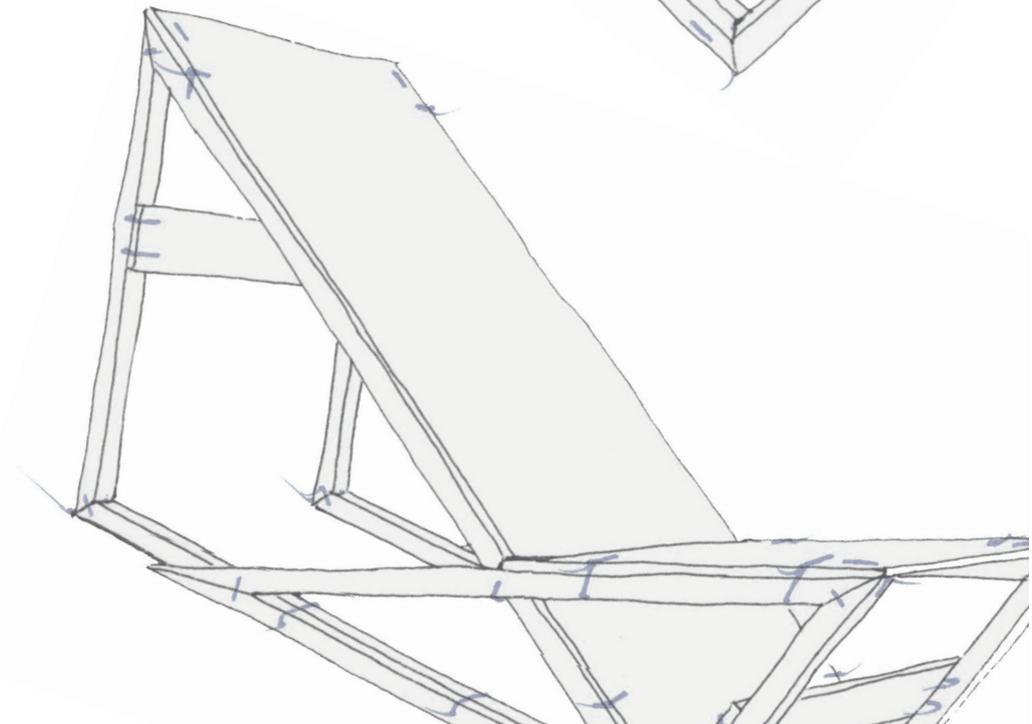
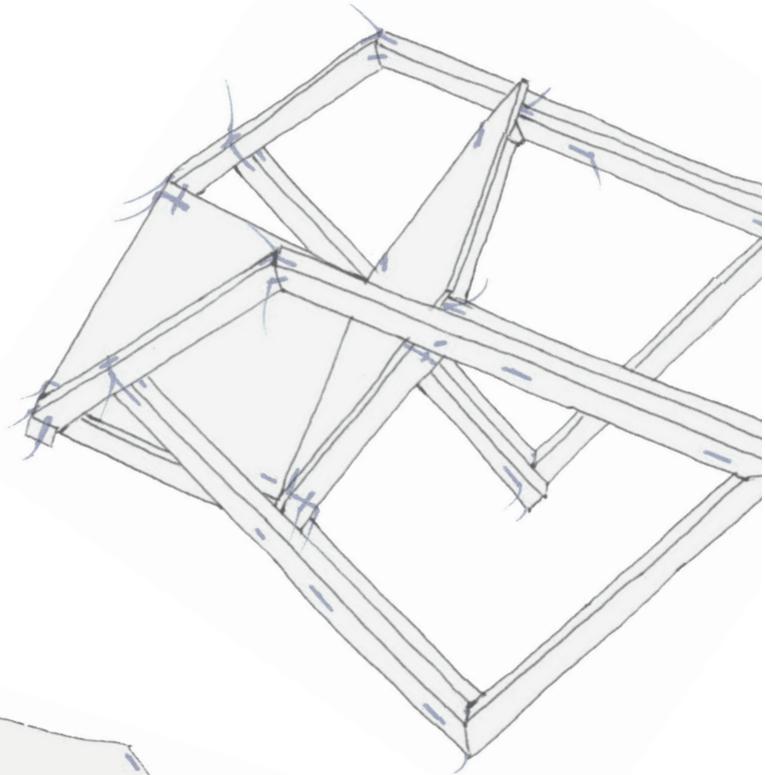
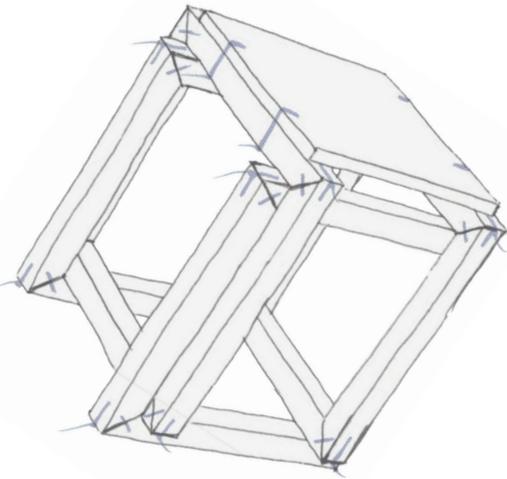


Familie Binder[©]

open furniture. welcome to copy. built to hack.



**CREATIVE
REGION**
LINZ & UPPER AUSTRIA

A Project by:

CREATIVE REGION LINZ & UPPER AUSTRIA GMBH

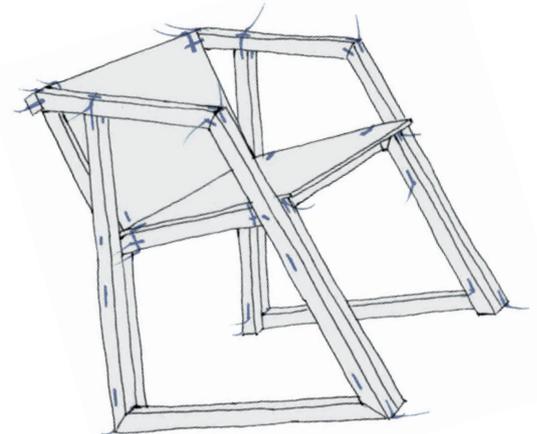
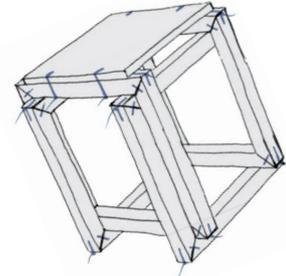
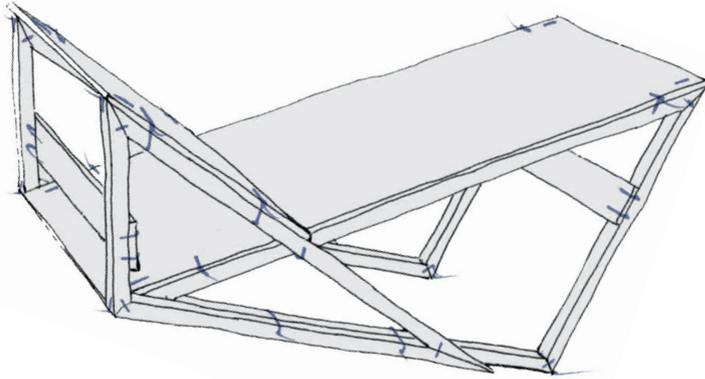
LUDLGASSE 19 / 4020 LINZ / AUSTRIA

WWW.CREATIVEREGION.ORG

Furniture Design: Clemens Bauder, Margit Greinöcker,
Michael Holzer, Magdalena Reiter, Klaus Michael Scheibl, Katja Seifert

Organization: Magdalena Reiter, Georg Tremetzberger

Graphics: Michael Holzer



Familie Binder^{CC}

open furniture. welcome to copy. built to hack.

Familie Binder is a small family of furniture consisting of the stool 44/17, the chair 44/21 and the lounge 46/16. The seats are conceptualized for home assembly.

Once cut, polished and drilled, the wooden parts are simply put together using a cable tie.

Familie Binder* was designed by Upper Austrian designers Clemens Bauder, Margit Greinöcker, Michael Holzer, Magdalena Reiter, Klaus Michael Scheibl and Katja Seifert.

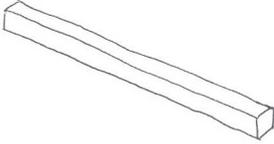
The furniture is designed according to open design guidelines. Therefore, the conceptual designs are publicly accessible and can be copied and further developed.

Familie Binder is happy to keep growing. If you design new offspring, please send us photos for addition to the family album to office@creativeregion.org.

MATERIALS

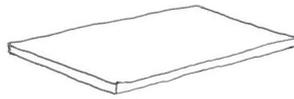
Bars

3.4 x 3.4 cm spruce wood bar



Boards

spruce plywood
boards 1.2 cm thick



Cable ties

282 mm long
and 4.8 mm wide

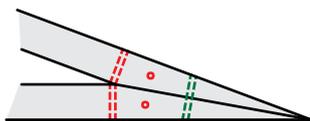


Familie Binder was built with spruce wood to keep the costs low. Other materials may be used as well, as long as the boards and bars are sturdy enough. Only high quality cable ties should be used as low quality ones break easily. The color can also be changed. For outdoor use, treat the surfaces, for instance with varnish, or use weather-resistant materials.

To make changes in shape or size, adapt the following construction plans.
The next page explains in detail how to assemble the individual bars in the most stable way.

DRILLING

Most of the drill holes are marked red on the plan. They indicate where single parts or elements are to be joined together. Drill holes marked in green only apply to Binder 46/16. These green holes must not be drilled in advance. They should be drilled only after certain elements have already been joined together as indicated.



