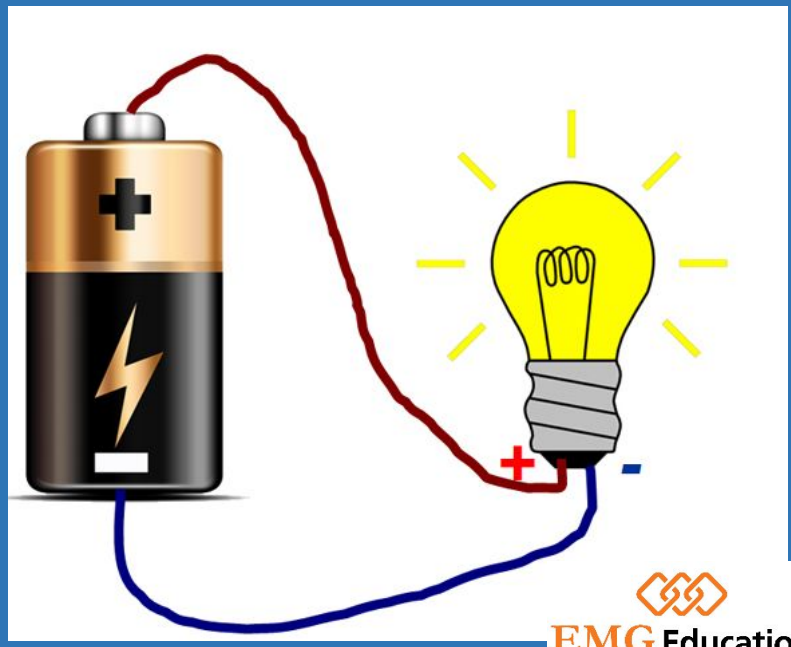
Lớp học Trực tuyến

Chương trình Tiếng Anh Tích hợp

EMG Education

Today's lesson: Circuits

- Parts of a circuit
- Component functions
- Circuit symbols
- Drawing circuits



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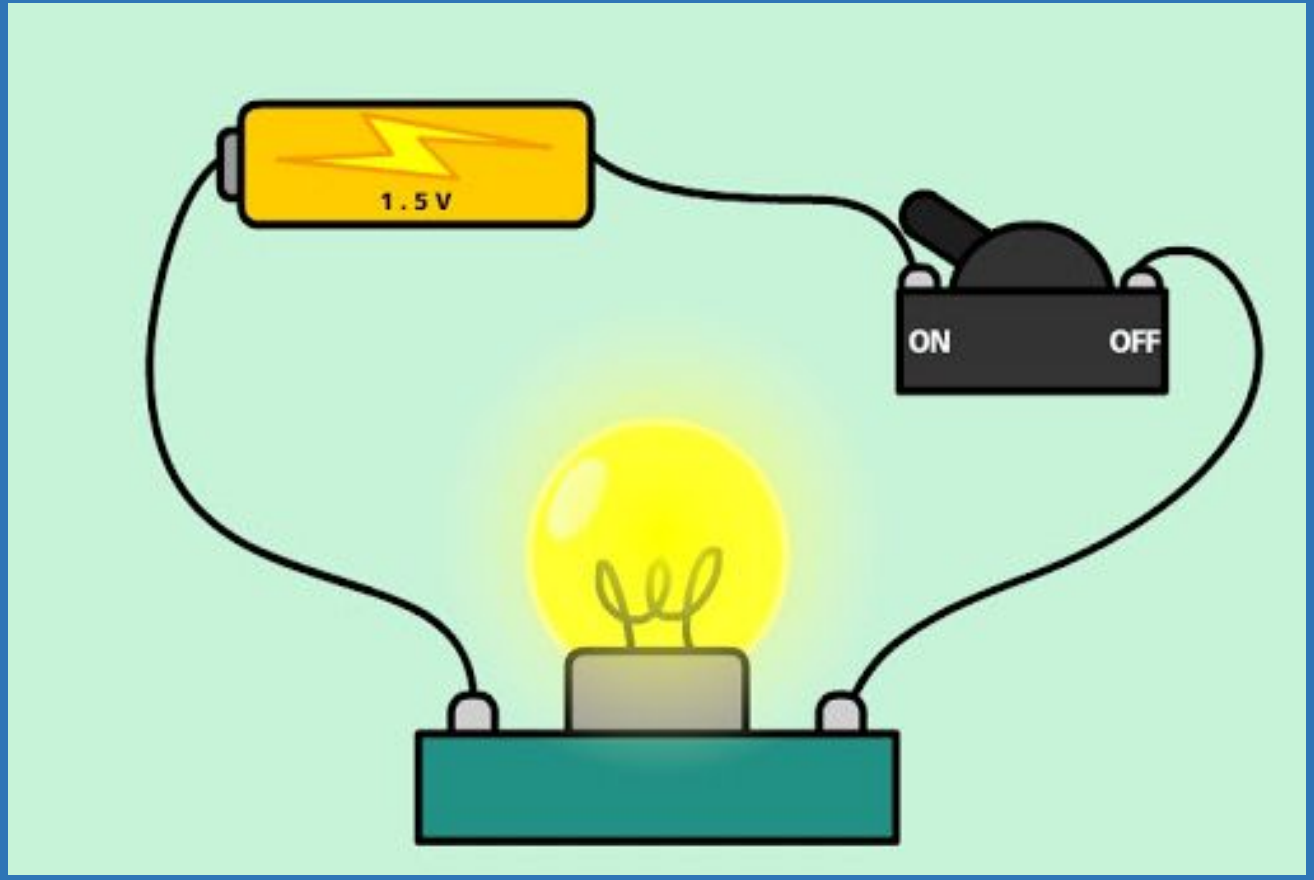
Things to remember

