OPITEC Hobbyfix

120.324

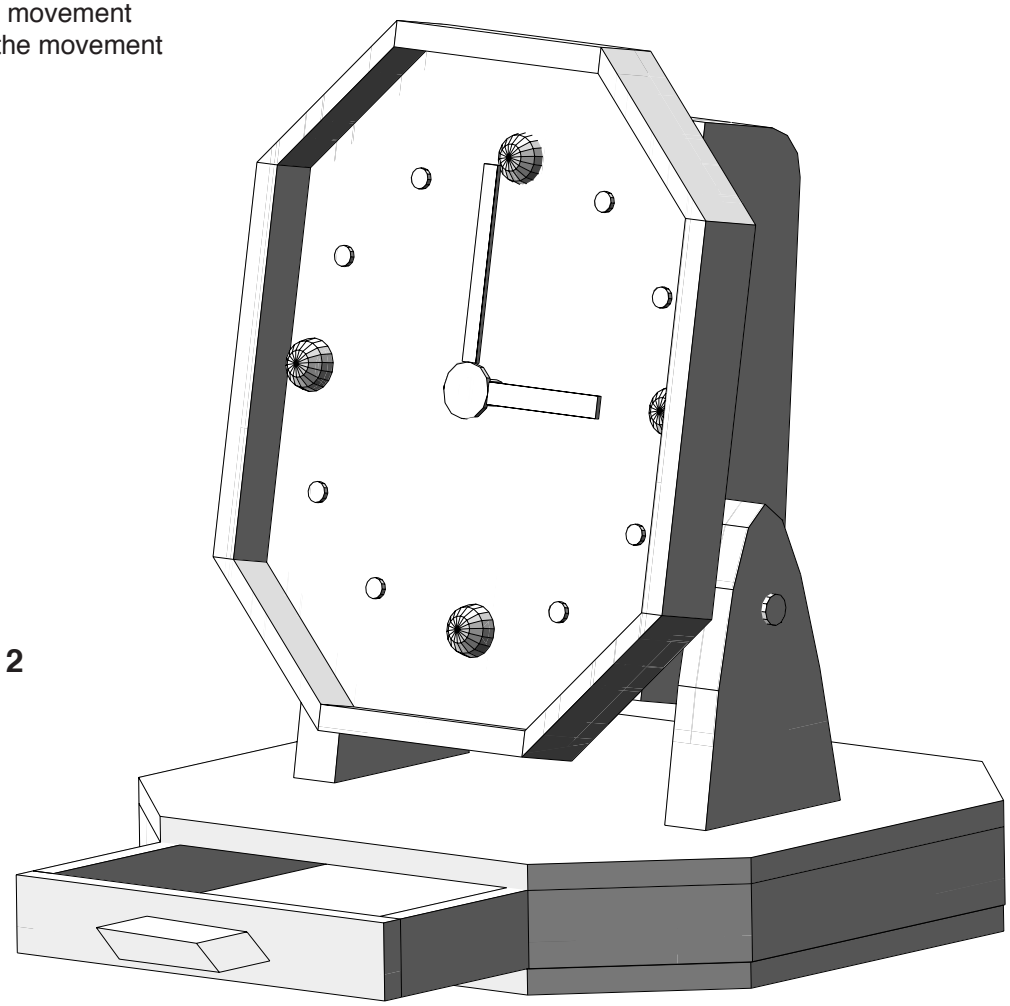
Desk Top Clock

Contents:

1x pine ply sheet	4 x 100 x 125 mm
1x pine ply sheet	4 x 135 x 300 mm
3x pine strips	5 x 15 x 300 mm
1x pine strip	10 x 30 x 200 mm
2x pine strips	10 x 15 x 300 mm
2x pine strips	10 x 40 x 200 mm
1x pine dowel	ø 6 x 100 mm
1x poplar plywood	3 x 80 x 120 mm
1x clock hands/black	
4x wooden beads	ø 10 mm
1x quartz movement	5 mm
1x ring for the quartz movement	
1x central screw for the movement	

Warning!
This product contains small parts that can be swallowed
There is a danger of choking

Version 2



Necessary Tools

Fret Saw or similar
Clamps
Wood glue
Wood rasp (fine)
Sandpaper (fine)
Paint brush

PLANNING AND MAKING

The desk top clock can be designed in two different versions. Depending on the pupil's ability you can choose the easier version 1 or the more complicated octagonal design, version 2.

Please read through the plans before starting.

Version 1

1. The base is constructed from the plywood sheet 4 x 135 x 300 mm. This must be sawn in the middle so that there are two pieces (1) each 4 x 135 x 150 mm.

2. The base frame is made from the two pine strips 10 x 15 x 300 mm. From these cut the two lengths for part (2) and the two lengths for part (3) (see top plan on page 5.)

3. Now glue these (2 & 3) as a frame to the edge of one the base parts (1)

4. Finally add the top of the base to complete the shape. (Hold with clamps whilst drying)

5. The supports for the quartz movement housing (4) and the housing sides (5) are made from the two pine lengths 10 x 40 x 300 mm. The sizes can be measured or traced from the plans. The supports (4) should be shaped and finished with sandpaper.(Hold them together in a vice using jaw protectors). Clean up the housing sides (5) in the same fashion. Drill the 6 mm ø holes in both parts (4 & 5) by holding them together so that they are drilled in one go (to ensure accuracy). Glue the uprights (4) to the base (see drawing)

6. Make the top of the housing (6), which fits between the housing sides and the two parts for the rearwall (7), from the pine strip 10 x 30 x 200 mm.