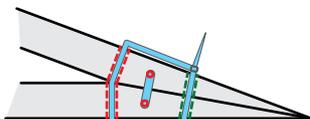
The diameter of the holes should only be a little bigger than that of the cable tie to prevent the wire from slipping around in the holes. We used a drill of 5 mm in diameter and a cable tie with a width of 4.8 mm for Familie Binder.



diameter of the drill holes: 5 mm

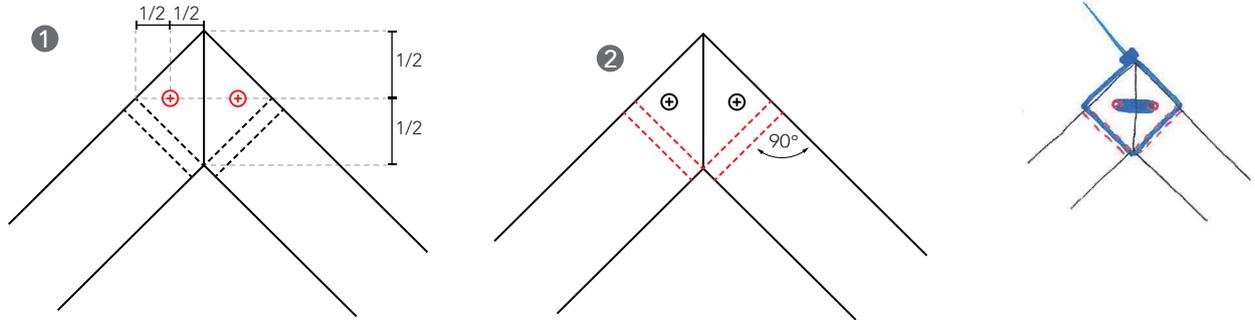


The plan shows all cable ties in blue. In order to demonstrate the direction in which best to insert and fasten a cable tie, the plan also indicates the "head" and the "tail-end" of each cable tie.

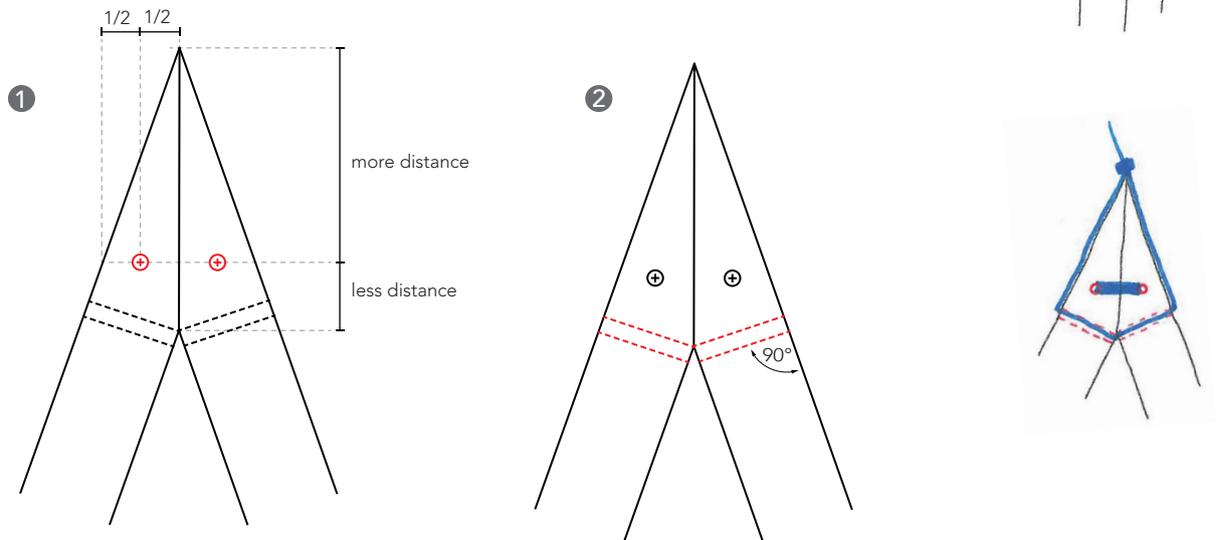


JOINTS / DRILL HOLES

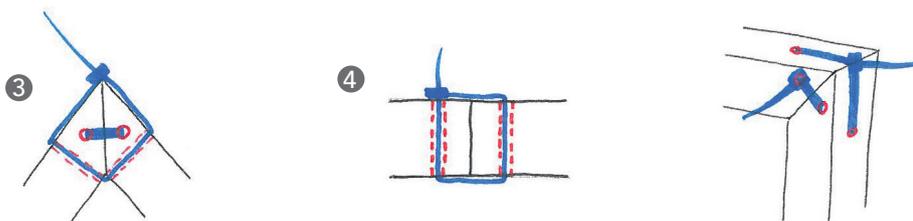
A joint is strongest when the two bars forming the joint meet at an angle of 90° . The bars should be joined together with two cable ties. Two drill holes are required. The two drill-holes at the front (1) should be made in the center of the cut edge. Both drill holes (2) on the sides are placed so as to ensure that their inner openings meet on the inside when they are drilled at a right angle to the edge of the bars.



The process is the same for pointed angles. To prevent cracks, it is important to make sure that there is enough space between the two front drill holes (1) and the outer edges. In case of a very pointed angle, the joints should be made closer to the inner side.

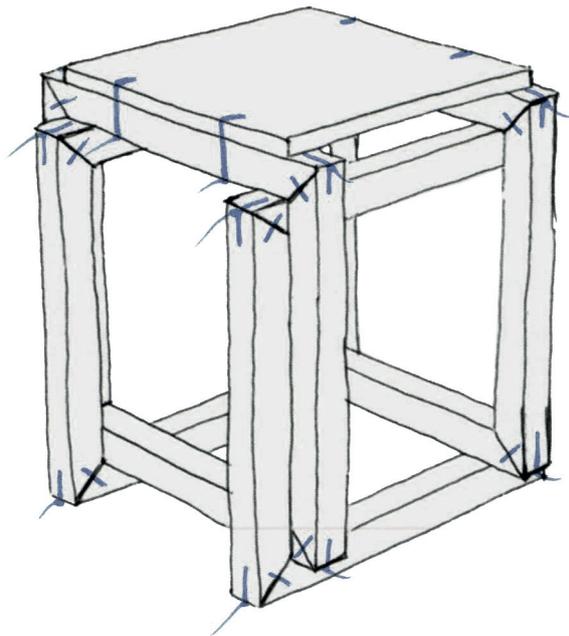


It is important to be able to fasten the cable ties tightly enough. It is easier when the "head" of a cable tie is placed on the outer edge (3), which can then serve as a lever. If there is no edge, the "head" should sit flat on top of the hole (4).



Familie Binder^{CC}

BINDER 44/17

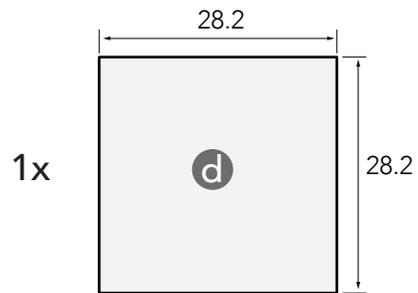
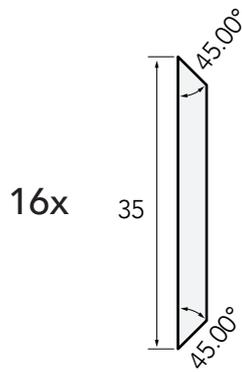




BINDER 44/17

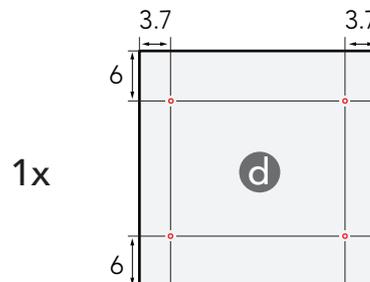
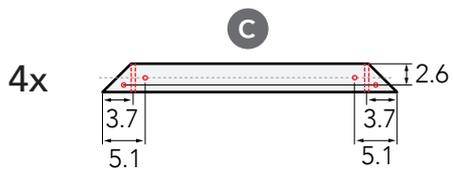
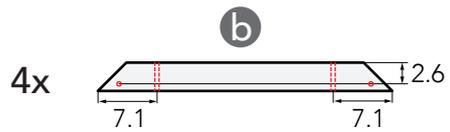
Cutting Pattern

a b c



BINDER 44/17

Parts / Drilling Plan





BINDER 44/17

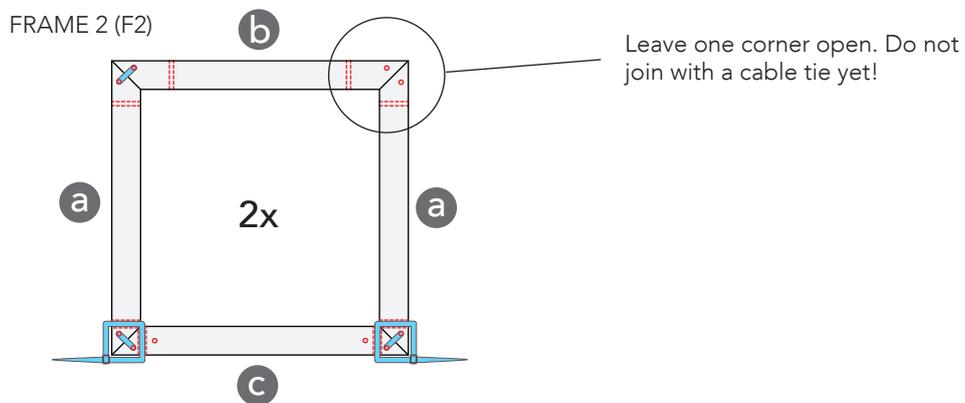
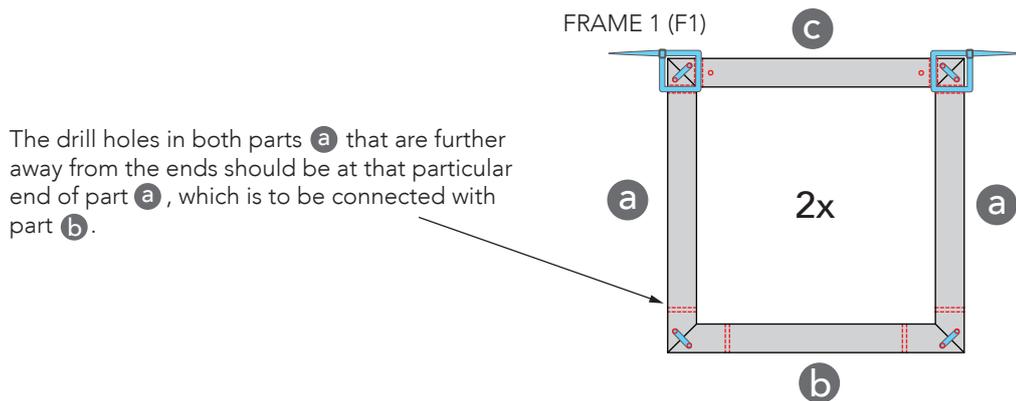
Assembly Instructions

1

Using cable ties join each of the four parts to **a** (twice), **b** and **c** to form the frame. You will get four frames, two of which are closed (F1) and two that remain open (F2).

