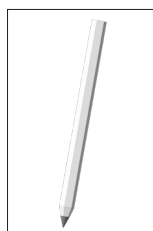


126,490

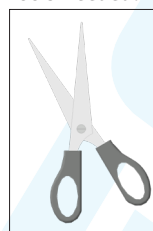
# Quartz pendulum wall clock with flashing LED



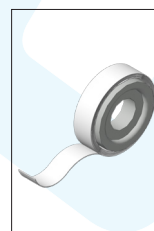
## Tools Needed:



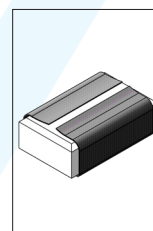
pencil



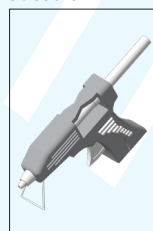
scissors



duct tape



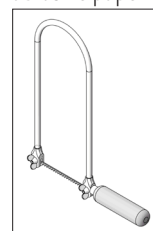
abrasive paper



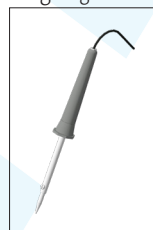
Hot glue gun



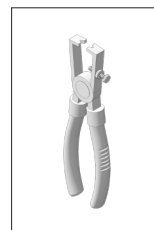
drill



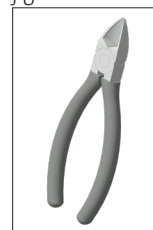
jigsaw



soldering iron



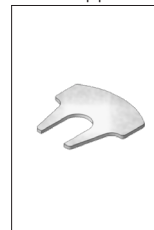
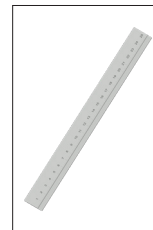
wire stripper



side cutter



slot screwdriver

Central nut wrench  
(123.218)

ruler

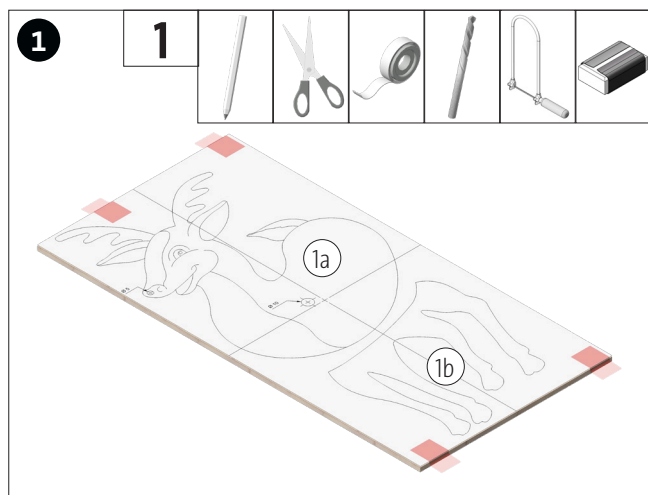
## Please note:

After completion, the OPITEC factory packs are not toys that are generally commercially available, but teaching and learning materials to support educational work. This kit may only be built and operated by children and young people under the guidance and supervision of knowledgeable adults. Not suitable for children under 36 months. Danger of suffocation!

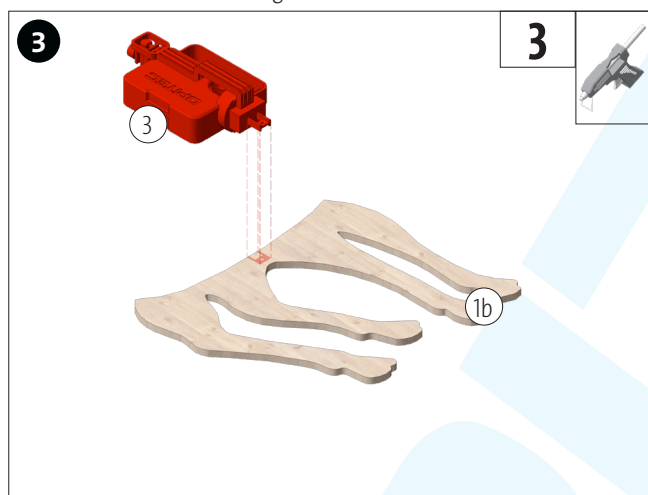
parts list	quantity	Dimensions (mm)	Description	Part No.
plywood panel	1	400x200x4	Base plate	1
Wooden strip	1	125x20x10	Wooden strip	2
Quartz Pendulum Clockwork	1	95x55x40	clockwork	3
Hand set	1		hand	4
cover cap	1	Ø10	cover cap	5
Metal hanger	1	55x20x15	hanger	6
Battery holder 2x Micro (AAA) with switch	1		battery holder	7
Flashing LED red	1	Ø5	Red LED	8
Flashing LED green	1	Ø5	LED green	9
Disc magnet	1	Ø8x4	magnet	10
Stranded wire red	1	500	electric wire	11
reed contact	1		reed contact	12

Additionally required: 1 AA battery (eg 214.456) for the clockwork, 2 AAA batteries (eg 214.467) for the flashing light

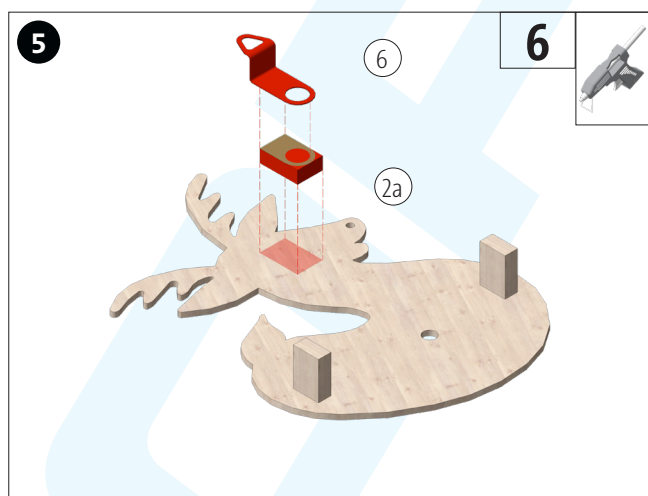
**Assembly instructions 126.490**  
**Quartz pendulum wall clock with flashing LED**



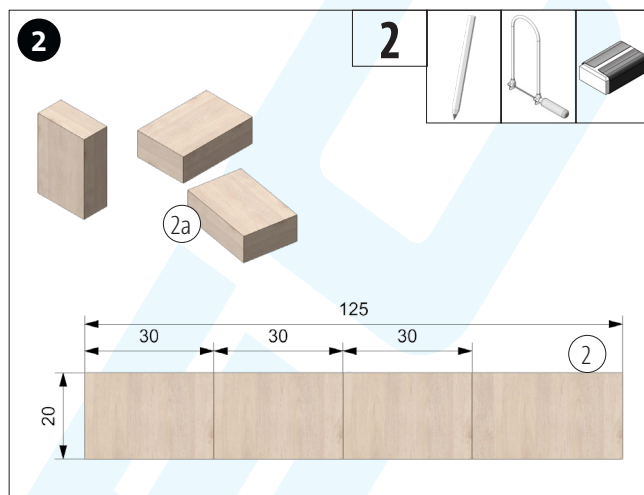
Glue the desired template "Reindeer Alex" (1) or "Cat" (2) together, transfer it to the plywood board (1), cut it out and drill the holes  $\varnothing 5$  and  $\varnothing 10$ mm. Sand the cut edges.



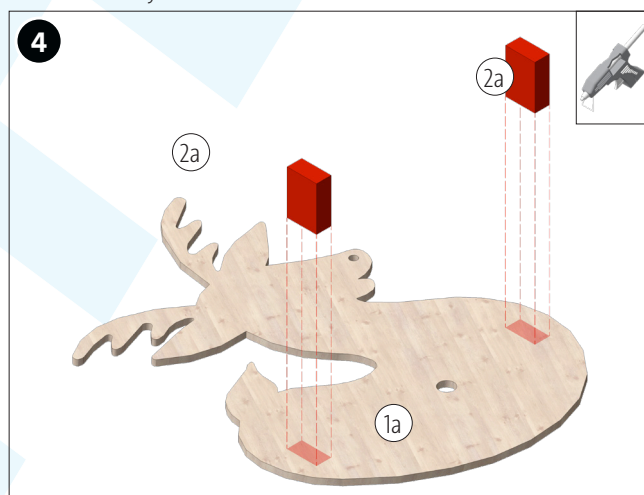
Version "Reindeer": Glue the legs (1b) to the pendulum rod of the clockwork with a little hot glue (version "cat" see picture 19)



The third block is glued on at about head height (centrally above the hole  $\varnothing 10$ mm), and the hanger (6) is then glued onto this.



