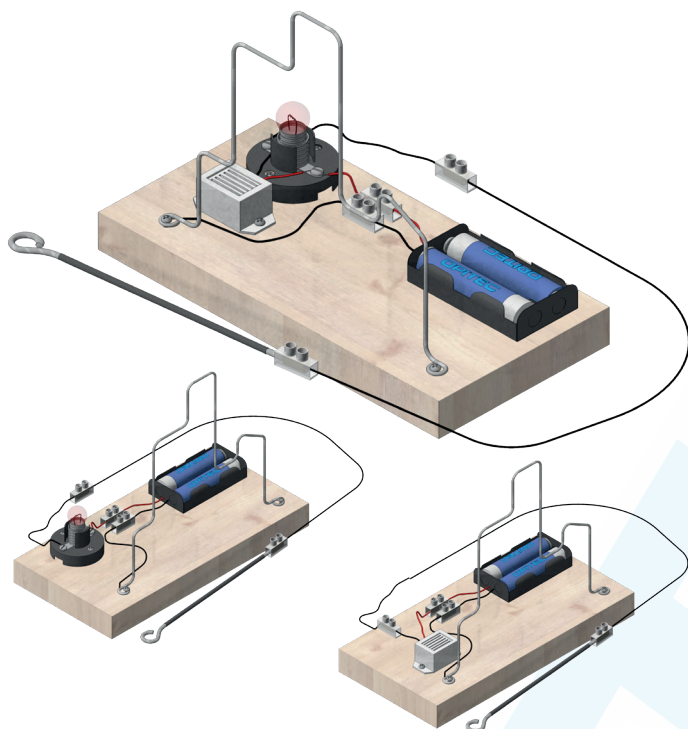


111.563 Skill game "Hot wire" with audible alarm & indicator light



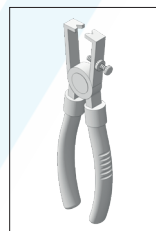
Tools required:



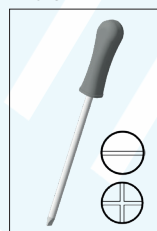
Pricker



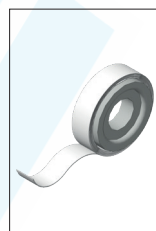
Roundnose Pliers



Wire stripper



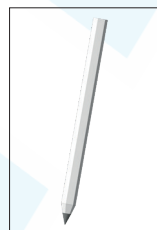
Screwdriver



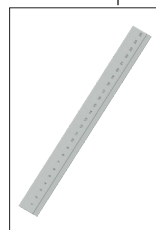
Adhesive tape



Scissors



Pencil



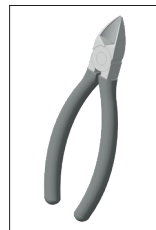
Ruler



Edding marker



Pliers



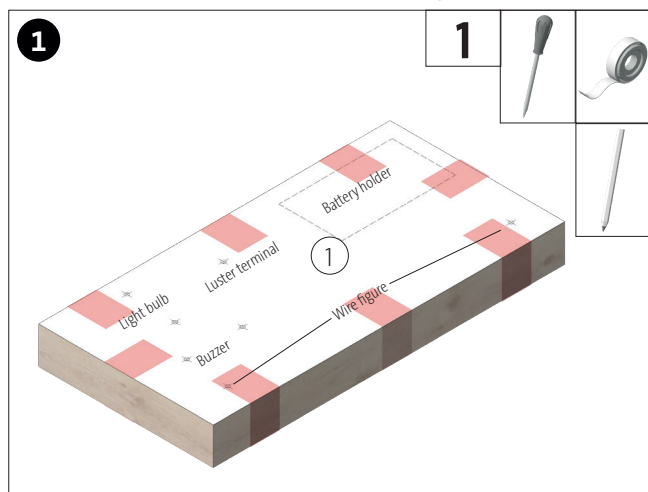
Side cutter

NOTE:

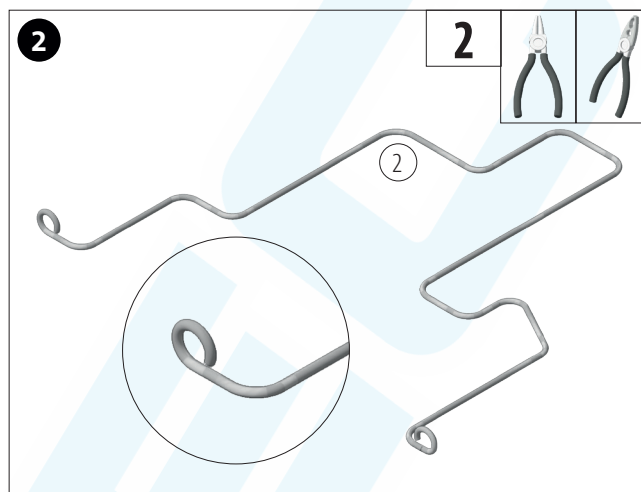
The OPITEC range of projects is not intended as play toys for young children. They are teaching aids for young people learning the skills of Craft, Design and Technology. These projects should only be undertaken and tested with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation! Not suitable for children under 36 months. Choking hazard!

Part List	Quantity	Dimensions (mm)	Description	Part no.
Plywood	1	180x90x15	Base plate	1
Aluminium wire	1	ø1.6	Wire figure	2
Battery holder for 2 AA batteries	1		Battery holder	3
Screw	2	ø3x12	Fixing battery holder	4
Lamp version E10	1		socket lamp	5
E10 red bulb, 3.5 V, 0.2 A	1		indicator light	6
Tapping screw	5	2.9 x 16	Mounting: wire/socket/terminal block	7
Luster terminal strip	1	1,5-2,5	Connection	8
Mini buzzer 2-4 V	1		Signal transmitter	9
Tapping screw	2	2,2x9,5	Fixing buzzer	10
Insulated Y-wire	1	150 x 1.6 x 2.6	Guide arm	11
Switching wire	1	500	Connection cable	12

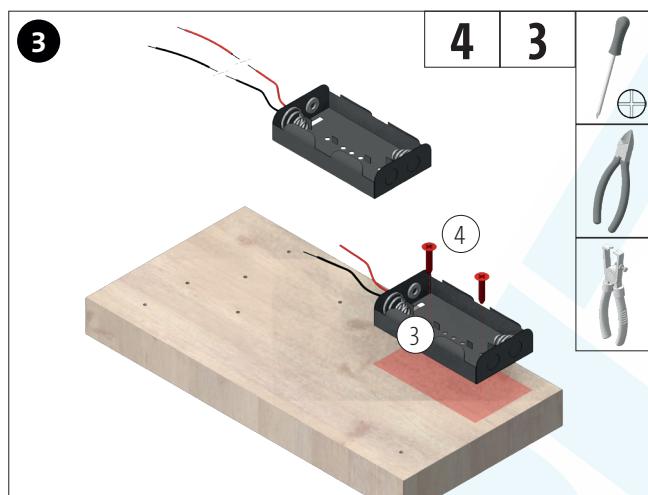
Option 1: Set-up with buzzer & and indicator light



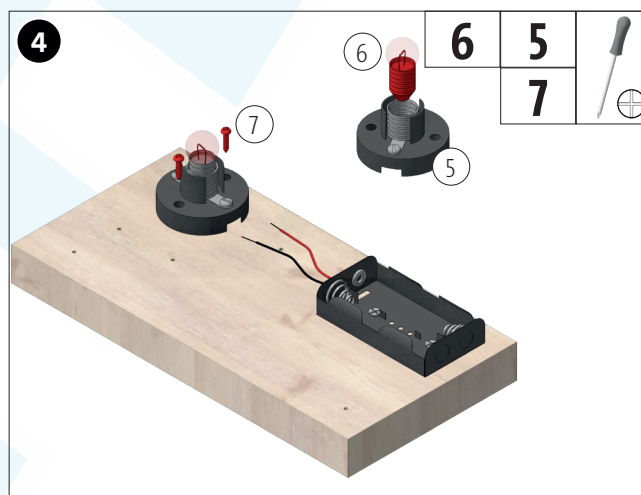
Cut out template (A) and fix it to the base plate (1).
Pre-drill the holes for the wire figure, the buzzer, the light and the terminal block. Mark the position for the battery holder.