NOTE:

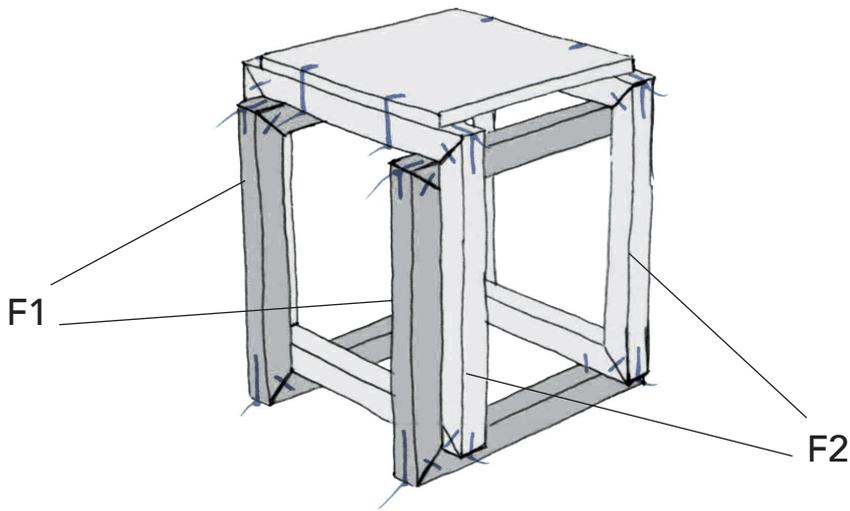
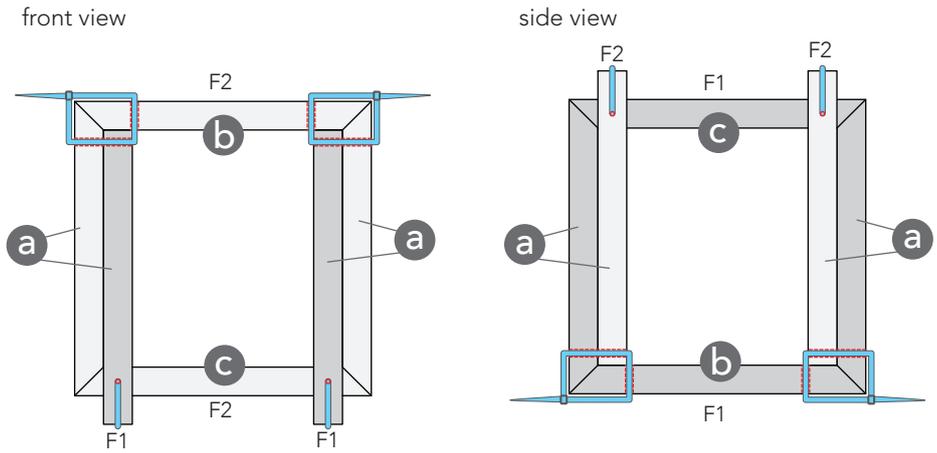
- The drill holes in part **a** are asymmetrical. The drill hole that is further away from the outer edge is on the side joined with part **b**.
- two of the frames (F2) should have one open edge.



2

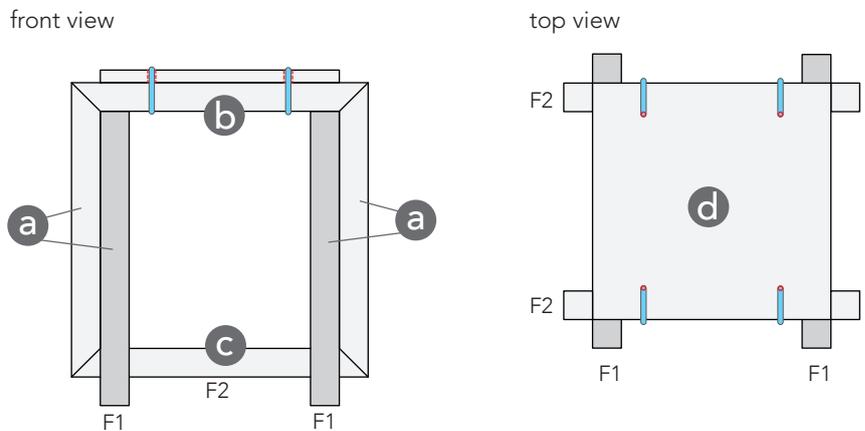
Now insert the two open frames (F2) into the two closed frames (F1) and close them too.

Tie the four frames together to form a cube.



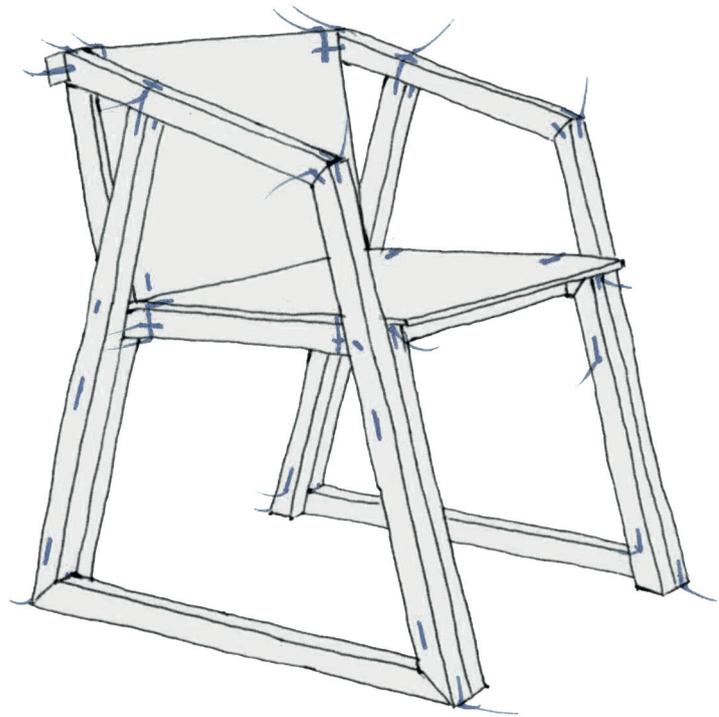
3

Place the seat **d** on the frame construction and tie it to the sides of both frames (F2).



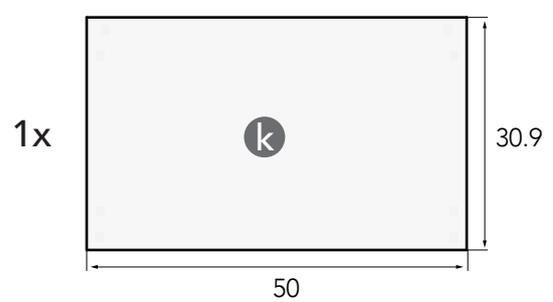
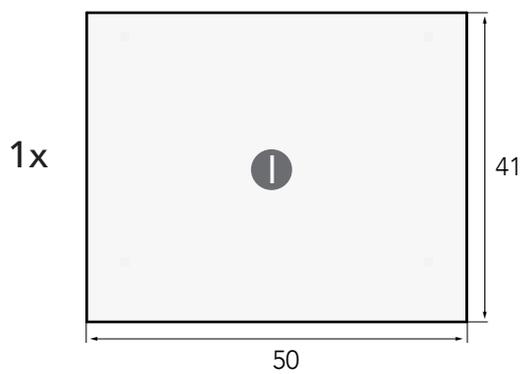
Familie Binder^{CC}

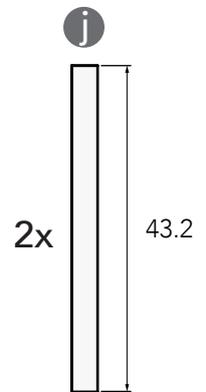
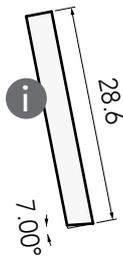
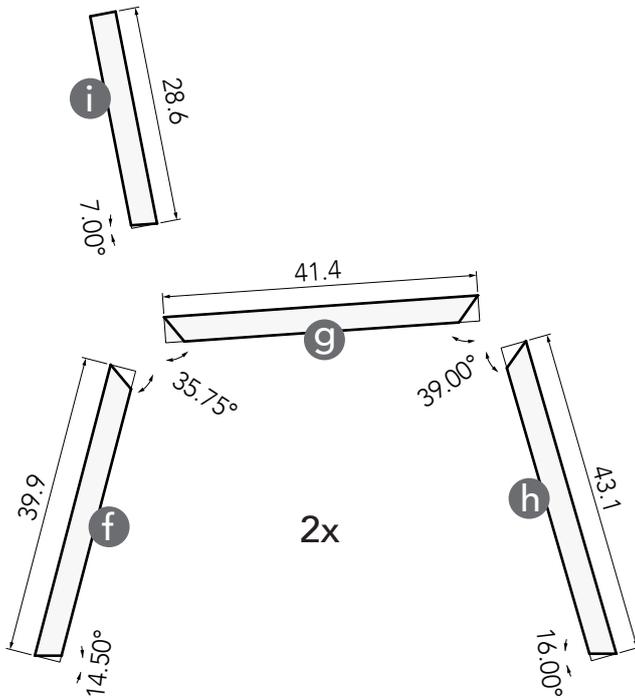
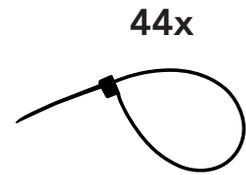
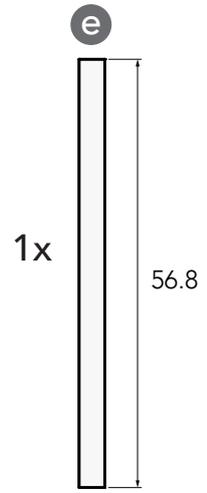
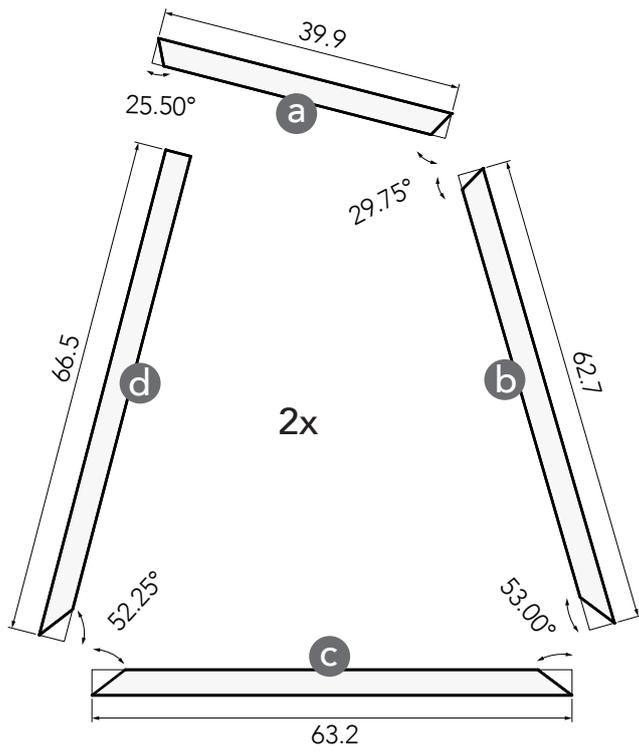
BINDER 44/21