7. Glue the two parts (7) that make up the rear wall together by gluing on bthe long sides (clamp until dry)

8. The top part (6) should be rounded on the rear edge (see plans for pattern)

9. Now glue parts 5,6 and 7 together to complete the finished housing for the quartz movement.

10. The clock face (8) is made from the ply sheet 4 x 100 x 12 mm. Start by drawing a circle in the middle with a radius of 40 mm. Now mark off the sections at 30 degrees(use a 30/60 degree set square) The 3,6,9 and 12 hand positions are marked using a wooden bead cut in half. The other positions can be drawn in using your own design with a felt tip pen. So that the quartz movement can be fixed drill a 10mm dia hole in the middle of the face.

11. The frame for the clock face is made from the pine strip 5 x 15 x 300 mm (parts 9 + 10). To complete this stage cut two longer pieces (part 10) and two shorter (9). Clean up the saw cuts with sand paper. Finally lay the face (8) on a flat surface and glue the finished frame in position around the edge.

12. Fit the quartz movement from the rear and fix it in position with the central screw in the front.

13. Glue the the quartz movement housing in the middle of the rear of the clock face and between the uprights.

14. Line up the 6mm holes in the uprights and the side walls of the housing and then insert the length of dowel to hold the assembly in position.

VERSION 2

1. Complete this step as in version 1

2. Mark out and saw the corners of the base (1) as shown in the plans. Finish with sandpaper.

3. Mark out and cut the base frame from the two pine strips 10 x 15 x 300 mm. Cut one length (11) at 45 degrees on either end, two lengths (12) each with 45 degrees at either end, two lengths (13) with 90 degrees at
   either end and four lengths (14) each with one 45 degrees angle at one end.(see plan on page 6)

4. Glue the frame to one of the bases, so that an opening for the drawer is left in the front. (see plan)

5. Glue the drawer guides (14) (shown on plan) on to the frame part (14)

6. Complete this stage as in version 1 step 4

7. Complete this stage as in version 1 steps 5 - 9

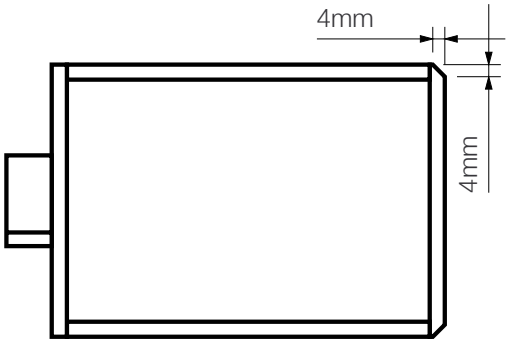
8. Complete this stage as in version 1 step 10. Mark out the corners on the clock face (8) as shown on the drawing, saw and finally sandpaper.

9. The frame parts (15 + 16 + 17) for the clock face are made from the pine strip 5 x 15 x 300 mm. Finish the two parts (15) , 2 parts (16) and 4 parts (17) each with 45 degrees ends. Sandpaper to complete. Lay the clock face on a flat surface and glue the frame around the outer edge on the front.

10. The drawer base (21) and the frame parts (19 + 20) and the handle (18) are made from the pine strip 5 x 15 x 300 mm. For this saw two lengths (19) and two (20) and one (18) for the handle.The handle having the ends cut at 45 degree (see plan).

11. Lay the drawer base (3 x 80 x 120 mm poplar ply) on a flat surface and glue the side parts in position to complete the drawer.

12. Glue the drawer handle (18) on to the middle of the drawer front (19)



13. Complete this stage as in steps 12 + 13 version 1. The quartz movement housing should be fitted so that it does not protrude over face.

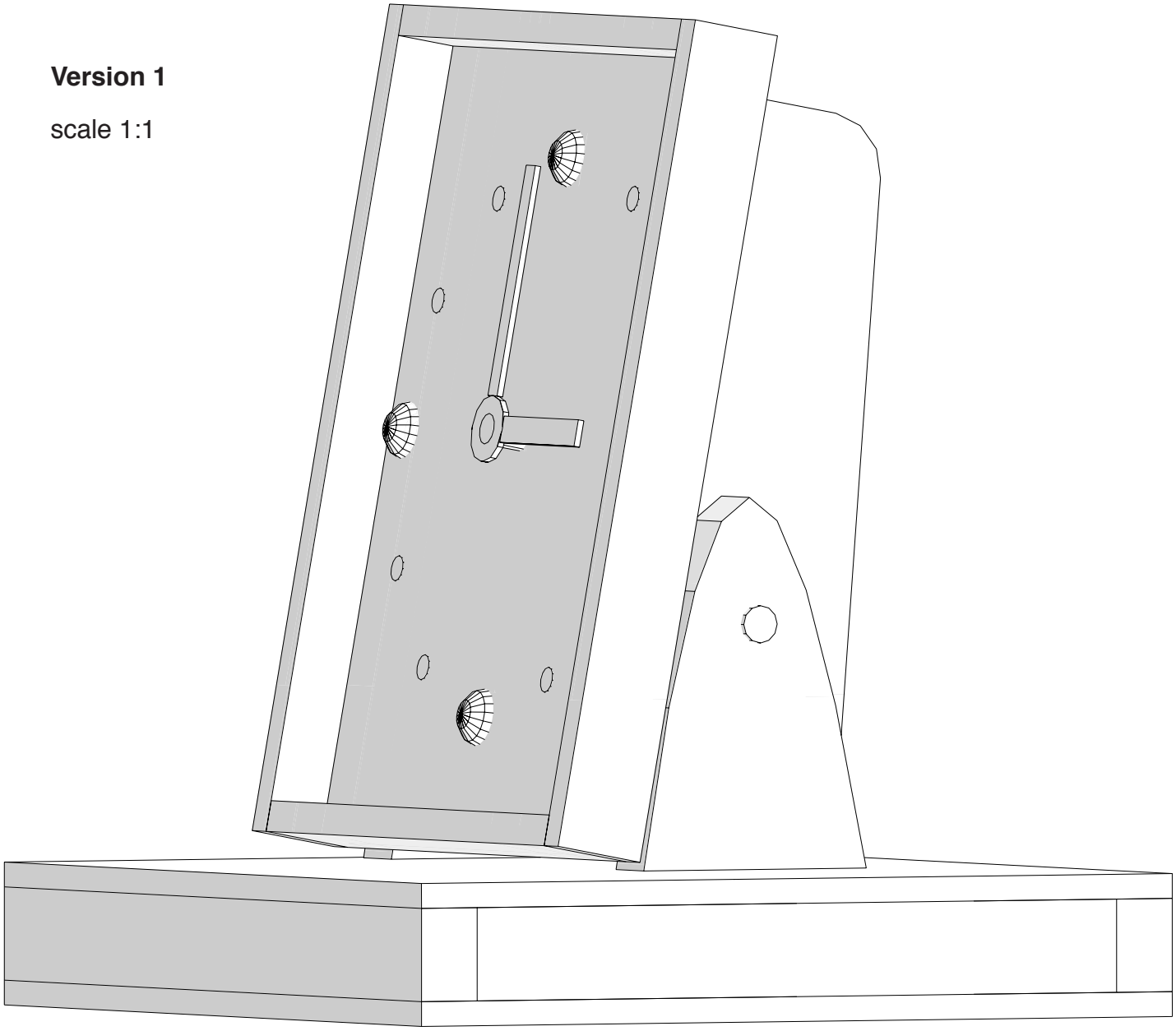
14. Insert the drawer, if it is sticky, sandpaper the sides so that it slides easily.

