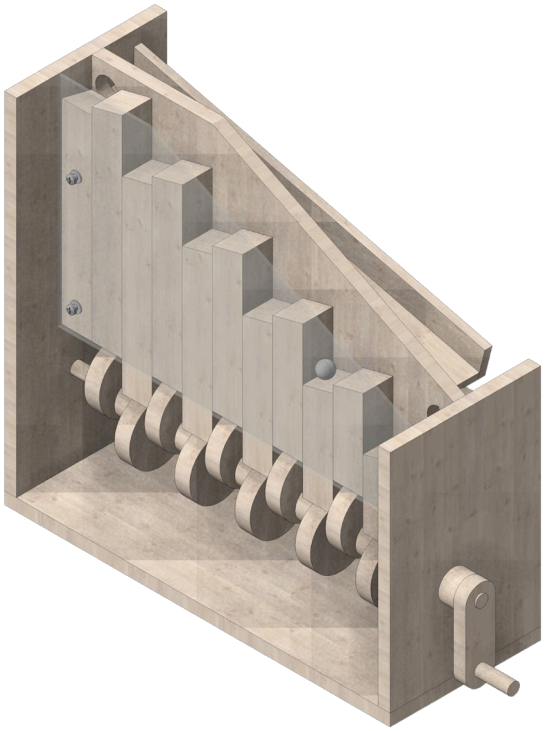
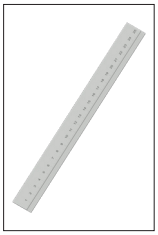
124.373

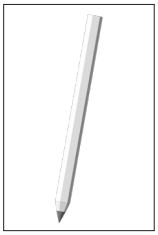
Step ball track



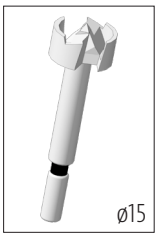
Tools required:


Scissors

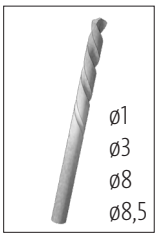

Ruler


Pencil

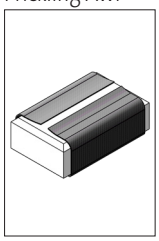

Prickling Awl

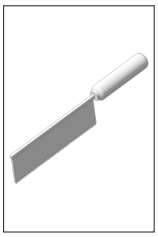


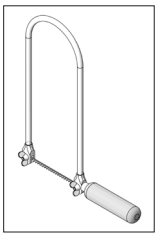
Forstner Drill



Twist drill


Sand paper


Precision saw


Jigsaw


Screwdriver


Wood Glue

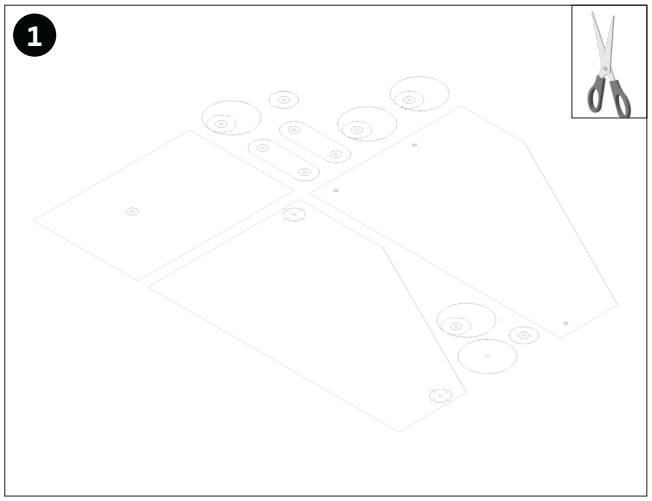

Adhesive tape

NOTE:

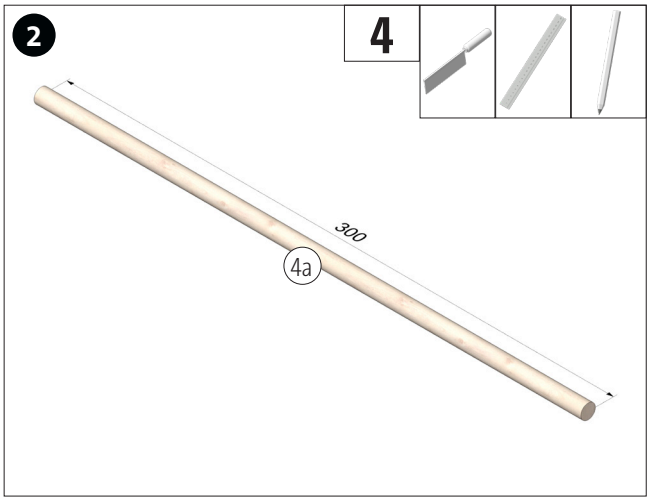
After completion, the OPITEC work kits are not articles with toy character of a generally commercial kind, but teaching and learning aids to support educational work. This kit may only be built and operated by children and young people under the guidance and supervision of competent adults. Not suitable for children under 36 months. Danger of suffocation!

Parts list	Quantity	Dimensions (mm)	Designation	Part no.
Plywood panel	1	400x300x8		1
Wooden strip	6	250x20x20		2
Wooden strip	2	250x20x5		3
Wooden round stick	1	ø8x500		4
Wooden wheel	10	ø40x10		5
Wooden wheel	11	ø20x10		6
Acrylic glass	1	300x210x2		7
Steel ball	1	ø10		8
Screw	3	ø2,9x9,5		9
Washer	3	ø7 / ø3.2 inside		10

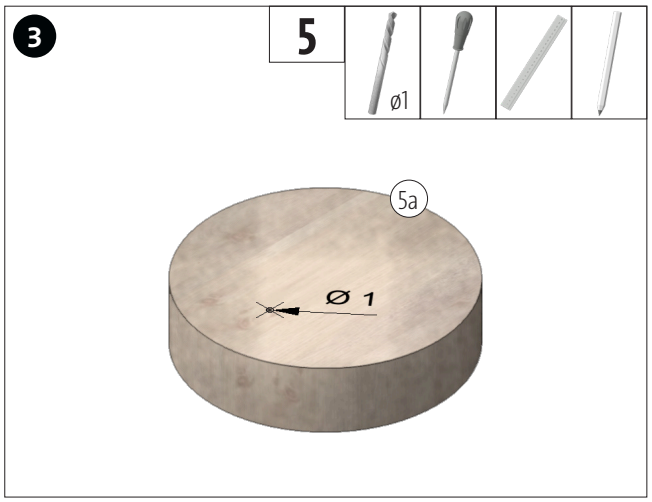
OPITEC



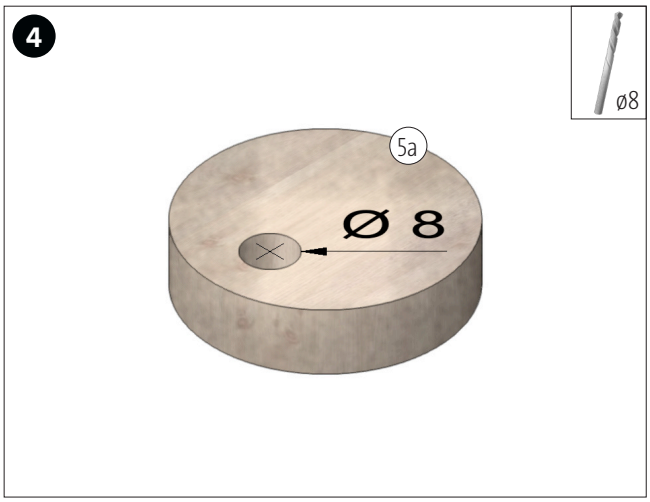
Cut out all templates (A - G).



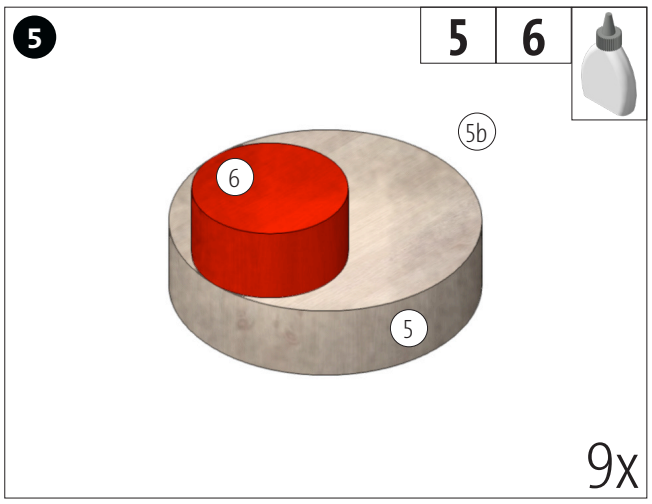
Cut the wooden rod (4) to length as shown. Clean saw cuts.