a
complete
circuit



Electricity **flows** through the circuit.

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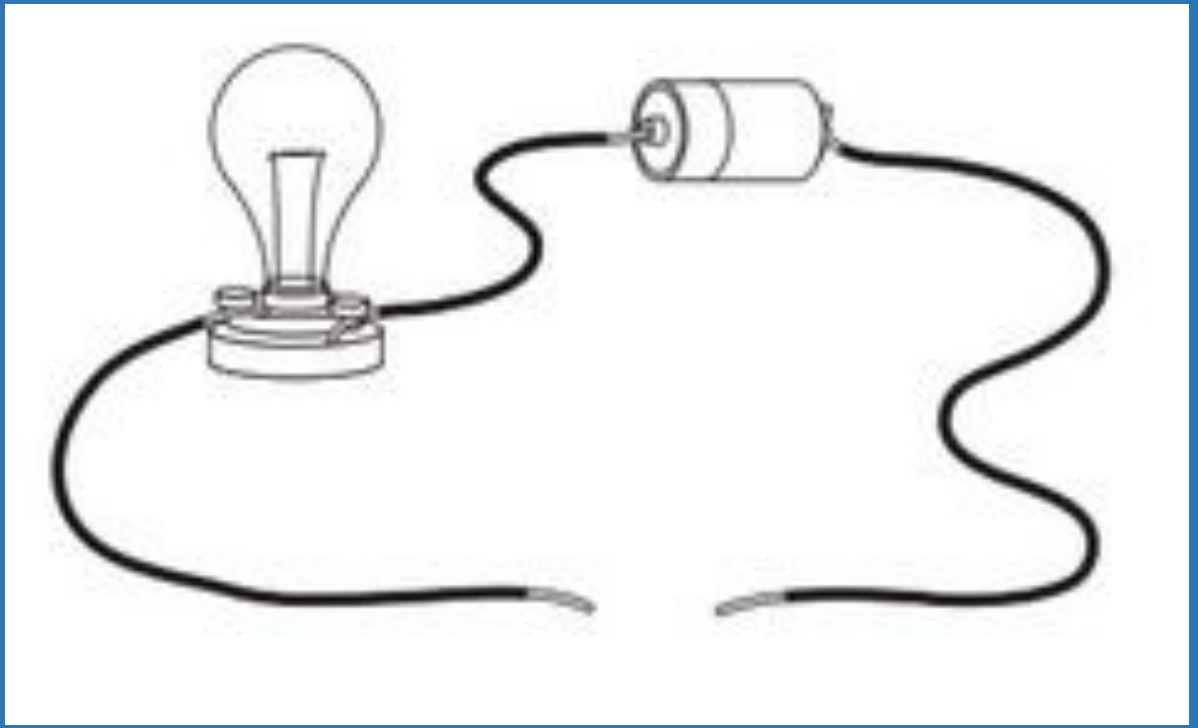
Things to remember

