

Foldable hanging balcony bar

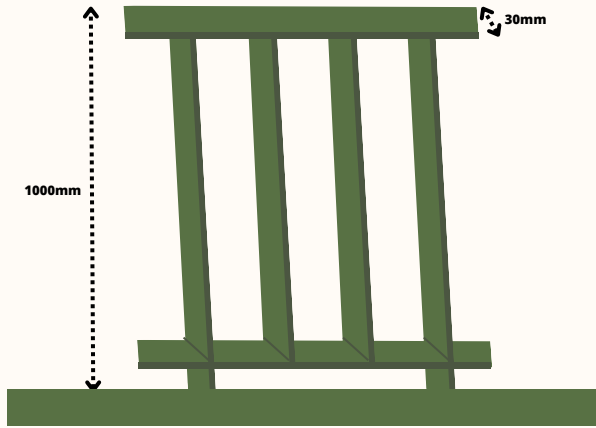
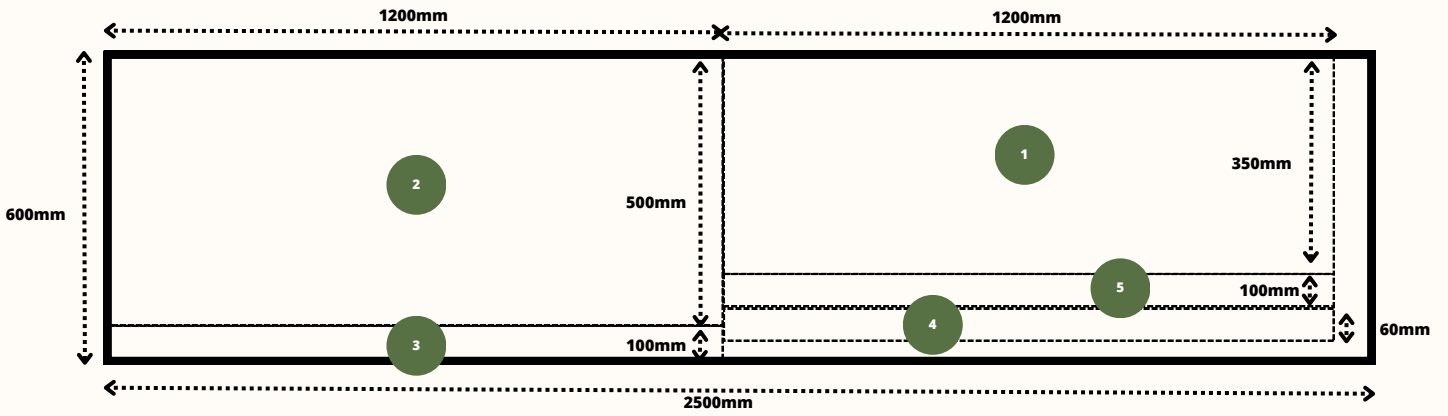