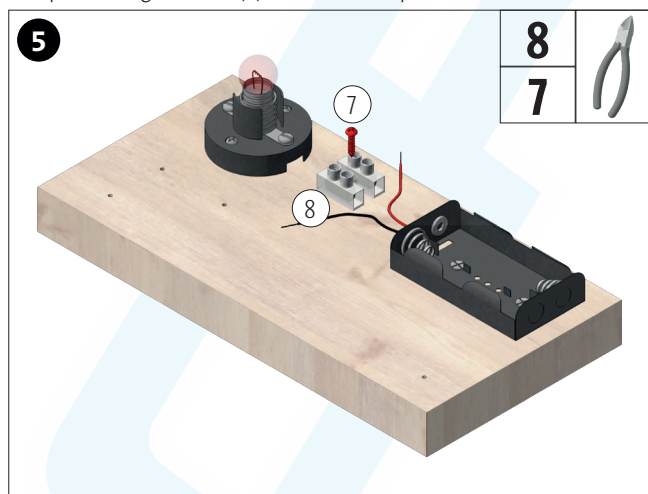
Bend the aluminium wire (2) according to the bending template (D).
Bend the eyelets, as shown, using round-nose pliers.



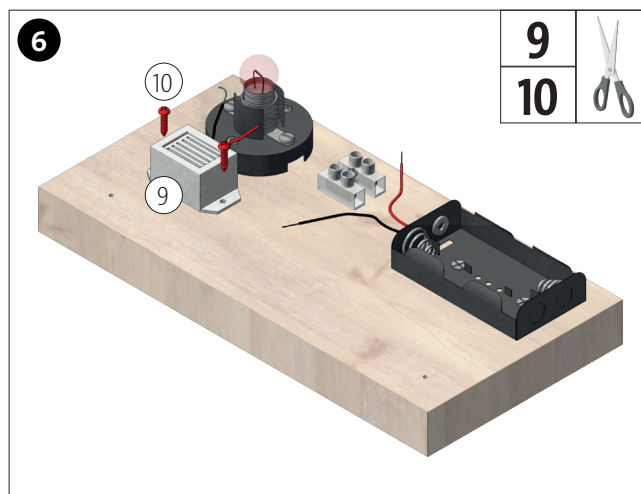
Cut the battery holder's connection cables in half. Strip the insulation from all the ends and keep the offcuts. Screw the battery holder (3) into place using 2 screws (4) at the marked position.



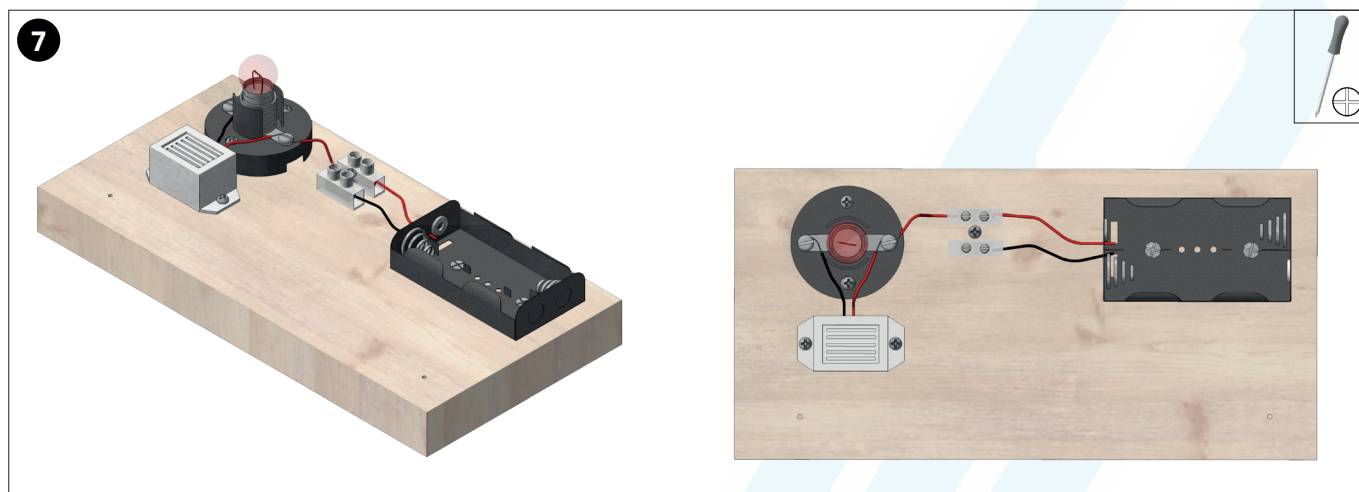
Screw the bulb (6) into the lamp holder (5). Then screw the fitting (5) into place using 2 screws (7) at the designated position.



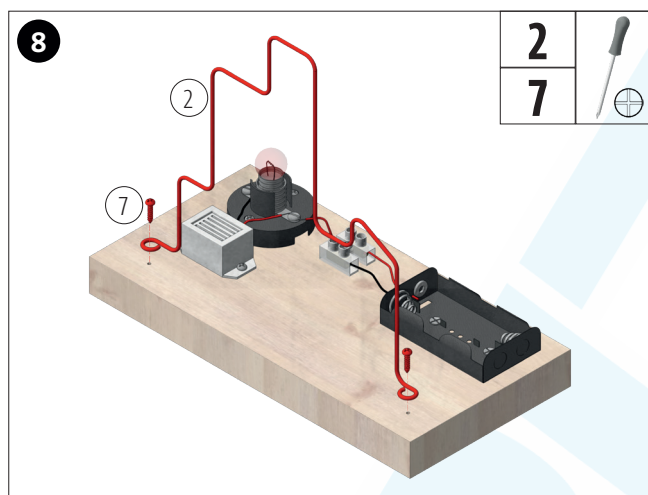
Cut a pair of terminals from the chandelier terminal block (8) and, as shown, secure them to the base plate with a screw (7) between the socket and the battery holder.



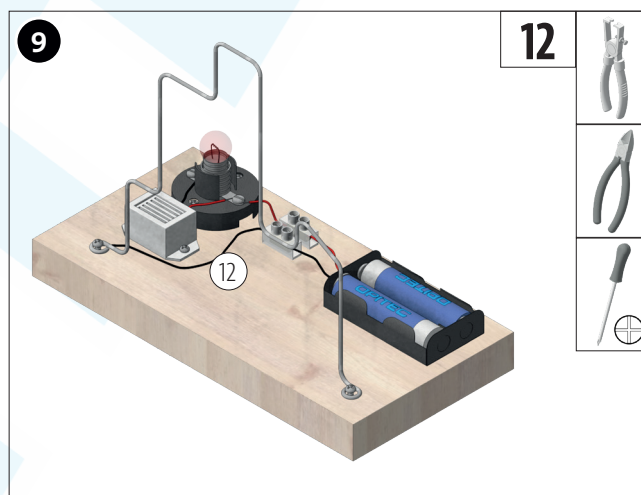
Screw the mini buzzer (9) into place using 2 screws (10) in the designated position



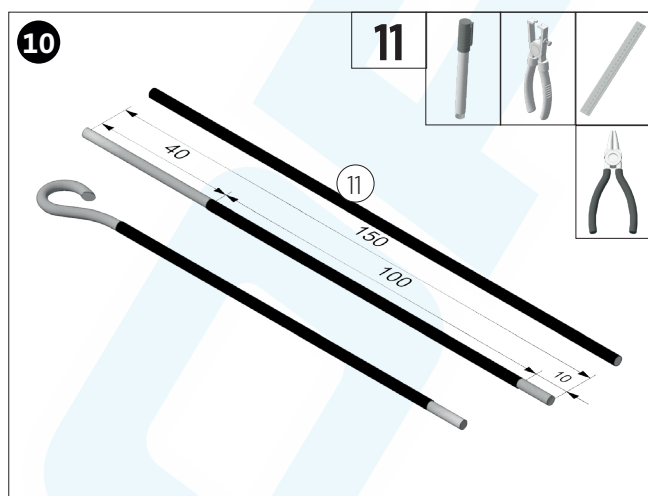
Insert the battery holder's connection cables into the terminal block (7) as shown, and secure them with the screws. Plug the red cable from the battery holder (3) into the terminal block connection facing outwards and towards the indicator light, and secure it with the screw as well. Connect the other end of the cable to the socket. Connect the red cable from the buzzer (9) to the same socket terminal. Attach the black buzzer cable to the spare light fitting terminal.