an incomplete circuit



The circuit is broken.

Electricity can't flow - the light doesn't work.

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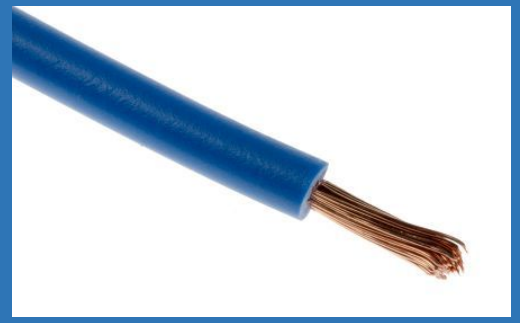
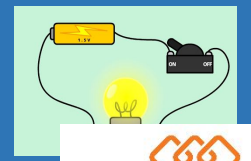
Components (the parts of a circuit)



Make sure you take some notes!



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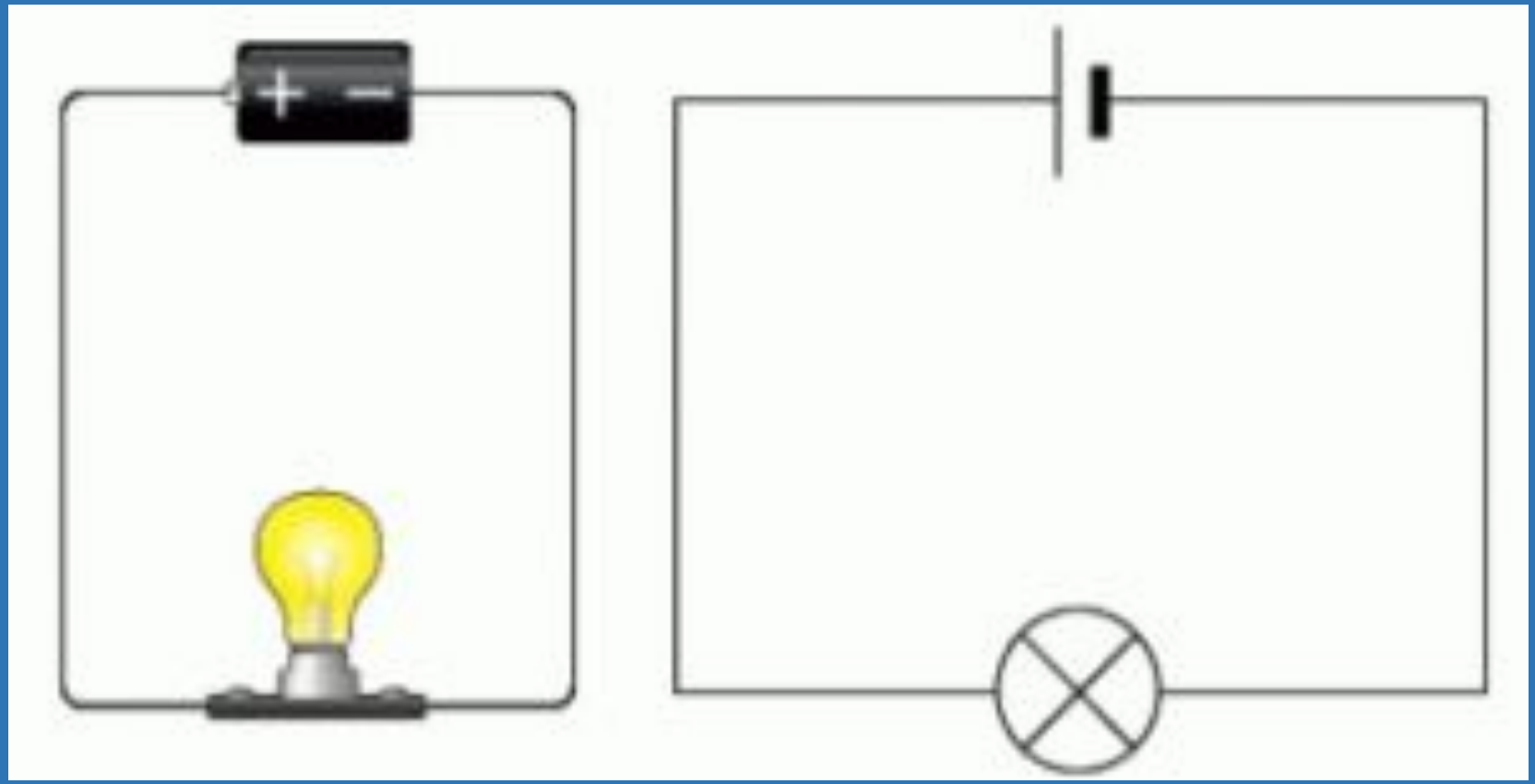

