

# Circuit Stickers Holiday Greeting Card

Brighten your holiday greetings with these beautiful, customizable cards that light up.

Let your creativity kick in this holiday season with the Chibitronics Holiday Greeting Cards. Assemble your circuit on each card in minutes, and watch it transform an ordinary card into a light-up card! Personalize your card with a special message, or add your own drawings and designs. Now you're ready to send a light-up holiday card to someone special.



## The Kit

- 1 snowflake card
- 1 dove card
- 1 DIY light-up frame card
- 6 white LEDs
- 3 coin-cell batteries
- 1 roll 3mm copper tape
- 3 star paperclips

- 3 envelopes
- Easy-to-follow instructions



## The Cards



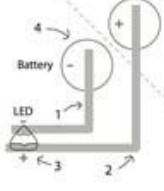


After lighting up your snowflake:  
Transform your card into a light-up ornament!

**DIRECTIONS:**  
**Step 1:** Remove the battery and cut out your circuit along the dotted lines above.  
**Step 2:** Cut out the snowflake along the dotted hexagon inside the card.  
**Step 3:** Clip your battery back into the circuit, so that the LED is on. Lay the snowflake over your light and use glue or tape to secure it in place.  
**Step 4:** Fold back parts of the circuit that stick out behind the snowflake.  
**Step 5:** Tie a loop of string through the clip, so that your ornament will be able to hang. Your ornament is complete!



SEASON'S GREETINGS



**Snowflake Circuit**  
Light up your snowflake with an LED!

4 → +  
 Battery -  
 LED 1  
 + 3 2 →

Cut along here for ornament (see back for instructions)

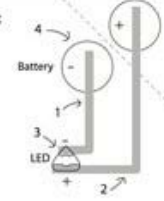
Cut along here for card

Seasons Greetings snowflake



After lighting up your Dove:  
Transform your card into a light-up ornament!

**DIRECTIONS:**  
**Step 1:** Remove the battery and cut out your circuit along the dotted lines above.  
**Step 2:** Cut out the dove along the dotted oval inside the card.  
**Step 3:** Clip your battery back in, so that the LED is on. Lay the dove over your light and use glue or tape to secure it in place.  
**Step 4:** Fold back parts of the circuit that stick out behind the dove.  
**Step 5:** Tie a loop of string through the clip, so that your ornament will be able to hang. Your ornament is complete!

