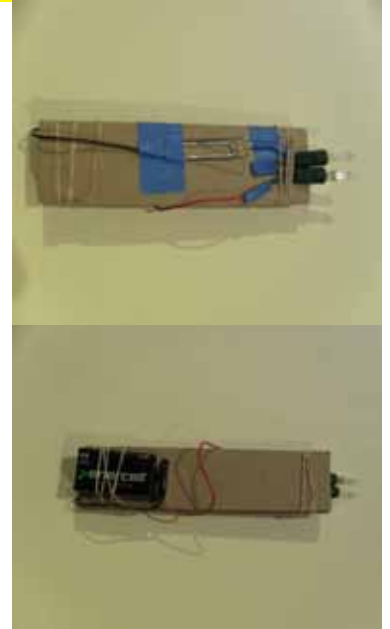
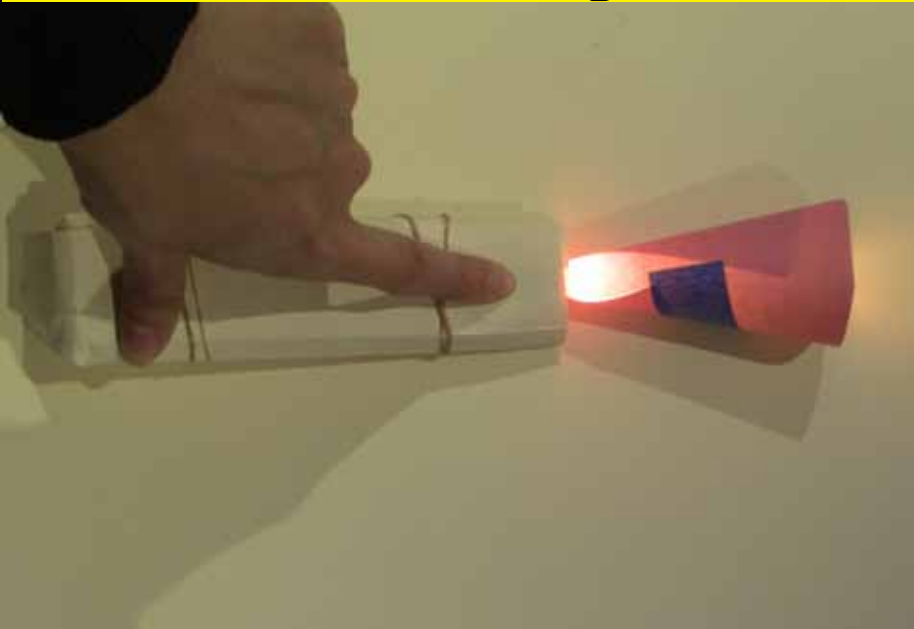
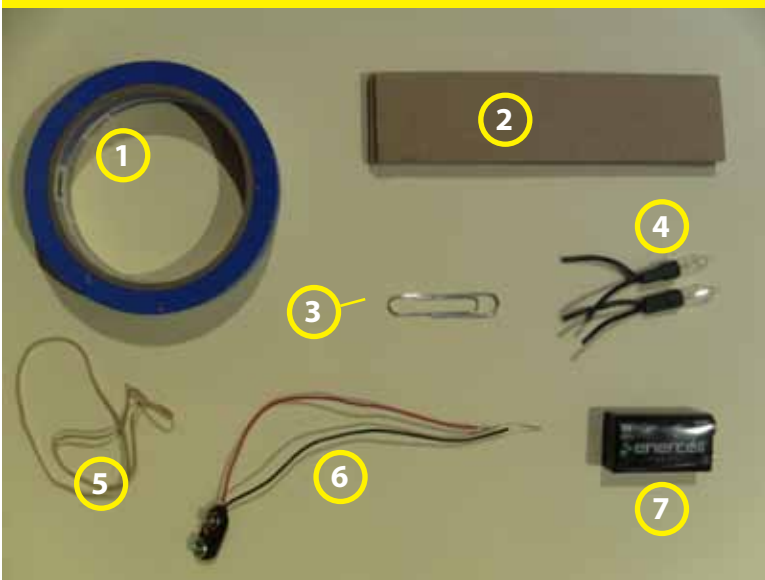