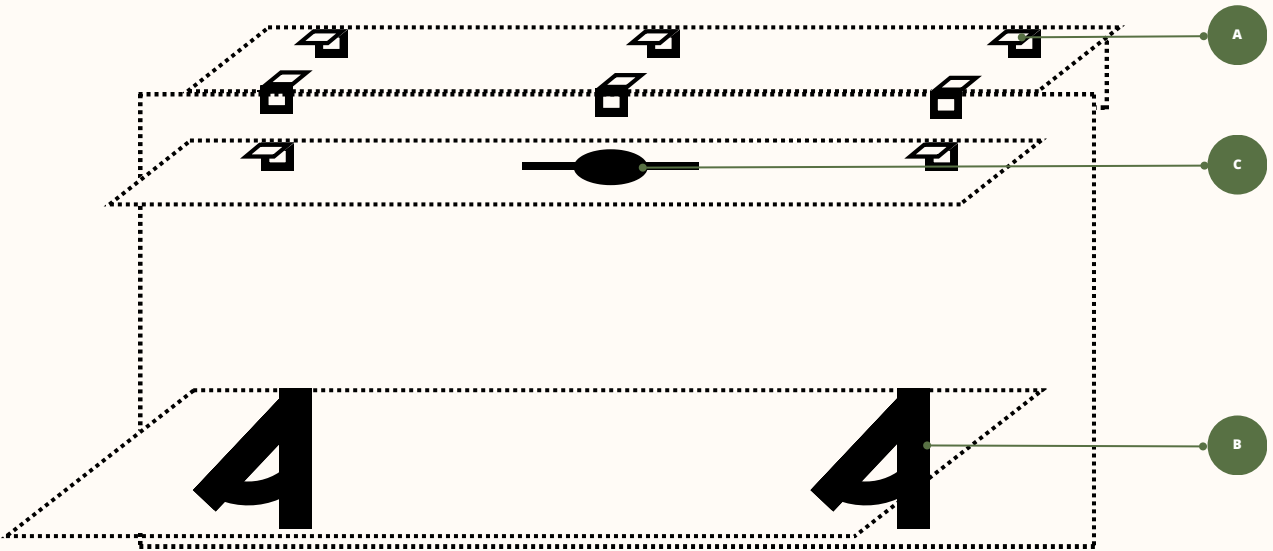
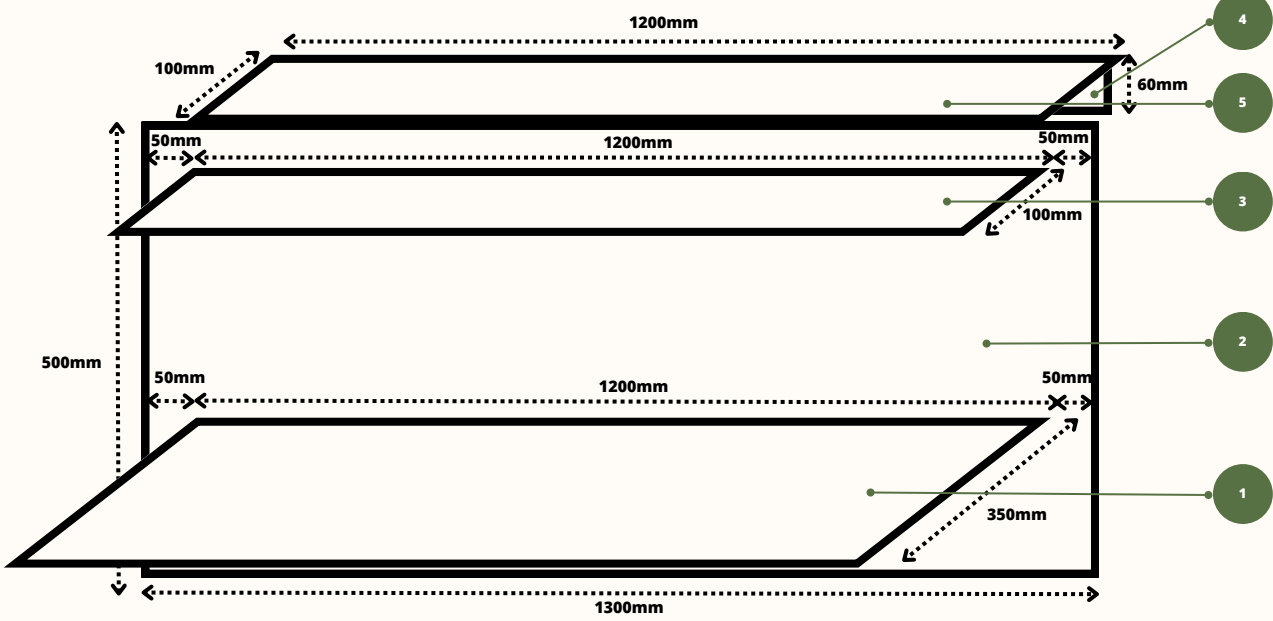
a step-by-step guide