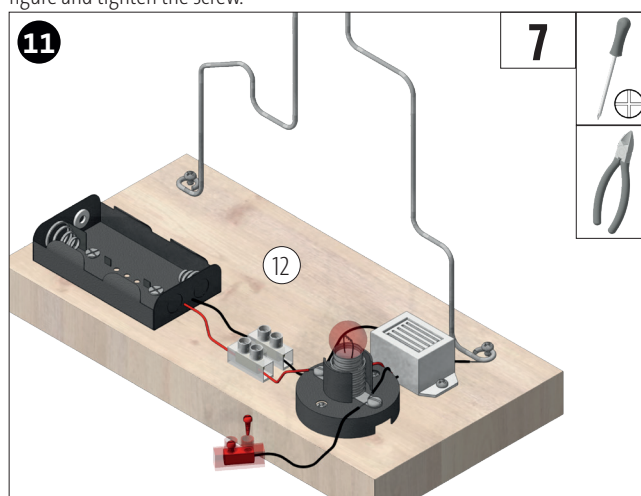
Screw the wire figure (2) into place at the designated position using 2 screws (7)



Cut a 80–100 mm long piece of the wiring harness (12) and strip the insulation from both ends. Insert one end into the free terminal on the terminal block (7) and tighten the screw. Wrap the other end around the screw on the wire figure and tighten the screw.

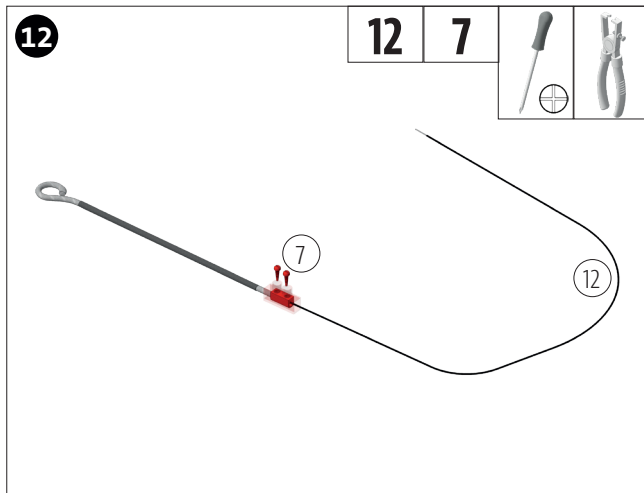


Measure 40 mm from one end of the insulated wire (11) and 10 mm from the other end, then mark these points. Then strip the insulation. Bend the long, insulated end, as shown, into a hook.

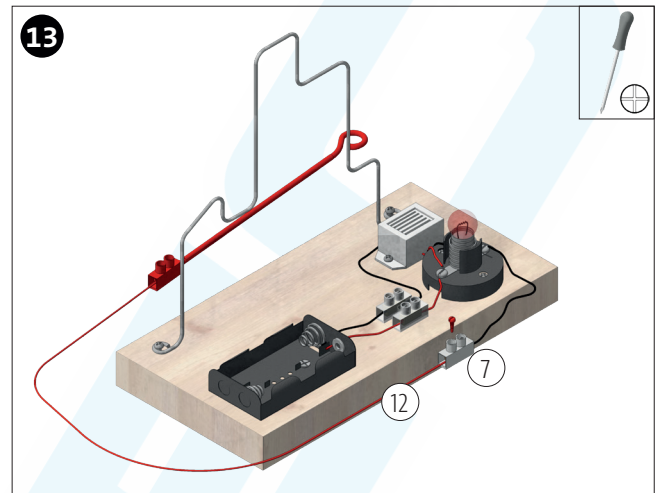
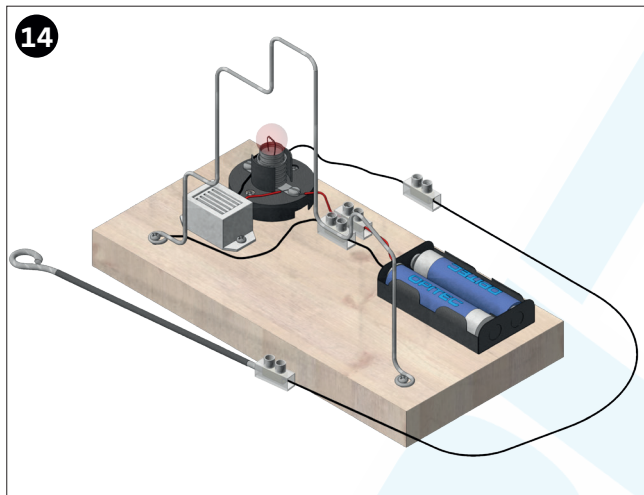


Connect the remaining section of black cable (from the battery holder) to the indicator light terminal, as shown. Cut off a section of the terminal block (7), insert the other end of the cable and secure it with the screw.

Assembly instructions 111.563
'Hot Wire' skill game with audible signal & Signal lamp



Strip the insulation from both ends of the wiring harness (12), insert one end into the remaining terminal block (7) and tighten the screw. Insert the guide arm into the terminal block (7) as shown and secure it.



Connect the free end of the switch wire (12) to the luster terminal (7) on the lamp connection cable.

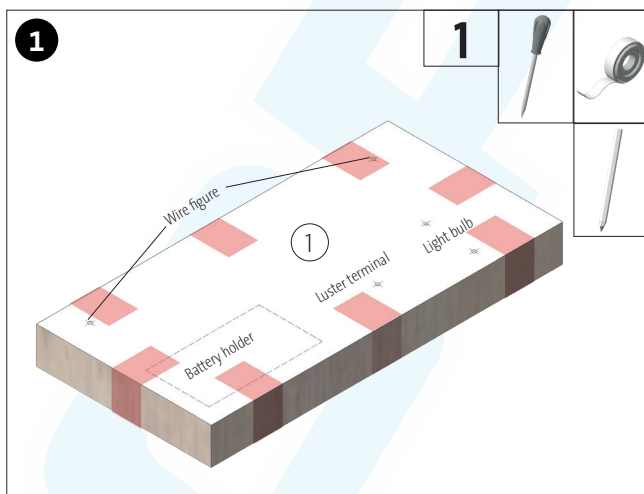
Insert 2 AA batteries. Done!

Functional description:

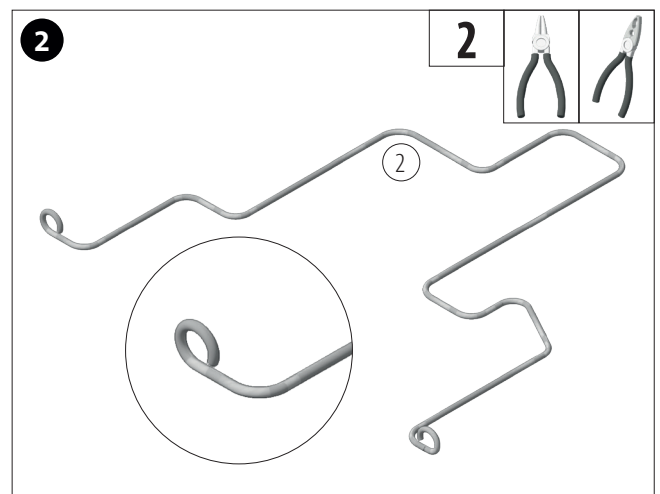
Thread the guide arm through and guide it along the curved wire structure. Make sure that the loop does not touch the wire of the structure.

If the wire is touched, an audible signal sounds and the red warning light comes on at the same time. This ends the game and you have to start again.