Saw the wooden strip (2) into three 30mm long pieces according to the template (3). If you want to paint your clock, you should do this before assembly.

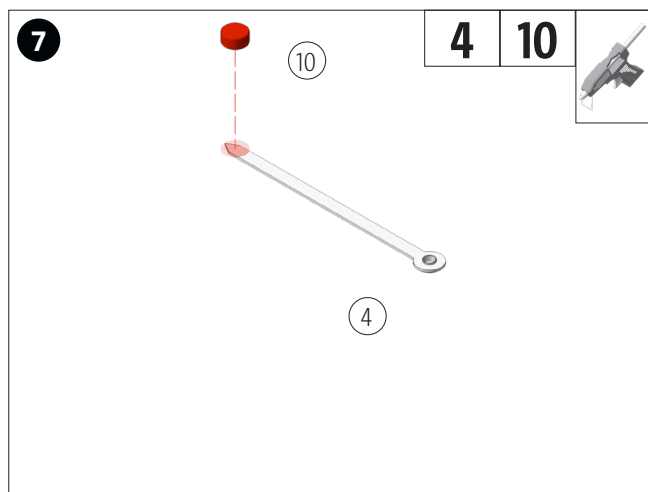


Glue two blocks (2a) as wall spacers upright to the bottom of the figure at the lower edge of the side.

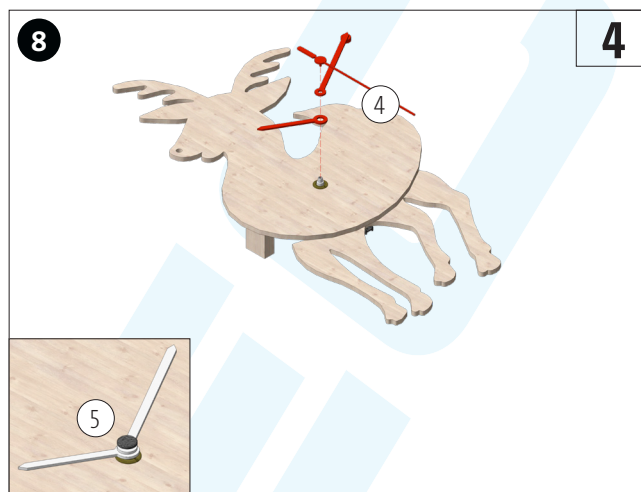


Turn the plate over. Insert the pre-assembled clockwork with rubber washer through the hole from below and screw it tight from above with the central nut.

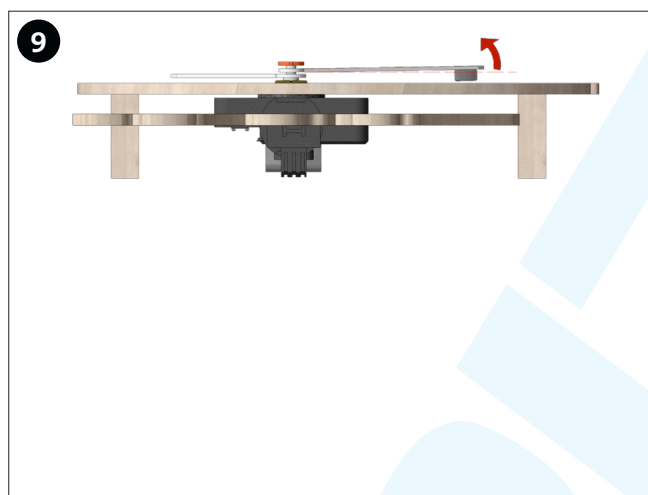
**Assembly instructions 126.490**  
**Quartz pendulum wall clock with flashing LED**



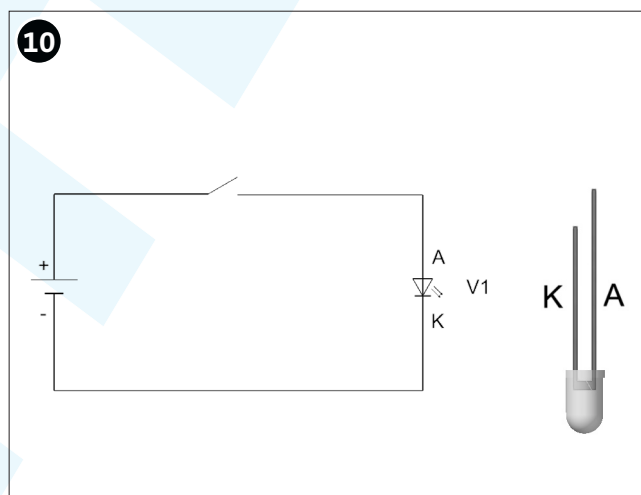
Glue the magnet (10) to the very outside underside of the large minute hand (4).



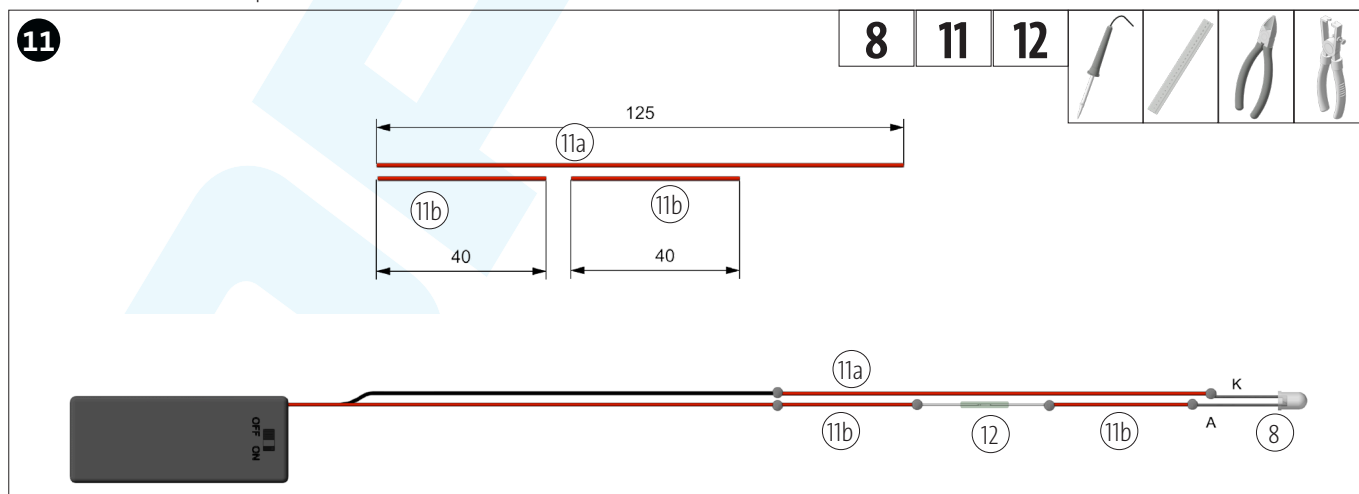
Attach the hand set (4) in the following order: hour hand - minute hand - second hand. The cover cap (5) can also be fitted instead of the second hand.



Carefully bend the minute hand slightly upwards so that the magnet does not rub against the wooden plate. Be careful not to bend it too far, otherwise there will be problems with the second hand!