15. Complete as in step 14 in version 1

We recommend finishing the completed project with wood wax (transparent).

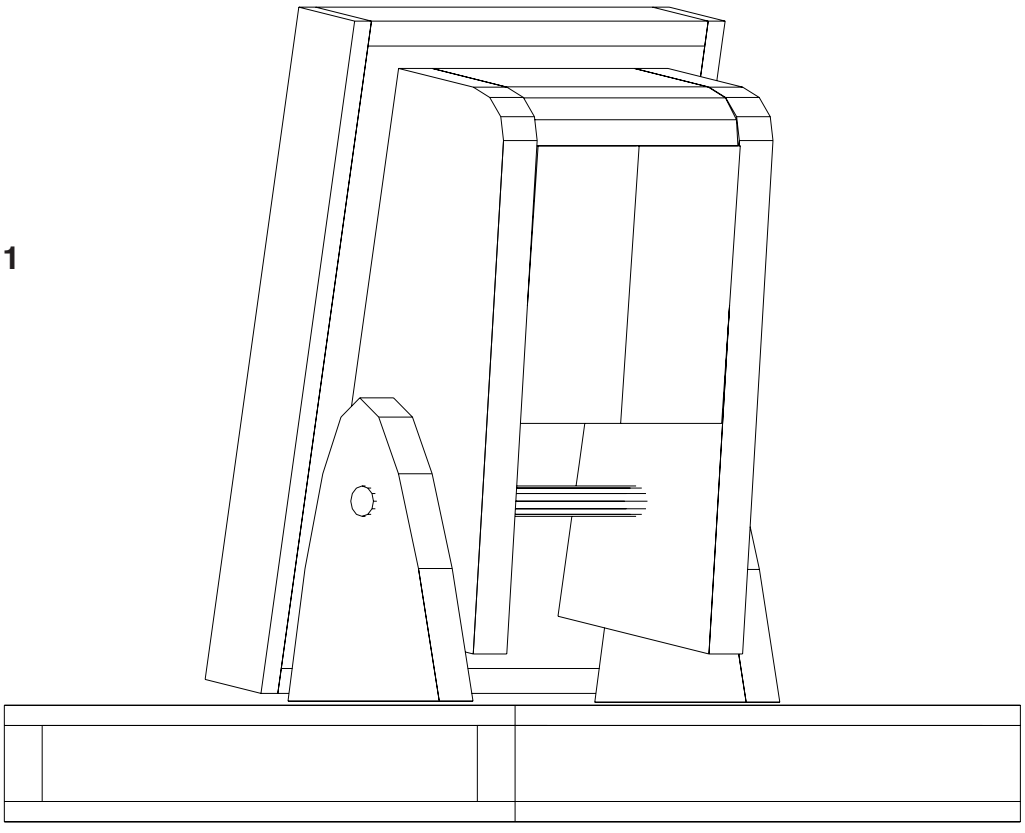
Version 1

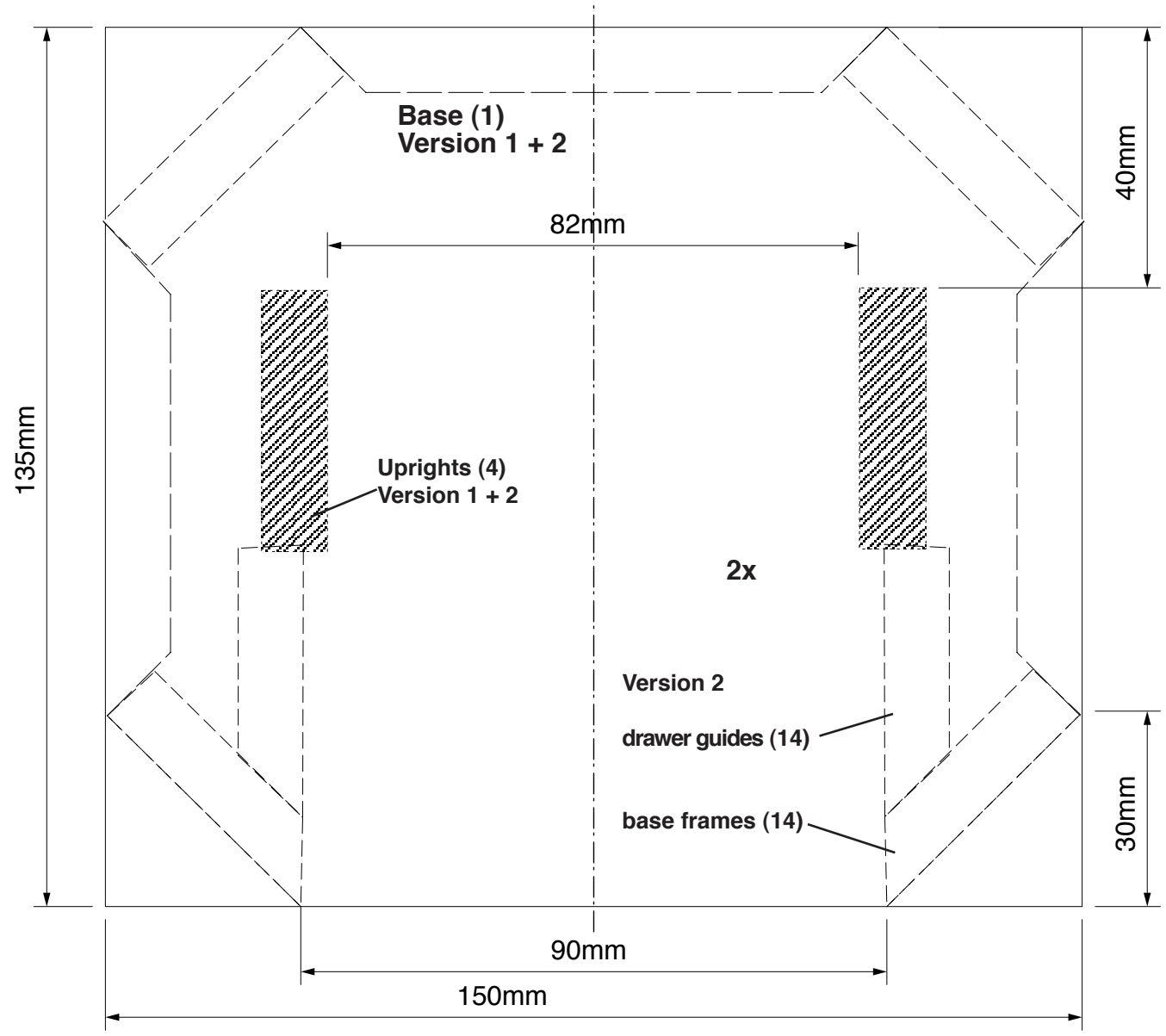
scale 1:1

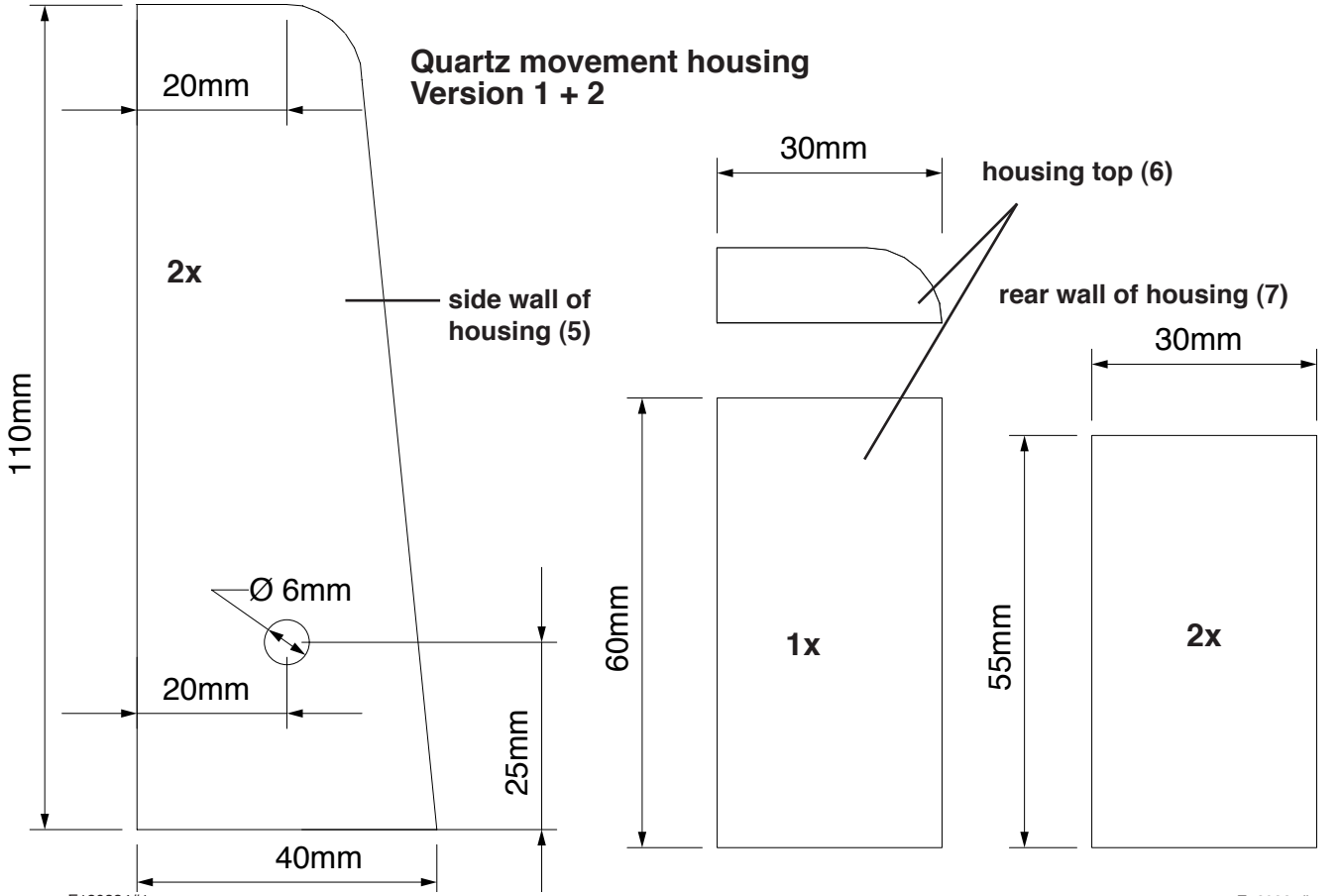


