

Nature



Art



STEM



Illuminated nature print



the crafting sustainabilities collective
researching at the intersection of technology and sustainability

Licensing statement: Hybrid nature crafts by UCL academics, Mina Vasalou and Andrea Gauthier. Design by [Ana Marques](#). This work is licensed under a Creative Commons Attribution 4.0 International License, which allows others to share, copy, adapt, and build upon this work, as long as they give appropriate credit to the creator.

Materials and tools

Part 1

- Rice paper or 100 GSM paper watercolour paper
- Brayer roller
- Gel plate
- Acrylic paint
- Scissors
- Leaves and flowers

Part 2

- Corrugated cardboard
- Coin cell battery (3V CR2016)
- Foam tape
- Conductive fabric tape

Part 3

- Ruler
- Cardboard stock paper
- Conductive fabric tape
- Chibitronics circuit templates (for inspiration)
- LED lights
- Photo frame



Creating a nature print



1.



Source nature materials

Select leaves with textures and different shapes.

2.



Roll the paint

Start with a vibrant darker paint—just 5-6 dots! Roll in all directions for a thin, even layer.

3.

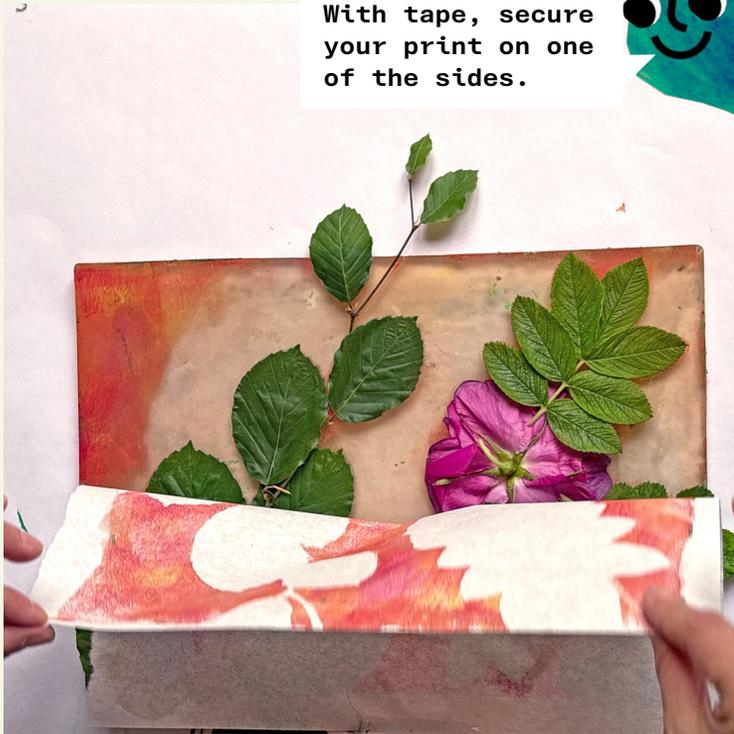


Compose the piece

Arrange your materials on the plate with leaf textures facing down.

4.

With tape, secure your print on one of the sides.



Remove the background

Press down, get close, then peel off to lift paint around the materials.

5.

Use a hair dryer to speed up the drying.



Roll the paint

Remove the natural materials and let the paint dry. Roll on a lighter paint. Then, press paper to print both layers and let it dry.

6.

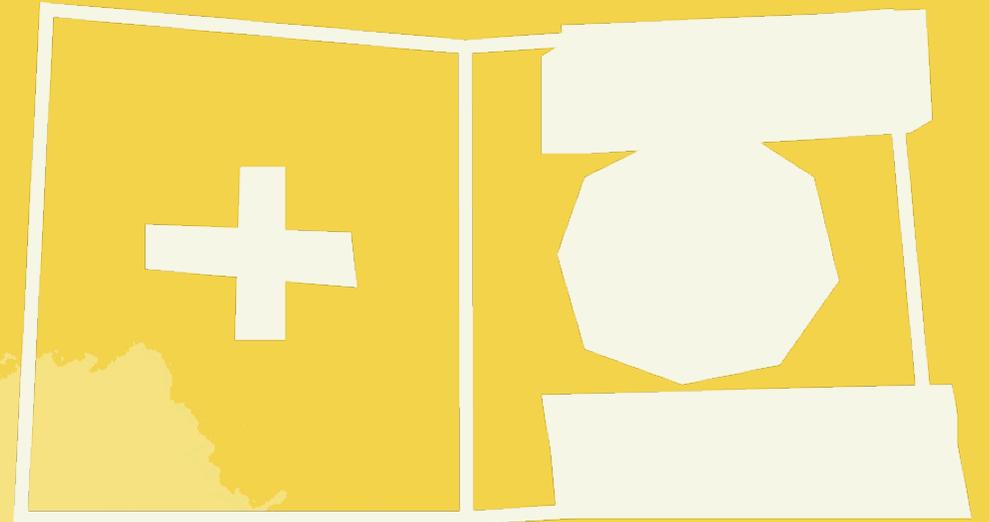


Lift and inspect the print

Ensure paint is dry, then lift to reveal your print.