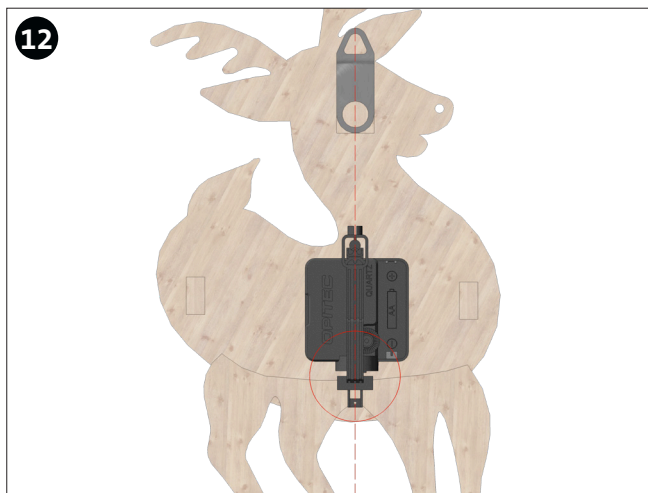


Electronic assembly: The simple circuit consists of a voltage source (battery), a flashing LED (pay attention to the polarity, A= positive pole, K=negative pole) and a reed contact (switch that is operated by a magnet).

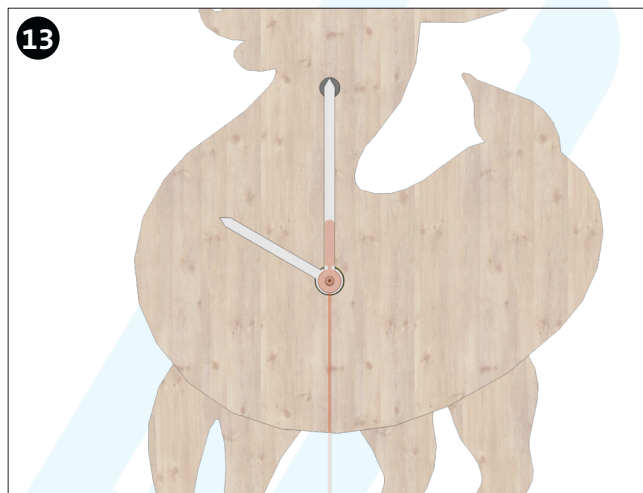


"Reindeer" version: Cut two pieces of the cable, each 40mm long and one 125mm long, and strip the insulation. Connect to the components as shown in the picture: Red battery cable -> 40mm piece -> reed contact -> 40mm piece -> red LED "A" (long leg). LED "K" (short leg) -> 125mm piece -> black battery cable. We recommend soldering the contacts. All connections should also be insulated with adhesive tape. Insert the batteries, turn on the switch and check that it works: hold the reed contact near the magnet, the LED should flash. "Cat" version, see picture 20.

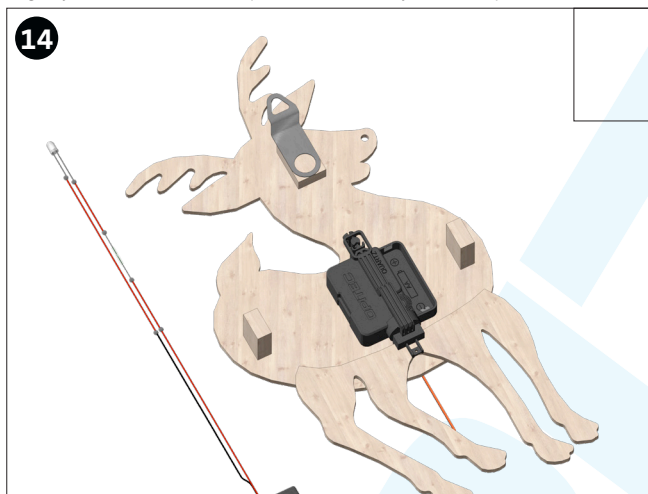
**Assembly instructions 126.490**  
**Quartz pendulum wall clock with flashing LED**



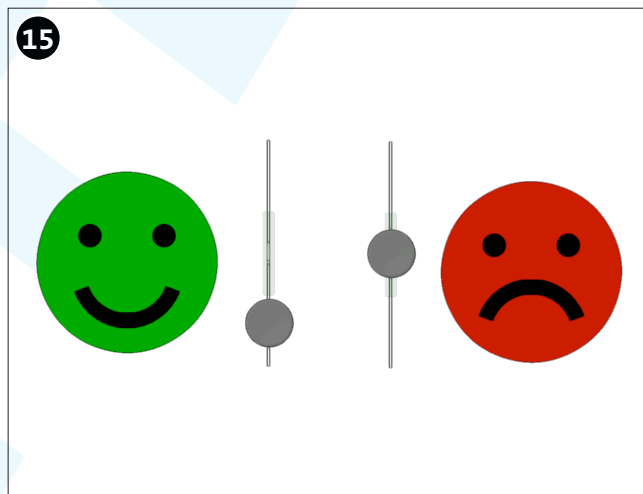
Hang up the clock to test it out. When at rest, the pendulum must hang exactly in the middle of the clockwork. If not, turn the clockwork slightly. Now the 12 o'clock position is exactly at the top.



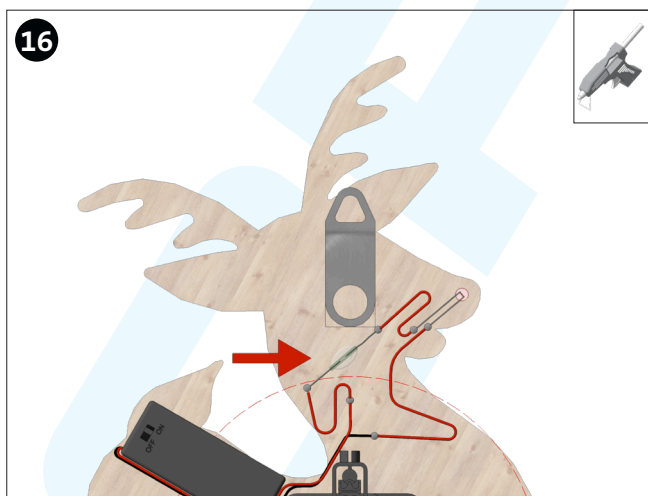
Set the minute hand to the 12 o'clock position you just determined.



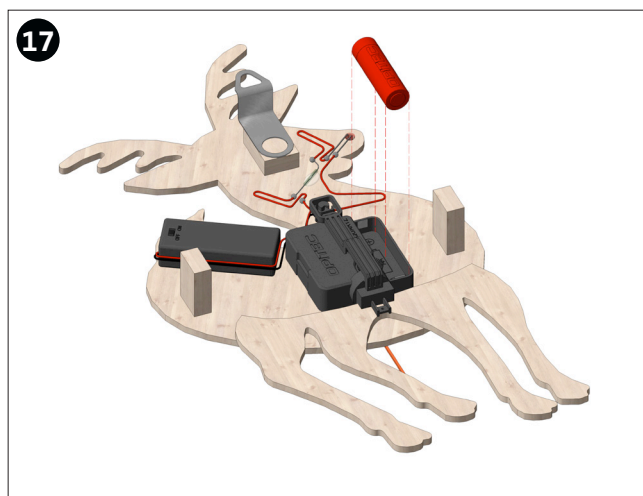
"Reindeer" version: Now the prepared "electronics" are installed. Cat version see picture 21.



For the reed contact to work properly, the magnet must be outside the glass tube.

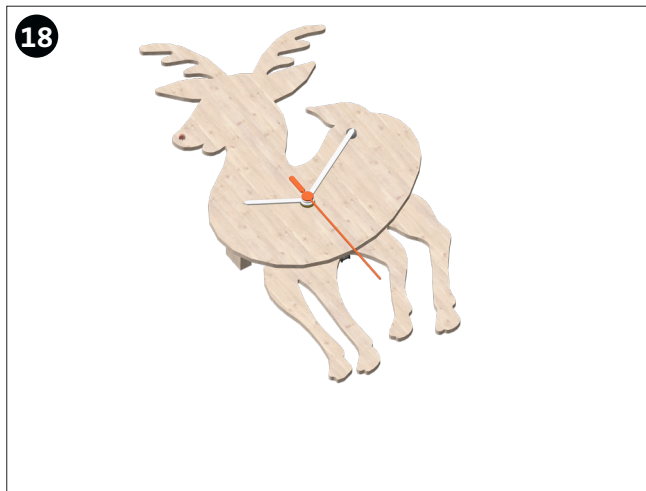


"Reindeer" version: Glue the LED into the hole and glue the battery holder with the switch to the edge of the wood. Switch on the switch. Now carefully and slowly move the reed contact from the left to the magnet (12 o'clock). As soon as the LED starts to flash, glue the reed contact in place. The dashed circle shows the magnet's orbital line, we must stay outside it (see picture 15). Cat version see picture 22.

