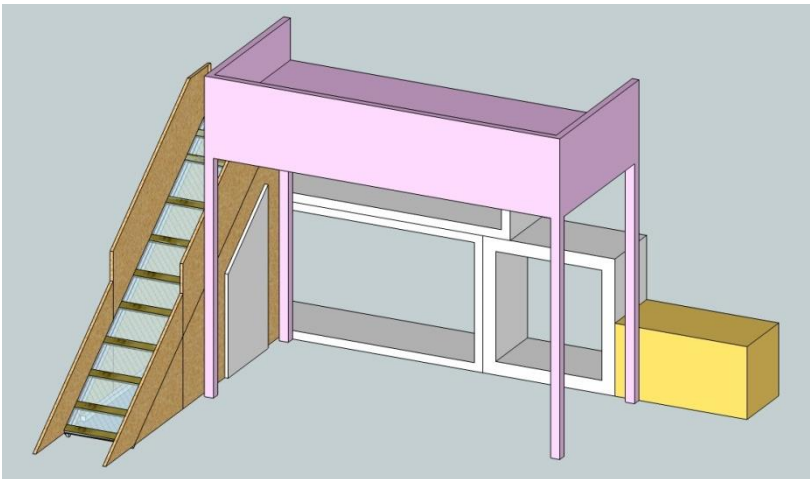
We also had a set of existing furniture: one big closet, 3 narrow closets, one existing Single bed. We need to continue to use them. Plus we need to add a second bed.

I read through Anawhite (great !!) some nice experience of DIY solutions for kids room.

I see the challenge and the opportunity to create something special for the room, to maximize space, and to enjoy a nice playground.

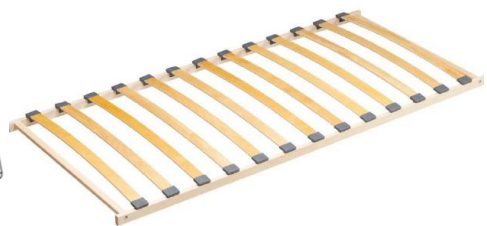
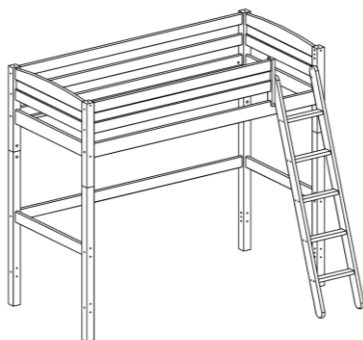


After long evaluation, I designed this solution, with a high bunk bed, nice slide, a lot of safety all around.



Of course some people build more stuff and wider furniture, but I focused on doing solid & smart things: simple, tailor made, robust and pain-free.

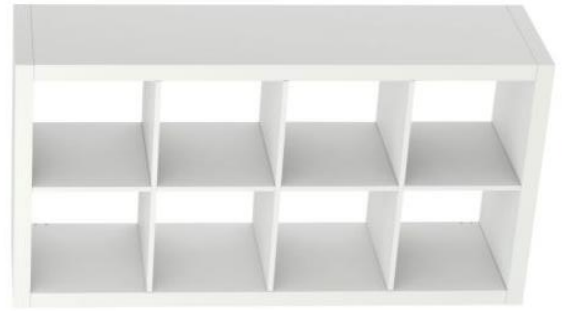
For example, bunk bed is supplied via e-commerce: perfect rest with flexible beech slats; solid frame, non-toxic paint, stress-free assembly. Of course, if you want, you can create it by yourself.



Original design was with stair: I removed it, to allow a safer climb: I placed the bed, with accessible side, close to the wall.

Climbing is very safe because I created some big steps and a mayor platform to go up and down from bed, and to make bed easy.

I already had an existing famous Swedish bookcase; I placed it, and some similar ones, in horizontal position, to be able to climb progressively. There are various solutions to achieve it.



At this point, the DIY part is only the slide: the perfect toy for every kid, an exciting device in a small apartment, with two bouncing kids.

You can see how every space is maximized: shelves are on the wall, bed is so high, that 1.5m is available below it: kids have a full room, also with a nice intimate situation.

Mummy's curtains turn it in a theatre or so.

More: below the slide, with a simple door, there is an hideout, funny for many games.

GEOMETRY

Slide slope: I read 30° is perfect speed on Anawhite, but I was looking to something more sharp, to fit in my room.

I defined 35°, to leave enough area at the end, for kid exit.