[Visit our YouTube channel for more printing techniques.](#)

**Constructing
your battery pack**



1.



Cut the case

Make a cardboard case to support the battery measuring 7x4cm (equalling the width of the foam tape & battery).

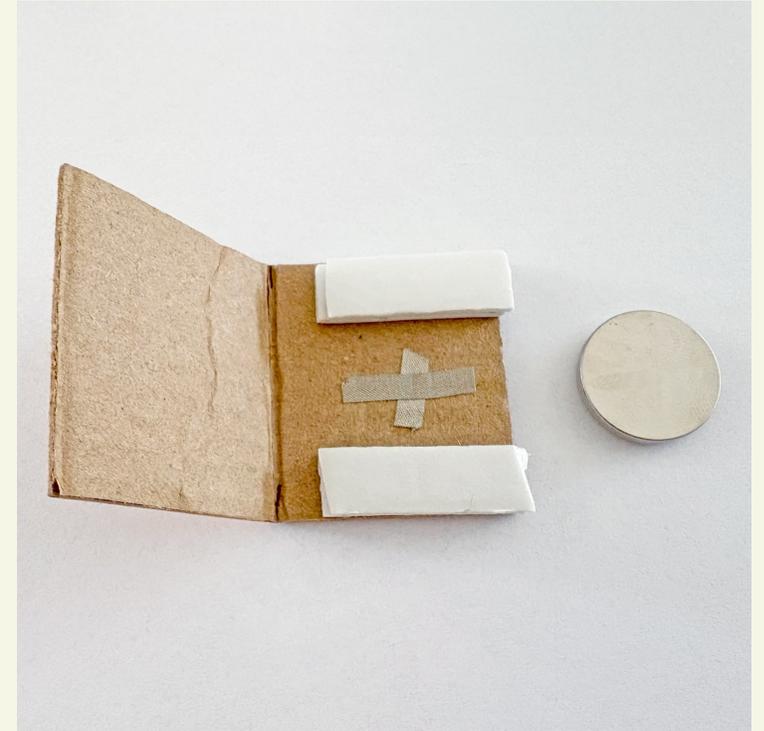
2.



Secure the battery

Fold in half. Attach the foam tape to the bottom of your case and nest your battery in between.

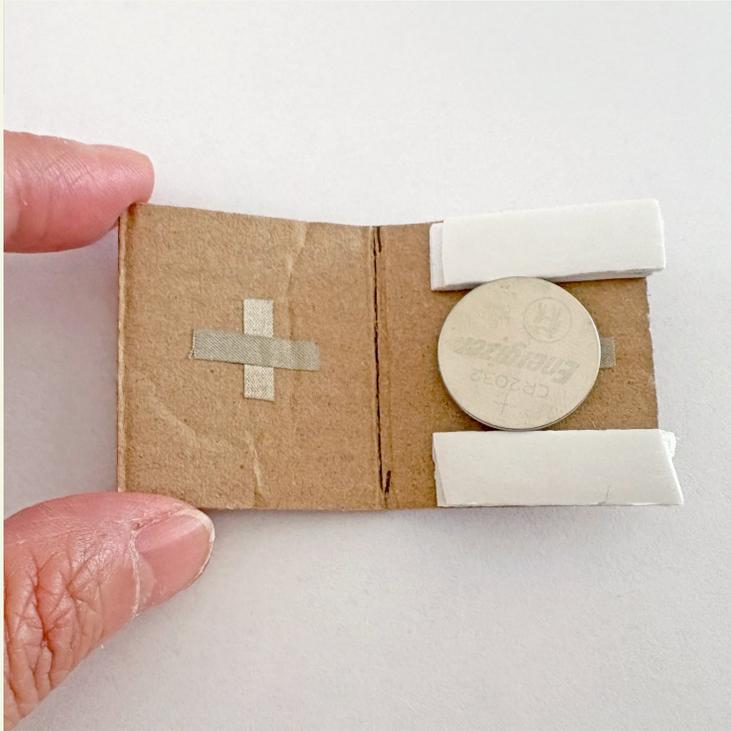
3.