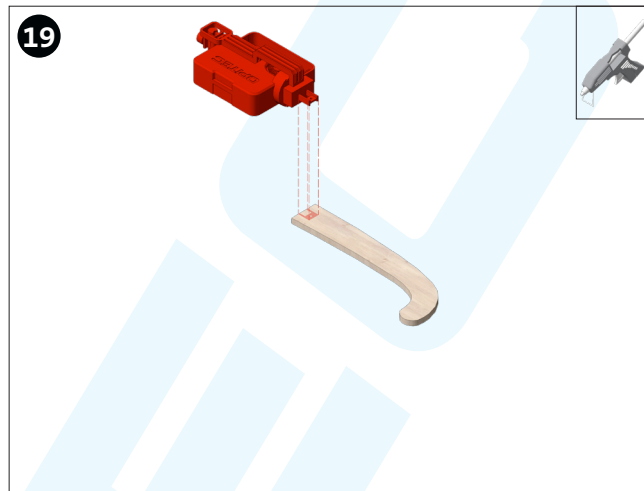


Insert the battery into the clockwork and set the time.

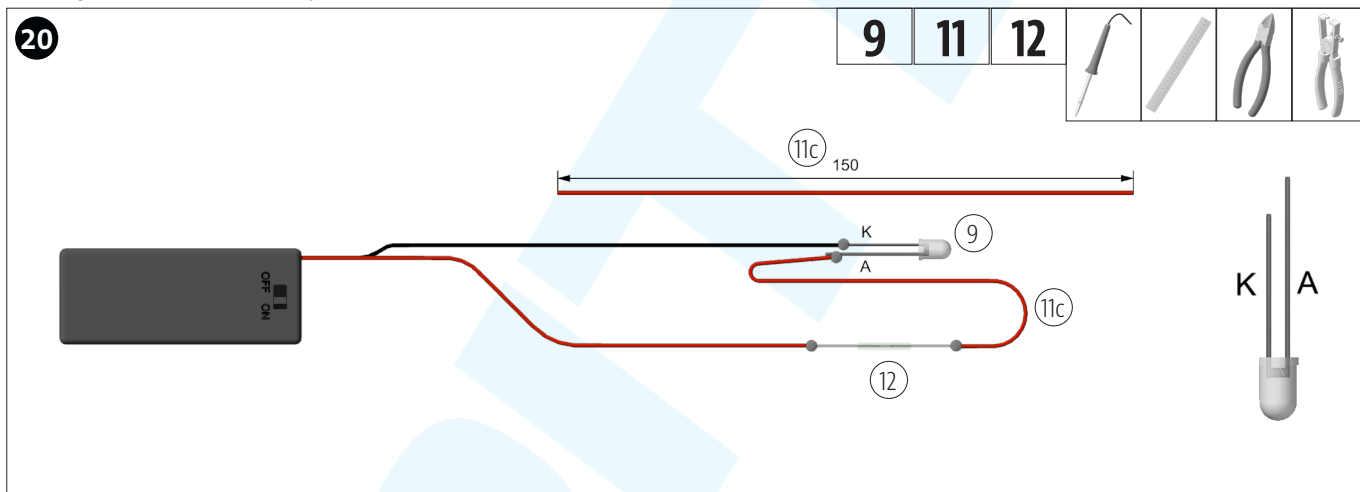
Assembly instructions 126.490  
Quartz pendulum wall clock with flashing LED



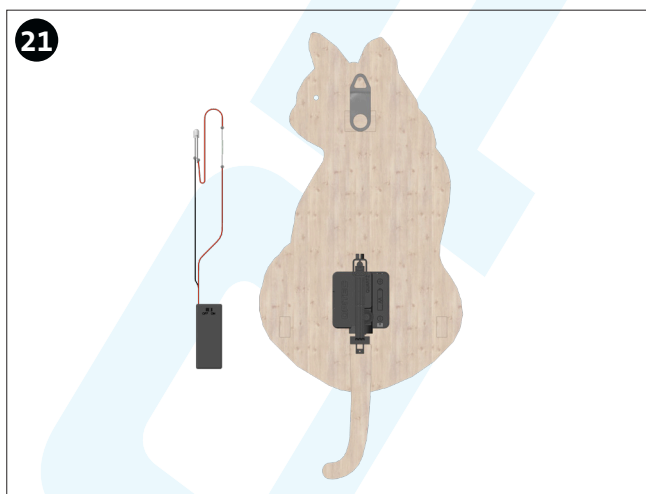
Hang the clock on the wall. Every hour on the hour, the reindeer's nose should flash for a few minutes. The flashing light can also be turned off using the switch on the battery holder!



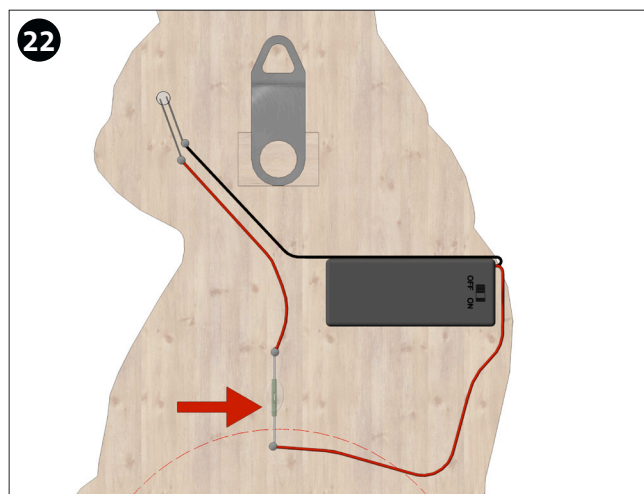
Pendulum mounting version "cat"



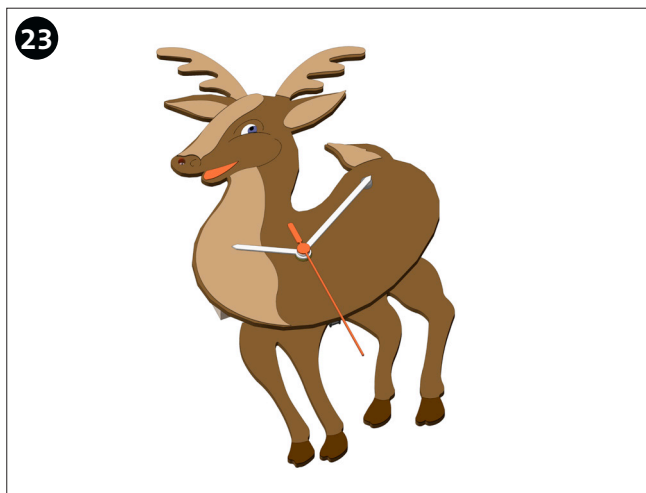
"Cat" version: Cut off a 150mm piece of cable and strip it. Connect it to the components as shown in the picture: Red battery cable -> reed contact -> 150mm piece -> green LED "A" (long leg). LED "K" (short leg) > black battery cable. We recommend soldering the contacts. All connections should also be insulated with adhesive tape. Insert the batteries, turn on the switch and check that it is working: hold the reed contact near the magnet, the LED should flash.