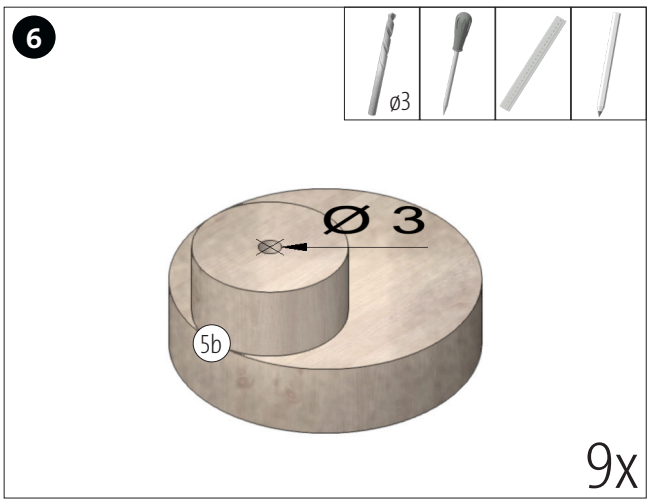
Prick the wooden wheel (5) according to template (A) and pre-drill with ø1 mm.



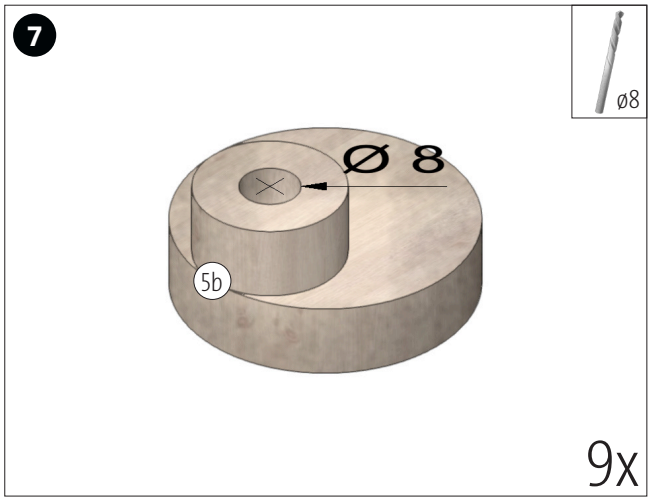
Drill out the hole with ø8 mm.



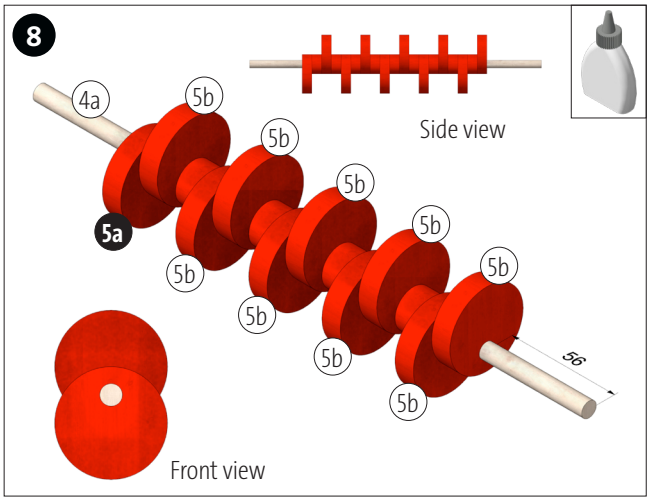
Glue the wooden wheel (6) onto the wooden wheel (5) according to the template (A).



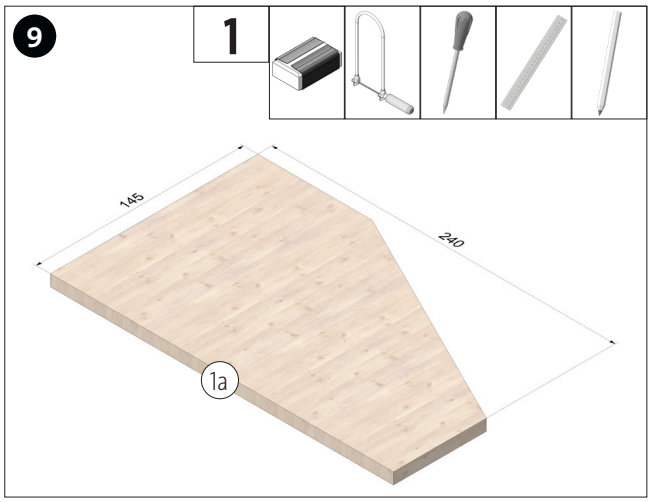
Prick the finished part (5b) according to the template (A) and carefully drill through.



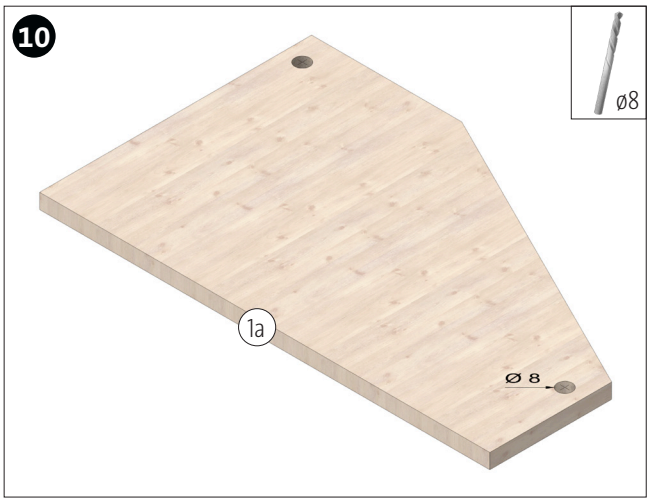
Drill out the hole (ø3 mm) with ø8 mm.



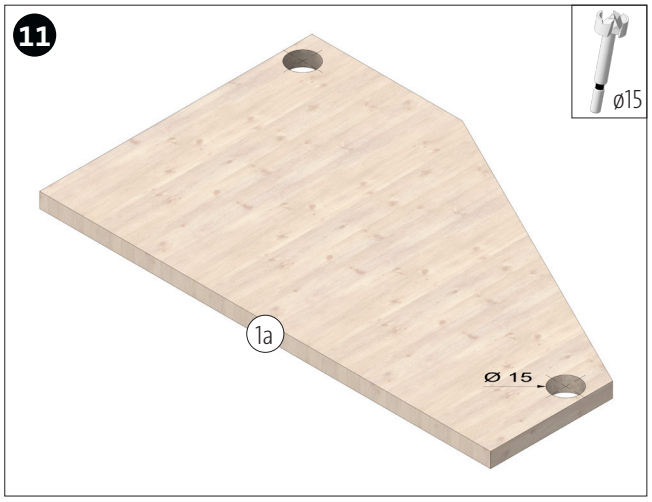
Glue the wooden wheels (5a / 5b) to the wooden rod (4a) as shown.
ATTENTION: Pay attention to the alignment of the wooden wheels!



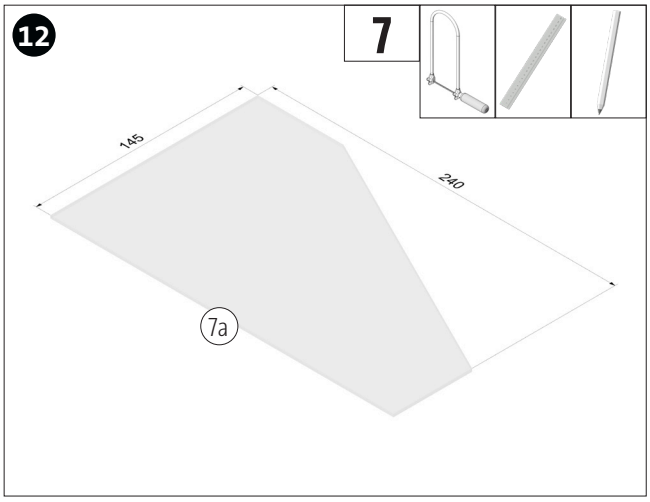
Transfer the template (B) to the plywood panel (1) and saw out. Pre-drill the holes. Clean saw cuts.
NOTE: Observe the cutting plan (H)!



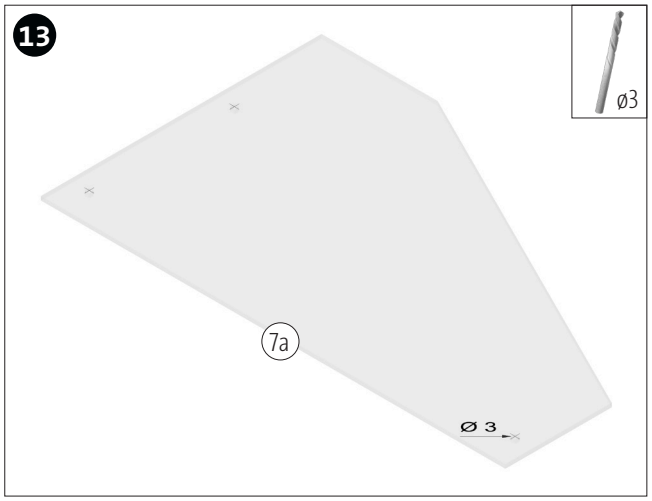
Pre-drill the plywood board with ø8 mm.