BINDER 44/21

Cutting Pattern

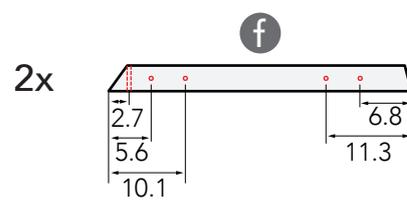
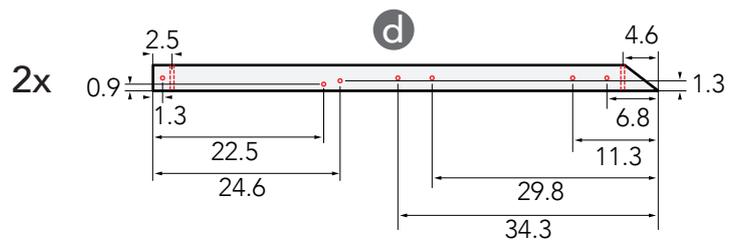
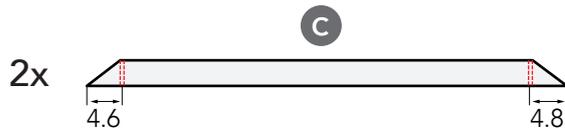
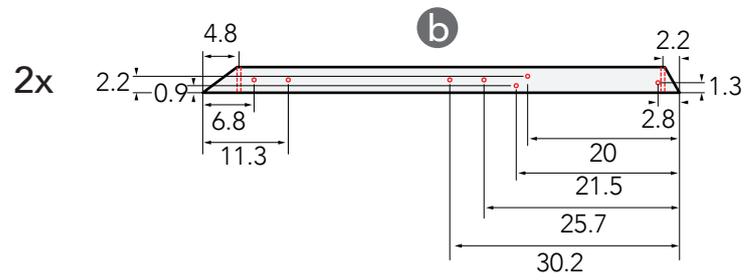
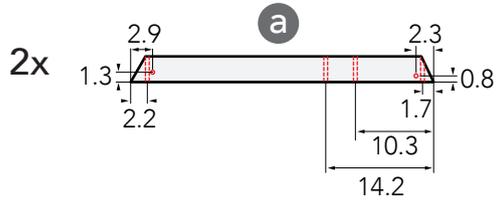


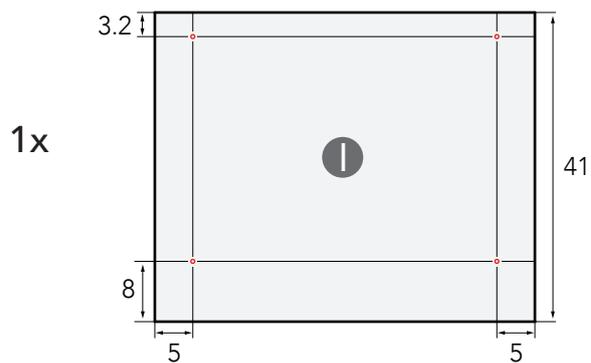
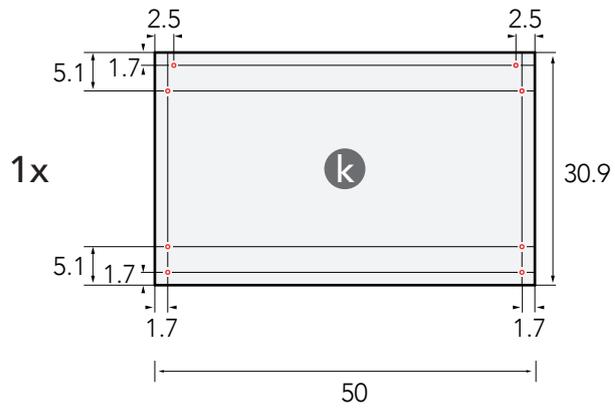
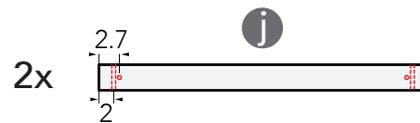
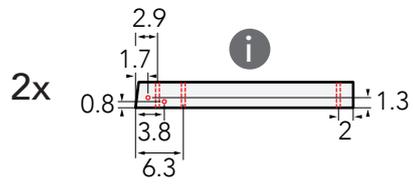
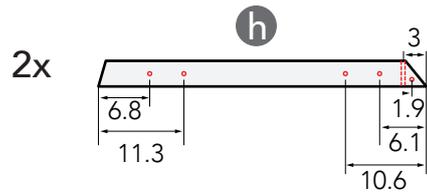
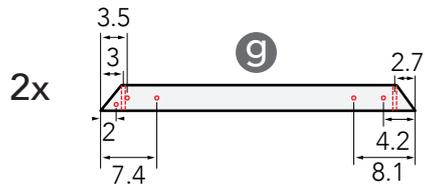




BINDER 44/21

Drilling Plan





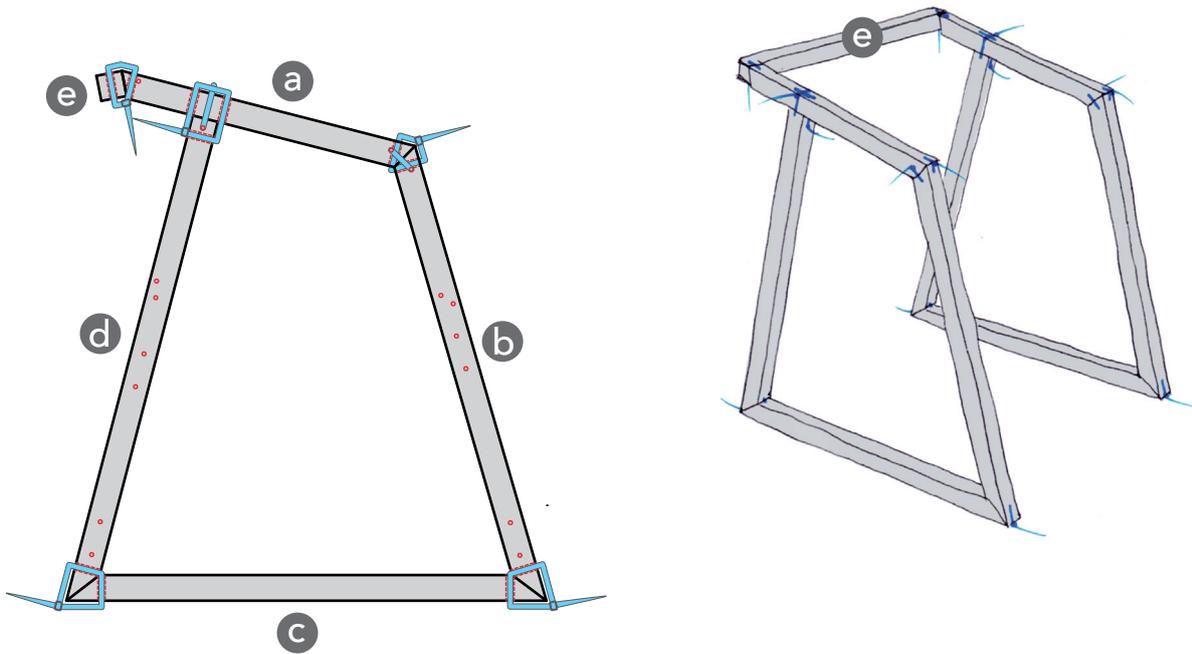


BINDER 44/21

Assembly Instructions

1

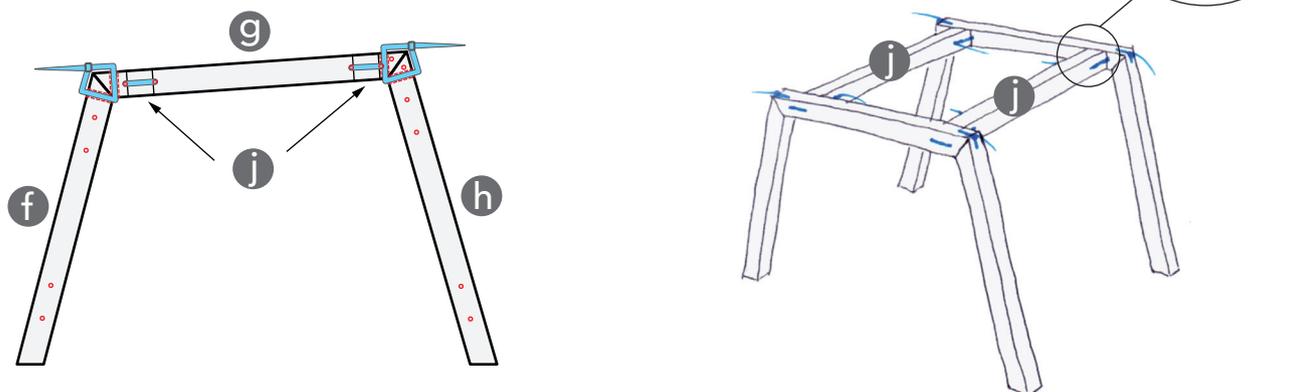
Join the parts **a**, **b**, **c** and **d** together to form two matching frames. Put both frames up and fix the crosspiece **e**. The outer frame is complete.



2

Join the parts **f**, **g** and **h** together to form two matching frames. Pay particular attention to the drill holes to make sure the parts align correctly. Join both frames to part **i** to form the inner frame.