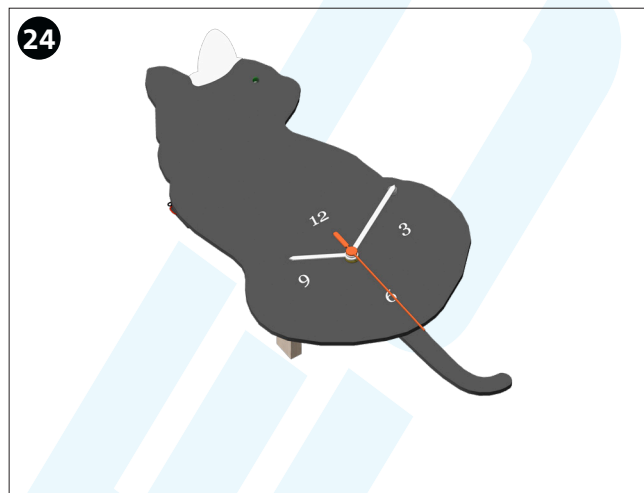
Version "Cat"



Electronic installation version "cat".

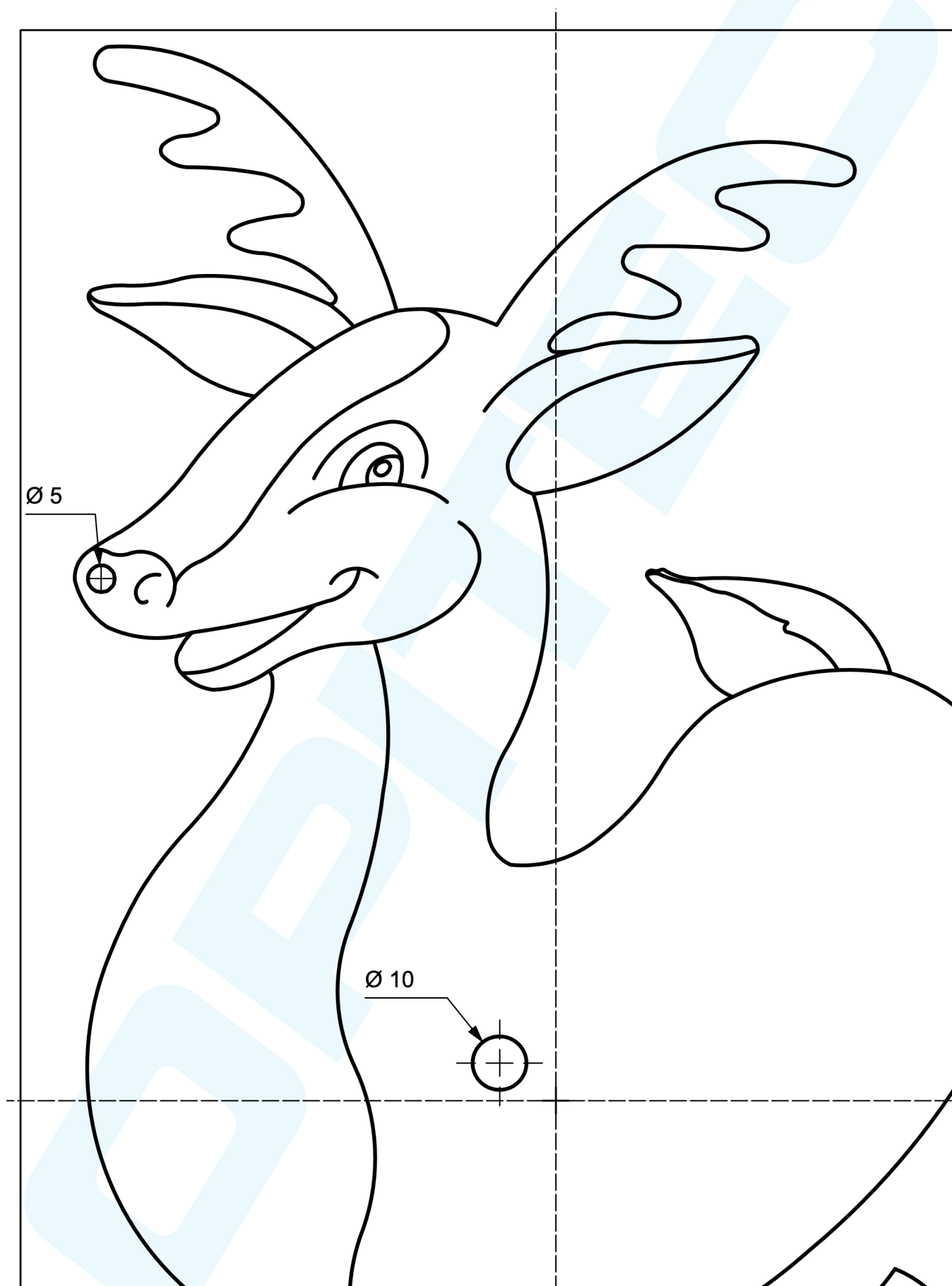


Design suggestion reindeer "Alex"



Design suggestion "Cat"