Version 1

back view




Base (1)
Version 1 + 2
82mm
40mm
135mm
Uprights (4)
Version 1 + 2
2x
Version 2
drawer guides (14)
base frames (14)
30mm
90mm
150mm


Quartz movement housing
Version 1 + 2
20mm
2x
side wall of
housing (5)
110mm
Ø 6mm
20mm
25mm
40mm
30mm
housing top (6)
rear wall of housing (7)
60mm
1x
30mm
55mm
2x

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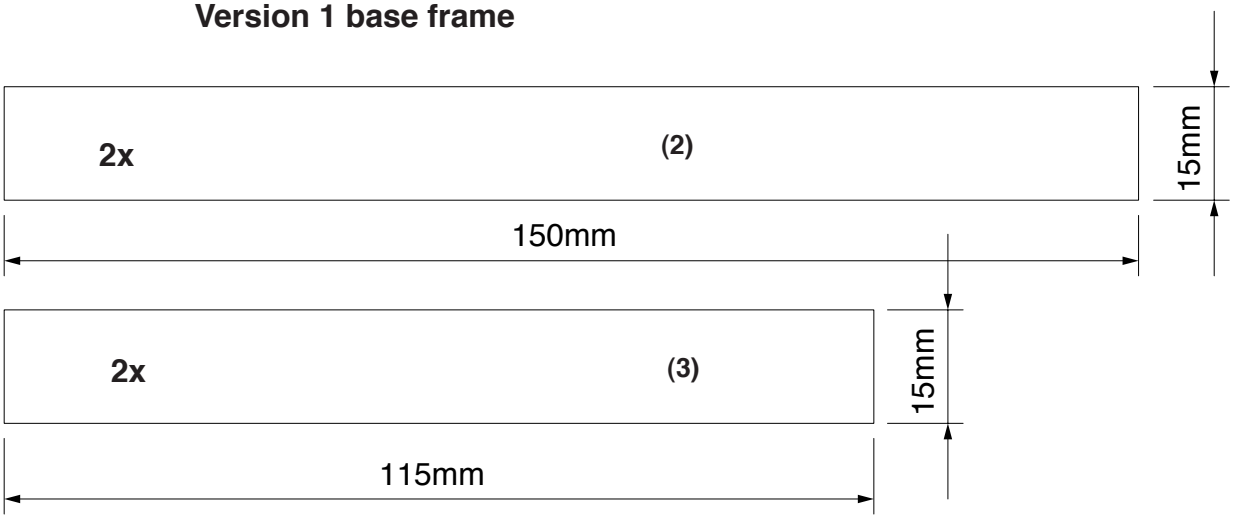
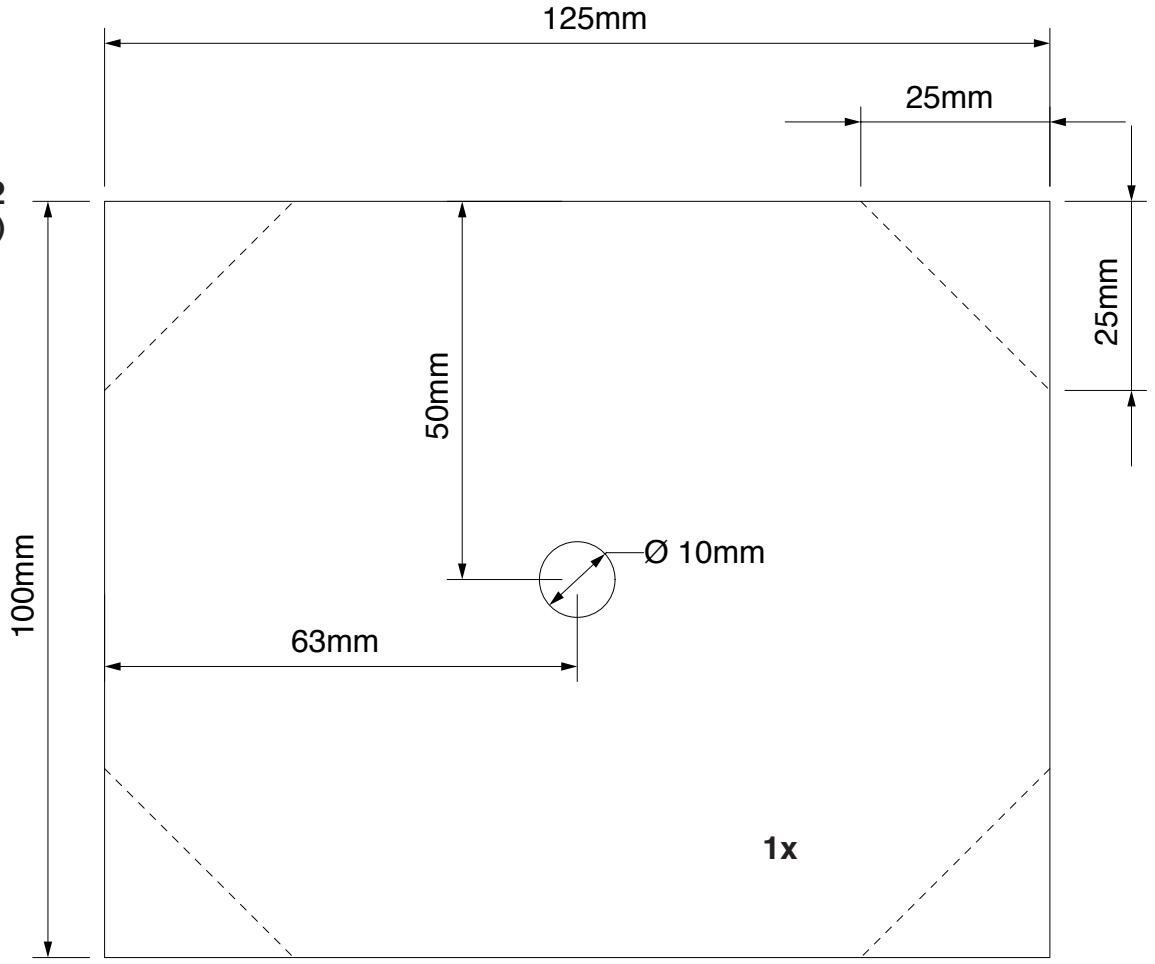
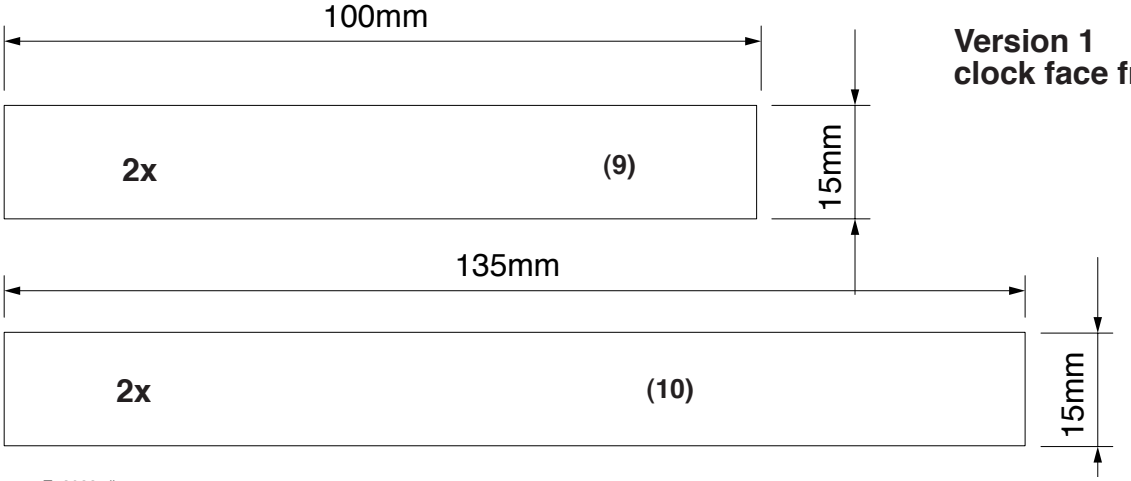
Version 1 base frame



