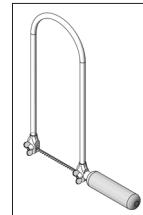
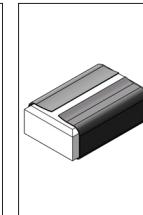


# Magic Picture Frame


**Required Tools:**


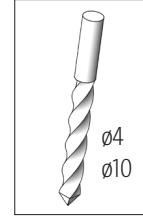
Jigsaw or Scroll Saw



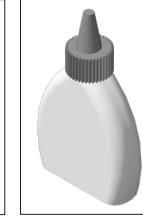
Sandpaper



File



Drill Bit



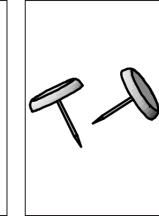
Wood Glue

Soldering Iron  
(as required)

Pencil



Ruler

Pins  
(as required)

Double Sided Tape



All Purpose Glue



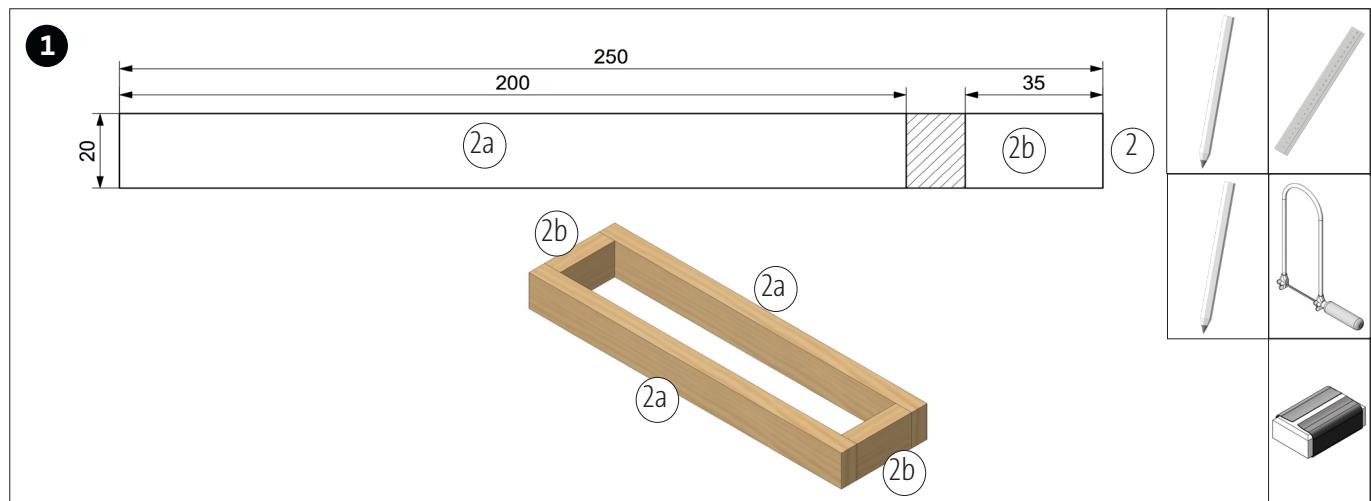
Pricking Awl

**Please Note**

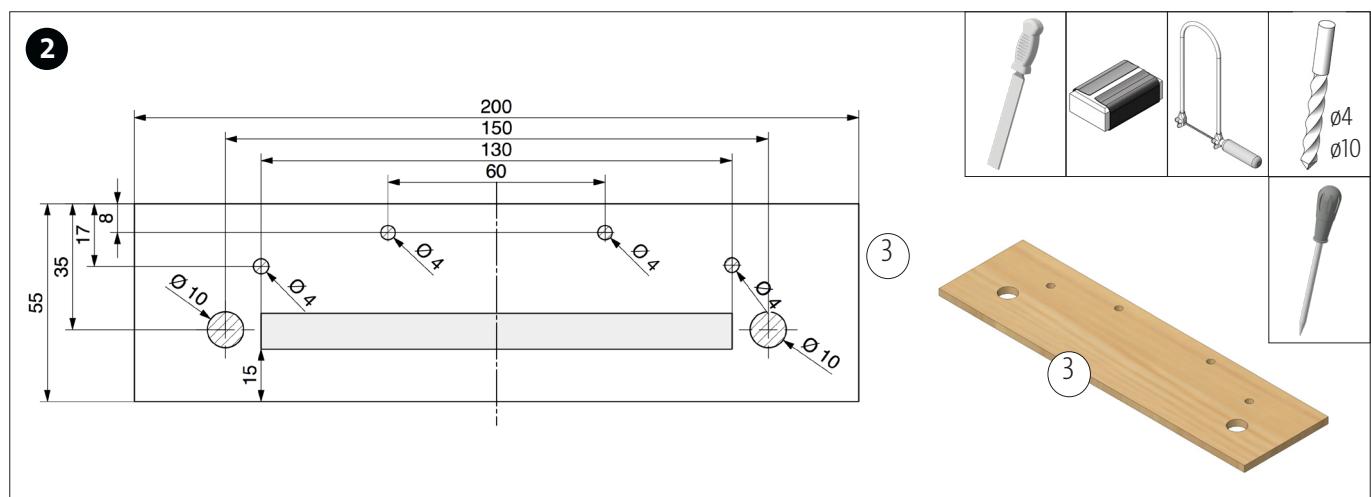
The Opitec Range of projects is not intended as play toys for young children. They are teaching aids for young people learning the skills of craft, design and technology. These projects should only be undertaken and operated with the guidance of a fully qualified adult. The finished projects are not suitable to give to children under 3 years old. Some parts can be swallowed. Danger of suffocation!

Components List	Quantity	Sizes (mm)	Description	Part No.