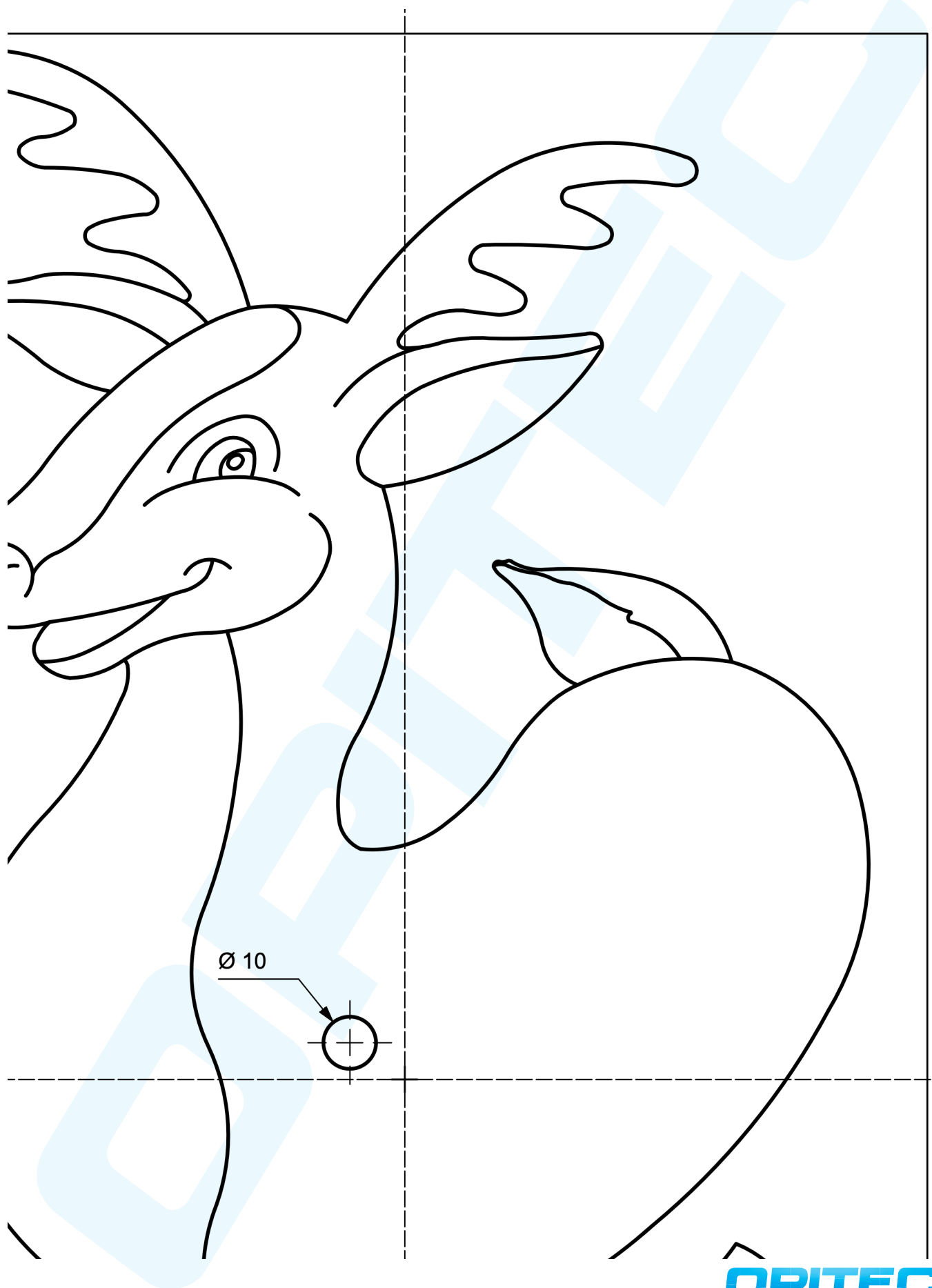




OPITEC

**OPITEC**

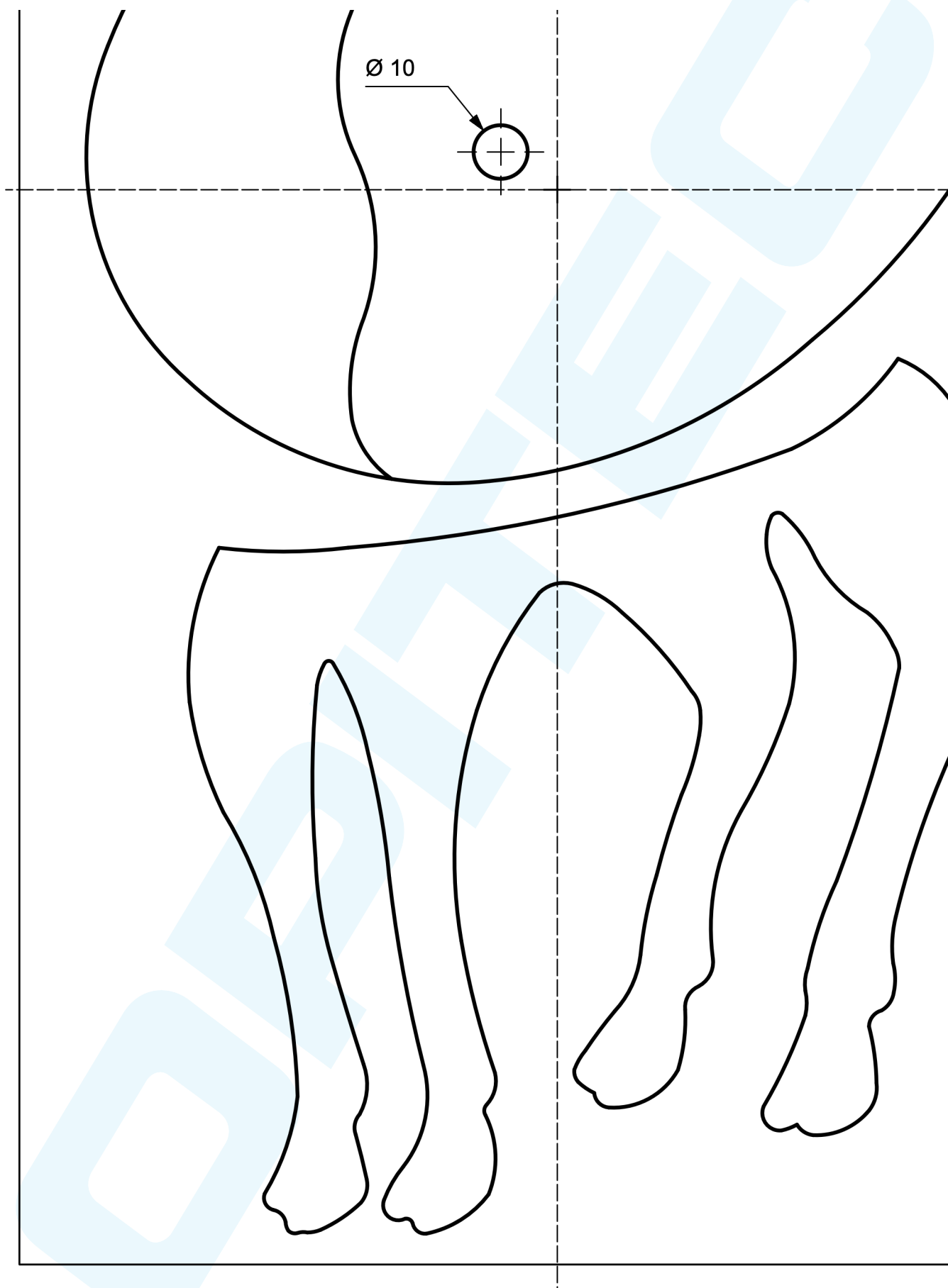




OPITEC

**OPITEC**

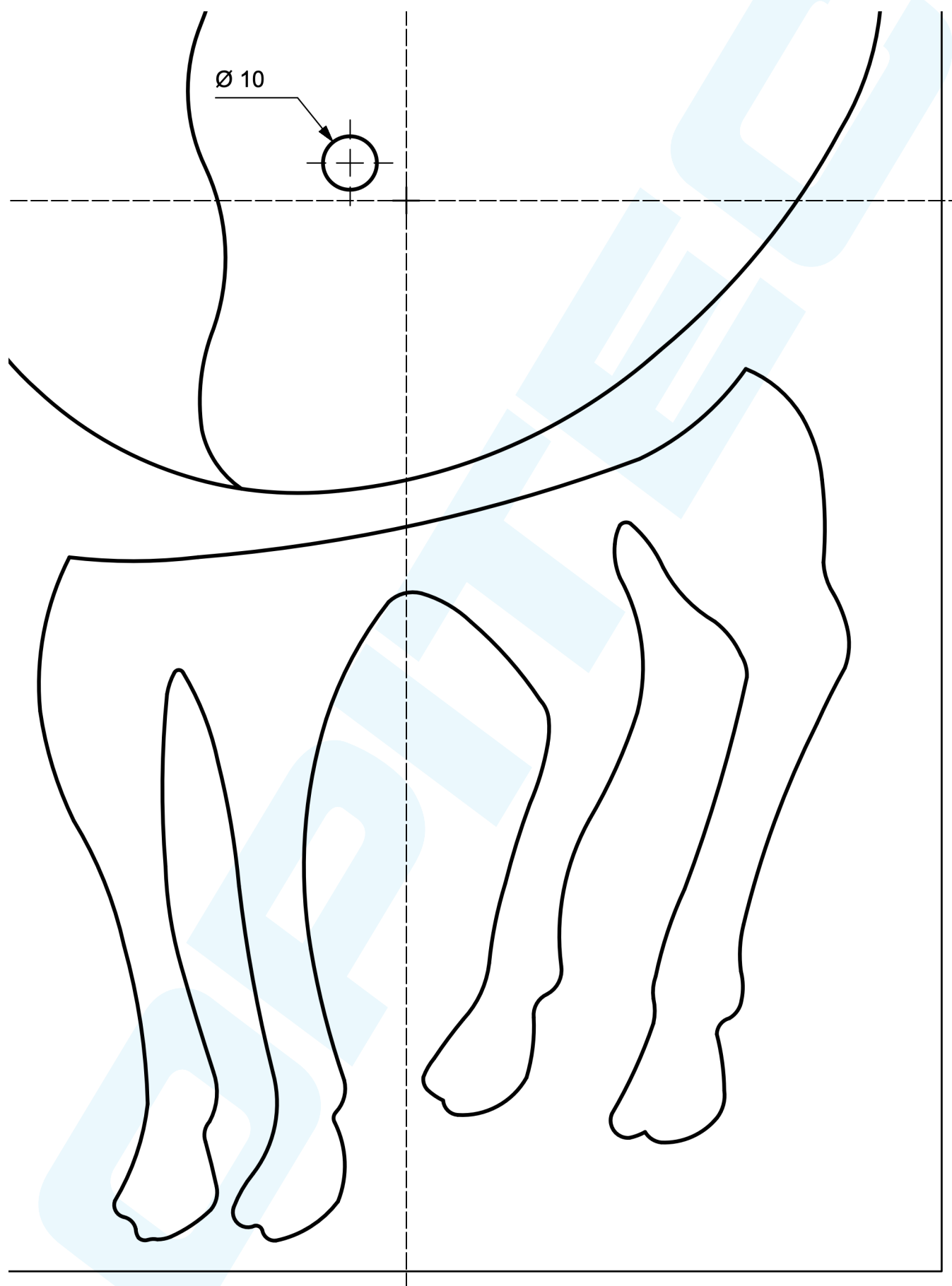
Assembly instructions 126.490  
Quartz pendulum wall clock with flashing LED  
Template 1 Reindeer "Alex" Part C  
Scale 1:1