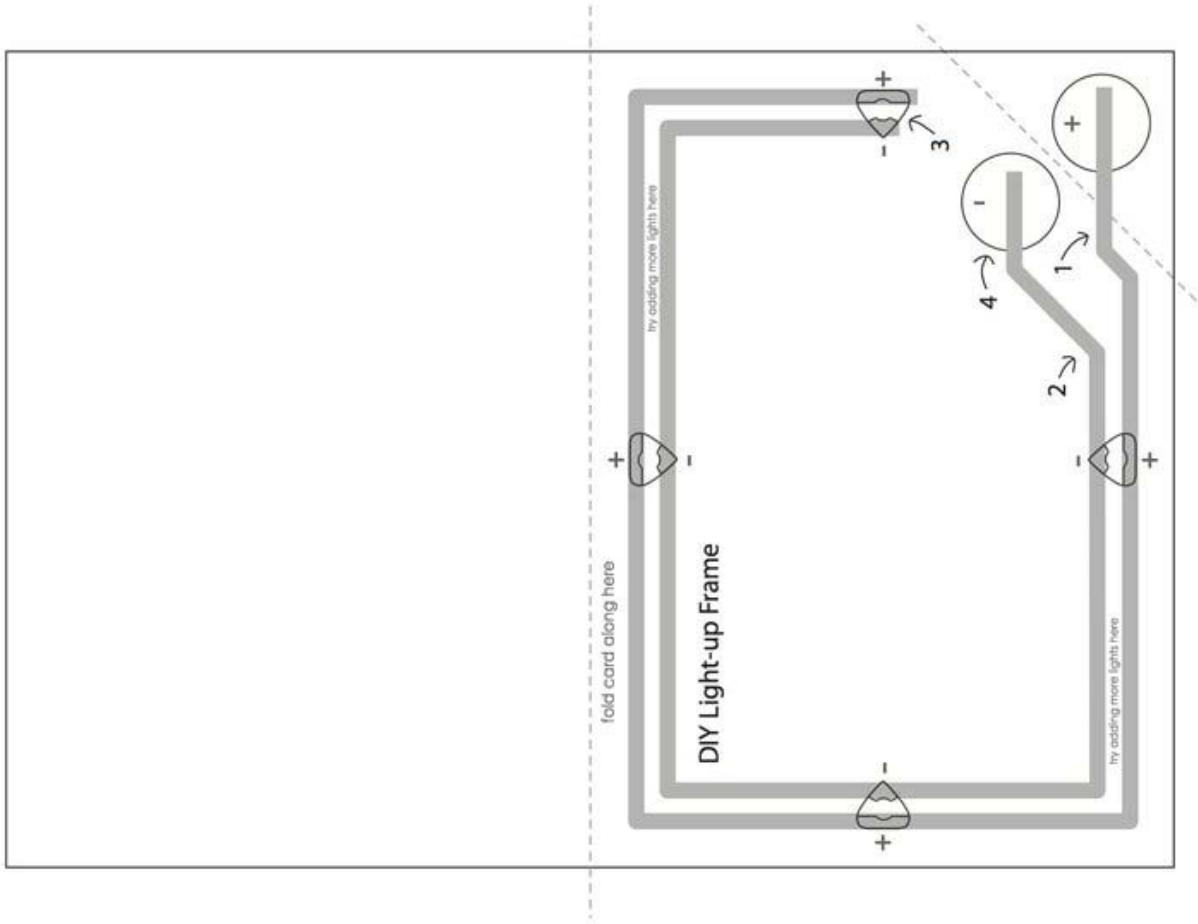
**Peace Dove Circuit**  
Light up your dove with an LED!

4 → +  
 Battery -  
 LED 3  
 + 2 →

Cut along here for ornament (see back for instructions)

Cut along here for card

Peace Dove



*DIY light-up frame*

# Instructions

## Circuit Template Instructions

Light up your cards with LED stickers!

### For each card, you will need:

- 1 battery
- LED sticker(s)
- 1 clip
- copper foil tape

### DIRECTIONS:

**Step 1:** Stick down one continuous strip of foil over this gray line (fold at the turns). Watch your fingers as the tape can be sharp!



**Step 2:** Stick down another continuous strip of foil along this second gray line.



**Step 3:** Stick one LED sticker over the foil tape, matching each footprint. Make sure the metal pads on the LED contact the foil tape and press firmly.

**Step 4:** Place your battery + side up over the "-" circle. Fold the corner down along the dotted line and secure your battery with the clip.



### Congratulations, your card is complete!

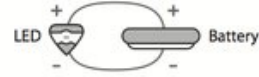
For the light-up picture frame, try decorating the lights with your own designs and add a picture!

See the back of this sheet for troubleshooting tips and to learn more about your circuits!



## HOW DOES THE CIRCUIT WORK?

When you connect the LED and battery with copper tape in this loop:



electricity will flow through the LED causing it to shine. The "+" wide side of the LED sticker needs to connect to the "+" side of the battery and the "-" pointy side of the sticker to the "-" side of the battery. This continuous loop is called a **complete circuit**.

To turn on multiple LED lights with one battery, you can make a **parallel circuit**. Here, we create multiple loops connecting the "+" of the LEDs to the "+" of the battery and "-" of the LEDs to the "-" of the battery:



You can keep adding more LEDs to your circuit this way. Keep in mind, the more LEDs you have in your circuit, the faster your battery will drain. Happy circuit crafting!

### TROUBLESHOOTING TIPS:

- Check battery is placed with + face up.
- Check the LED is pointed ("-" side) toward the - circle
- Smooth out wrinkled copper tape with an eraser for better connections to the LED
- Press firmly on the metal pads of LEDs to ensure strong connections between the stickers and copper tape

Have questions? Want more projects? Check out [chibitronics.com](http://chibitronics.com)



*These easy-to-follow instructions are provided in the kit.*





**Spread some holiday cheer this season, with the Chibitronics Holiday Greeting Cards.**