Circuits have many components that work together to make something light up, move or make a sound.

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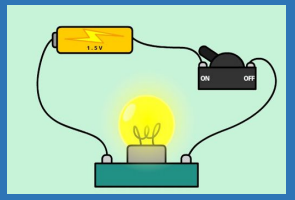
What is it?



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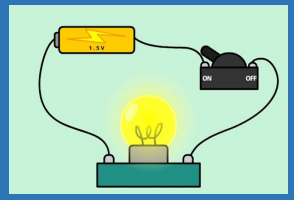
What is it?



a battery
or
a cell

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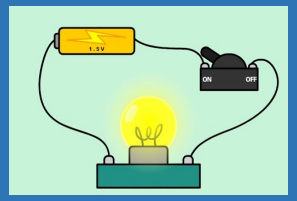
What does it do? (function)



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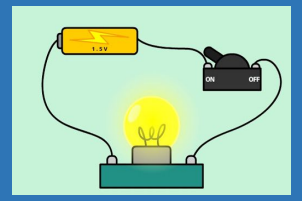
What does it do? (function)



It gives energy to the circuit.

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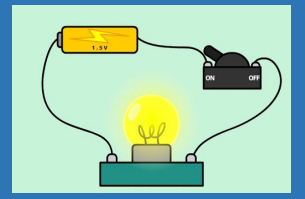

There are many types of cell!

Where do these come from?

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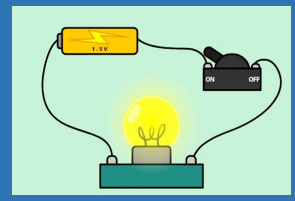
What is it?



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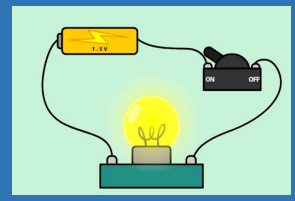

a light
a lamp
a bulb

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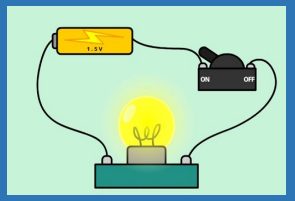
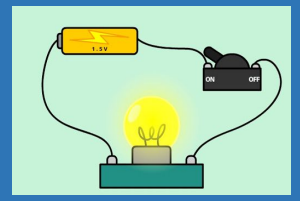
What does it do? (function)



EMG Education

What does it do? (function)



It makes a light!