OPITEC

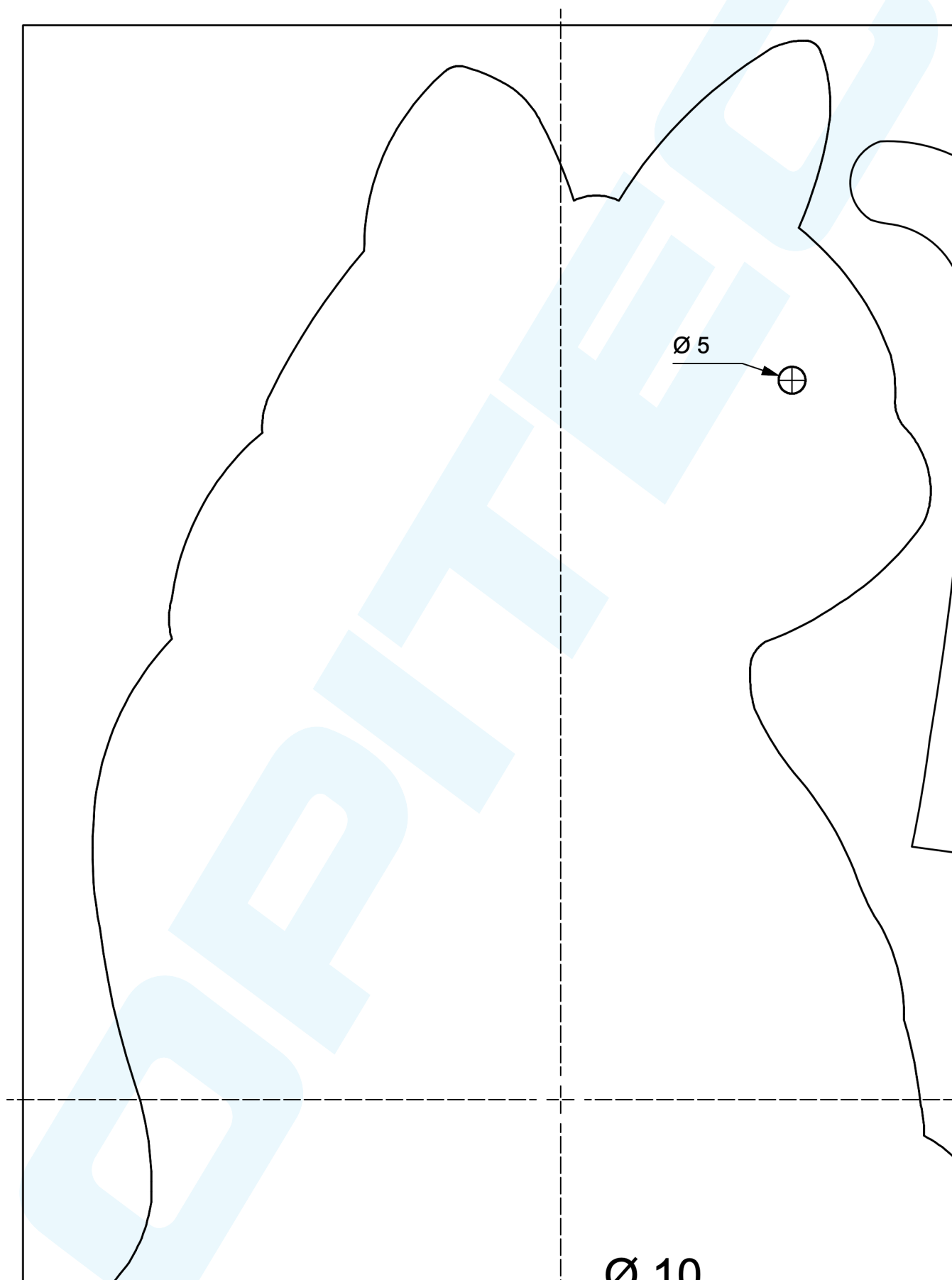
**OPITEC**

Assembly instructions 126.490  
Quartz pendulum wall clock with flashing LED  
Template 1 Reindeer "Alex" Part D  
Scale 1:1