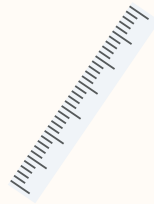
Foldable hanging balcony bar

-  **1 Take measures**
Measure the railing to ensure proper adjustment
-  **2 Purchase supplies**
Shopping list
-  **3 Cut wood to dimension**
Board cutting guide
-  **4 Assemble elements**
You just need a screwdriver, a level and elbow grease
-  **5 Varnish**
to block harmful uv rays from the sun and water damage





1



Take measures

To ensure the bar fits properly over the railing and to sit comfortably you may need to adjust the measurements of this guide.

To do so, you need to adapt the design to your own railing dimensions

Railing height

The height of your railing is important to consider as it will impact the height of your foldable tablet.

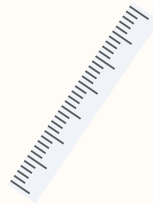
To sit comfortably consider that the tablet needs to be 250-300mm above the sitting height.

Board 2 height might need to be adjusted.

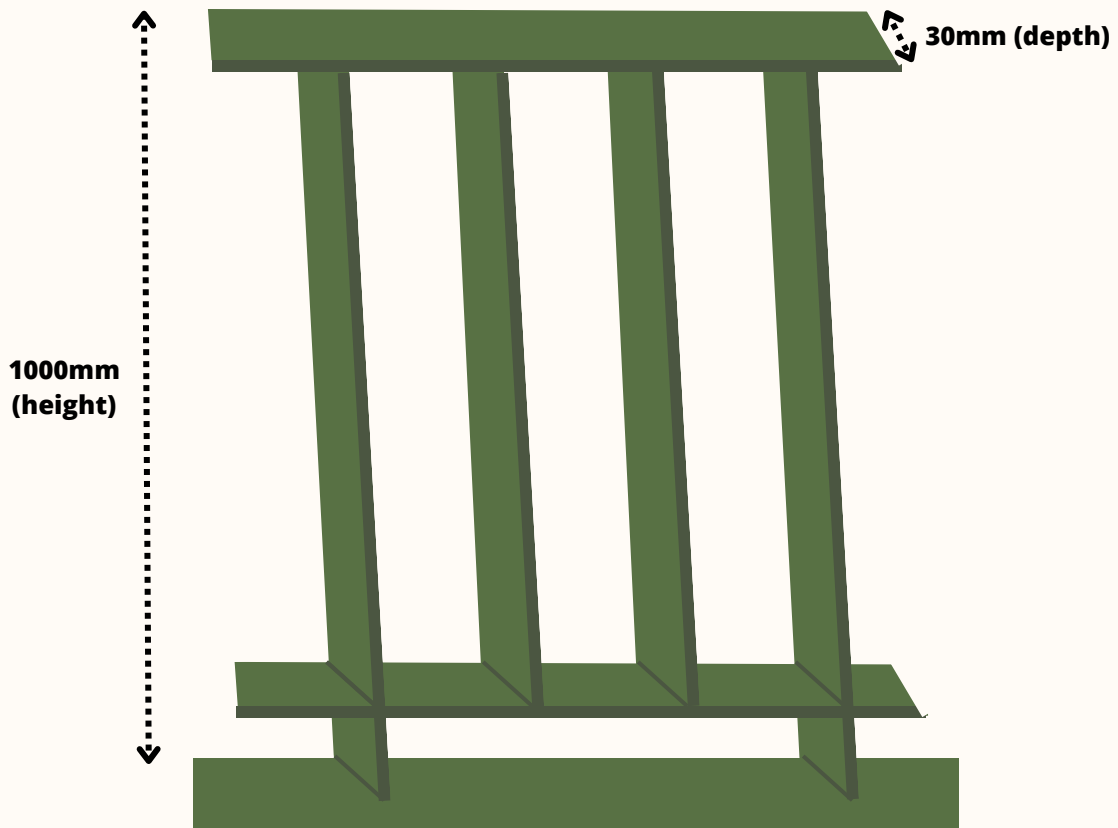
Do not forget to consider the space needed to screw the foldable support brackets under the tablet.

In my case I needed 160mm available below the tablet to fix the brackets and 320mm from the top of the railing to sit properly and have the tablet 650mm above ground. I cut the board 500cm ($330+160+20$) in height. 20mm is the tablet's thickness.

1



Take measures



Railing depth

To make sure the bar is properly hanging on the railing with not too much wiggling room, you need to adjust the space between **board 2** and **board 4**.

Before cutting wood make sure to take the thickness of the boards in consideration.

Be careful to add some margins to include the hardware that takes place between **boards 2, 4 and 5** (angles and screws).

If your railing's depth is above 60mm, you should adapt and may need to cut the **board 5** with a larger depth.

In my case there is 30 mm of railing depth + 2x20mm of wood thickness + 10mm margin for hardware = 80mm.

I chose 100mm for **board 5** to make it adaptable to other railings.