Option 2: Assembly with a little light

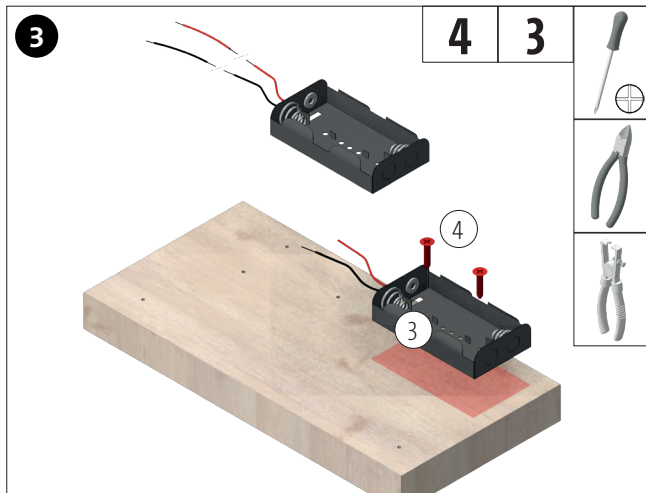


Cut out template (B) and fix it to the base plate (1). Pre-drill the holes for the wire figure, the light bulb and the terminal block. Mark the position for the battery holder.

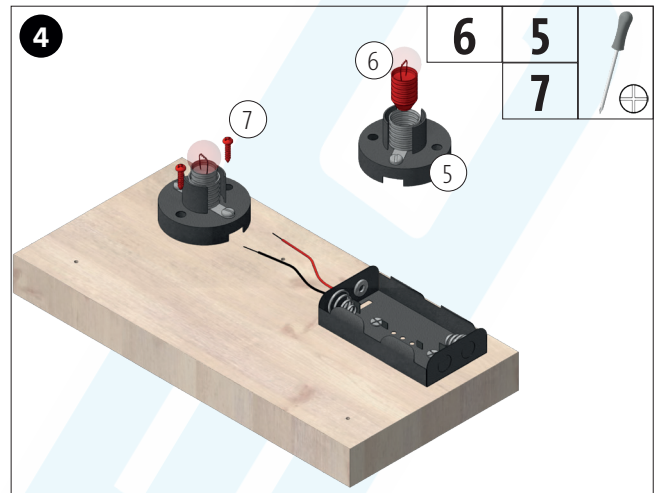


Bend the aluminium wire (2) according to the bending template (D). Bend the eyelets, as shown, using round-nose pliers.

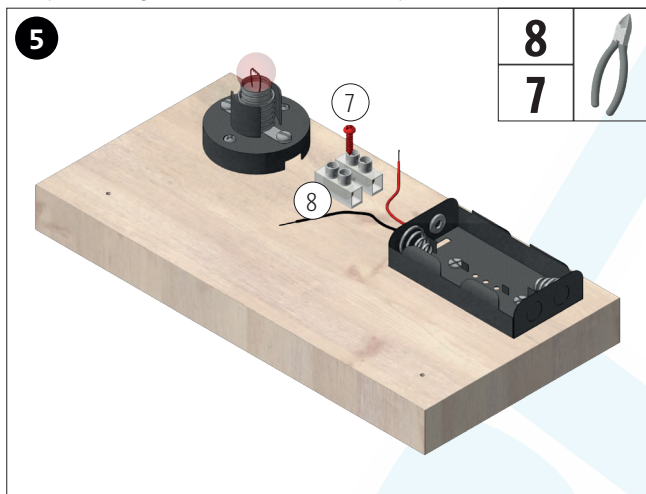
Assembly instructions 111.563
'Hot Wire' skill game with audible signal & Signal lamp



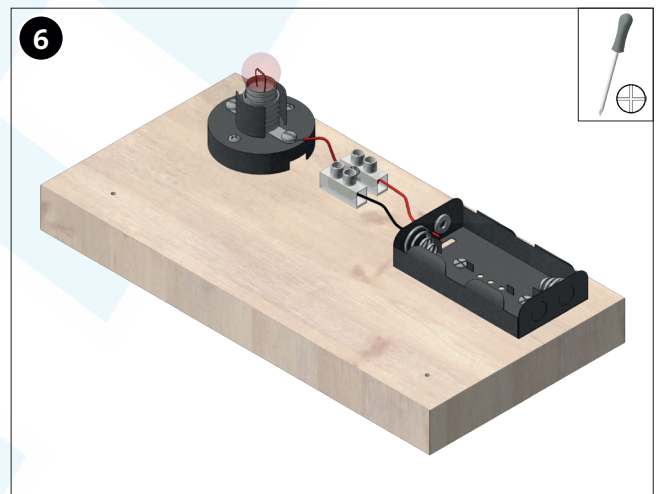
Cut the battery holder's connection cables in half. Strip the insulation from all the ends and keep the offcuts. Screw the battery holder (3) into place using 2 screws (4) at the marked position.



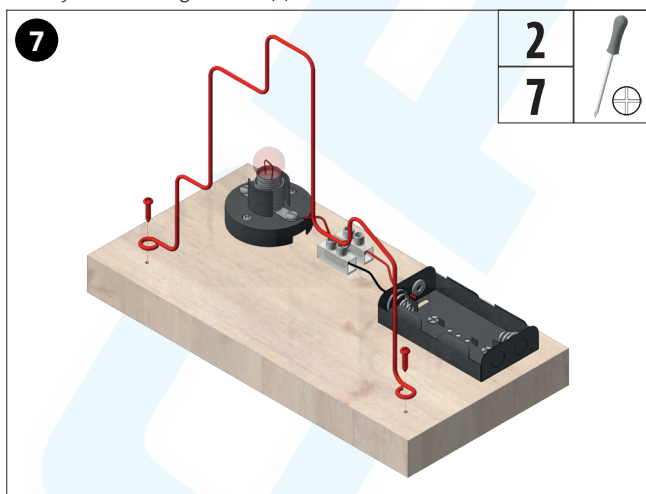
Screw the bulb (6) into the lamp holder (5). Then screw the fitting (5) into place using 2 screws (7) at the designated position.



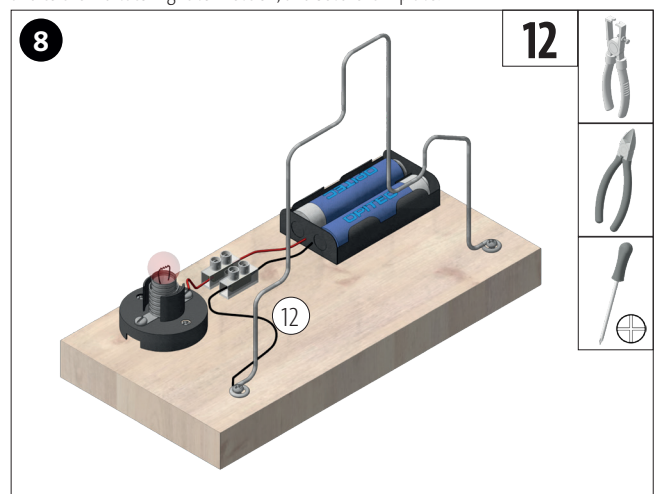
Detach a pair of terminals from the chandelier terminal block (8) and, as shown, secure them to the base plate between the socket and the battery holder using a screw (7).



Insert the battery holder's connection cables into the terminal block (7) as shown, and secure them with the screws. Connect the red section of cable from the battery holder (3) to the terminal block connection facing outwards and towards the indicator light, and to the indicator light connection, and secure it in place.