OPITEC

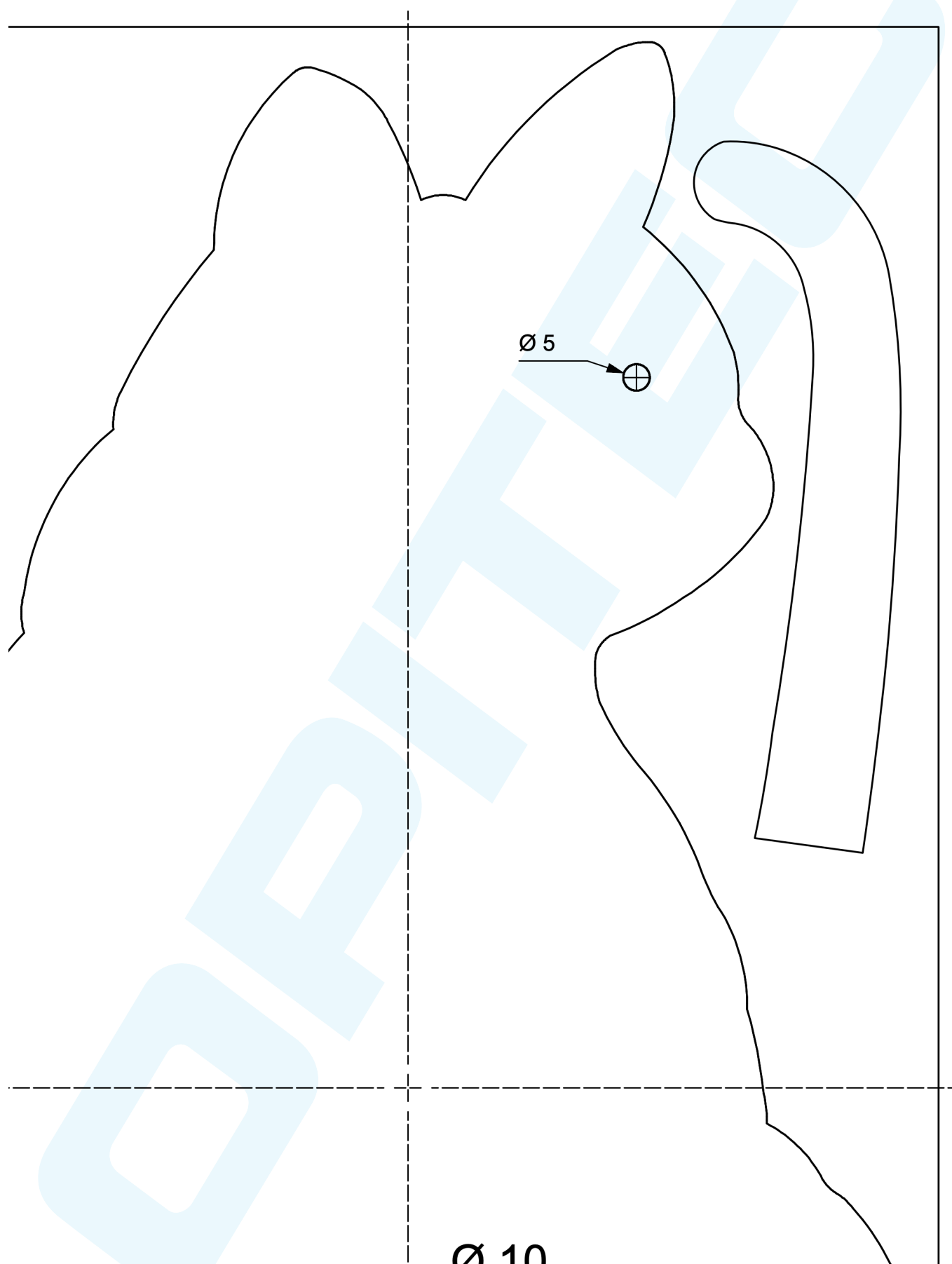
**OPITEC**





OPITEC

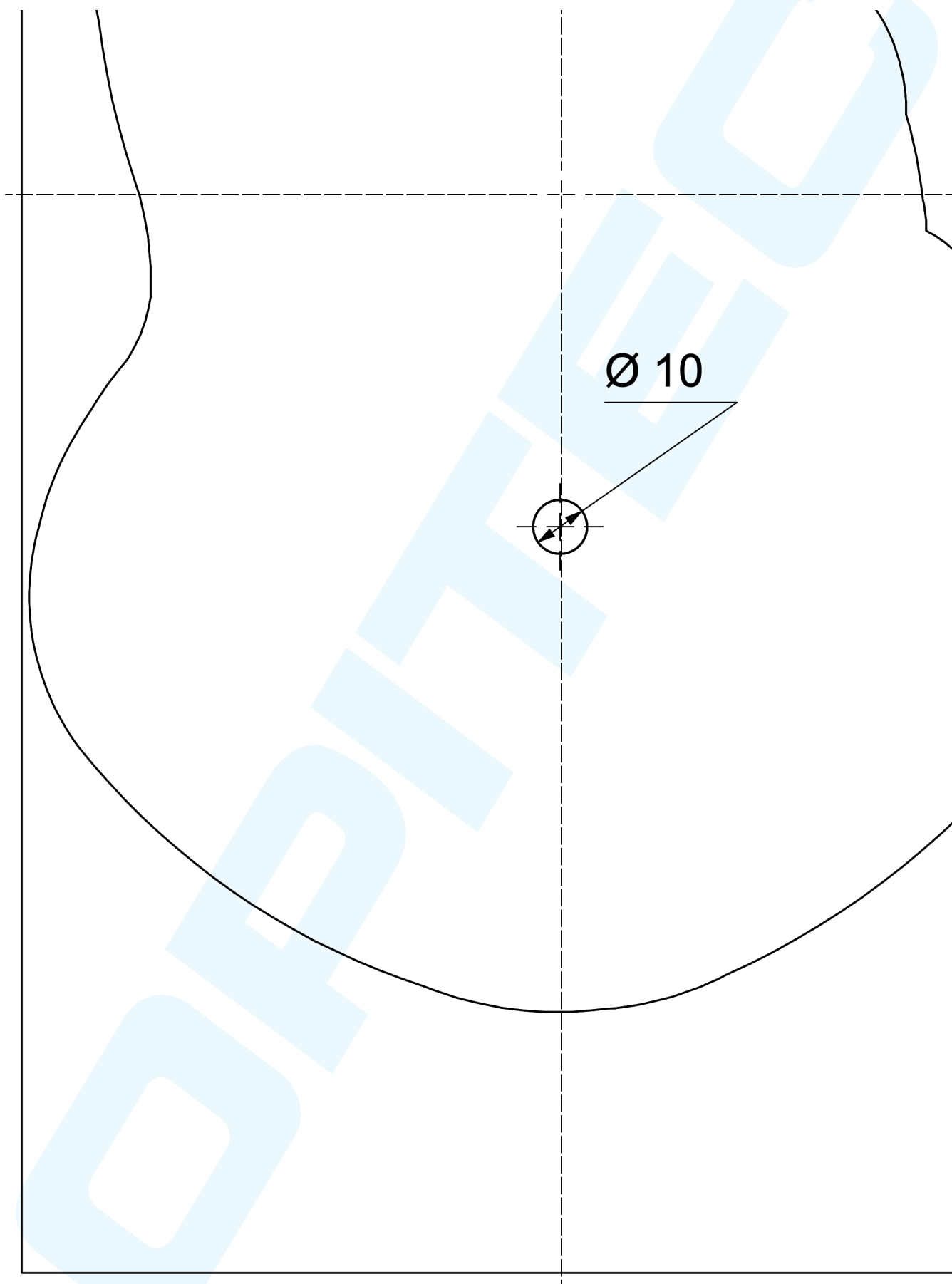
**OPITEC**



OPITEC

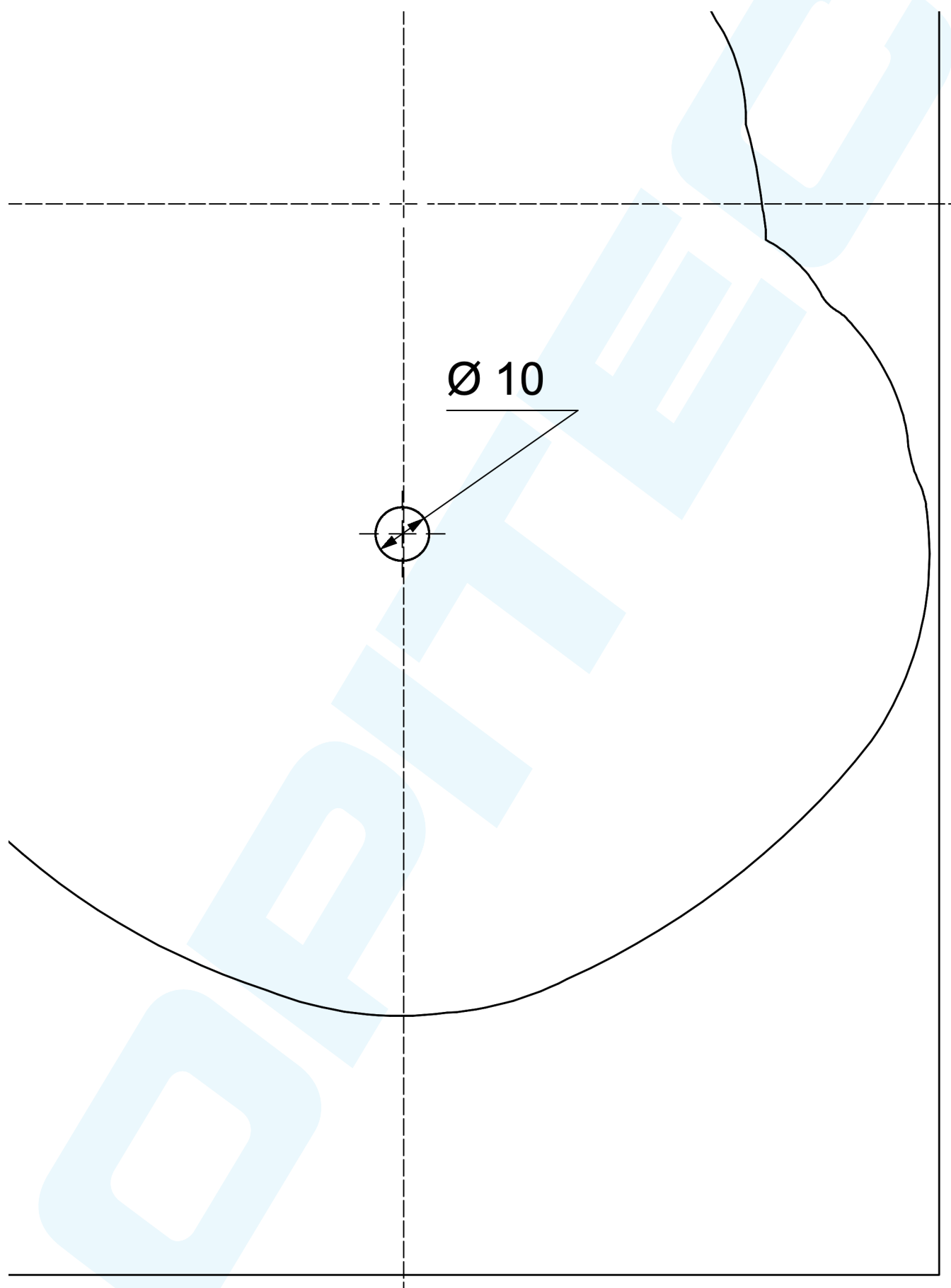
**OPITEC**

Assembly instructions 126.490  
Quartz pendulum wall clock with flashing LED  
Template 2 Cat Part C  
Scale 1:1



OPITEC

**OPITEC**



OPITEC

**OPITEC**



Assembly instructions 126.490  
Quartz pendulum wall clock with flashing LED  
Template 3 spacer strips  
Scale 1:1