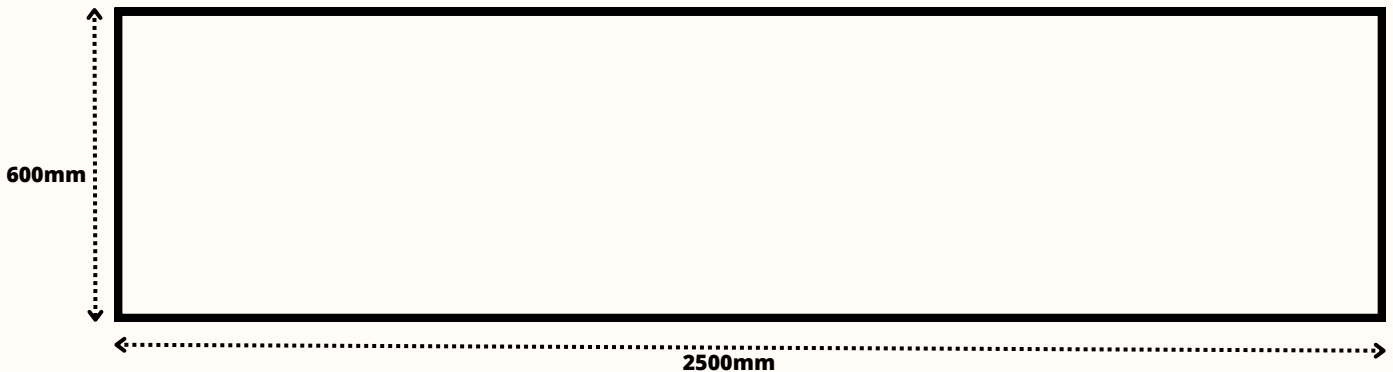
2



Purchase supplies

Wood

I found a 2500x600x20 oak tabletop.
Depending on your supply you can ask for them to cut to the appropriate measurement (see step 3)



Tools

- **1x screwdriver** (phillips) - can be electric or traditional
- **1x paintbrush** for the varnish
- **1x level**
- **1 wood saw** if you want to cut the wood yourself

Hardware

- **8x angles** : 30x30x30x2 angles fixed with 4 screws **A**
- **2x foldable support brackets** : 160 x 300 mm (max 50kg) **B**
- **46x screws** : 4 x 12mm. Should be small enough to avoid damaging the wood.
- **LED rechargeable light** **C**
- **Varnish (food-safe)**

Optional for additional support

- **8mm drill**
- **2x bolts** : 8x100 mm
- **2x washers** : 8 mm
- **2x nuts** : 8 mm