Wooden strip	1	150x10x5	Frame	1
Wooden strips	2	250x20x10	Frame	2
Plywood panel	1	200x55x4 or 200x55x5	Cover	3
Acrylic glass panel	2	100x150x2	Picture holder	4
Acrylic glass rod	1	Ø4x245	Holder glass panel	5
Acrylic glass tube	1	Ø10/6x245	Lighting tube	6
LED super bright	2	Ø5	Lighting	7
Battery clip 9V	1	100	Connection	8
Reed switch	1	0,6x2,5x20	Switch	9
Magnet	1	24x13,5 or 15x6	Switch	10
Y Wire	1	500	Connection	11
Resistor 120 Ohm	1	brown/red/brown	Series resistor	12

**Instructions 111.161**  
**Magic Picture Frame**



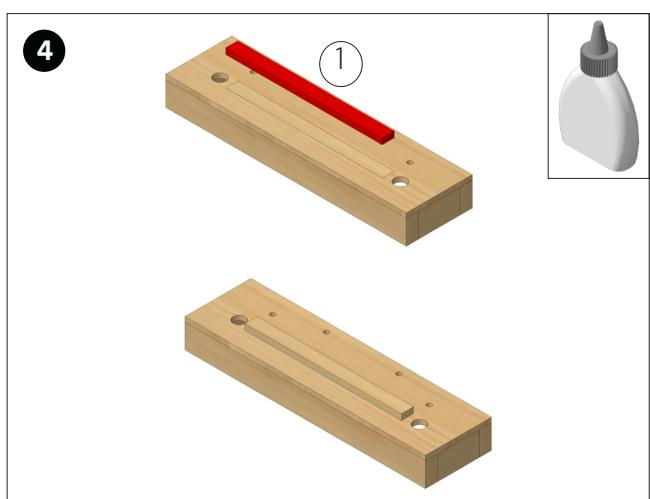
From each of the wooden strips (2) cut with the jigsaw 1 piece of 35 mm. Clean the saw cuts with sandpaper. Cut both wooden strips (2) to 200 mm with the jigsaw and sand the saw parts. Glue the shortened strips to form a frame as shown.



Mark the drill holes on the plywood (3) according to the drilling template (page 5). Drill through the holes with the required drill bit. Clean the plywood edges with sandpaper.