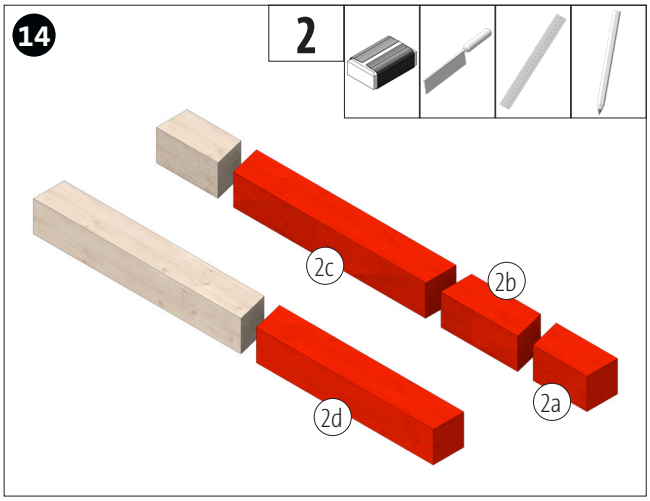
Drill out the holes with ø15 mm.



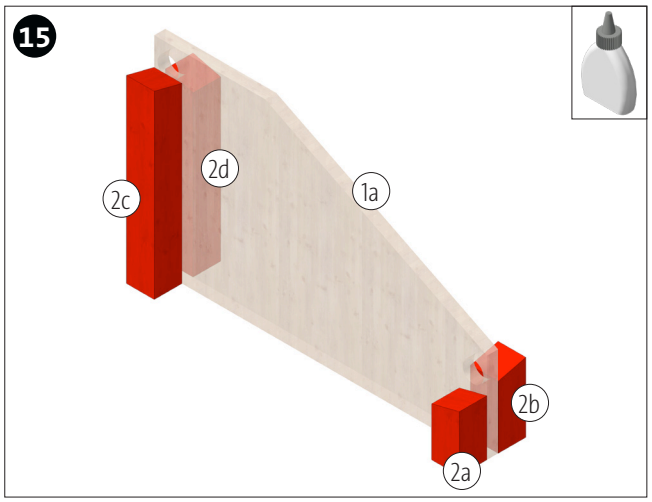
Transfer the template (C) to the acrylic glass (7) and saw out.



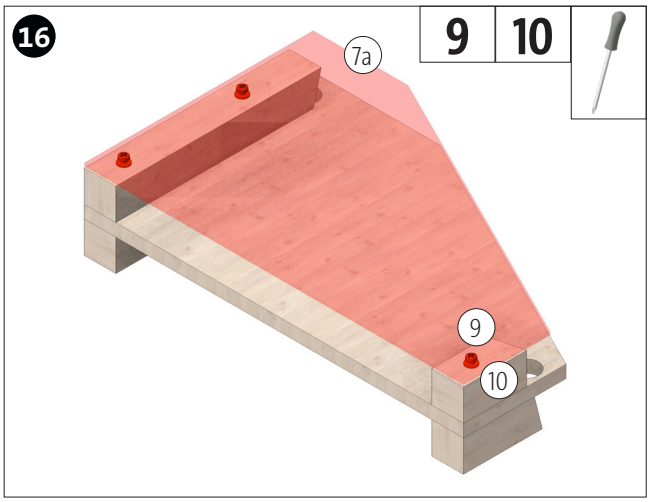
Drill the acrylic glass according to the template.



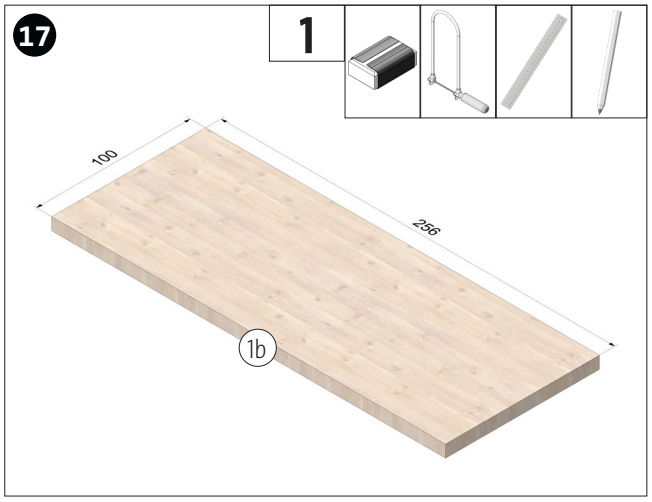
Cut wooden strips (2) to length as shown. Clean saw cuts.



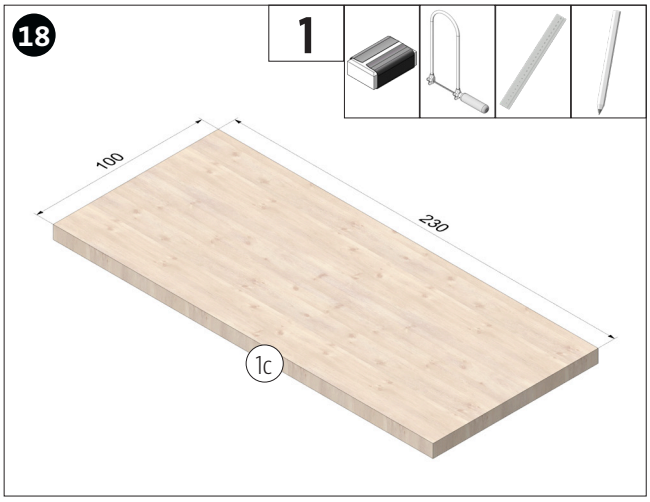
Glue the wooden strips (2a - 2d) to the plywood panel (1a) as shown.



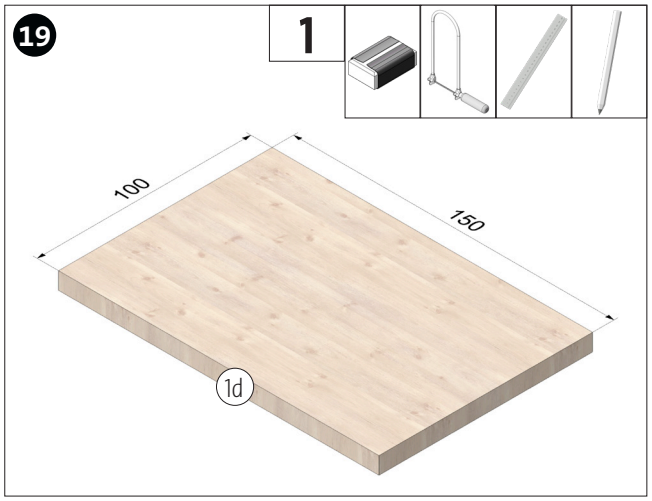
Fasten the acrylic glass (7a) with the screws (9).
NOTE: Place the washer (10) between the acrylic glass and the wooden strip!



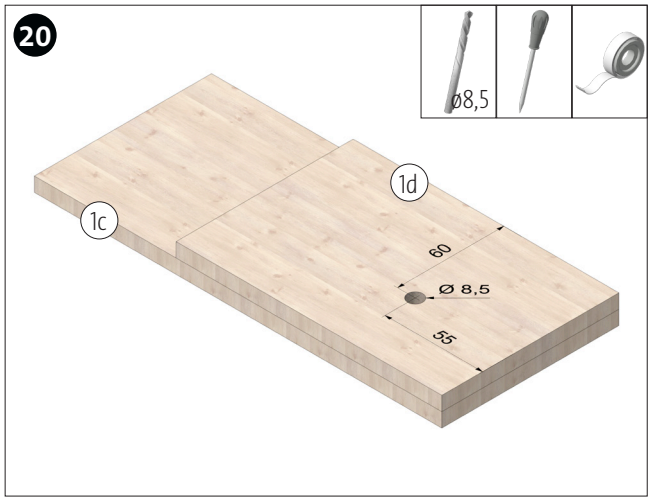
Transfer the dimensions to the plywood (1) and saw out.
NOTE: Observe the cutting plan (H)! Clean saw cuts.



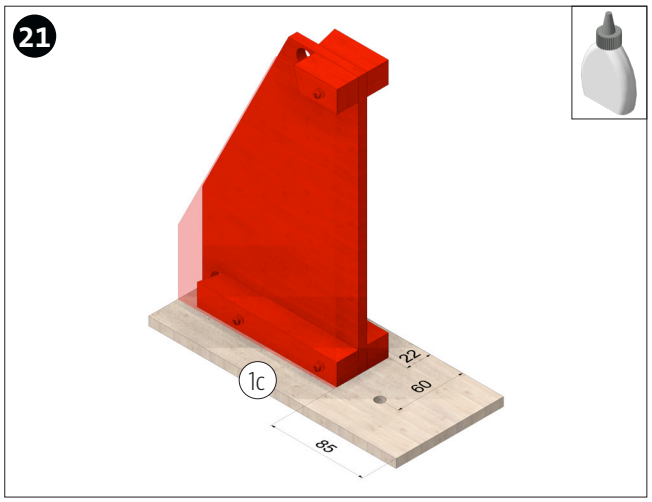
Transfer the dimensions to the plywood (1) and saw out.
NOTE: Observe the cutting plan (H)! Clean saw cuts.