WORKSHOP on **Basic Electronics**

Project : Build a **Flashlight**

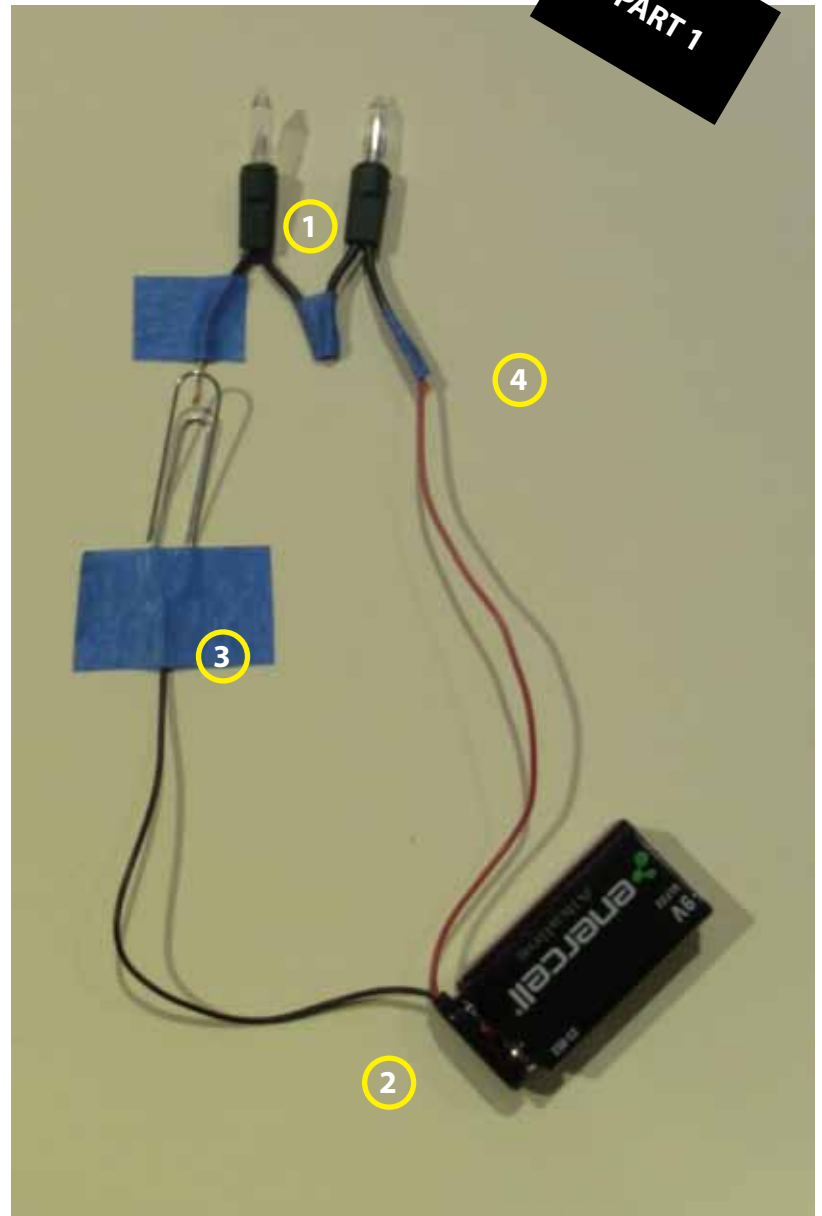
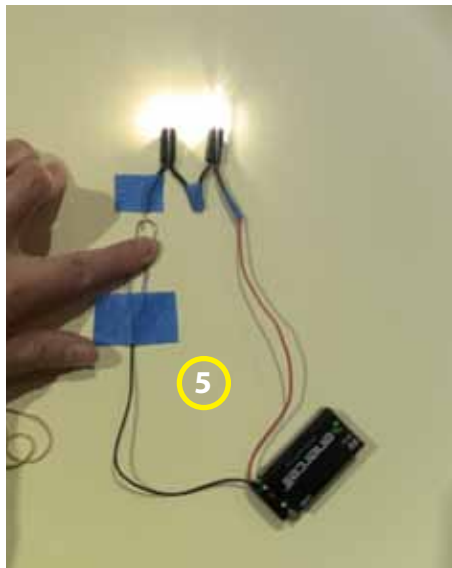


