What we’re making today:

Light-Up Pop-Up Greeting Cards
A circuit is the circular path that electricity flows through.
An example completed paper circuit

Supplies:

5mm Copper Tape (~15 inches)

3mm LED    LilyPad Button Board    12mm Coin Cell Battery (CR1225)
About Copper Tape

Pros:
- Nice and conductive!
- Peel and stick
- Can use conductive paint to attach components to it
- Can solder components to it

Cons:
- Needs a continuous line so you must get creative when turning corners
- Adhesive is NOT conductive
- Can have sharp edges so be careful!
Let’s Get Started! Look at your template:

Start taping here

Leave 2" tail of tape to make battery holder...

Leaving 2" tail of tape to make battery holder...

Heart

Start taping here

I ♥ U

CUT ---- FOLD

DISCARD

COPPER TAPE

LED

BATTERY

BUTTON

← ↓ Look for these icons
Turning corners with the copper tape

It’s okay if your fold isn’t perfect — we just want to go around the corner without the tape breaking
Joining tape in case of breaks/tears

- Join pieces by touching the **TOP SIDE** of the copper tape to the **TOP SIDE** of each section
- Secure with clear tape
Making a Battery Holder

The side with the labels/writing is the top of the battery.

Fold sticky side to sticky side so it can make contact with the battery.
LEDs

- Use clear tape to stick the LED to the copper tape
- Make sure the + and - are aligned correctly
Add the LilyPad Button

Conductive pads

Try not to tape directly over the push button.

Keep to the pad ends.
Folding Tips

Cut some vellum that is a little bigger than the hole in the heart and paste/tape it behind the opening before you start folding.

Push the bottom of the U or I letters down first and work your way up to the smaller folds.
Folding Tips

This template is tricky and takes some patience to fold

*Hang in there!*

Hold the template upside down and start with the point of the heart

Use gravity to help you pull all the little folds up one by one
If you are mailing your card, mark the outside envelope “hand cancel” so the LED won’t get crushed by sorting machines :)

Press here ↓