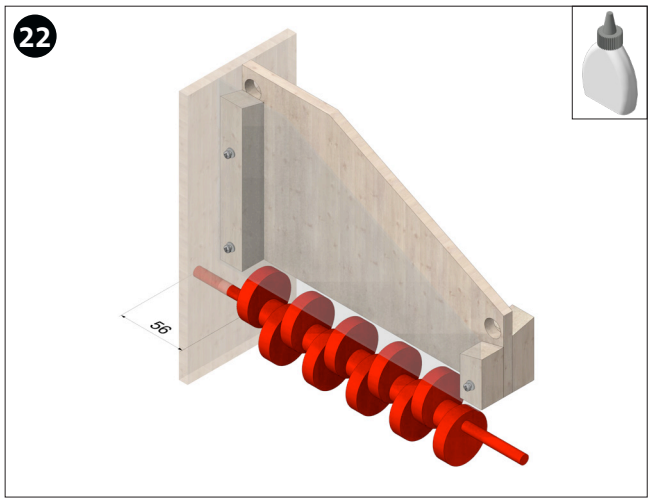
Transfer the dimensions to the plywood (1) and saw out. Clean saw cuts.
NOTE: Observe the cutting plan (H)!



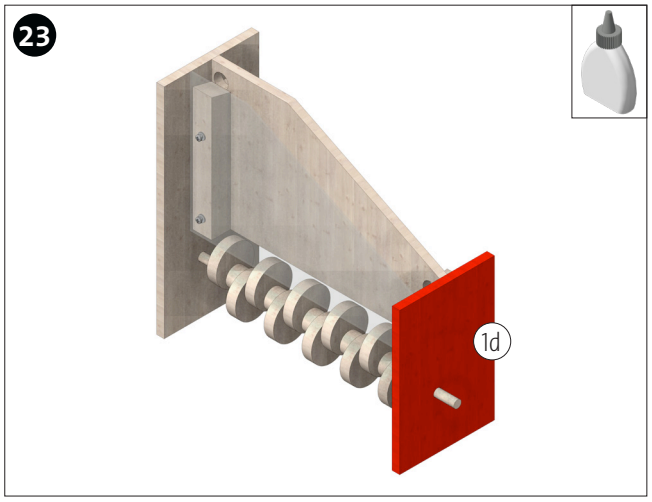
Transfer the template (D) to the plywood panel (1d) and fix it to the plywood panel (1c) with adhesive tape as shown. Pre-pierce the hole and drill together.



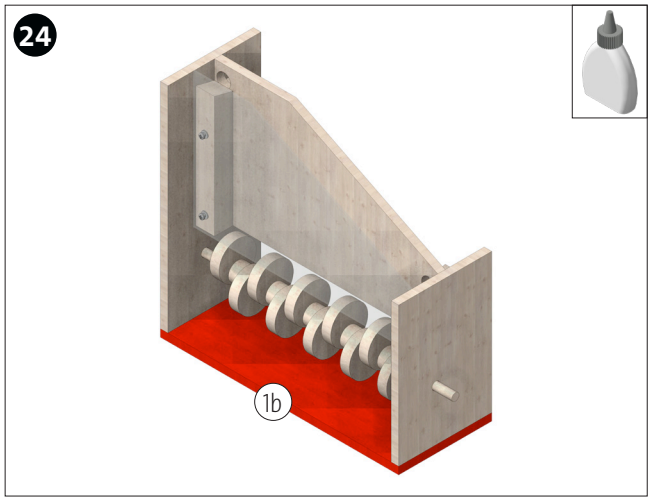
Glue the intermediate piece to the plywood panel (1c) as shown.



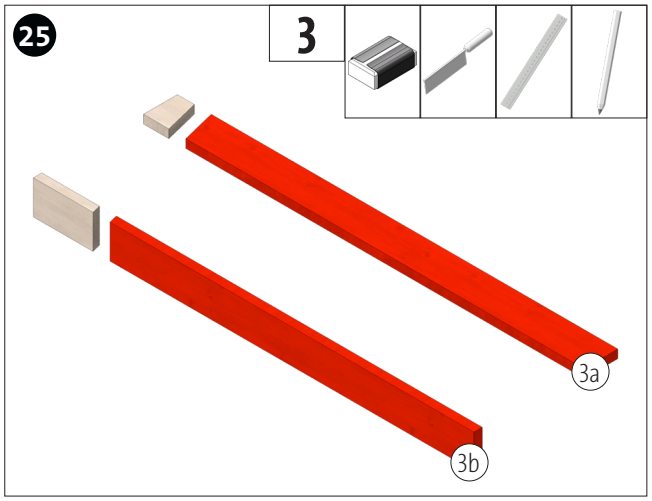
Insert the prefabricated shaft into the hole.



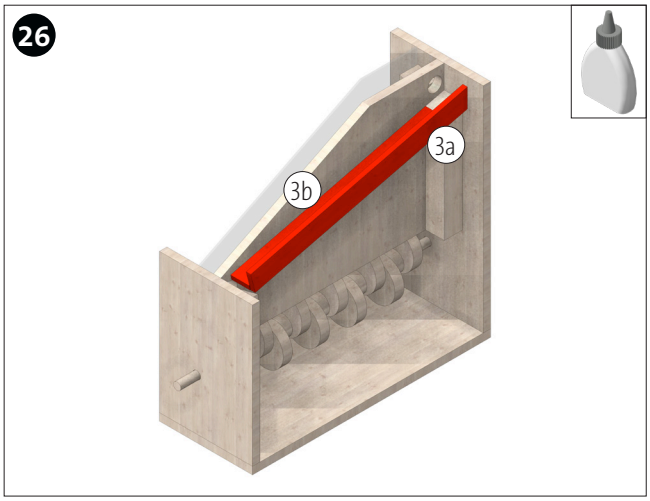
Glue the plywood panel (1d) as shown.
ATTENTION: Pay attention to the alignment of the shaft!



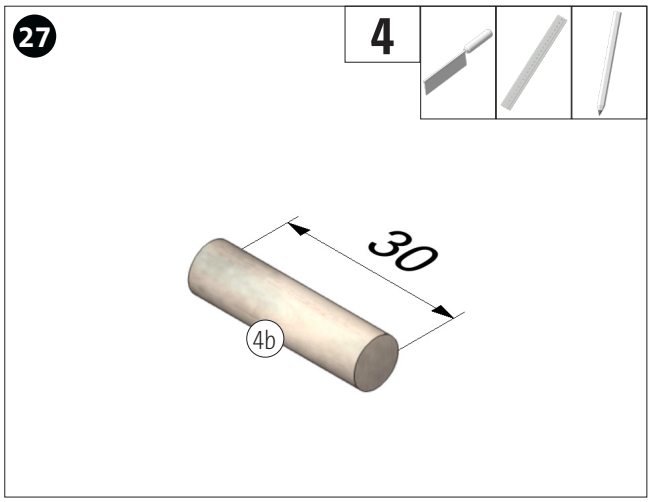
Glue the housing to the plywood panel (1b). Then test whether the shaft can be rotated. Rework if necessary.



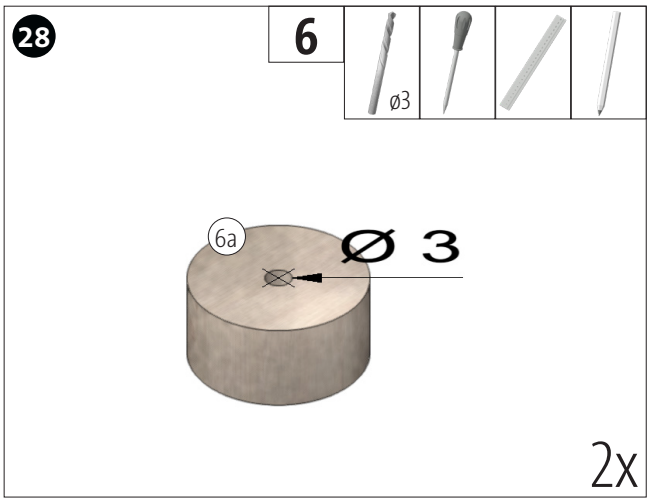
Cut and bevel the wooden strip (3) as shown. Clean saw cuts.



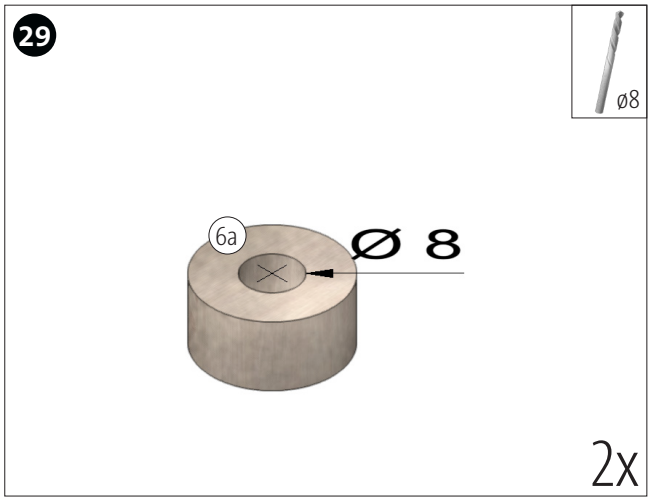
Glue the wooden strips (3a / 3b) to the housing as shown.