Version 1 + 2 clock face (8)



Version 1 clock face frame



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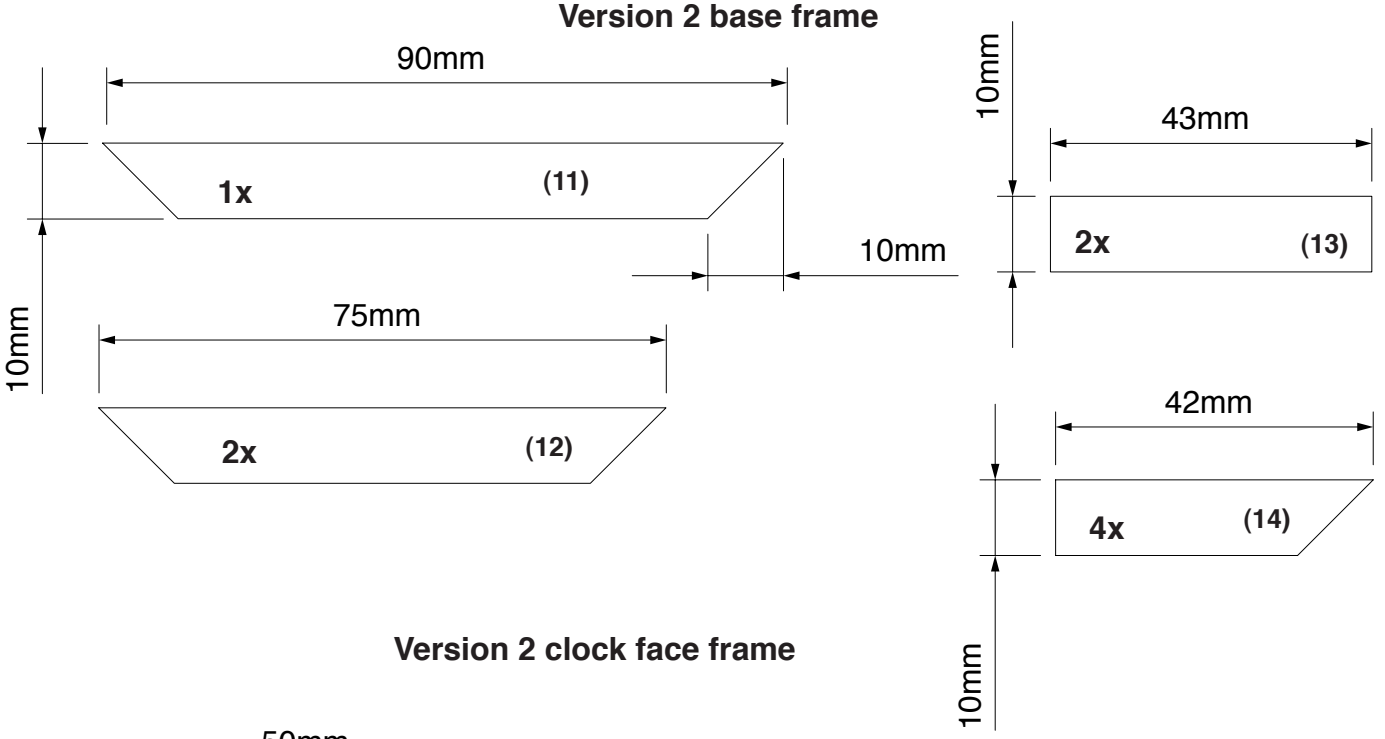
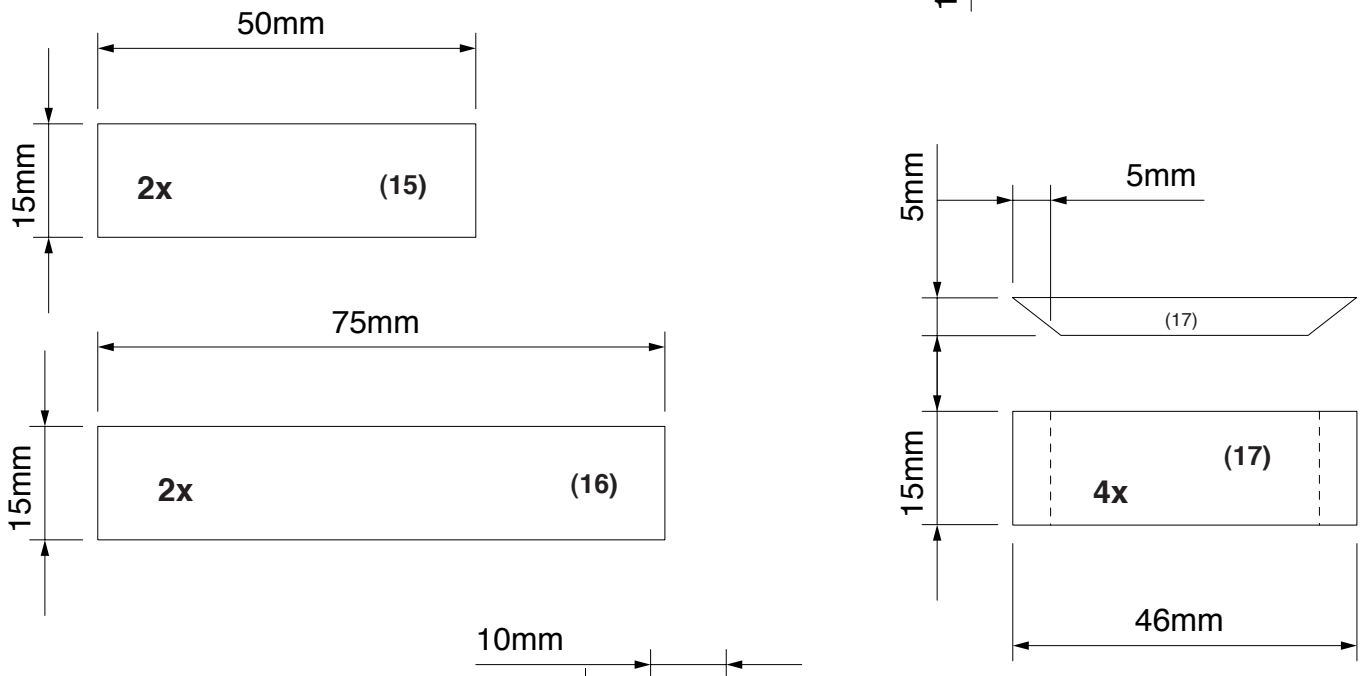
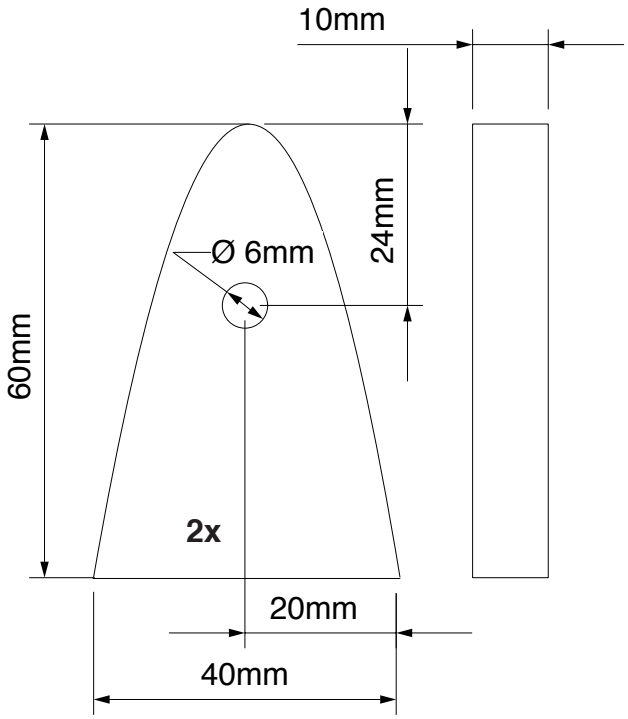
Version 2 base frame