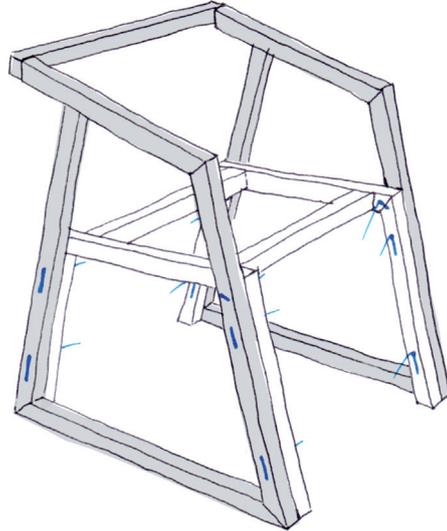
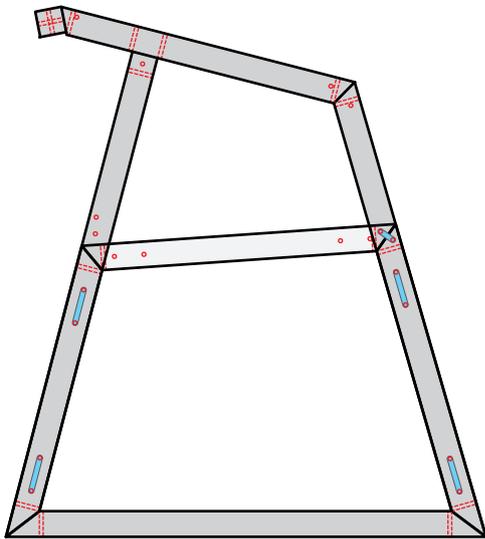
NOTE: Part **i** should be turned so that the drill holes which are farthest outside point upwards.



3

Join the outer frame to the inner frame at the five points marked blue.

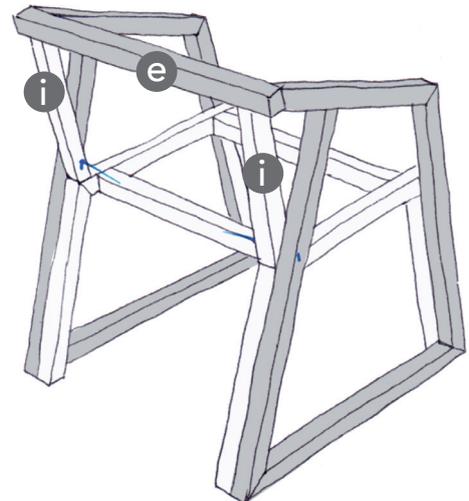
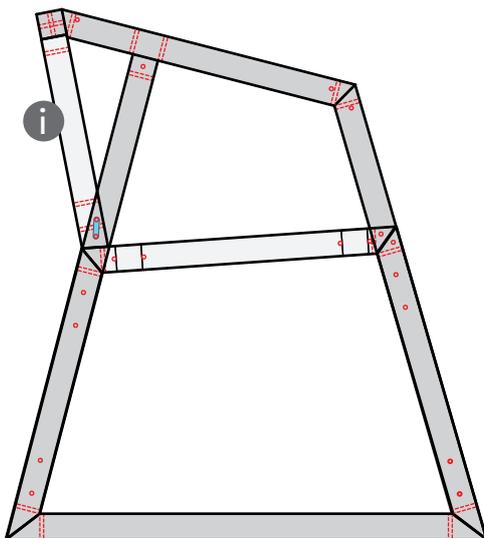
NOTE: Pull the cable tie tight only after you have threaded the cable tie through all the individual drill holes.



4

Now insert both crosspieces **i** and join them at the marked points to the outer frames.

NOTE: Part **i** is asymmetrical. The slanting side faces the inner frame. The parts should be aligned so that they form a support between the inner frame and the crosspiece **e**.





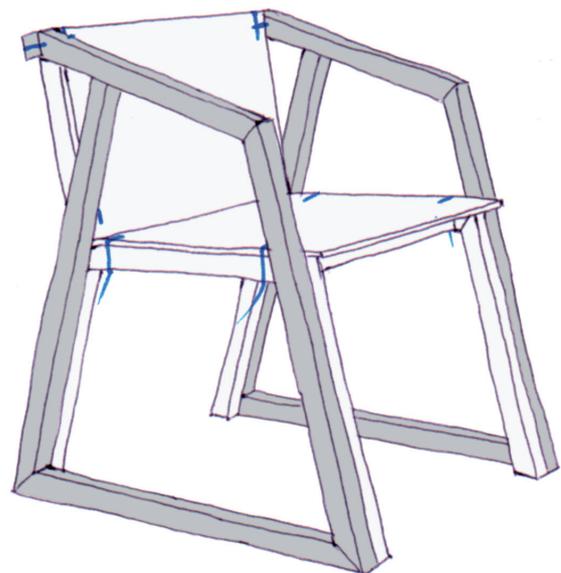
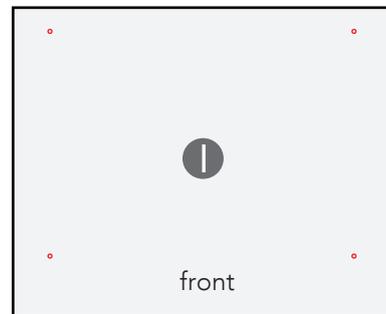
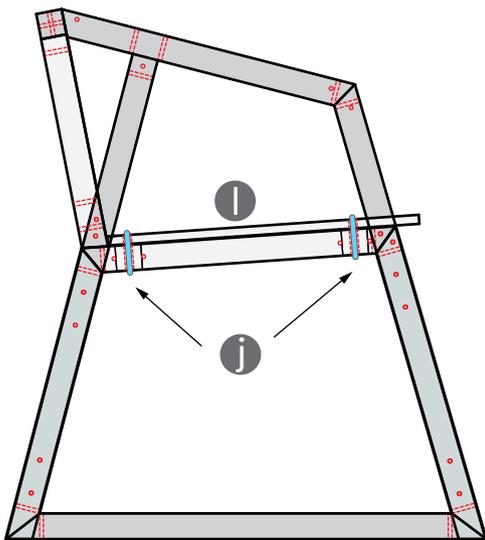
BINDER 44/21

Assembly Instructions

5

Place the seat **1** on the inner frame so that the drill holes are aligned with those in the crosspiece **j** below and fix it with cable ties.

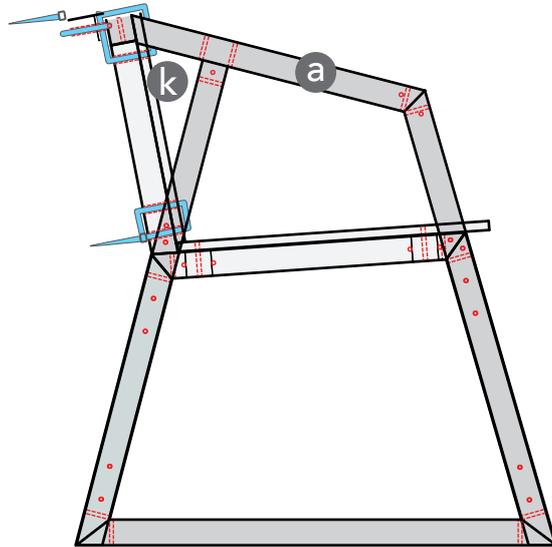
NOTE: Here, too, the cable ties should be threaded through first, but not pulled tight until there is one in each drill hole.



6

STEP 1: Thread the cable tie through the crosspiece **i**, through the backrest **k** and then back again through the second hole.

NOTE: Don't pull the cable tie tight yet.

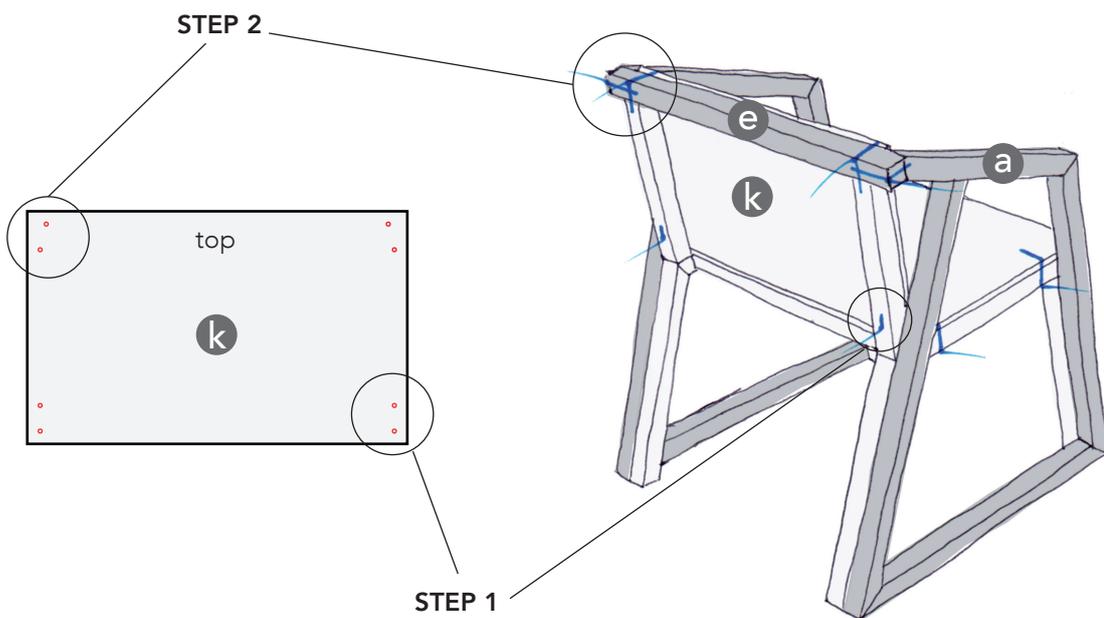


STEP 2: This corner should be fixed with two cable ties. The first one goes laterally through part **a**, then through the upper drill hole in the backrest **k**, and finally through the crosspiece **e**.

NOTE: The cable tie can be fixed lightly at the corner, but it should not be pulled tight yet.