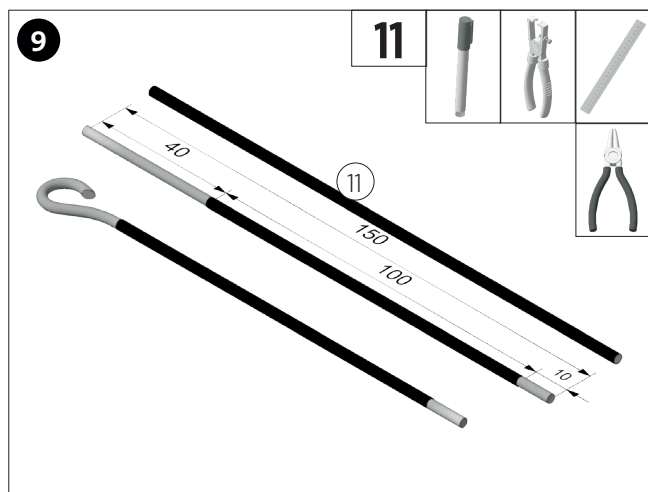


Screw the wire figure (2) into place at the designated position using 2 screws (7)

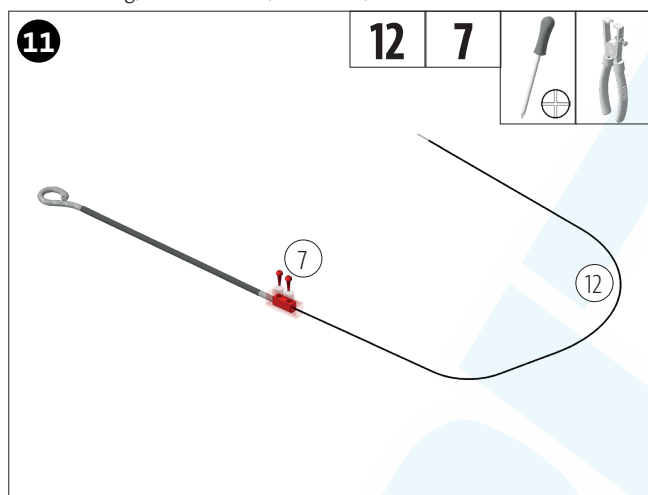


Cut a 80–100 mm long piece of the wiring harness (12) and strip the insulation from both ends. Insert one end into the free terminal on the terminal block (7) and tighten the screw. Wrap the other end around the screw on the wire figure and tighten the screw.

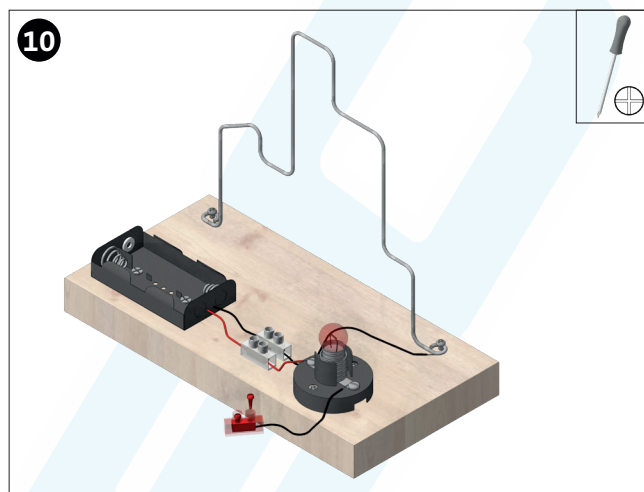
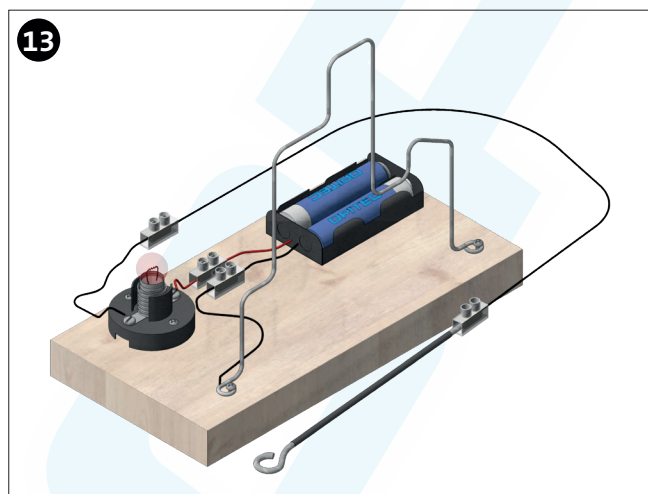
Assembly instructions 111.563
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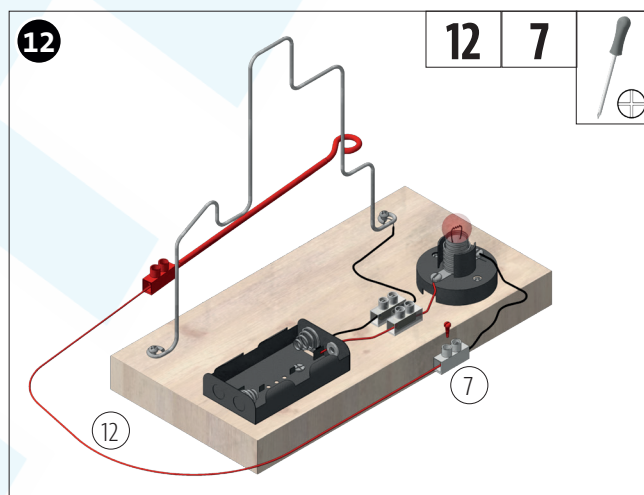
Measure 40 mm from one end of the insulated wire (11) and 10 mm from the other end, then mark these points. Then strip the insulation. Bend the long, insulated end, as shown, into a hook.



Strip the insulation from both ends of the wiring harness (12), insert one end into the remaining terminal block (7) and tighten the screw. Insert the guide arm into the terminal block (7) as shown and secure it.



Connect the remaining section of black cable (from the battery holder) to the indicator light terminal, as shown. Cut off a section of the terminal block (7), insert the other end of the cable and secure it with the screw.



Connect the free end of the switch wire (12) to the luster terminal (7) on the lamp connection cable.

Insert 2 AA batteries. Done!

Functional description:

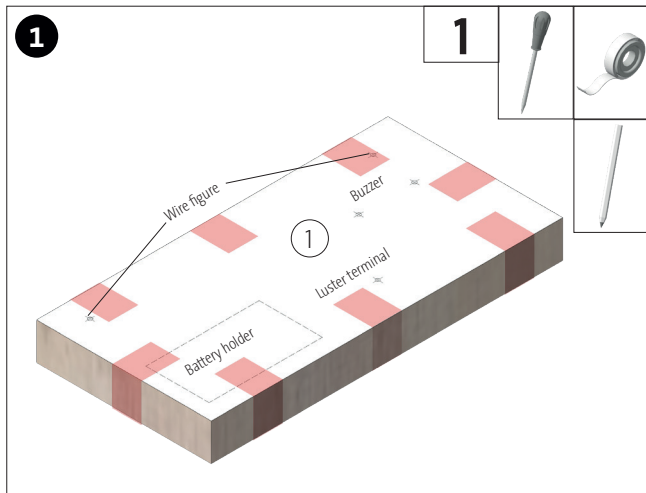
Thread the guide arm through and guide it along the curved wire structure. Make sure that the loop does not touch the wire of the structure.

If the wire is touched, the red warning light comes on. This ends the game and you have to start again.