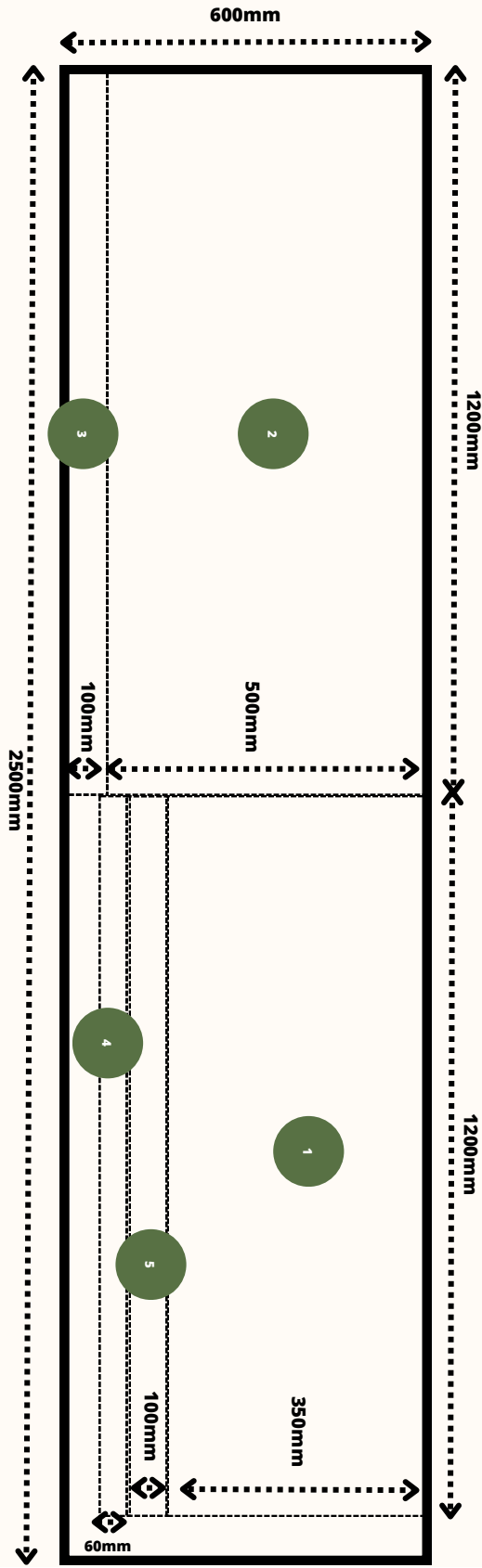
3



Cut wood to dimension

Do not forget to adjust the dimensions according to railing measurement (see 1).

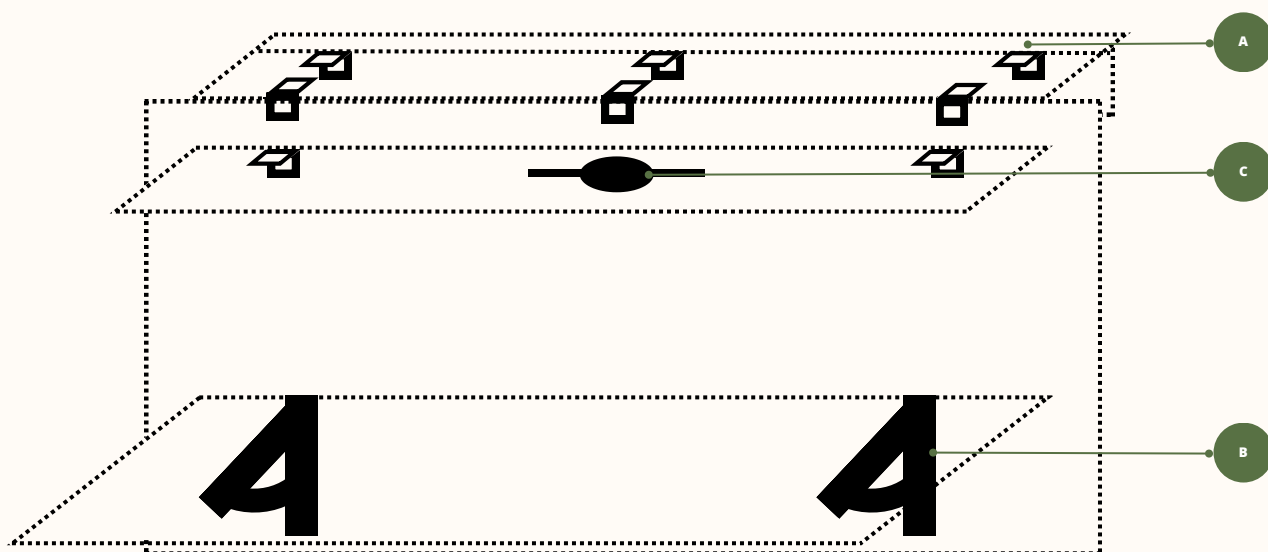
My wood supplier cut the boards to my required dimension as I do not have the required tools and space.



4



Assemble elements



A Angles are screwed directly in 2 boards with a 90 degree angle. You need 4 screws by angle. Because the board 5 supports a lot of weight, I advise adding 3 angles per joint to ensure more safety. Make sure to joint **boards 4 and 5** before joining **boards 5 and 2** or you will not have enough room for the screwdriver. Make sure the jointed boards are leveled

B Open the foldable bracket to a 90 degree angle and use the screws to fix it to **board 1**. Make sure it is perfectly perpendicular to the edge of the board to ensure leveling. Once you ensured the level is good, you can screw **board 2** as a tablet.