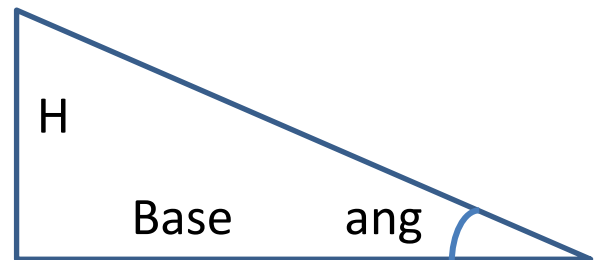
For a simple choice, here it is the basic math.

$$H/\text{Base} = \text{Tan}(\text{ang})$$

$$25^\circ \rightarrow H/\text{Base} = 0.46$$

$$30^\circ \rightarrow H/\text{Base} = 0.57$$

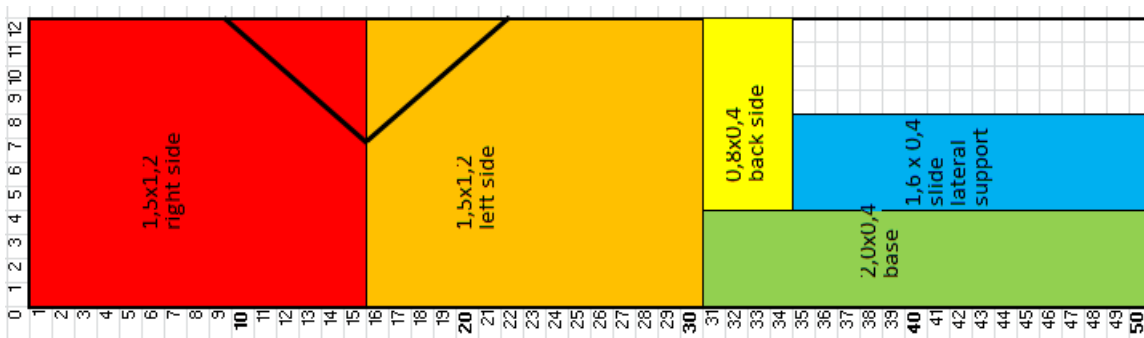
$$35^\circ \rightarrow H/\text{Base} = 0.7$$



With such geometry identified, it's easy to define how to cut the wide ¾" (18mm) fir wood plate.

Two sides are the main frame for slide. Green area is for the base. Lateral support (or the distance between the two sides) is provided by 20 pieces 400mm x 40mm, cut out of blue area.

Remaining parts are useful for many purposes in the room.



CUT&PASTE

I thought about this strange shape, for easy cut&assembly: triangle dimensions are very personal, and depends mainly on aesthetic. This shape is also useful to avoid kid's arm out of the side wall while sliding: bed leg may hurt their harm.

Left side: cut out triangle, with a circular saw and some guiding profile for precise direction. Clamps are really helpful.

Mark slope with pencil, then screw a 18mm x 40mm profile slightly below defined slide position. This bar is also useful to fix together main part and triangle.

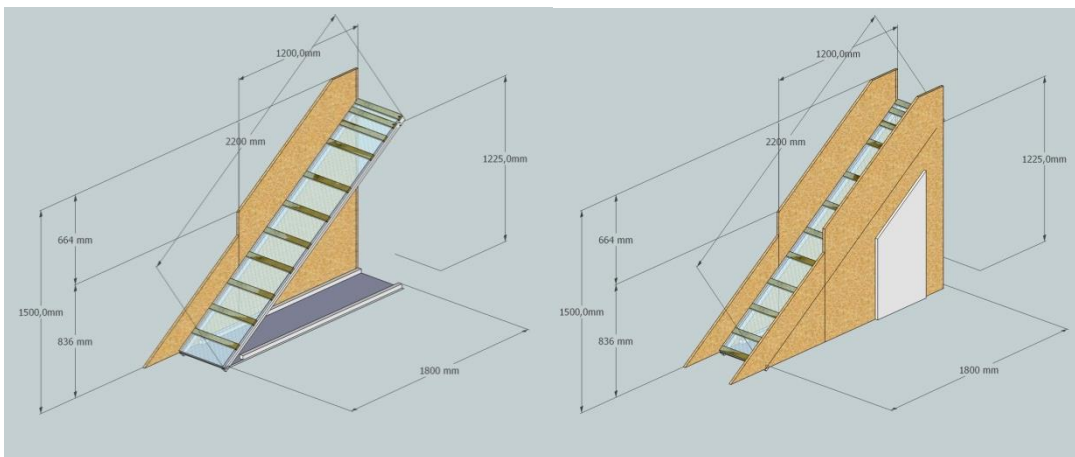
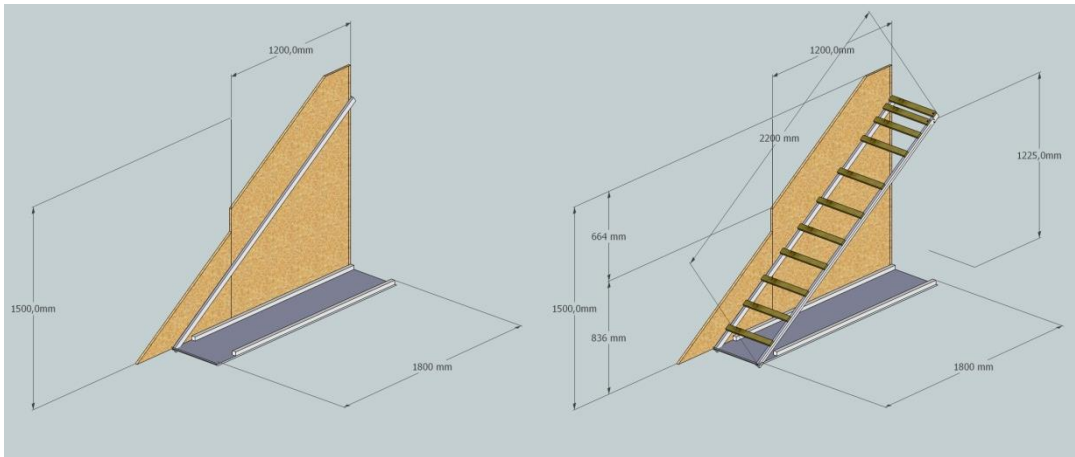
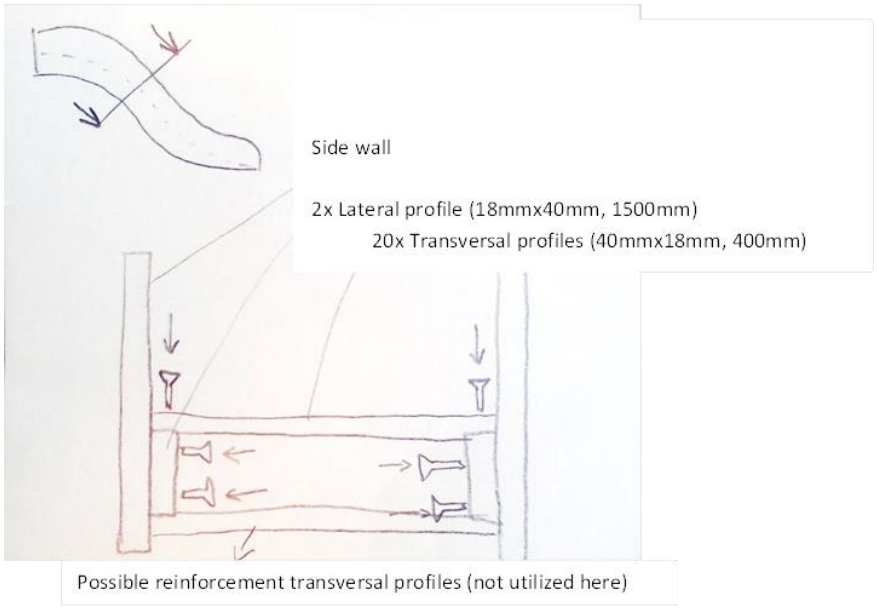
Small holes with drill allow simple and precise fixing.