Parts:

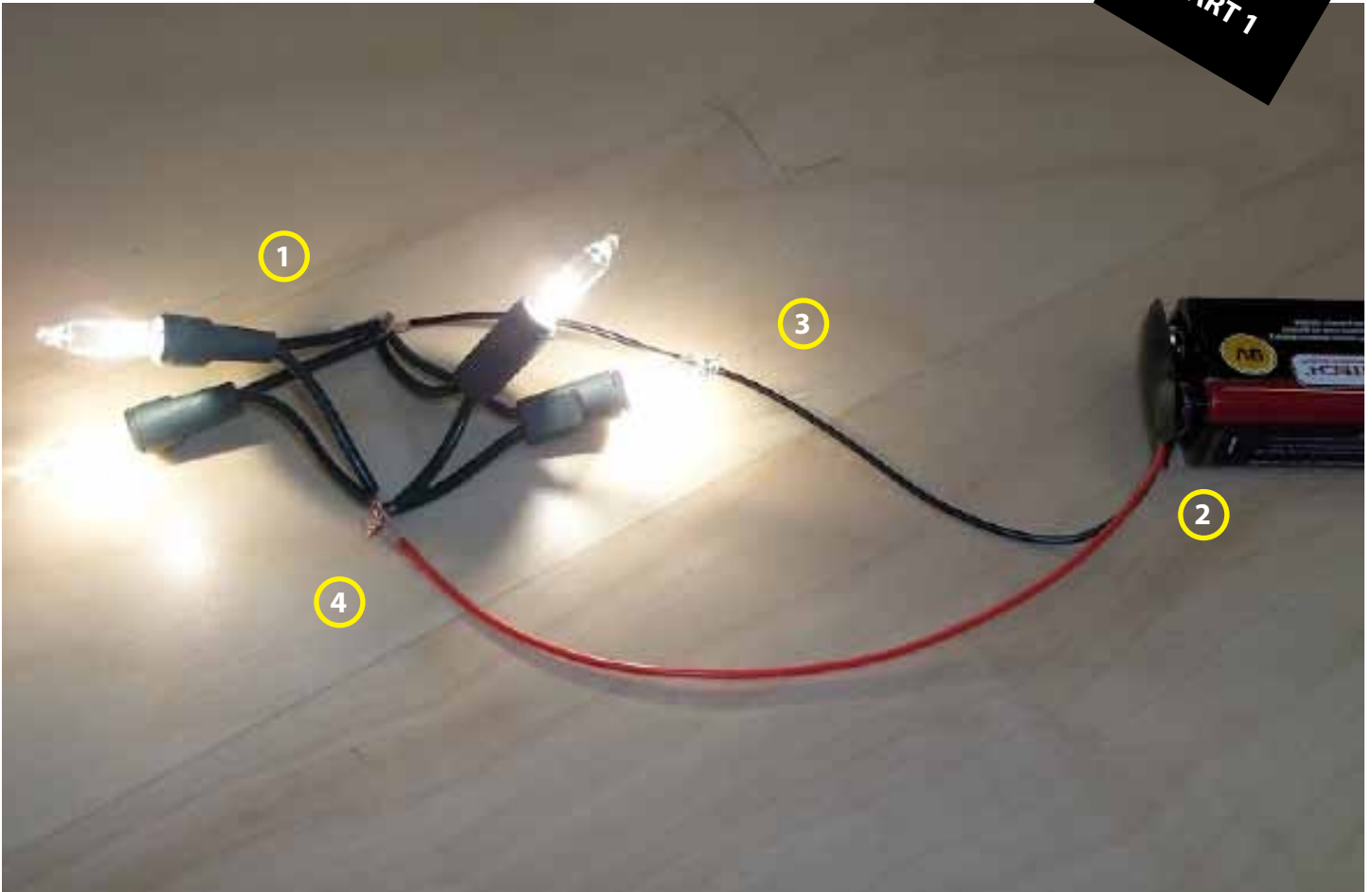


- 1 _____
- 2 _____
- 3 _____
- 4 _____
- 5 _____
- 6 _____
- 7 _____

MAKE A SERIAL CIRCUIT



1. Attach the lights in series.
2. Attach battery to the connector
3. Attach paper clip to black wire
4. Attach red wire to one end of the lights
5. Test your circuit
6. Now, try the same with 3 lights and then with 4 lights...



MAKE A PARALLEL CIRCUIT

1. Attach the lights in parallel
2. Attach battery to the connector
3. Attach paper clip to black wire
4. Attach red wire to one end of the lights
5. Test your circuit

How to make your flashlight...