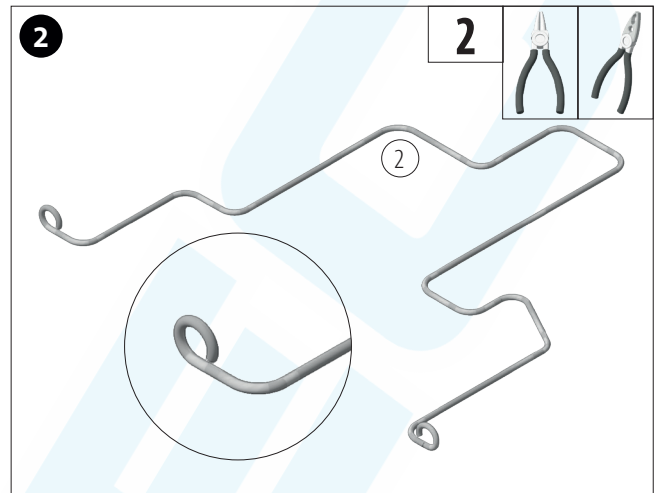
Assembly instructions 111.563

'Hot Wire' skill game with audible signal & Signal lamp

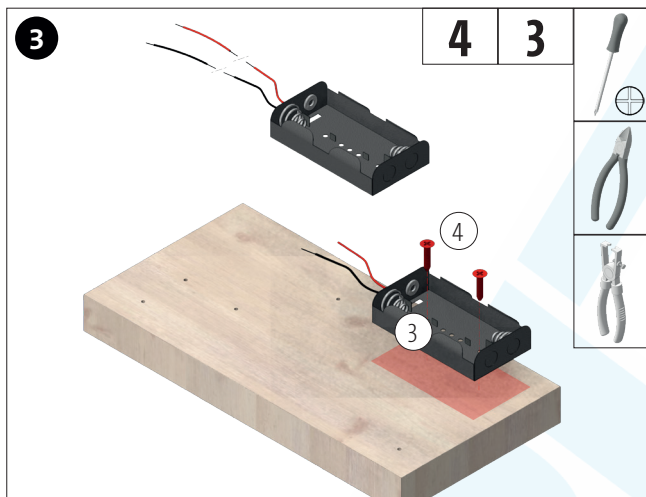
Option 3: Assembly with a buzzer



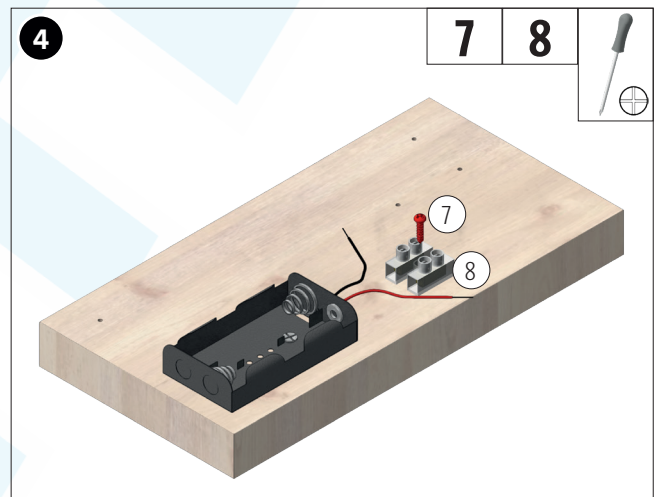
Cut out template (C) and fix it to the base plate (1).
Pre-drill the holes for the wire figure, the mini buzzer and the terminal block.
Mark the position for the battery holder.



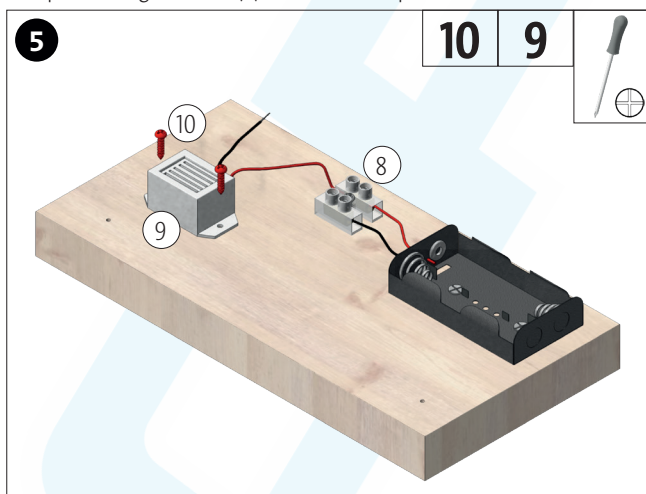
Bend the aluminium wire (2) according to the bending template (D).
Bend the eyelets, as shown, using round-nose pliers.



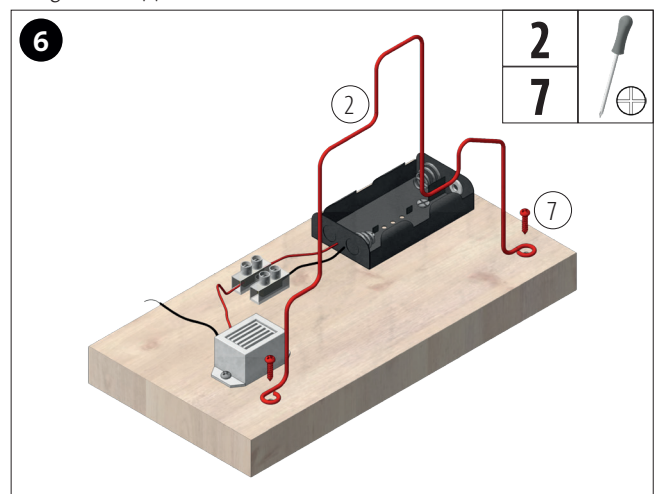
Cut the battery holder's connection cables in half. Strip the insulation from all the ends and keep the offcuts. Screw the battery holder (3) into place using 2 screws (4) at the marked position.



Detach a pair of terminals from the chandelier terminal block (8) and screw them into place at the designated position on the base plate using a screw (7), as shown.

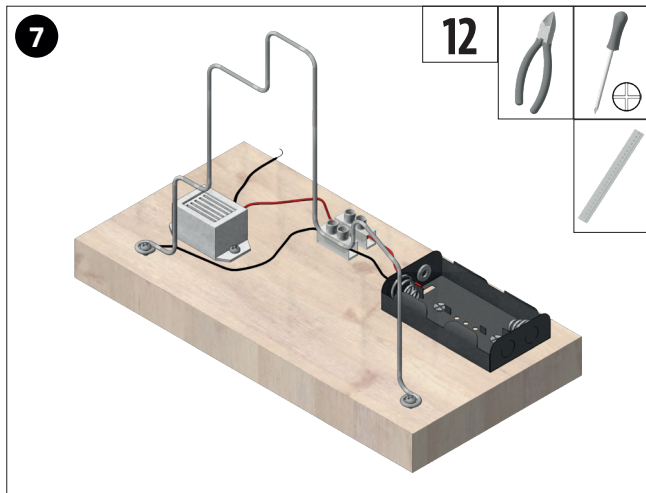


Screw the mini buzzer (9) into place using the two screws (10) in the designated position. Connect the buzzer's red cable to the outward-facing terminal of the terminal block (8).

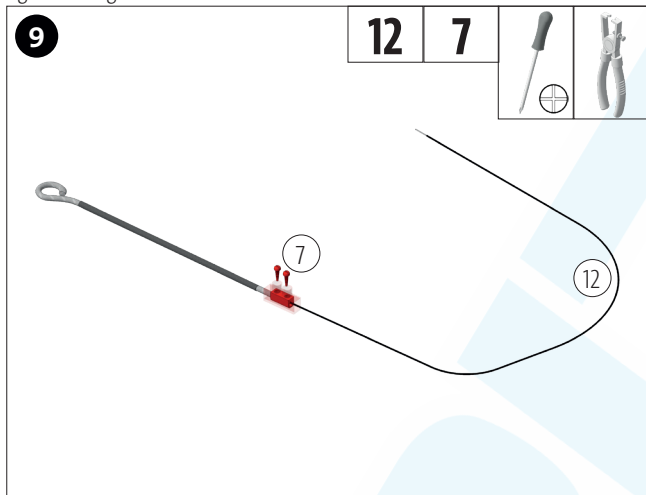


Screw the wire figure (2) into place at the designated position using 2 screws (7)