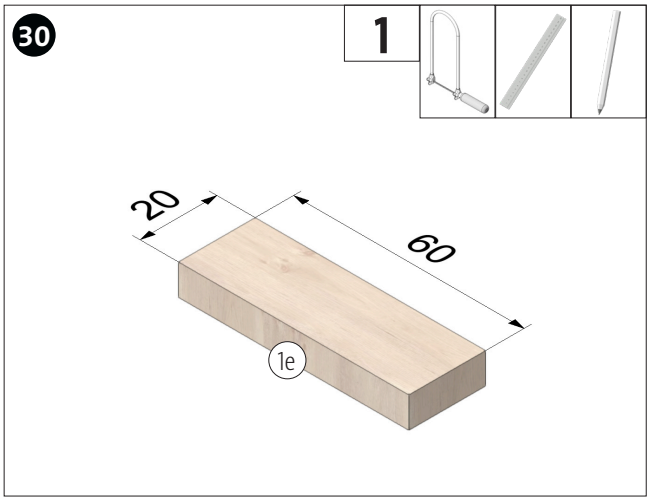
Cut the wooden rod (4) to length. Clean saw cuts.



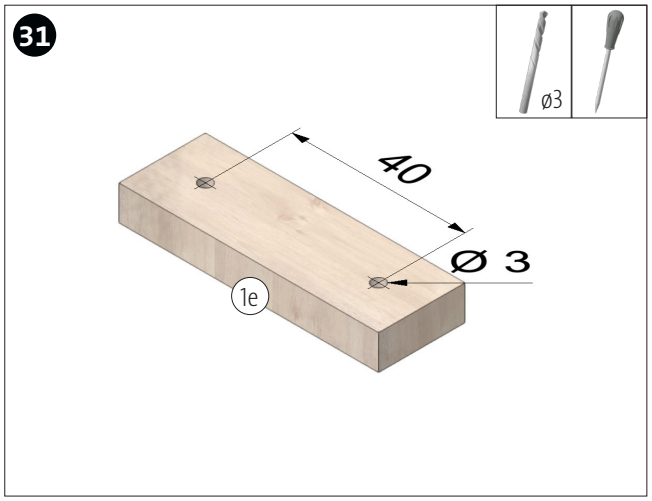
Prick the wooden wheel (6) according to template (E) and pre-drill with ø3 mm.



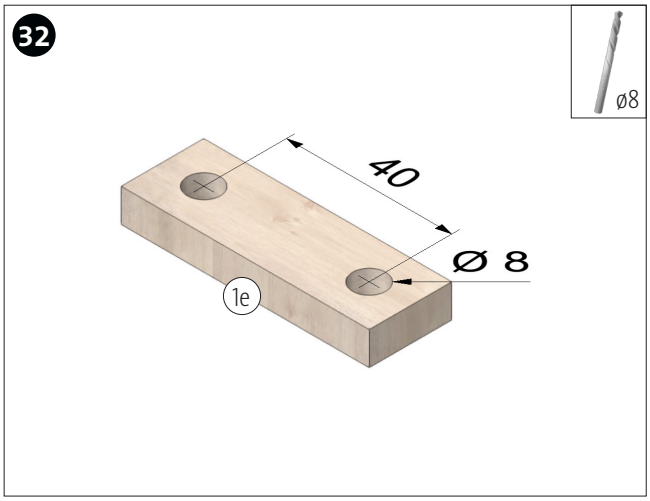
Drill out the hole with ø8 mm.



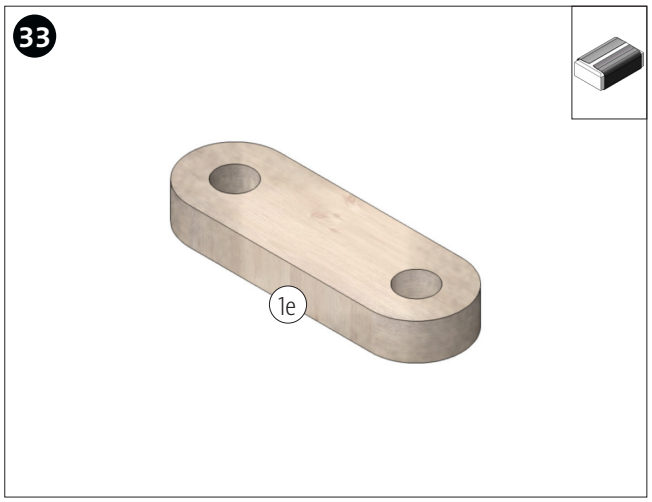
Transfer the dimensions to the plywood panel (1) and saw out. Pre-drill the holes. Clean saw cuts.



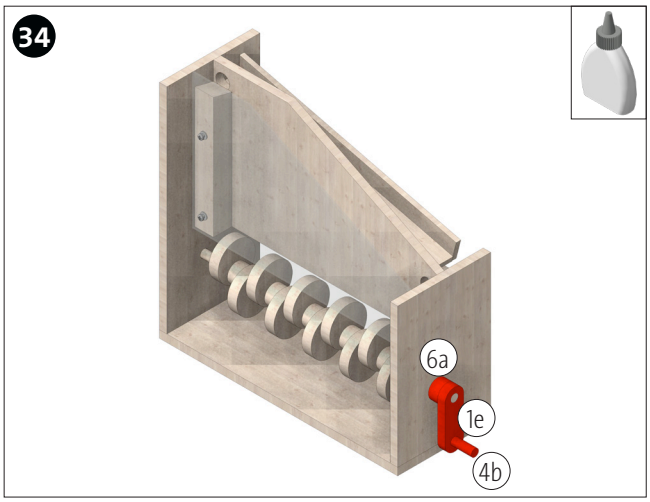
Transfer the template (F) to the plywood sheet. Pre-drill the holes with ø3 mm.



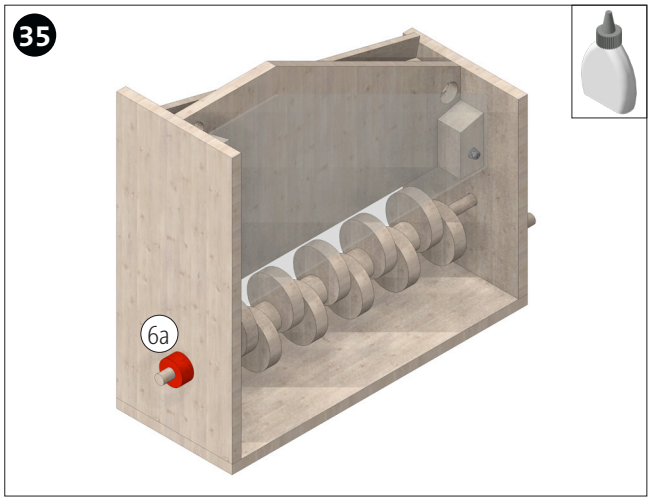
Drill out the hole with ø8 mm.



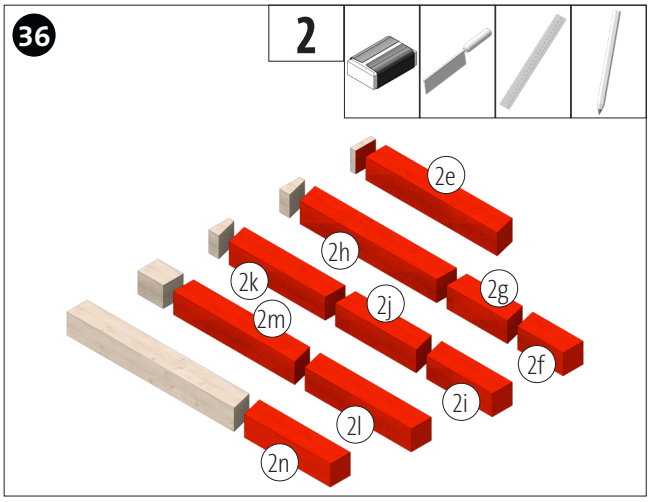
Round the plywood panel (1e) according to the template (F).