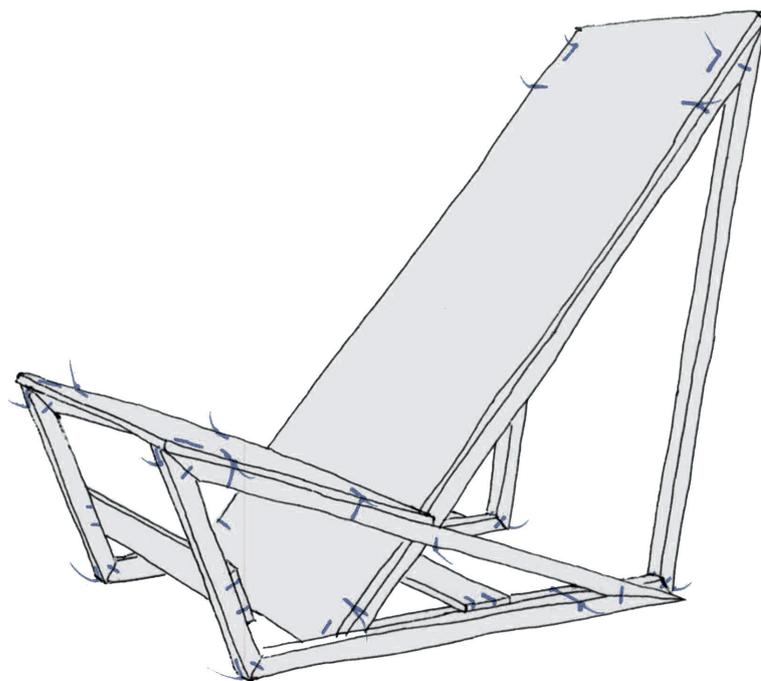
The second cable tie goes through the crosspiece **i**, through the drill hole in the backrest **k**, then over the crosspiece **e** and back again.

After **STEP 1** and **STEP 2** have been completed, the cable ties can be pulled tight.



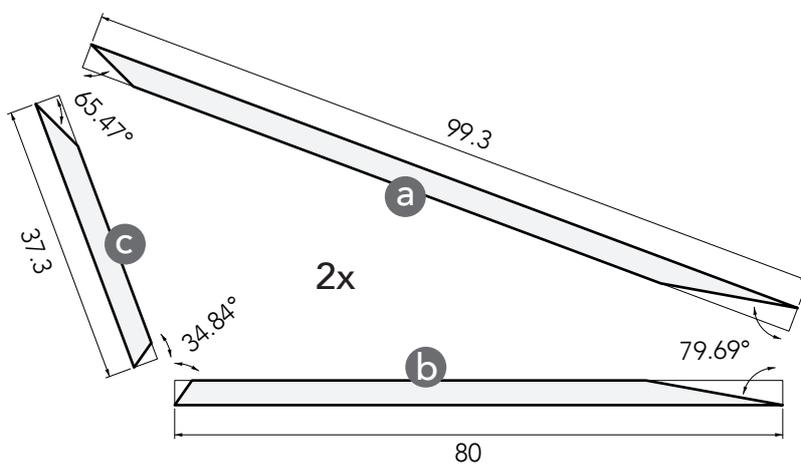
Familie Binder^{CC}

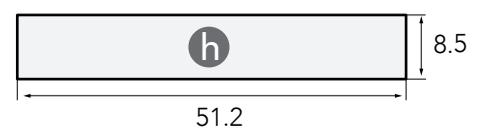
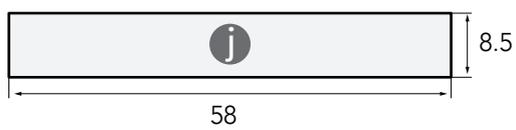
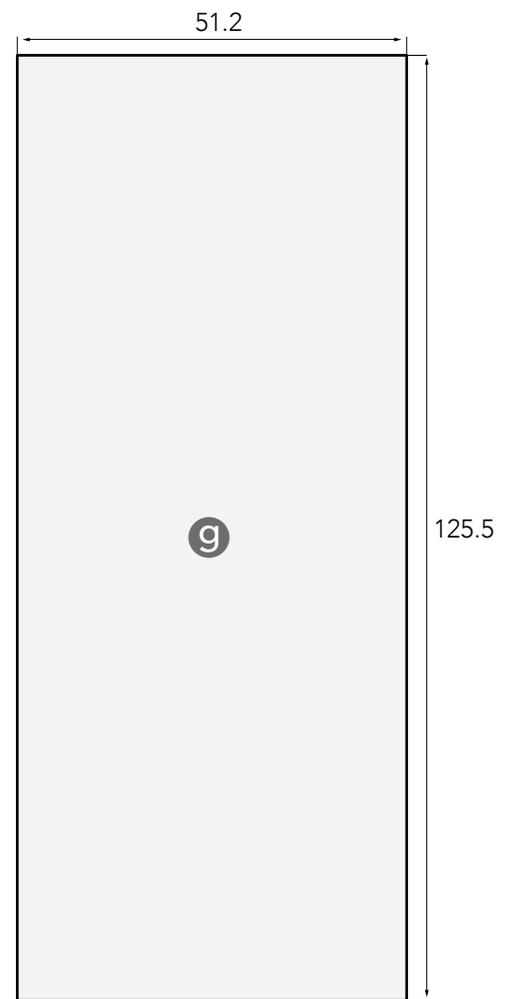
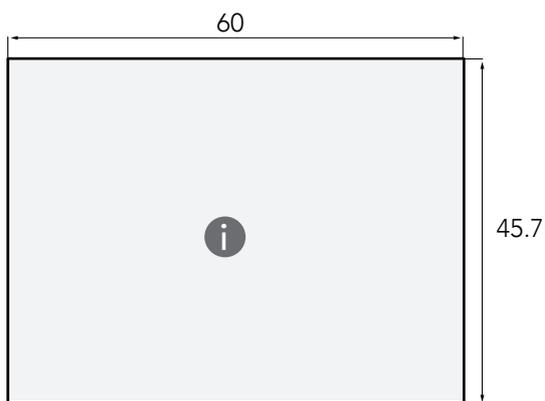
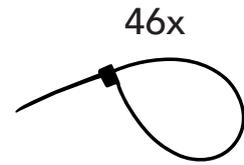
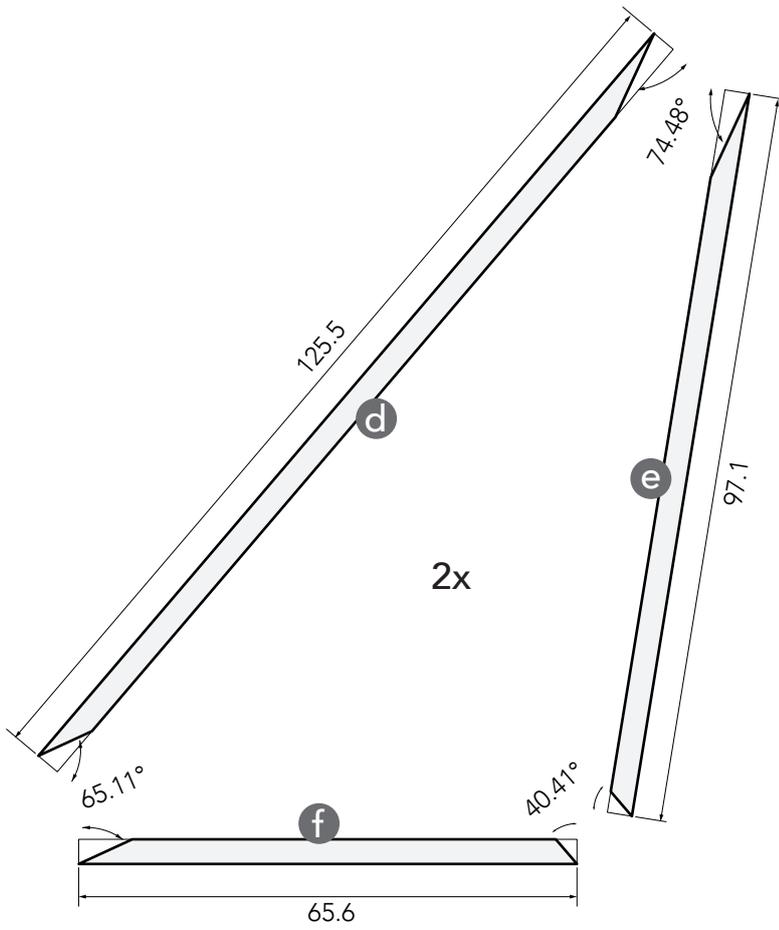
BINDER 46/16



BINDER 46/16

Cutting Plan



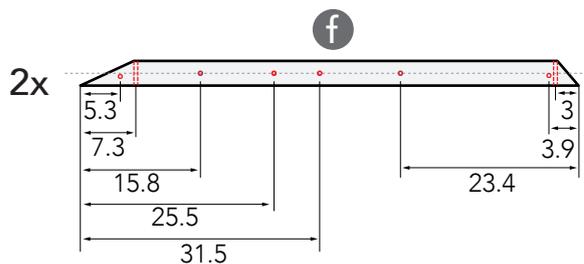
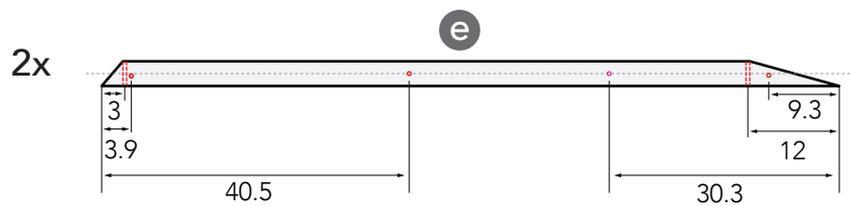
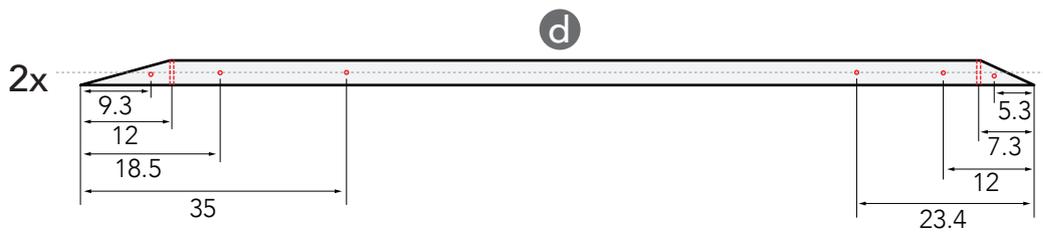
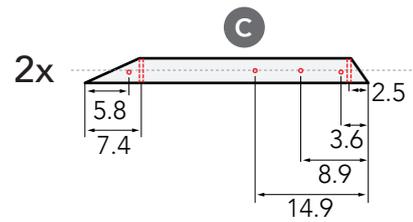
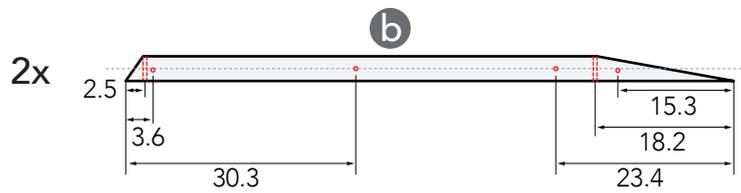
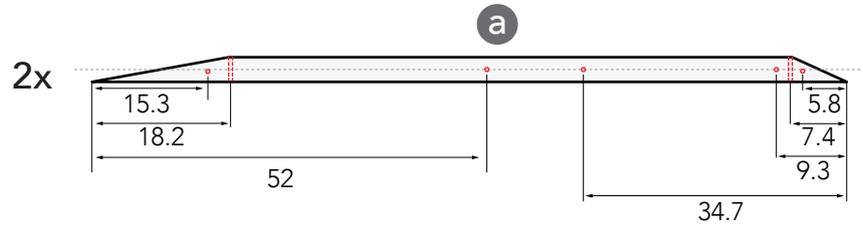