Add the tape

Place fabric tape under the battery to ensure good contact is made with the battery.

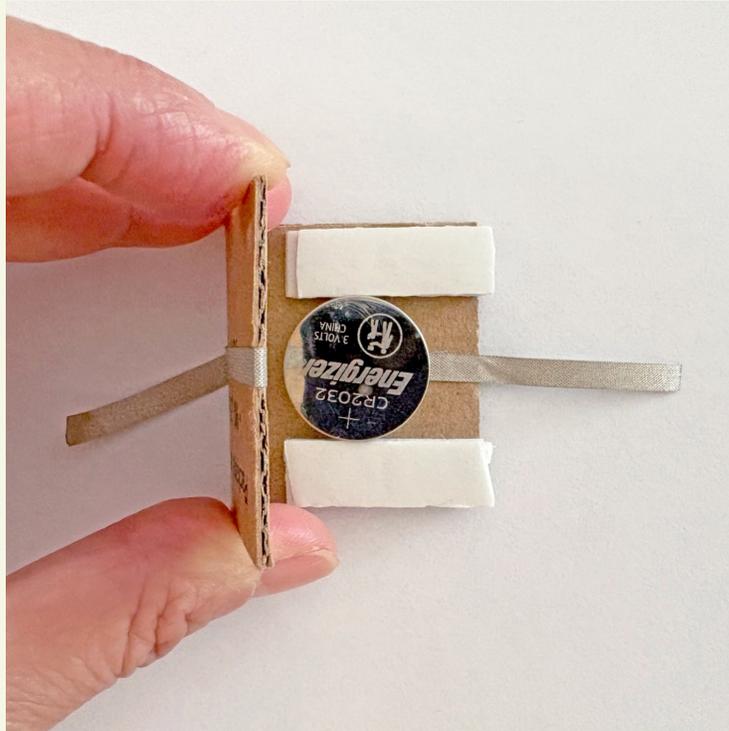
4.



Repeat

Repeat the same on the other side of the fold.

5.



Connect the power

Attach conductive tape to each hot spot and leave them dangling allowing you to later connect to your piece.

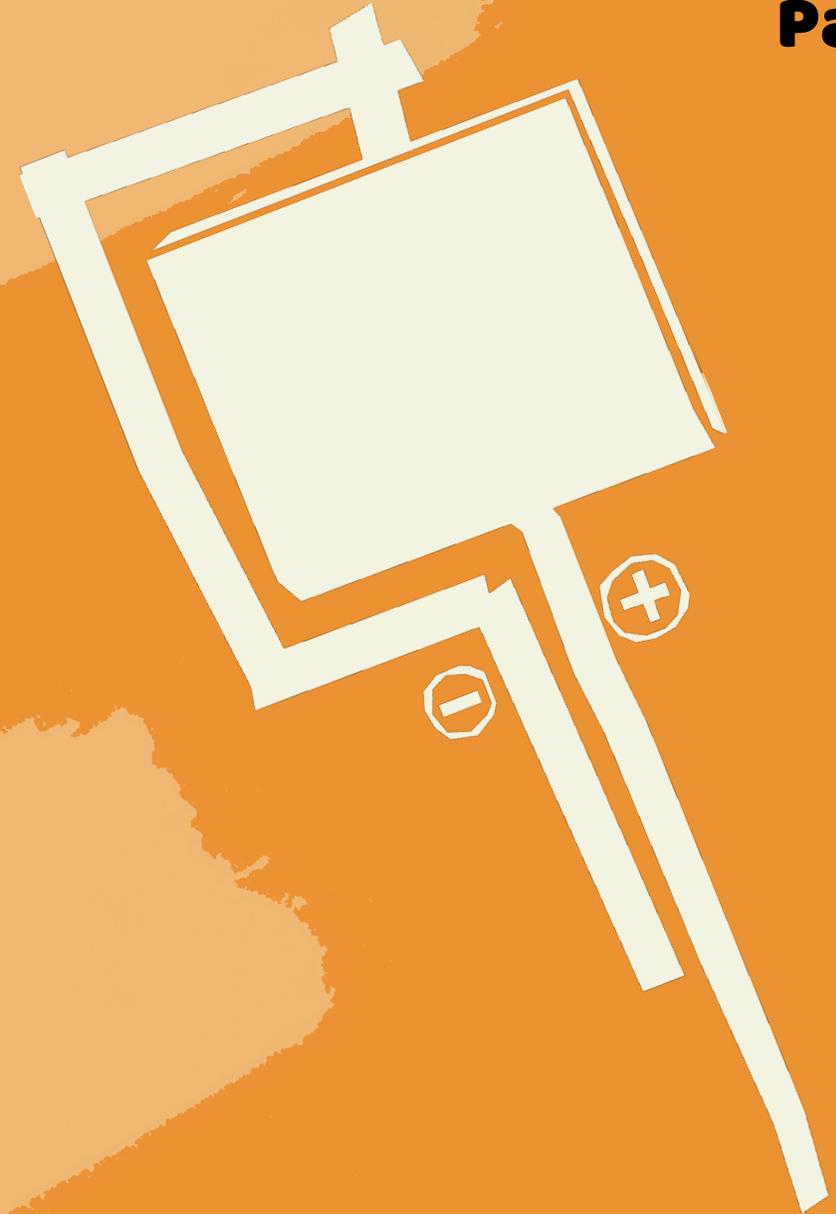
6.