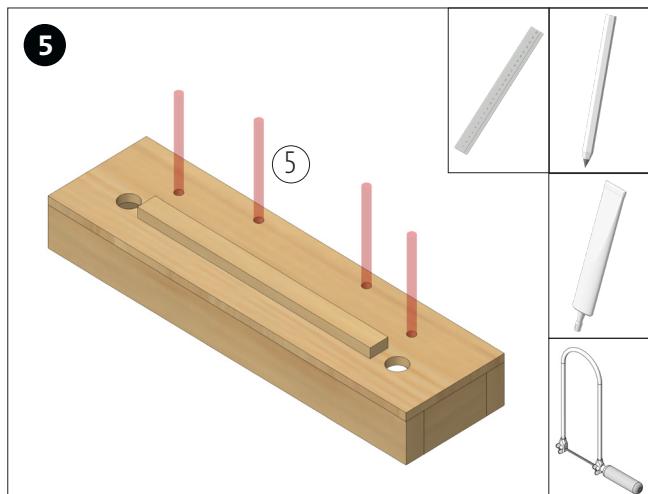


Glue the drilled plywood panel (3) onto the frame. Let the glue dry well.

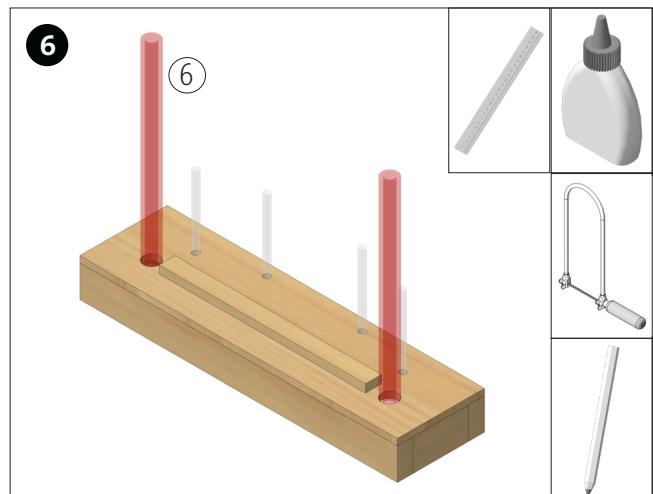


Cut the wooden strip (1) with the jigsaw to 130 mm and glue it to the drilled cover, as shown in the template on page 5.

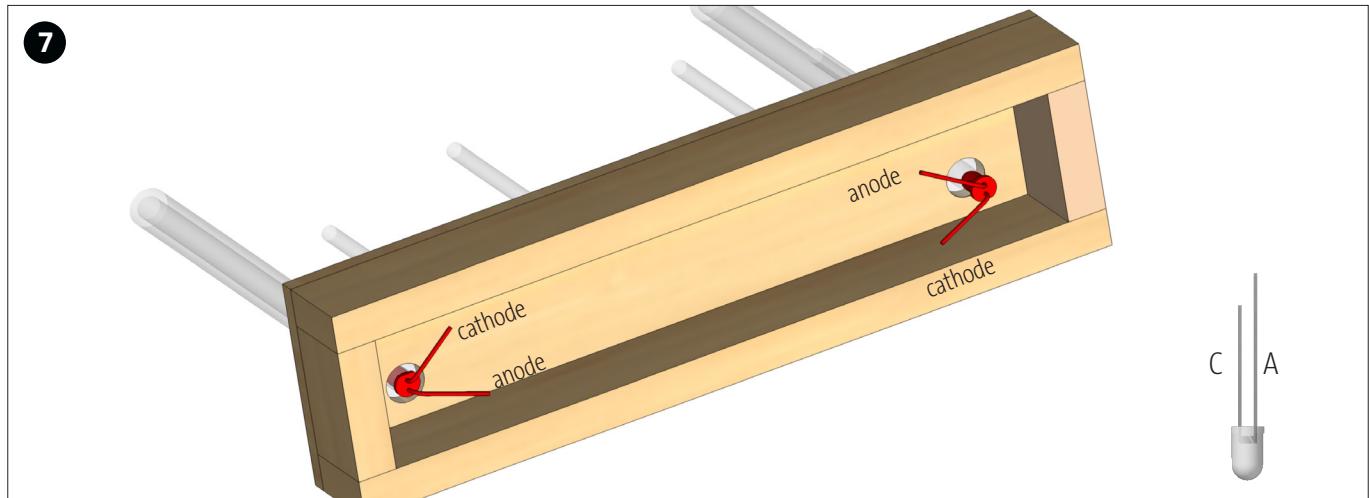
**Instructions 111.161**  
**Magic Picture Frame**