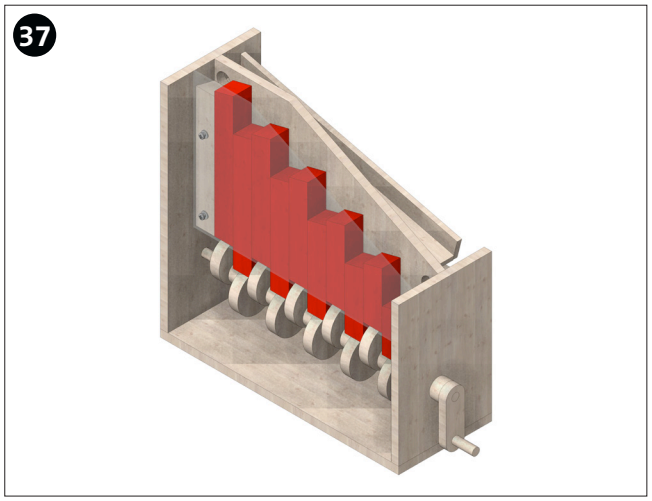
Glue the hand crank to the shaft as shown.
NOTE: The hand crank must not be glued to the housing.



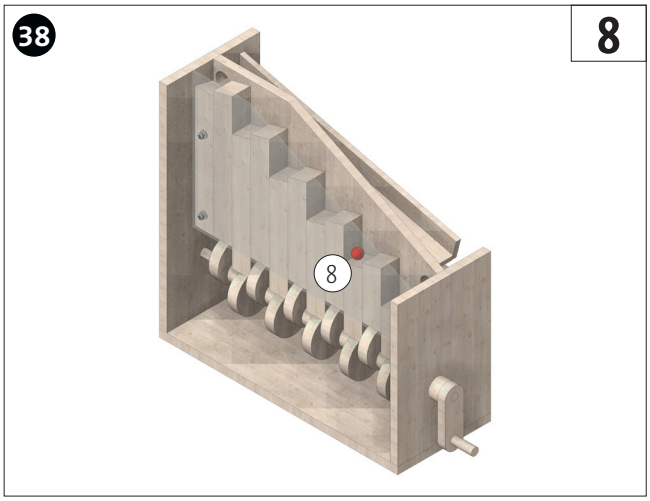
Glue the wooden wheel (6a) onto the shaft as shown.
NOTE: The hand crank must not be glued to the housing.



Saw the wooden strips (2) as shown. Clean saw cuts.

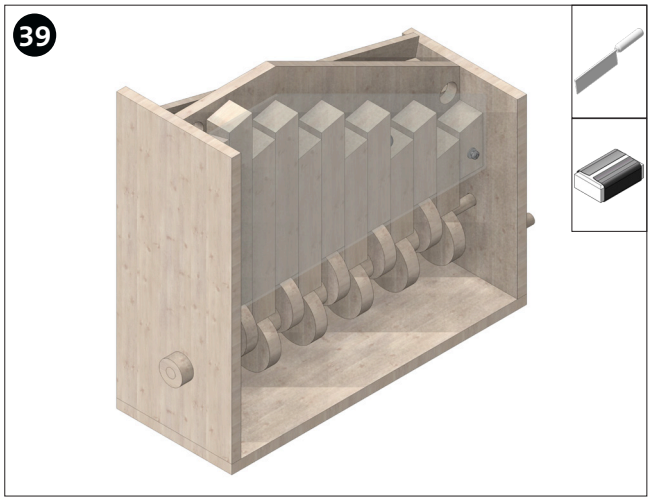


Insert the wooden strips (2e - 2n) into the housing as shown.
NOTE: Sort the wooden slats by length!

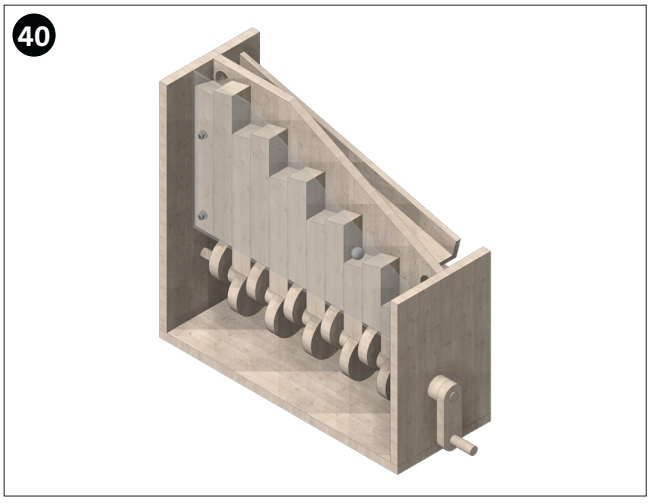


Place the steel ball (8) in the ball track and test the function.

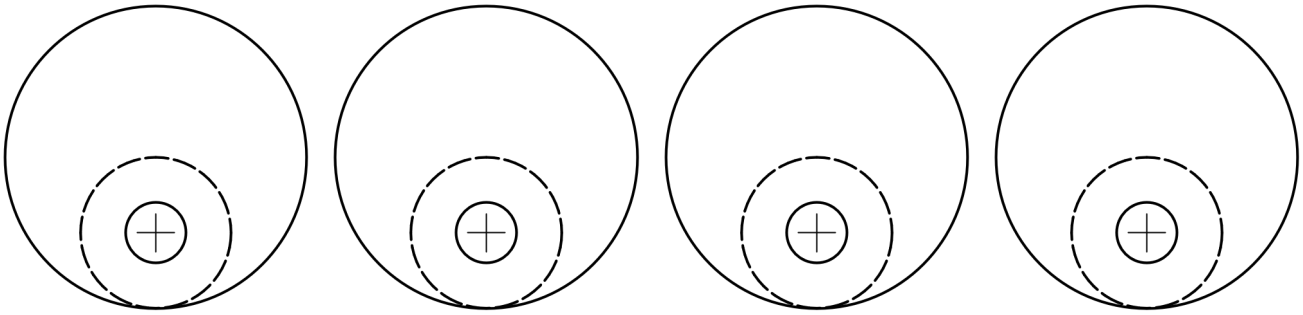
ATTENTION: Only carry out the following step if the stepped ball track drive set is not to be installed.

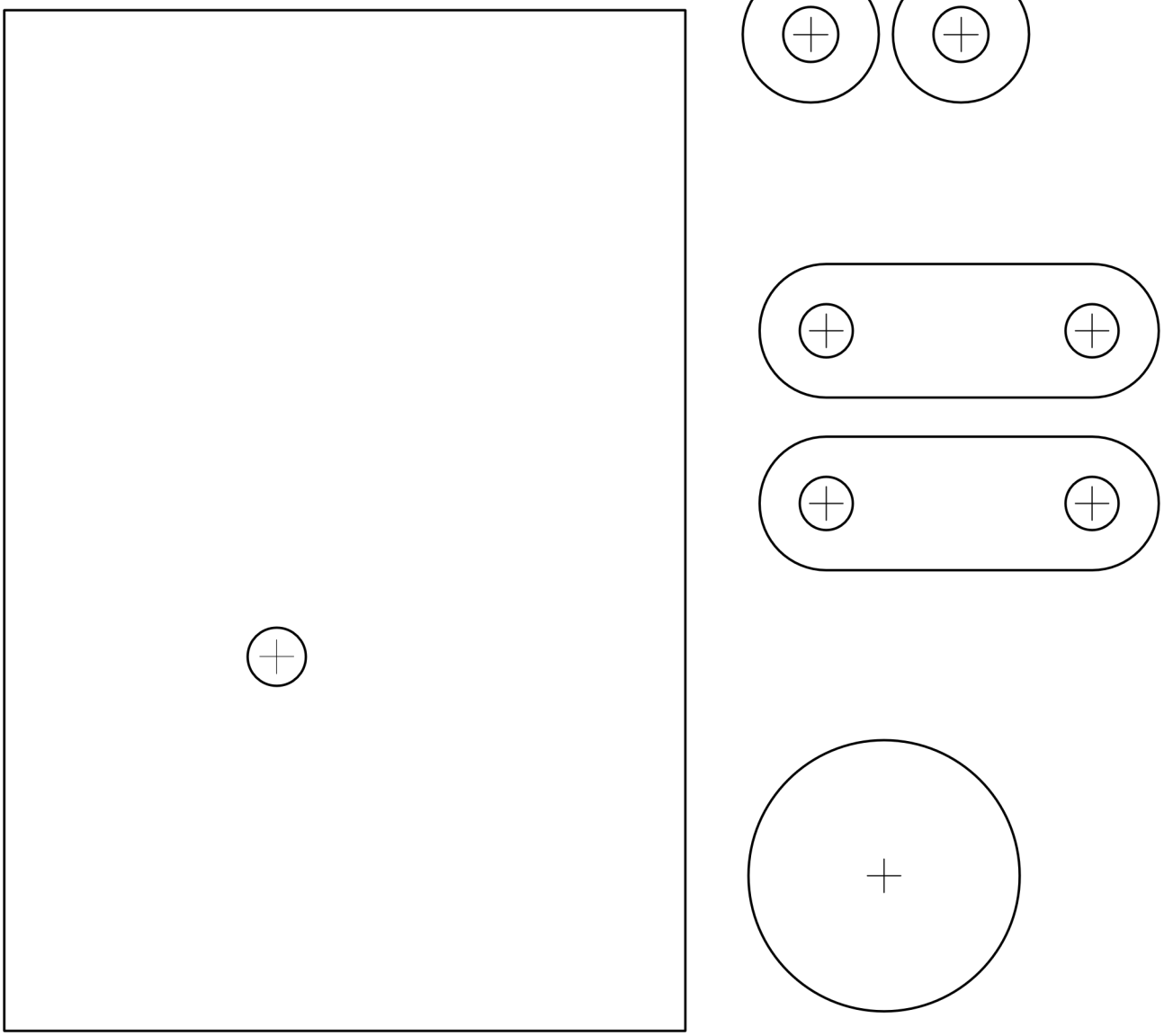


Saw off the protruding wooden rod flush. Clean saw cuts.