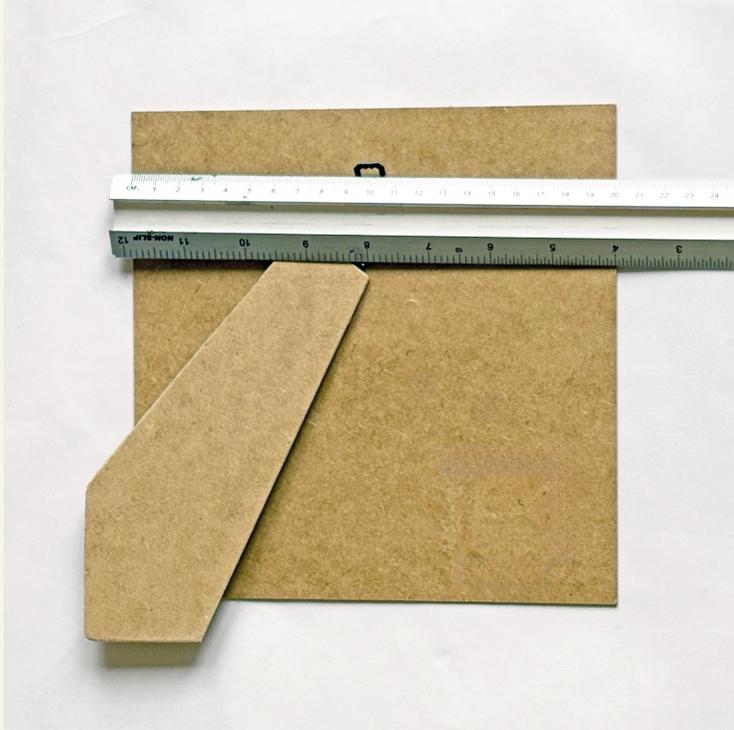
Ready to attach

Fit your battery onto your piece. If the electricity is not flowing, you can add a paper clip to strengthen it.

Lighting it up



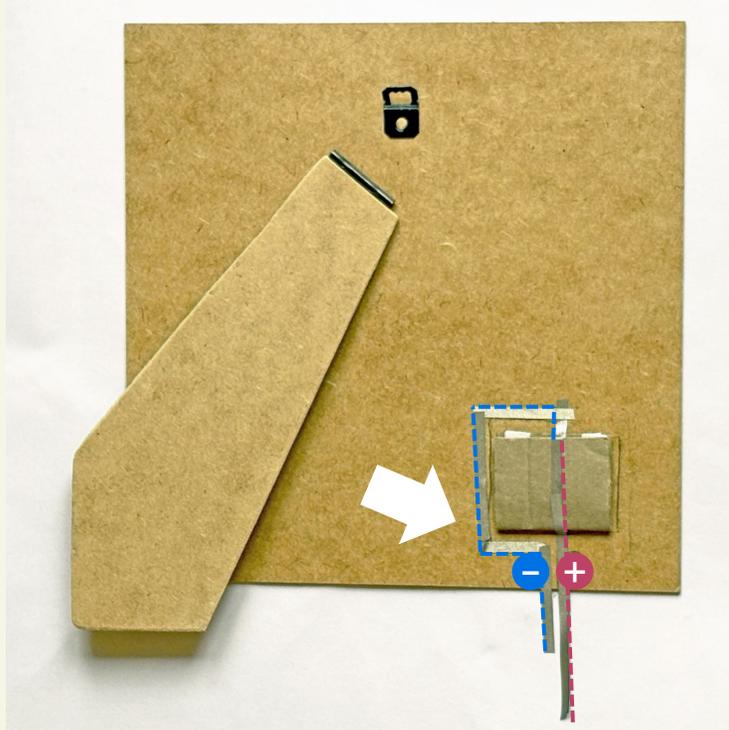
1.