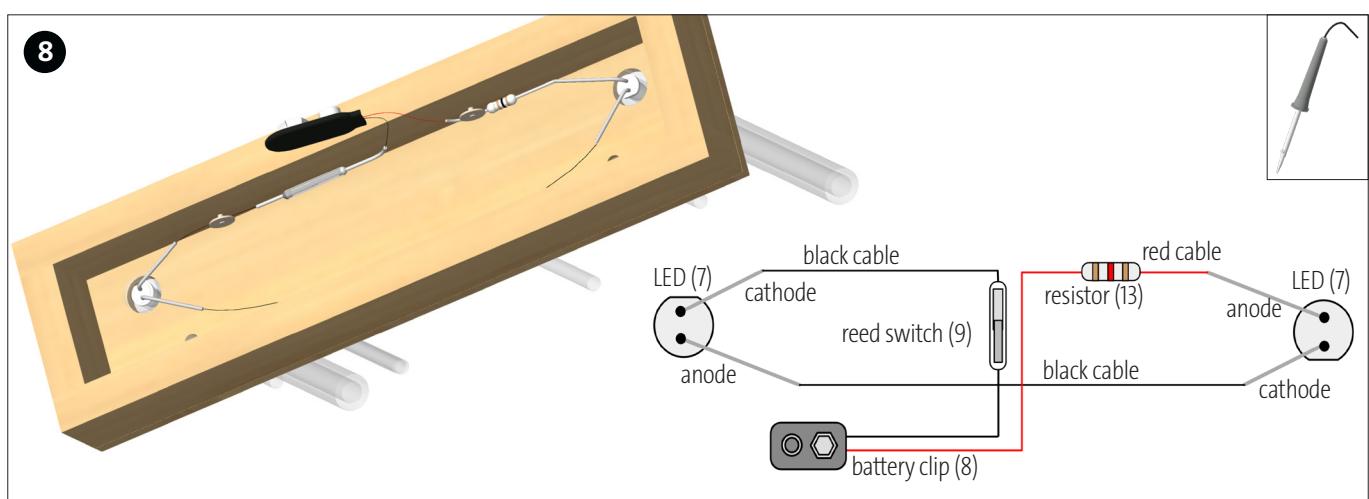
Cut with the jigsaw 4 pieces of 50 mm each from the acrylic glass rod (5). Clean the saw edges carefully with sandpaper. Insert the 4 rod pieces in the 4 mm holes of the cover. If necessary, fix them in the hole with all purpose glue.



Cut the acryl glass tube (6) with a jigsaw in half, so that each piece has a length of approx. 125 mm. Clean saw edges with sandpaper. Insert both tube pieces into the two 10 mm holes and glue them in place.

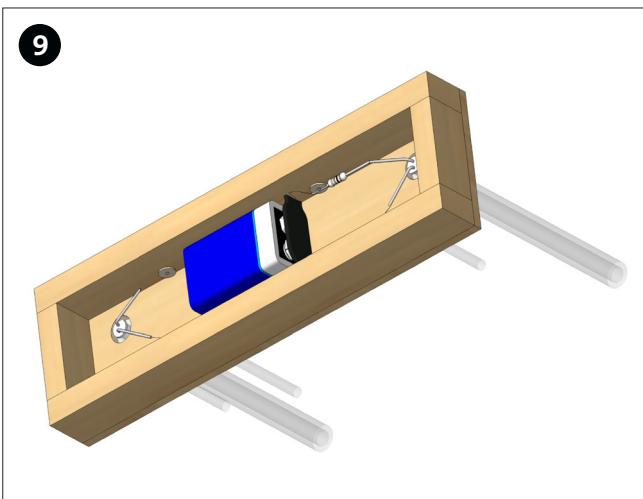


Insert one of the two LEDs (7) into the acrylic glass tubes from below. Make sure that the cathode of one LED is opposite the anode of the other LED and vice versa.