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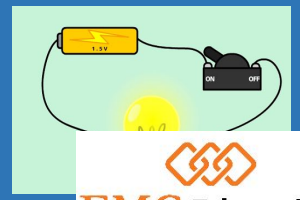
There are lights everywhere!

We studied about light in term 1!



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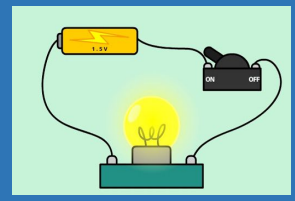

EMG Education

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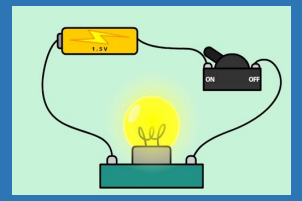
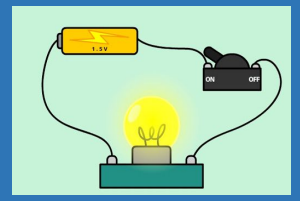


a switch

EMG Education

What does it do?



EMG Education

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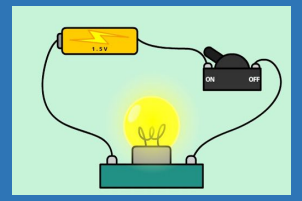

It completes and breaks a circuit.

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Can you see any switches near you?

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What is it?

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What is it?

a motor

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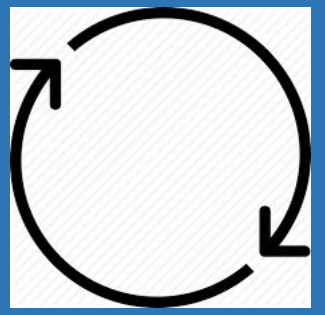
What is its function?

a motor

EMG Education

What is its function?



It makes a shaft spin.

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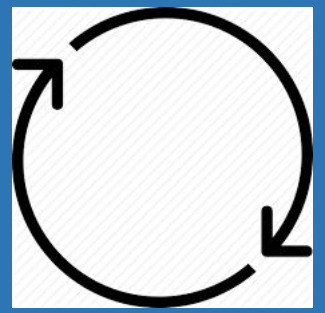
What is its function?



Can you think of anything that uses a motor?

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fan

electric car

blender

These all use motors.

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What is it?

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What is it?

a buzzer

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What is its function?

EMG Education

What is its function?

It makes a sound. Buzzzzzzzzzzz!!!!!!!!

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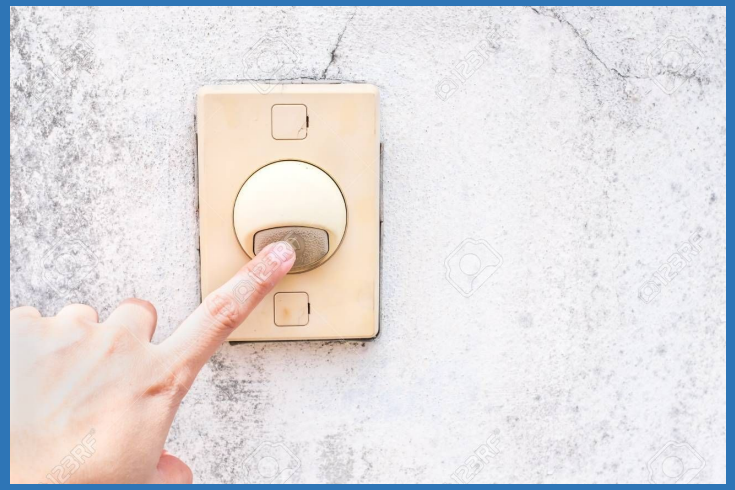

door buzzer

alarm clocks

Can you think of anything else that has a buzzer inside?