Measure and cut circuit board

Measure the frame, then cut your cardboard circuit board. This will lay inside the frame underneath your print.

2.



Secure your battery

Stick the battery holder on the back with double-sided tape. Draw a circuit using it as a placement guide to lay your tape. Leave extra tape on the bottom!

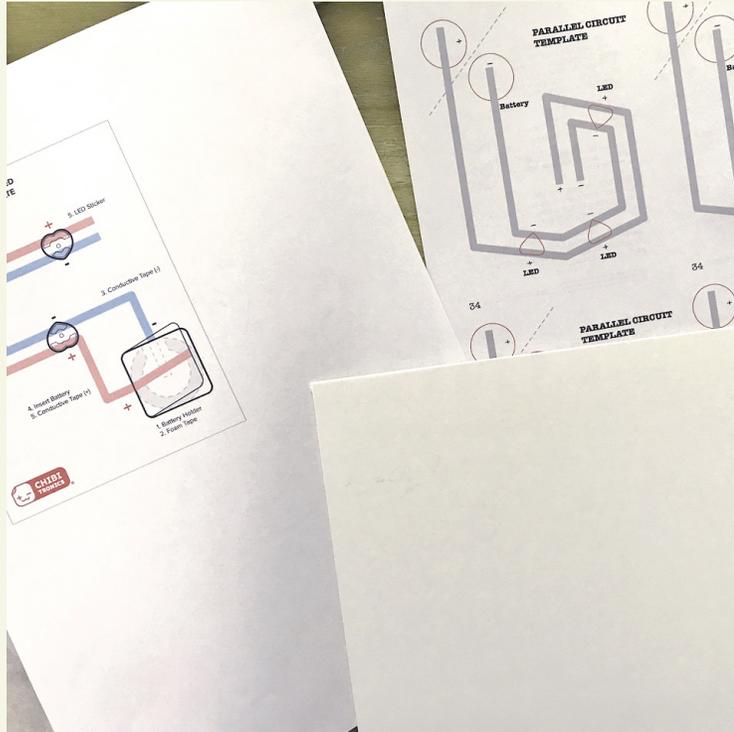
3.



Light hotspots

Place the circuit board under your nature print, press where you want light, lift the nature print, and mark the spot.

4.



Draw the circuit

Look at [example templates](#) to learn how the parallel circuit works! Notice the power, LED polarity, and the design of the circuit.

5.



From drawing to circuit

Fit the circuit board on the frame, lift up the extra circuit tape behind the frame and stick on board.

Draw a line from the tape to the LED hotspots until you have drawn the full circuit. Then, lay your tape and LEDs!

6.



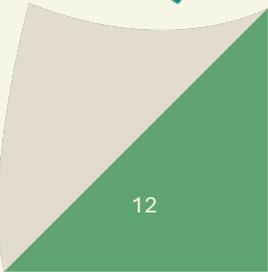
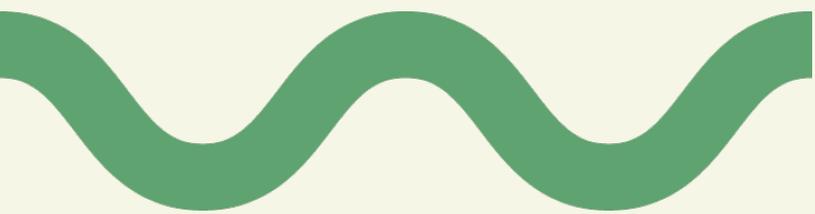
Fit it together

Place the back part containing the circuit in the frame and voila!

Your illuminated nature print is ready!



Want more of a challenge?
Turn the page!





Create a composition featuring plants that live in symbiosis (e.g., clover and nitrogen-fixing bacteria, or asters and goldenrod).



Incorporate additional texture-making materials like scrunched up tissue paper, thread, or bubble wrap to enhance texture and depth in your print.



Modify your circuit to include a reed switch, allowing the print to be turned on and off manually with a magnet.



Add your idea here!

Add your idea here!

Add your idea here!