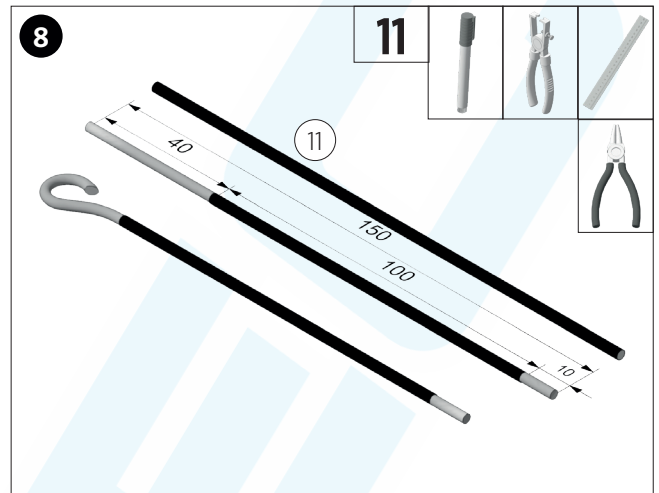
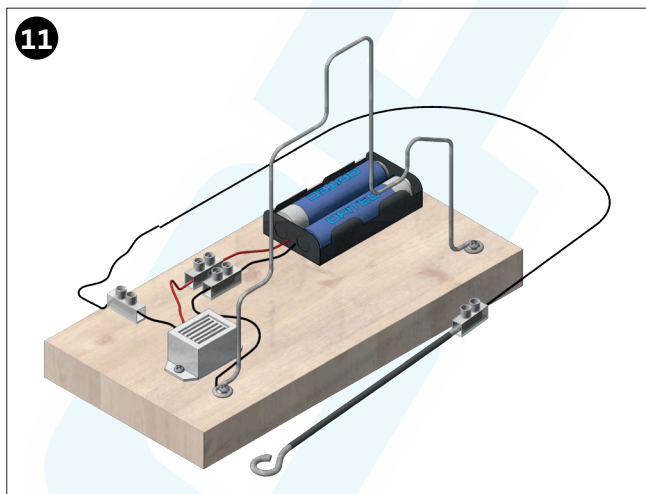
Assembly instructions 111.563
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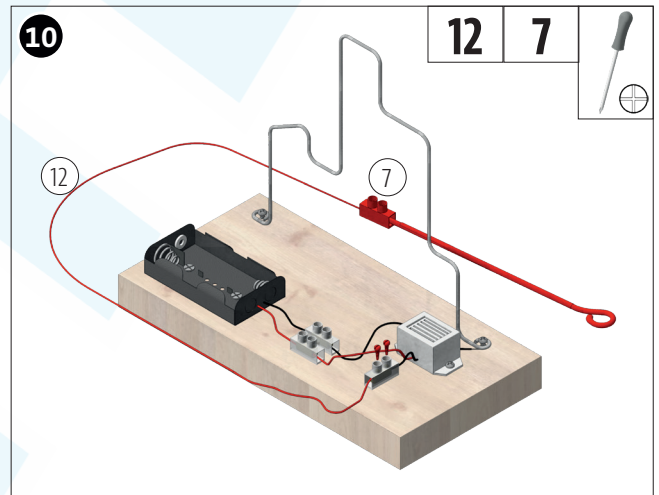
Cut a 80–100 mm long piece of the wiring harness (12) and strip the insulation from both ends. Insert one end into the free terminal on the terminal block (7) and tighten the screw. Wrap the other end around the screw on the wire figure and tighten the screw.



Strip the insulation from both ends of the wiring harness (12), insert one end into the remaining terminal block (7) and tighten the screw. Insert the guide arm into the terminal block (7) as shown and secure it.



Measure 40 mm from one end of the insulated wire (11) and 10 mm from the other end, then mark these points. Then strip the insulation. Bend the long, insulated end, as shown, into a hook.



Connect the remaining terminal block to the black cable of the buzzer (9). Next, plug the long cable from the guide arm into the terminal block and tighten the screw.

Insert 2 AA batteries. Done!

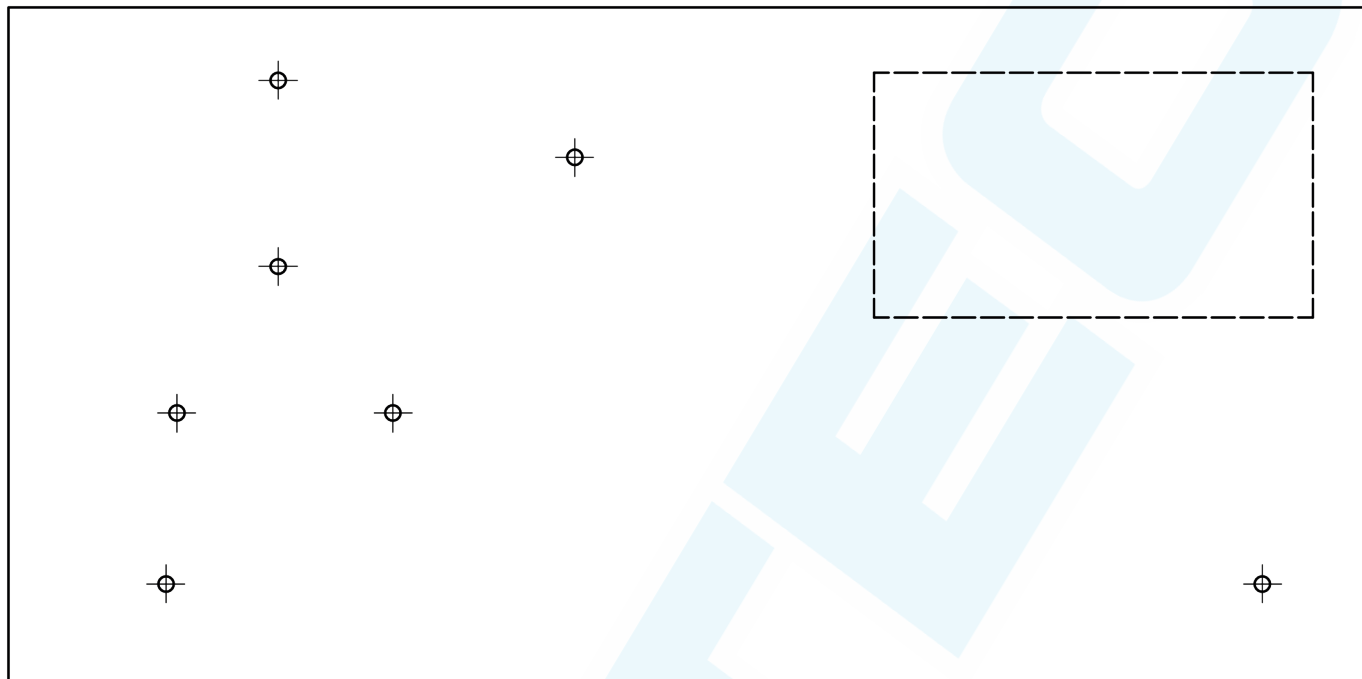
Functional description:

Thread the guide arm through and guide it along the curved wire structure. Make sure that the loop does not touch the wire of the structure.

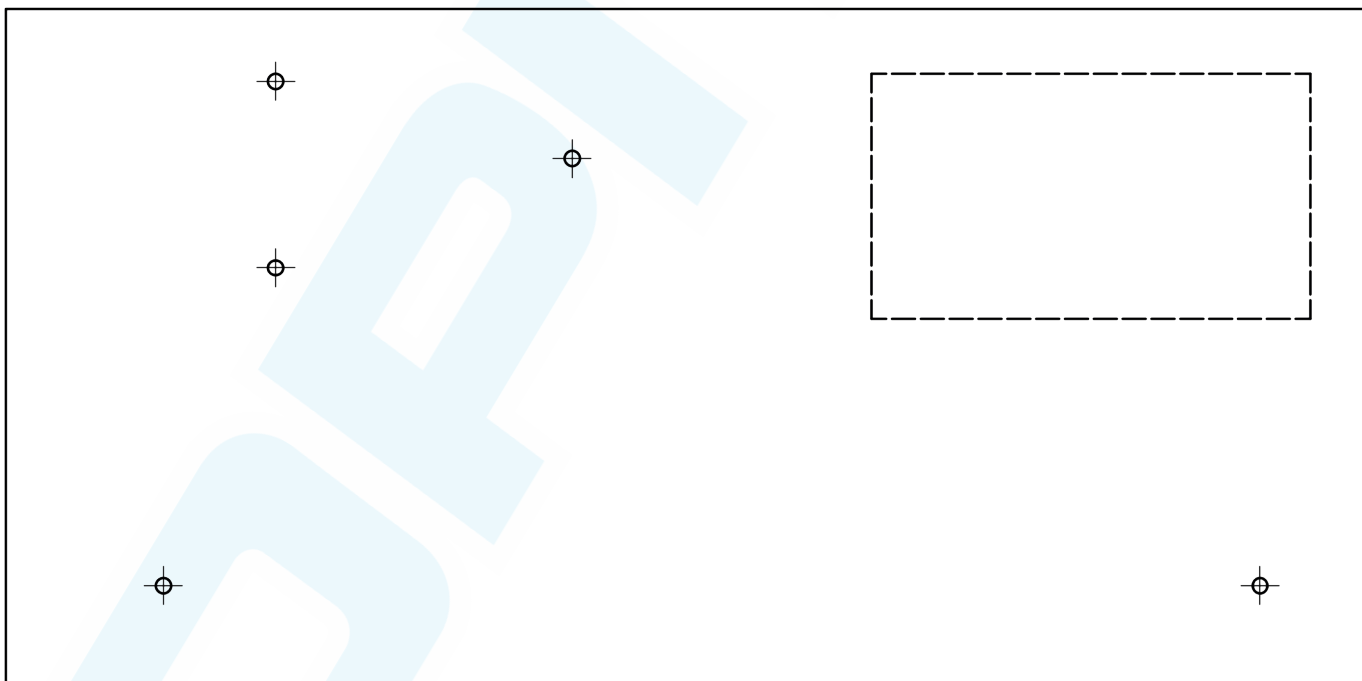
If the wire is touched, an audible signal sounds. This ends the game and you have to start again.