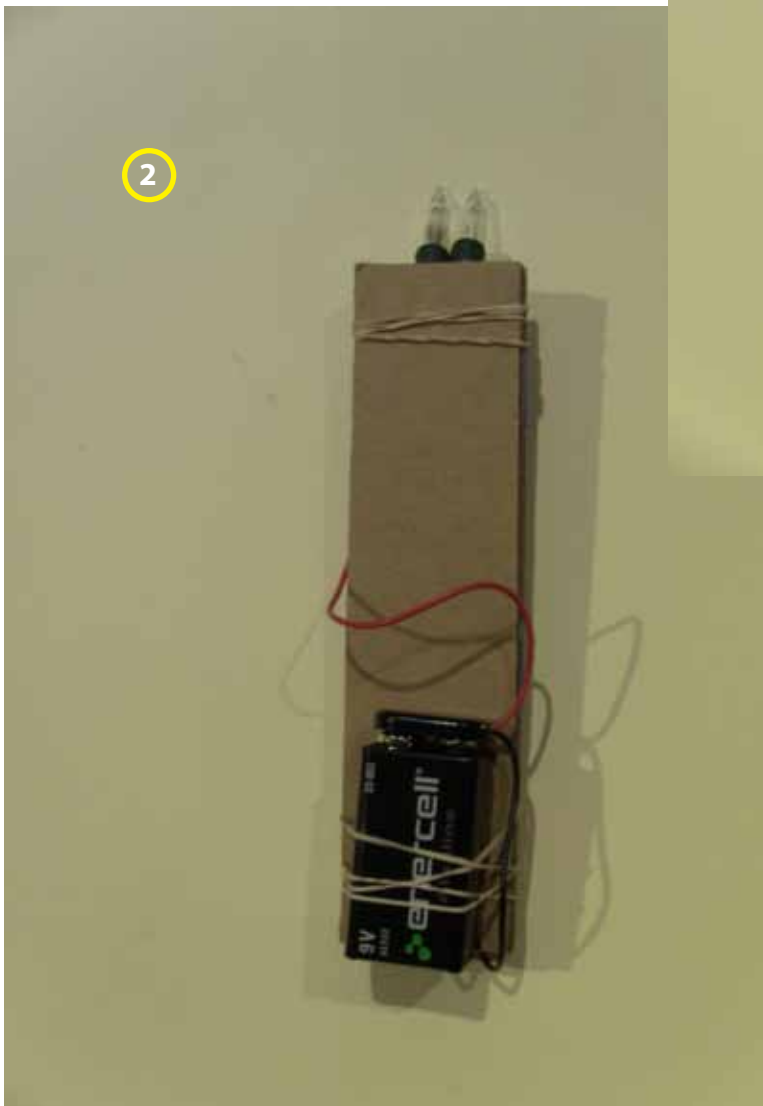
PART 2

Use your serial circuit from page 2 and attach it to the cardboard

1

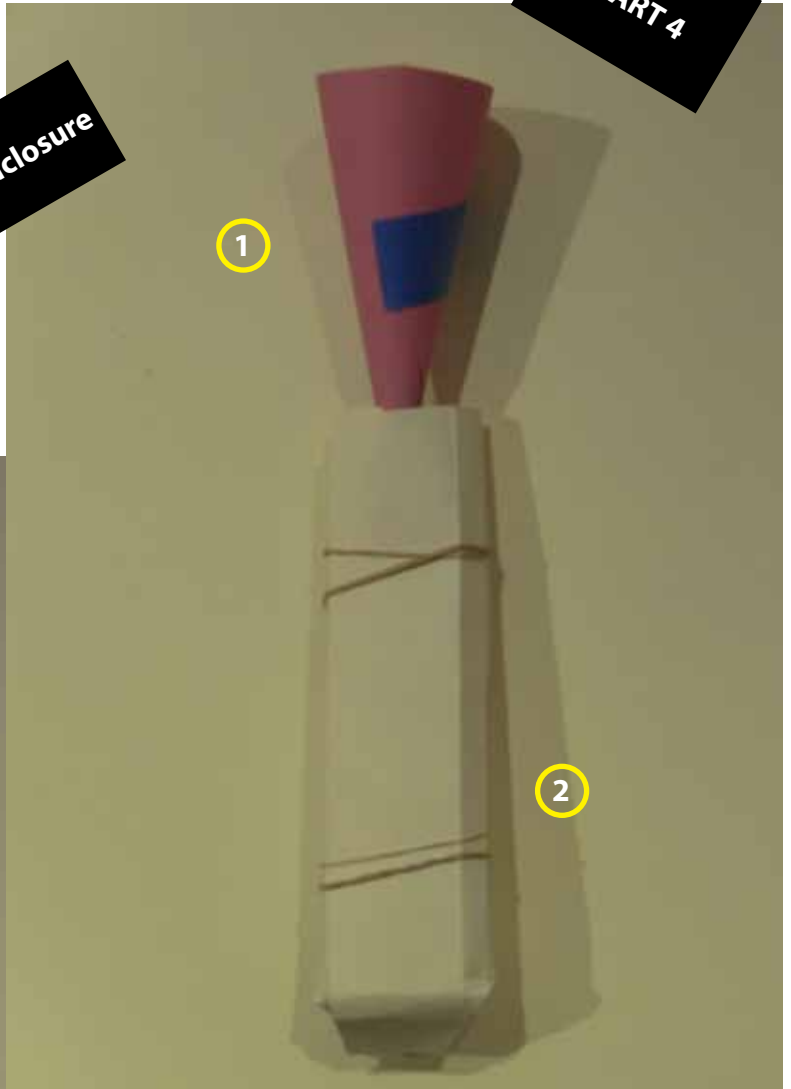


2



1. On the front attach two lights and paperclip using masking tape and rubber bands
2. On the back attach the battery

Design the enclosure



1. Make a cone and attach to cover the lights
2. Cut a piece of rectangular paper to cover the body of your flashlight

What did you learn from doing this project?

CIRCLE THE CONCEPTS WE ARE USING IN THIS FLASHLIGHT....

LIGHT BULBS

SWITCH

WIRES

CIRCUIT

WIRES

CONDUCTIVITY

ELECTRICITY

PARALLEL CIRCUIT

ELECTRONS

BATTERIES

SERIAL CIRCUIT

POSITIVE

NEGATIVE