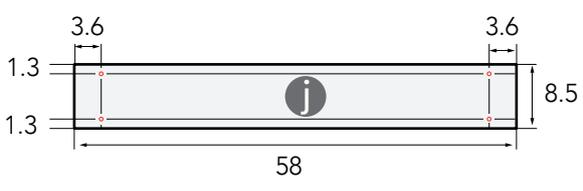
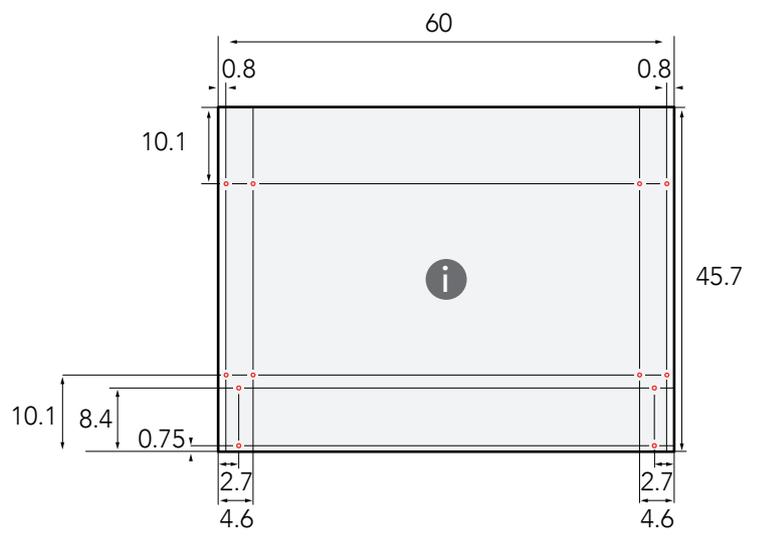
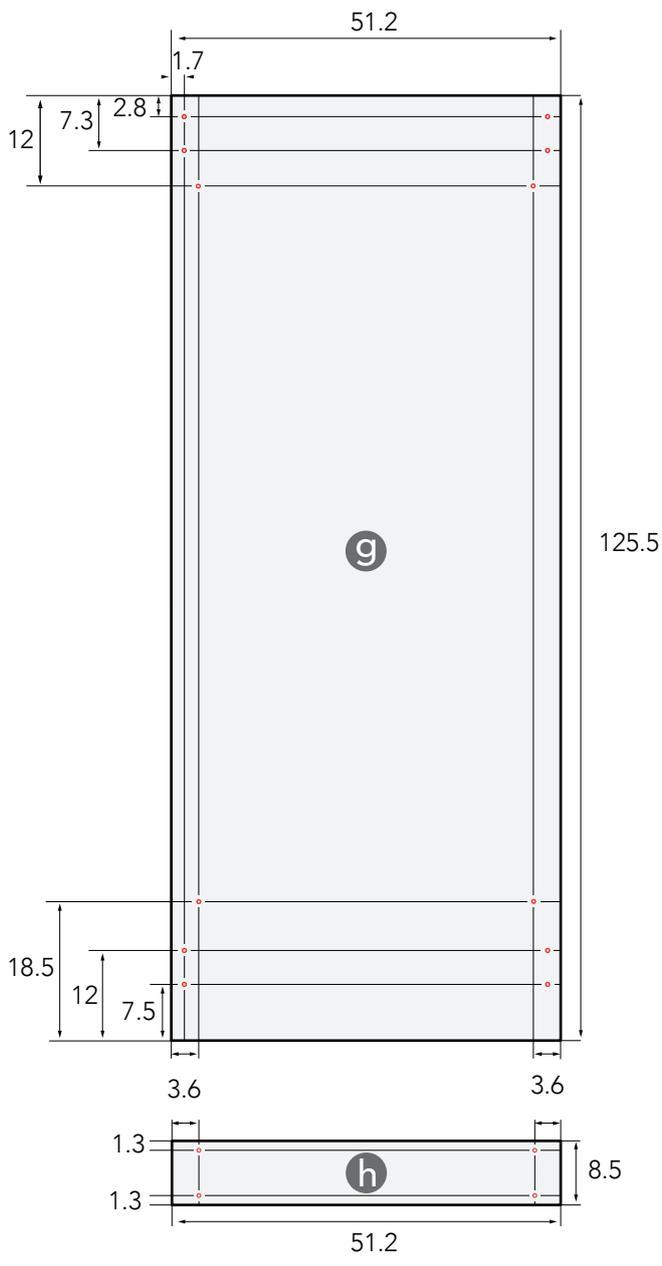


BINDER 46/16

Parts / Drilling Plan

NOTE: Not all the drill holes are located on the horizontal middle axis of the bars.
To best assess where they should be, please read the instructions on page 3.







BINDER 46/16

Assembly Instructions

ATTENTION!

Thread all cable ties through the drill holes and fix them only loosely at first (at least a thumb should fit inside the loop). The cable ties must be pulled tight only upon completion of a triangle construction.

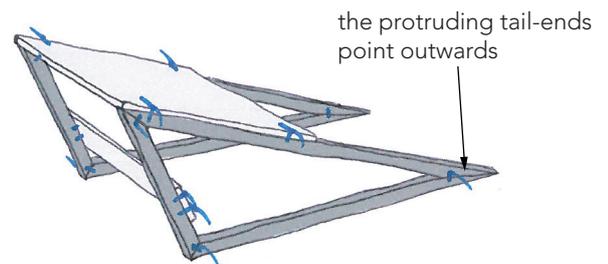
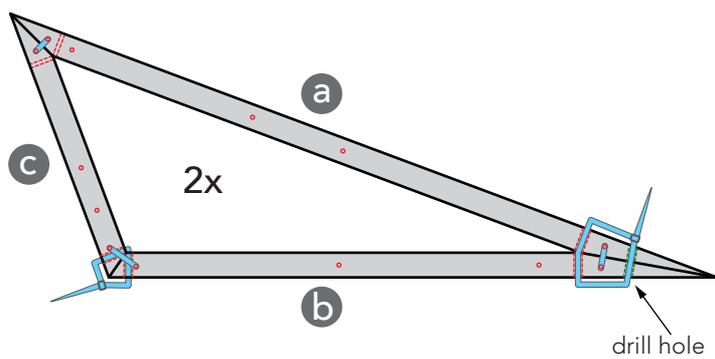
1

Join the parts **a**, **b** and **c** together with cable ties to form two triangles as shown in the picture.

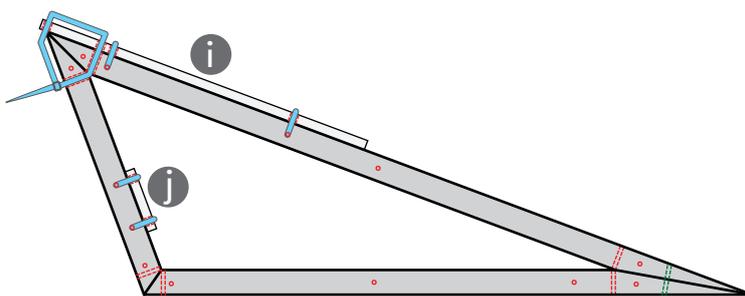
NOTE: when you align the two triangles next to one another, the remainder of the tail-ends of the horizontal cable ties should point outward.

Drill a hole at the green dotted line at the corner (**a** **b**), (not too close to the edge, because otherwise the cable might not be long enough) and join the bars with a cable tie through the newly drilled holes and the holes beside them.

At this stage, a total of five cable ties will be needed per triangle.



2



Join the two triangles together with the boards **i** and **j**.

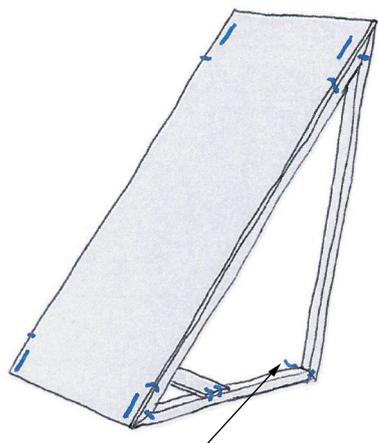
Triangle construction 1 is complete and the cable ties can now be pulled tight.

3

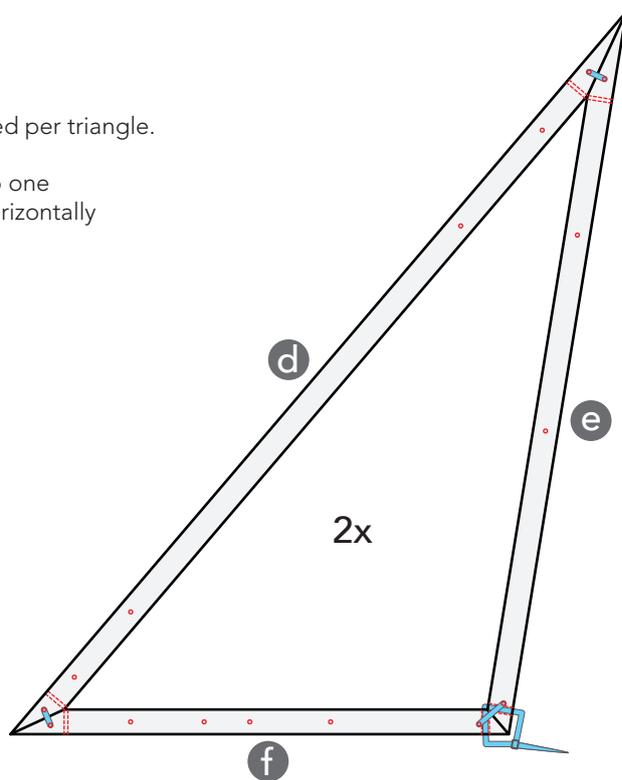
Join the parts **d**, **e** and **f** only at the marked parts to form two triangles.