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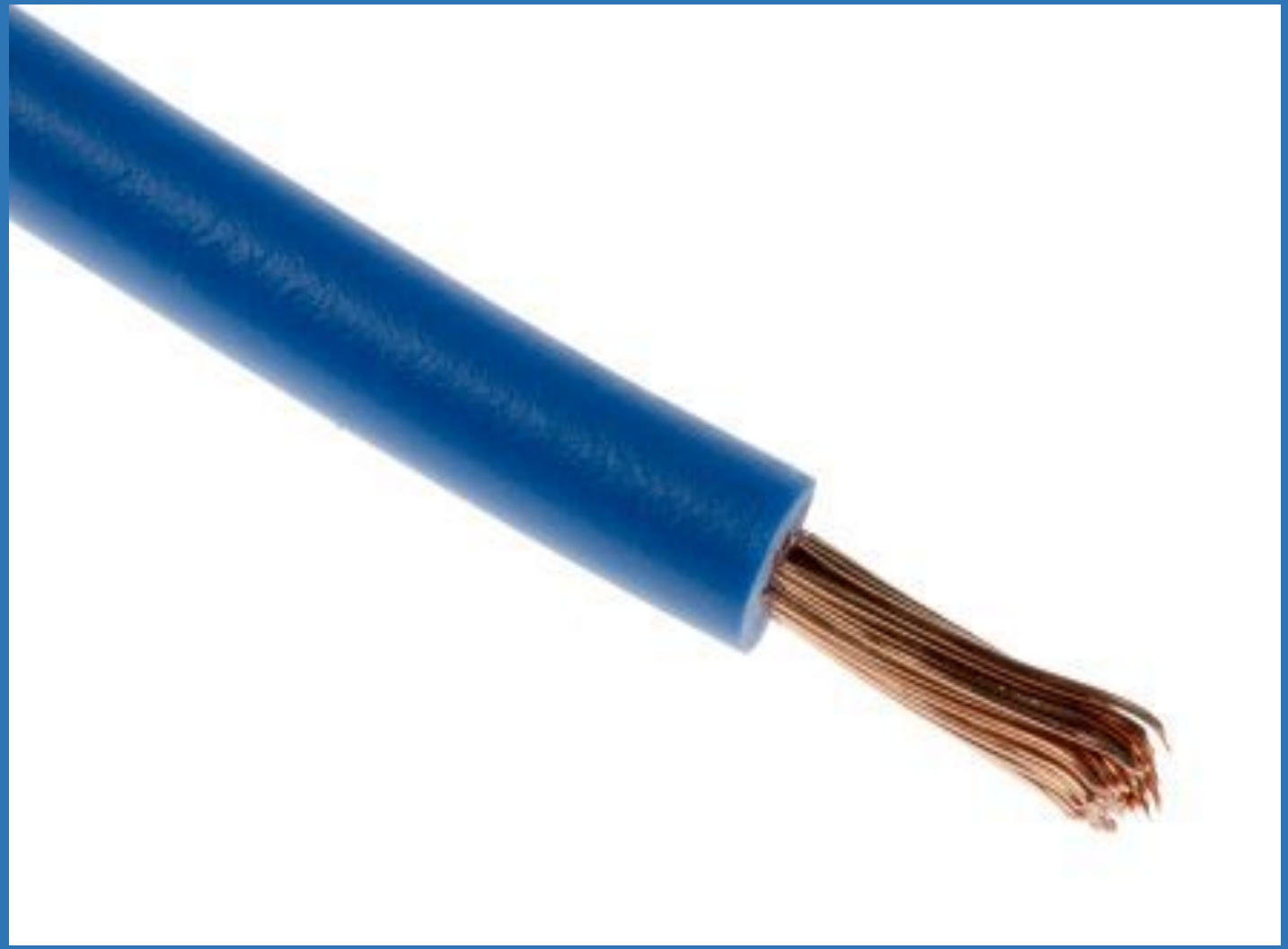
What is it?