Other reinforcement profile on lower part. This profile can be wider (35mmx35mm), to increase slide stiffness (base plate will be fixed on it, contributing to rigidity). On this side, you may notice an interruption on left area, where I will create the door.



Opposite side is pretty similar.





Here is the frame assembled: two sidewall, one base plate, many transversal profiles.

You may notice the final part is un-supported by lateral profiles, to allow a later modification of slide ending area: I like to have a curved profile on exit, to reduce kids speed.

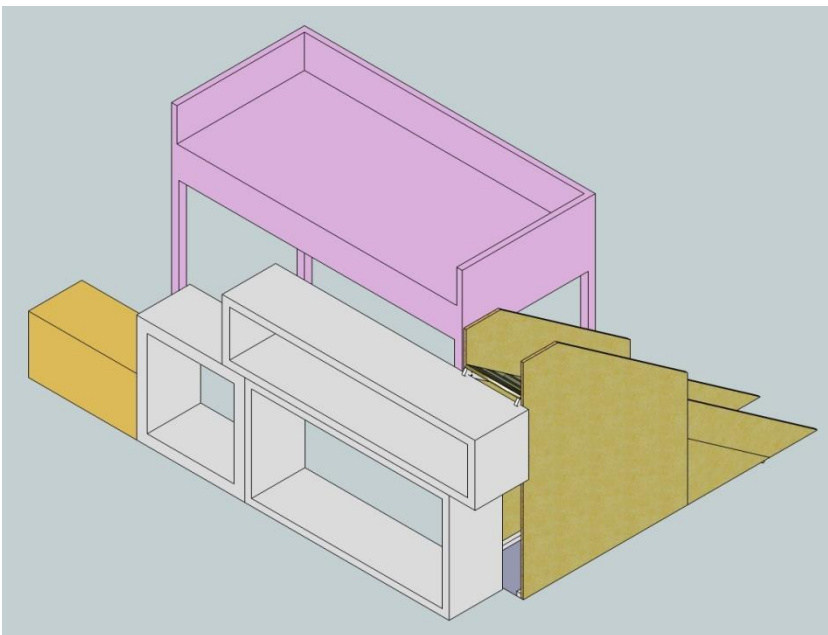


With such geometry there are many sliding surface solution. It depends on friction (slope), aesthetic, durability, round edges.

Steel or aluminum plate can be a good solution, providing a nice curving on starting area. Also final area has to be finalized wisely.

I choose plastic belt, after various test with metallic and plastic material, to allow more friction (bad for trousers, good for safety).

Here you can see the back side:



Final result is like this:



The final room lay-out is like this, with a safety net for camper, nice curtains and still a lot of space to play !