C Stick the LED support under the small upper tablet (**board 3**)

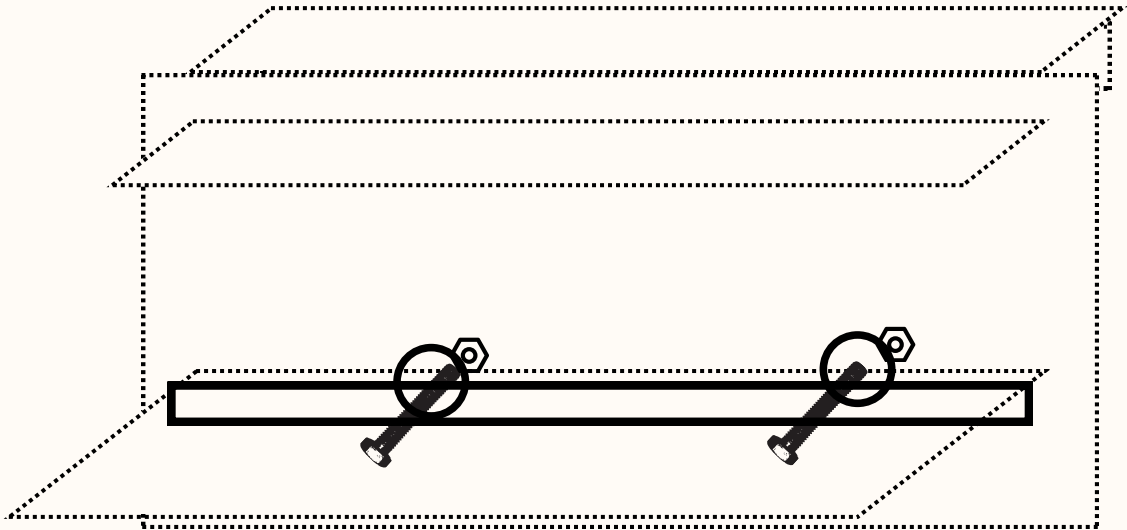


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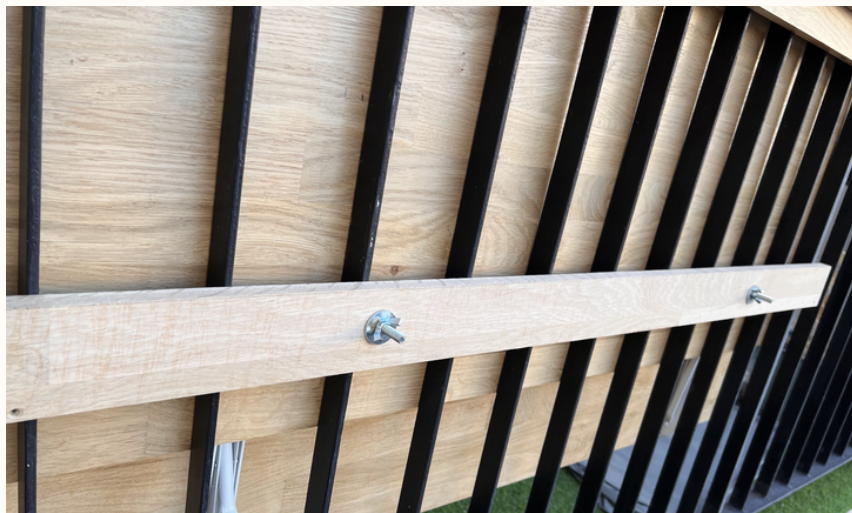
Assemble elements OPTIONAL SUPPORT

For this optional step, you need a 8mm drill



If you want to increase safety and relieve the joints on board 5 I suggest the following system :

- use any scrap wood board that remains that is wide enough to cover the space between the railing bars
- drill 2x 8mm holes in **board 2** under the main tablet (**board 1**) for discretion
- After marking the exact spacing between the holes in the scrap board, drill 2x 8mm holes in the scrap wood board
- insert 2x bolts
- insert the drilled scrap board behind the bars
- secure with 2x nuts and washers



View from behind the railing

5



Varnish

The good thing with this design is that you can easily move the bar from the railing.

But for those who prefer to keep it mounted all year long, you should protect it against UV and rain.

I personally did not sand the wood, but you can feel slight wood imperfections. I do not mind personally.

If you want to avoid that, you can use a light sanding paper and clean the surface with a wet cloth.

To avoid staining the metal hardware, you can disassemble the bar before applying the varnish. Again, I did not do that personally and just tried to be cautious when applying the varnish.

Once the wood is perfectly dry, you can apply 2-3 coats of varnish according to the instructions.

Wait 3 hours after the last coat to dry.

Congratulations !

You are now the owner of a foldable balcony bar !

Enjoy the summer :)

Hadrien