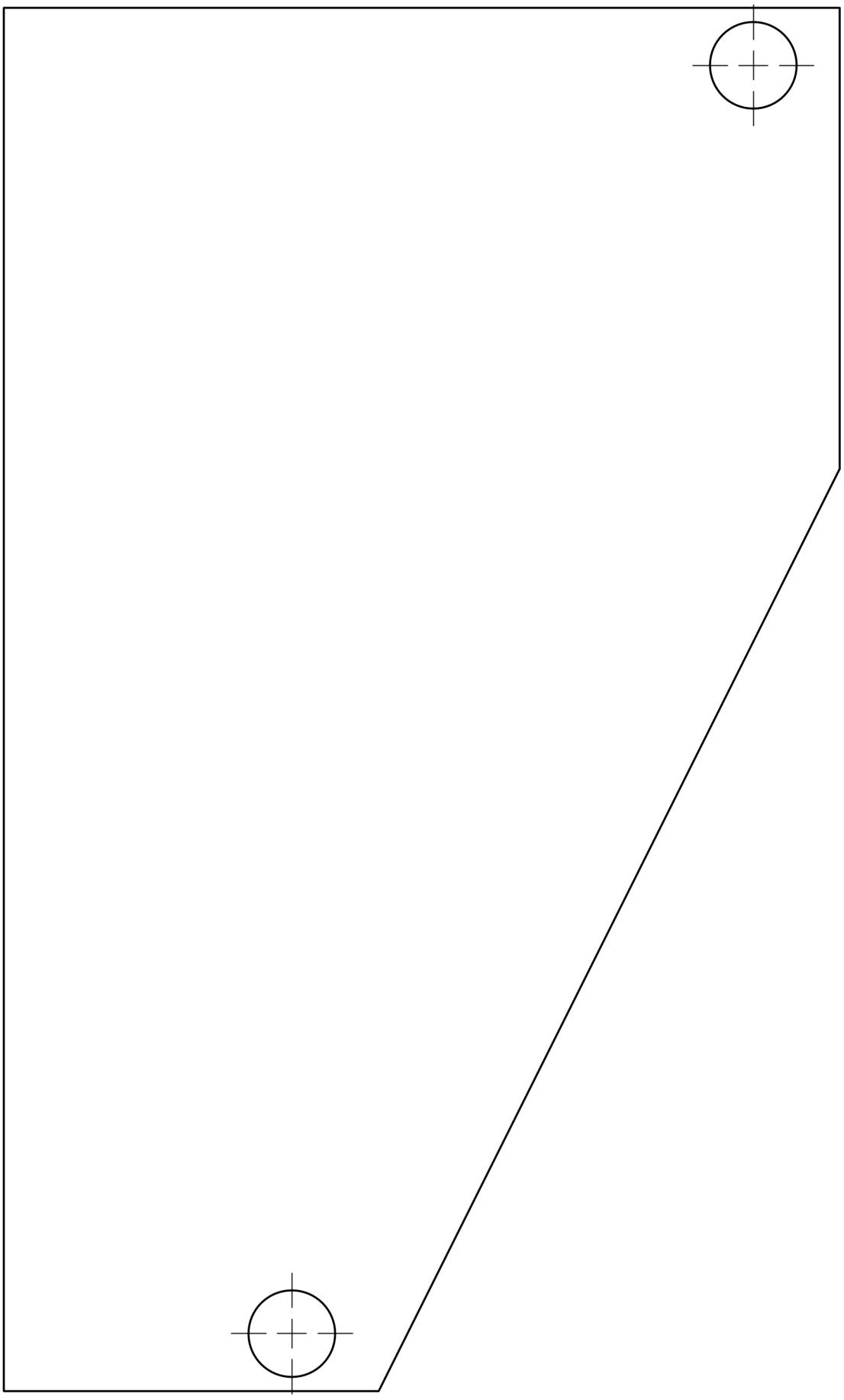


DONE!