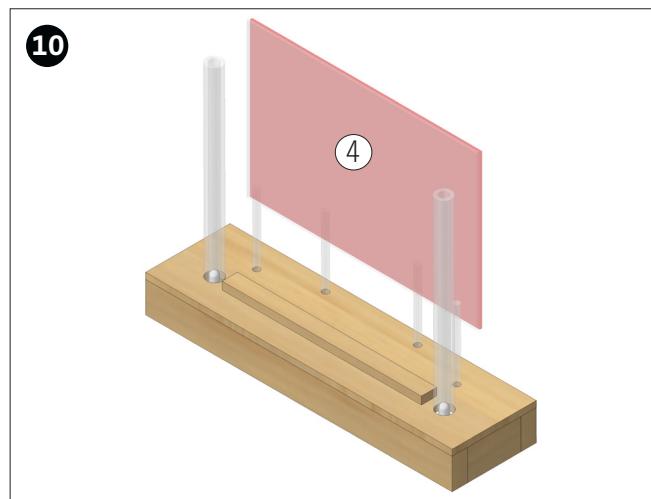


Connect the LEDs (7) to the reed switch (9), the resistor (13) and the battery clip (8), according to the wiring diagram. With the reed switch, pay attention to the position of the contacts! (see wiring diagram) The cables can be twisted together and secured with pins or all connections can be soldered (as shown).

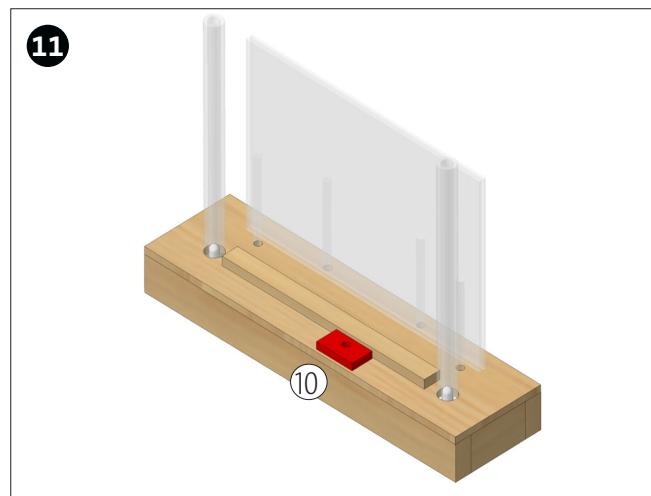
Instructions 111.161  
Magic Picture Frame



Connect a 9V block battery to the battery clip and stick the battery in the frame with double sided tape as shown.

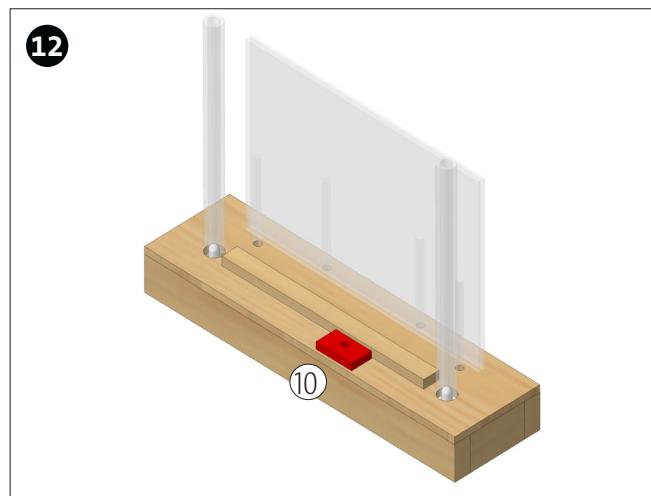


Place a photo between the two acrylic glass panels (4) and insert it between the acrylic glass rods (6).



The magnet (10) serves as switch for the picture frame. By sliding it back and forth over the reed switch, it is activated and the LEDs are switched on and off.

**Tip (magnet parking):**  
Push a pin into the edge and place the magnet there.



Done!