At this stage, a total of four cable ties will be used per triangle.

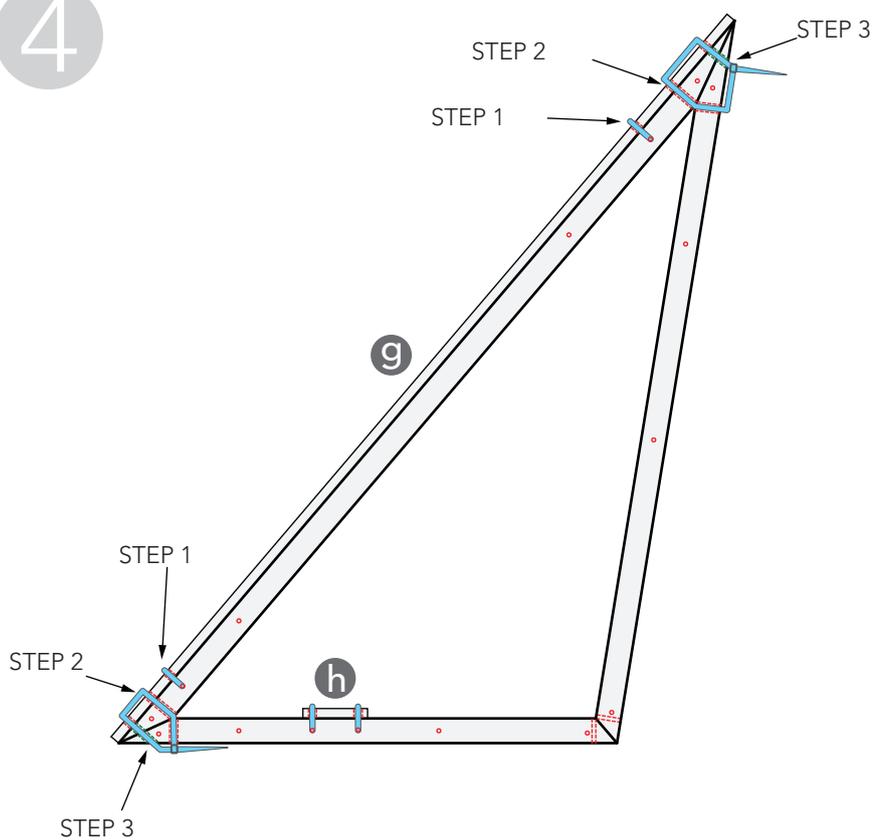
NOTE: When you align the two triangles next to one another, the remainder of the tail-ends of the horizontally inserted cable tie should point inward.



the protruding tail-ends face inwards



4



Now join the triangles and the boards **g** and **h**.

STEP 1: First place the board **g** on top of the triangle so that the holes in the boards align with those on the sides of the bars and loosely fix them together with cable ties.

STEP 2: Pull the cable tie through the holes at the corners of the boards and the bars. The cable tie should remain open.

STEP 3: Now drill from the hole in the board through the bar at the points marked with the green dotted line. Thread the cable tie that is still open from STEP 2 through this new hole and loosely close it.

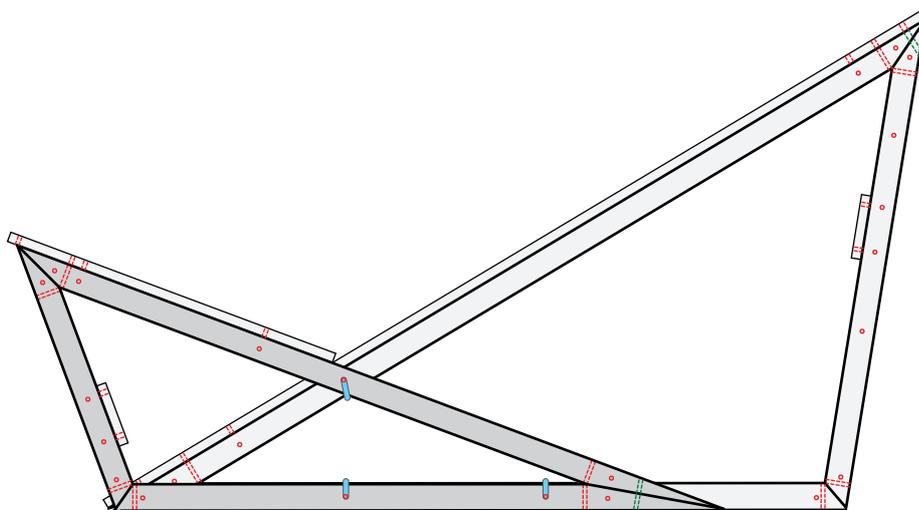
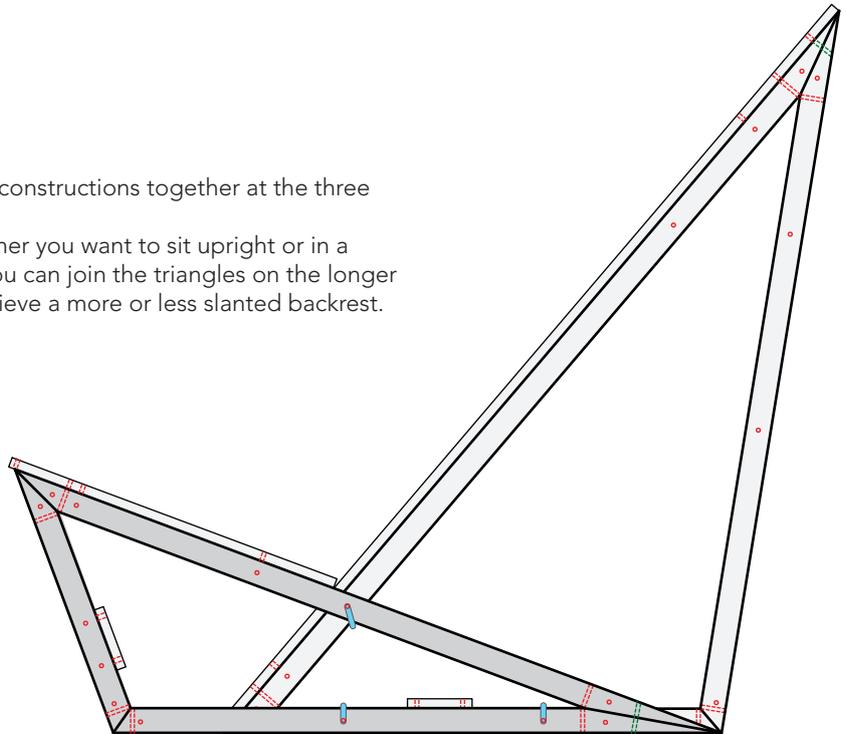


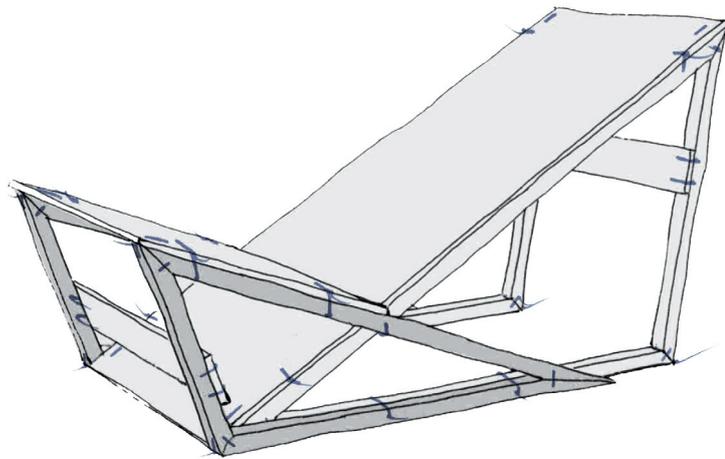
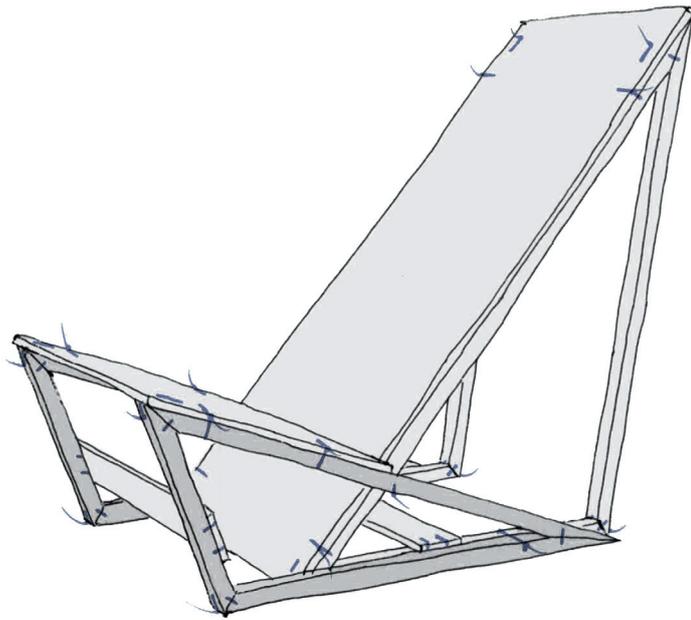
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Assembly Instructions

5

Join both triangular constructions together at the three marked points. Depending on whether you want to sit upright or in a reclining position, you can join the triangles on the longer or shorter leg to achieve a more or less slanted backrest.





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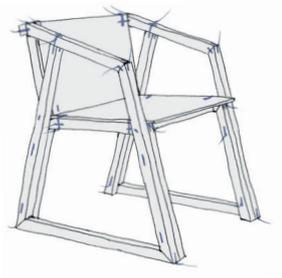
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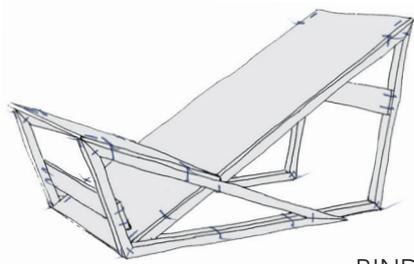
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