Assembly instructions 111.563
'Hot Wire' skill game with audible signal & Signal lamp

Template A
SCALE 1:1



Template B
SCALE 1:1



Assembly instructions 111.563

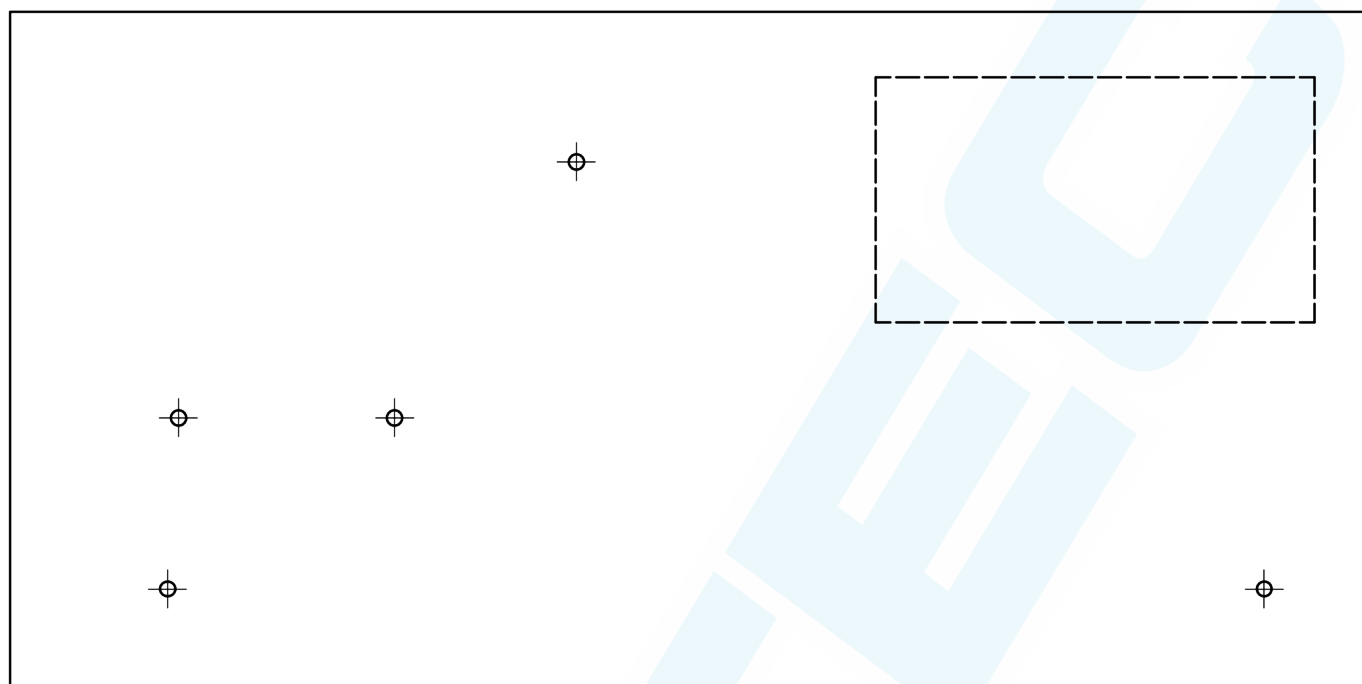
'Hot Wire' skill game with audible signal & Signal lamp

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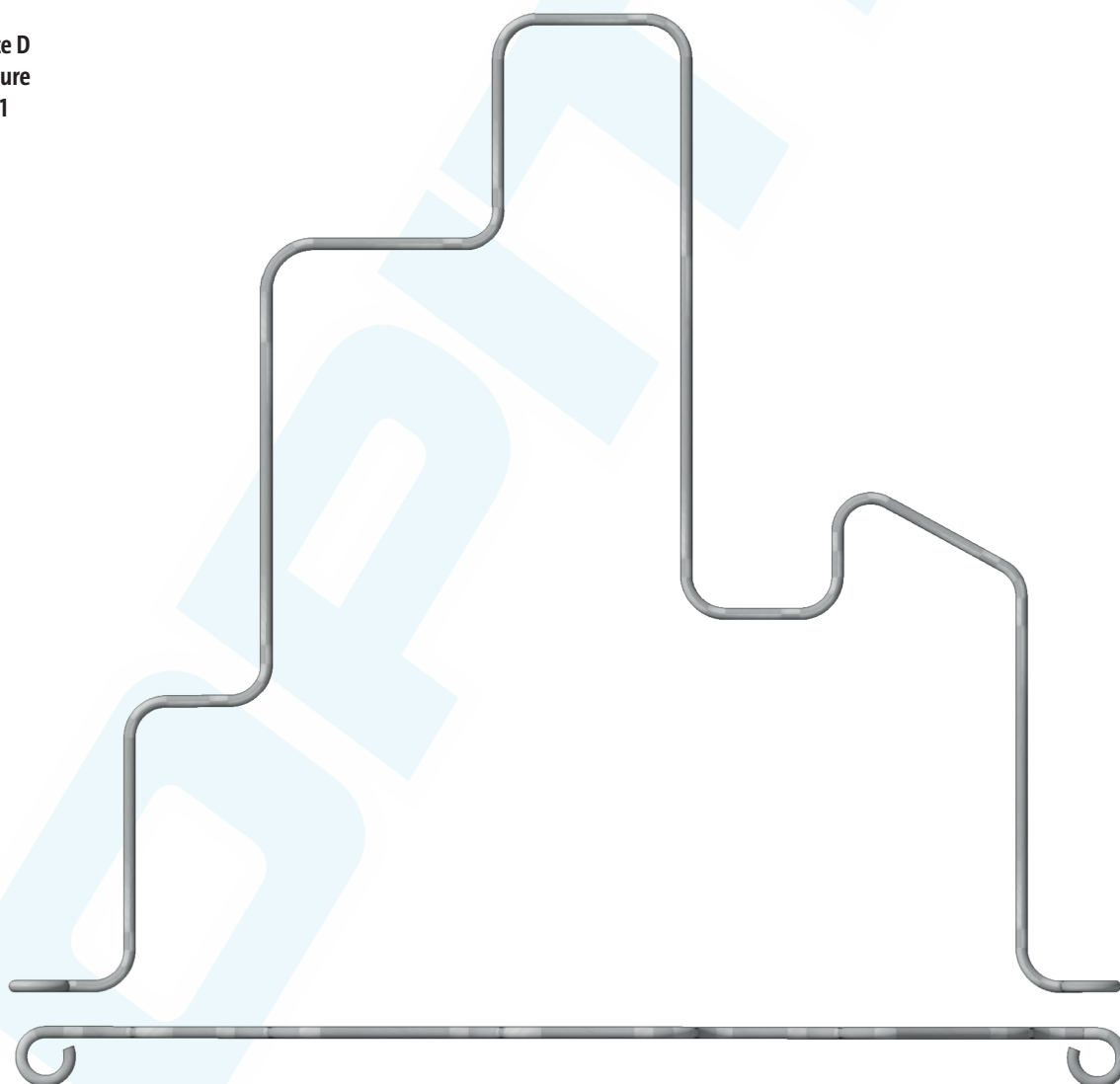
'Hot Wire' skill game with audible signal & Signal lamp

SCALE 1:1



Wire figure

SCALE 1:1



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