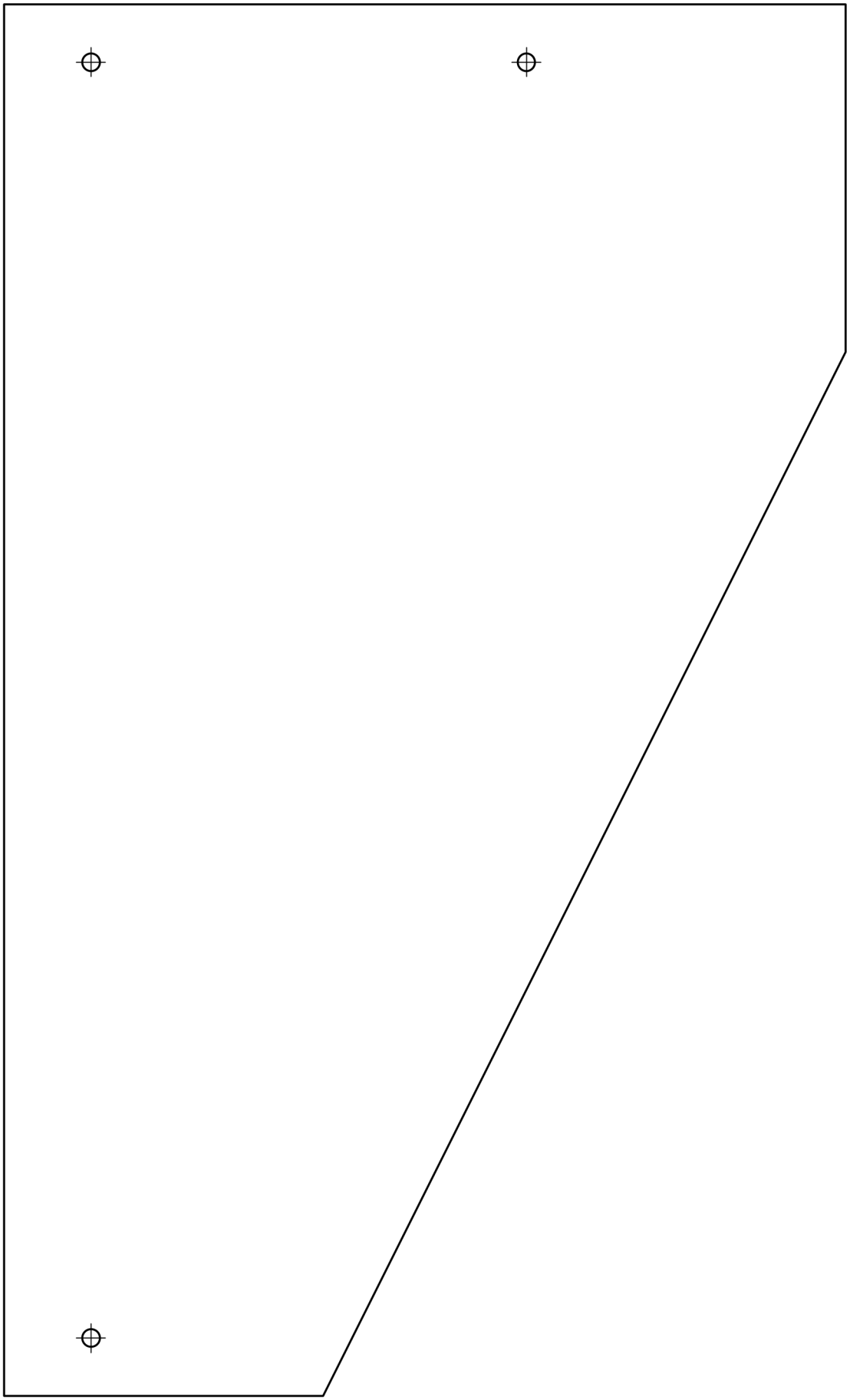




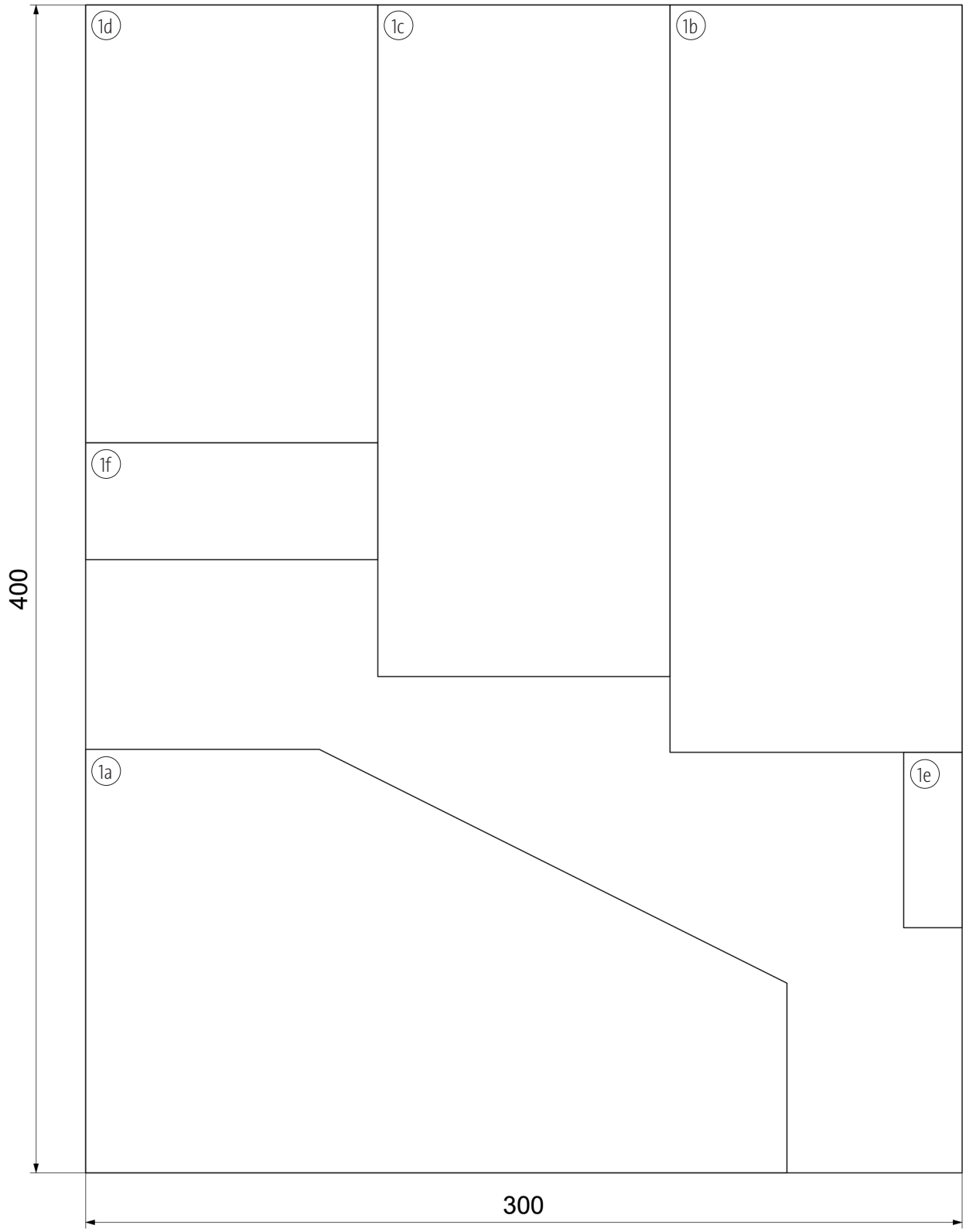
OPITEC

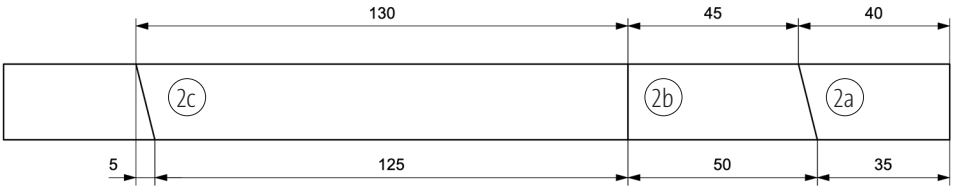


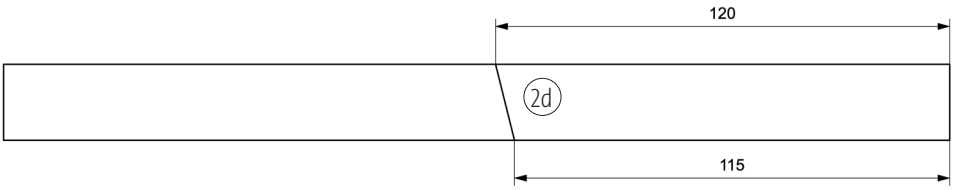
OPITEC



OPITEC


1d
1c
1b
1f
1a
1e
400
300


130
45
40
2c
2b
2a
5
125
50
35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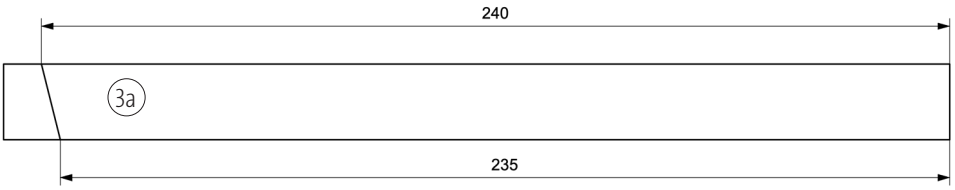
2d
115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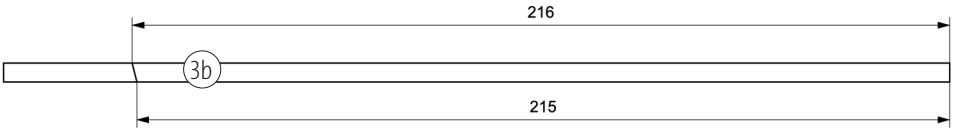
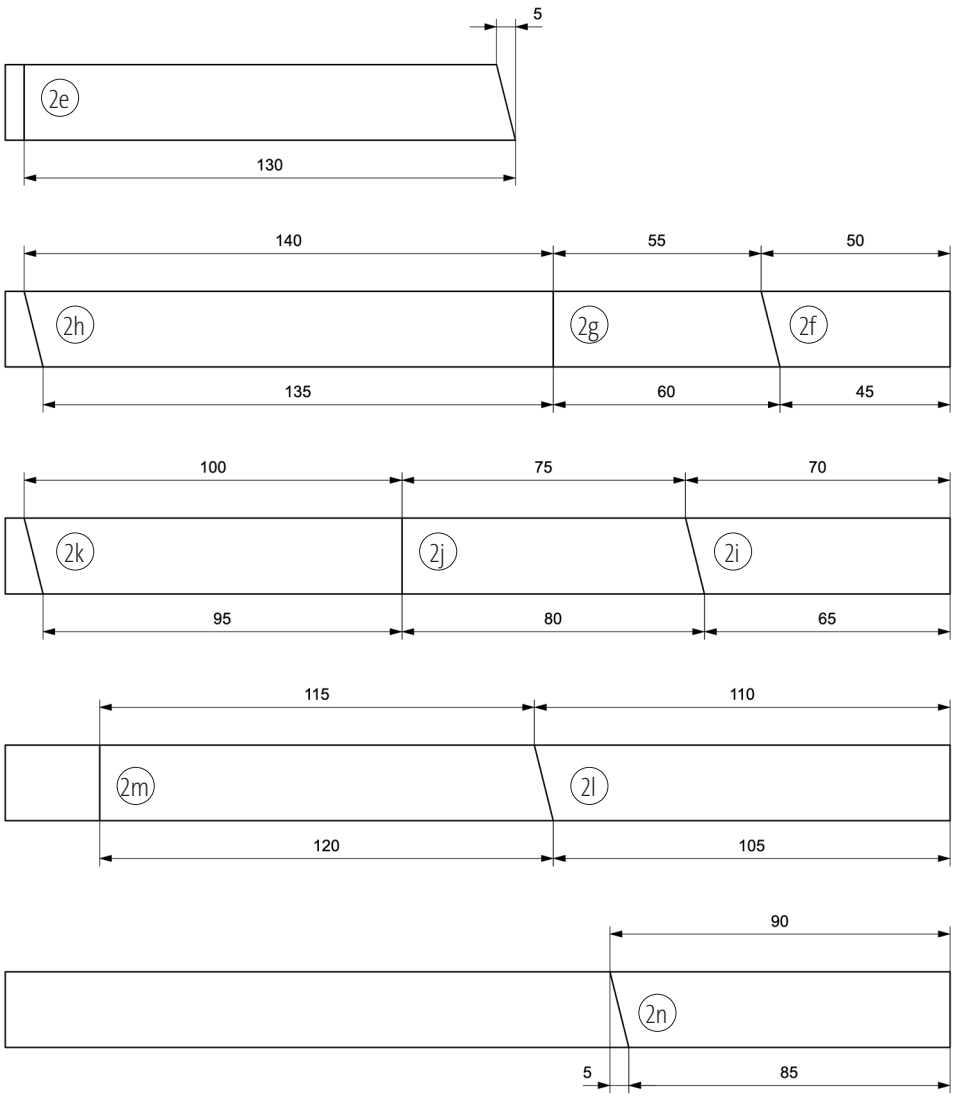

216
3b
215


5
2e
130
140
55
50
2h
2g
2f
135
60
45
100
75
70
2k
2j
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80
65
115
110
2m
2l
120
105
90
2n
5
85