Version 2 clock face frame





Version 1 + 2 uprights (4)

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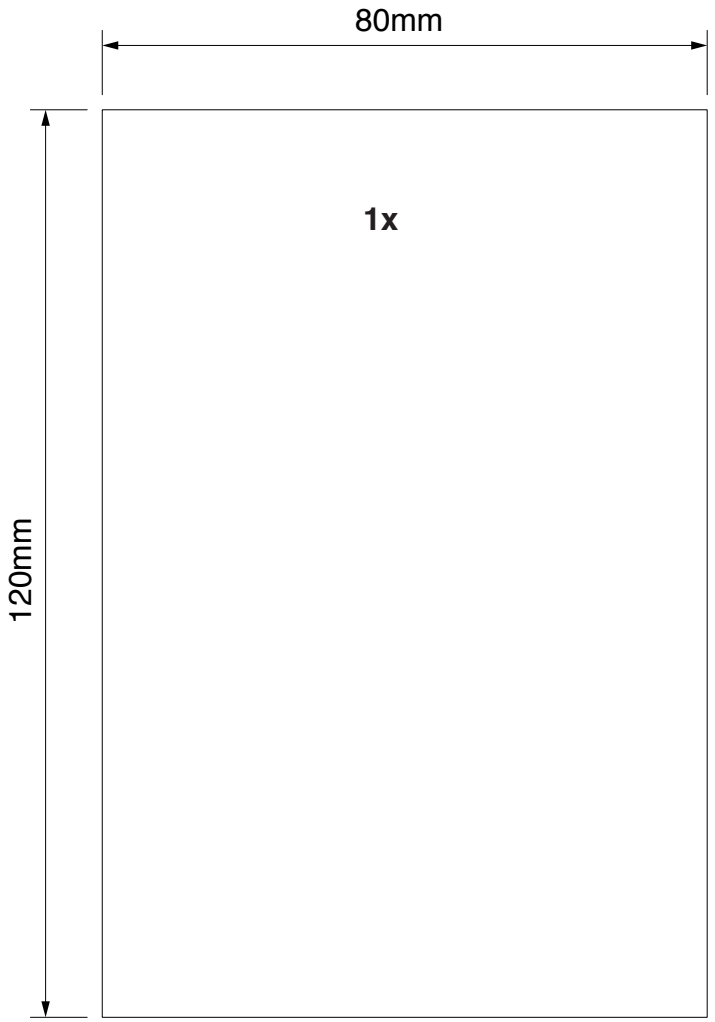
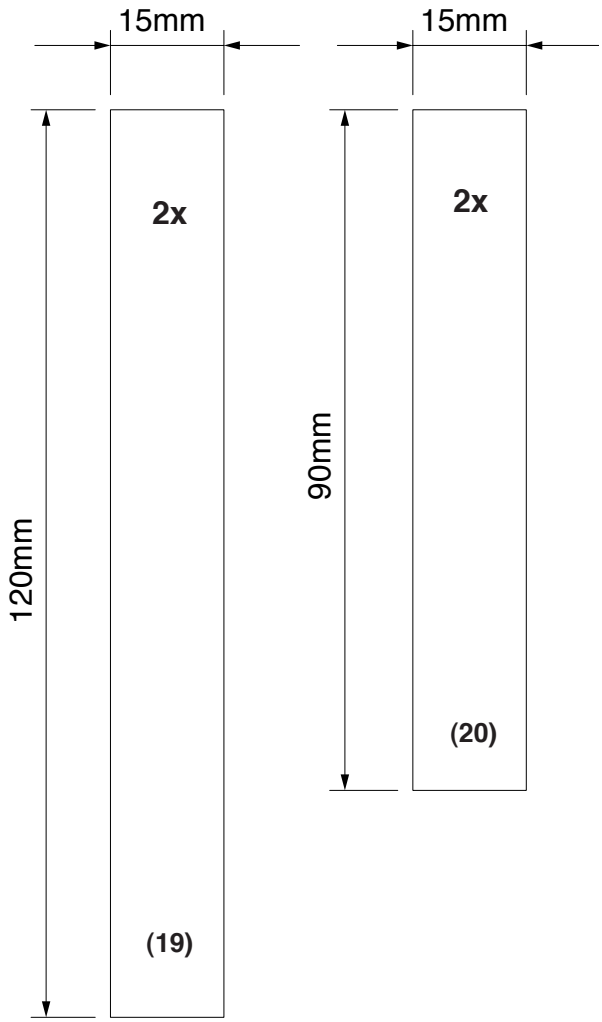
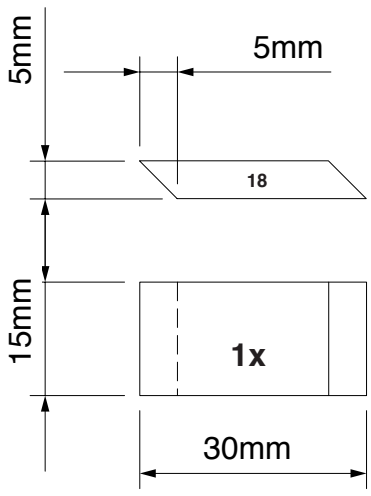
Version 2 drawer

base (21)



frame parts





handle (18)