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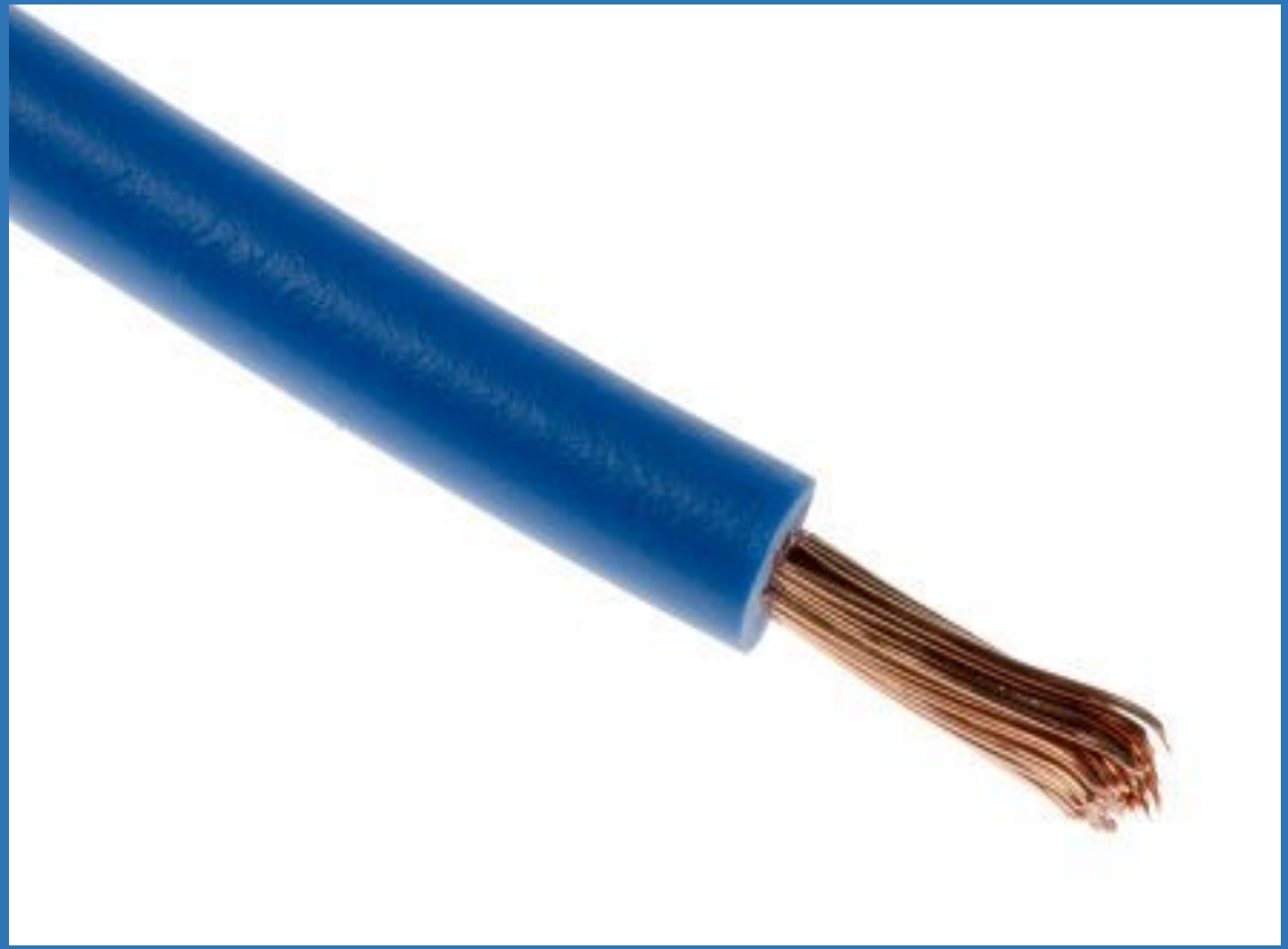
What is it?



a wire

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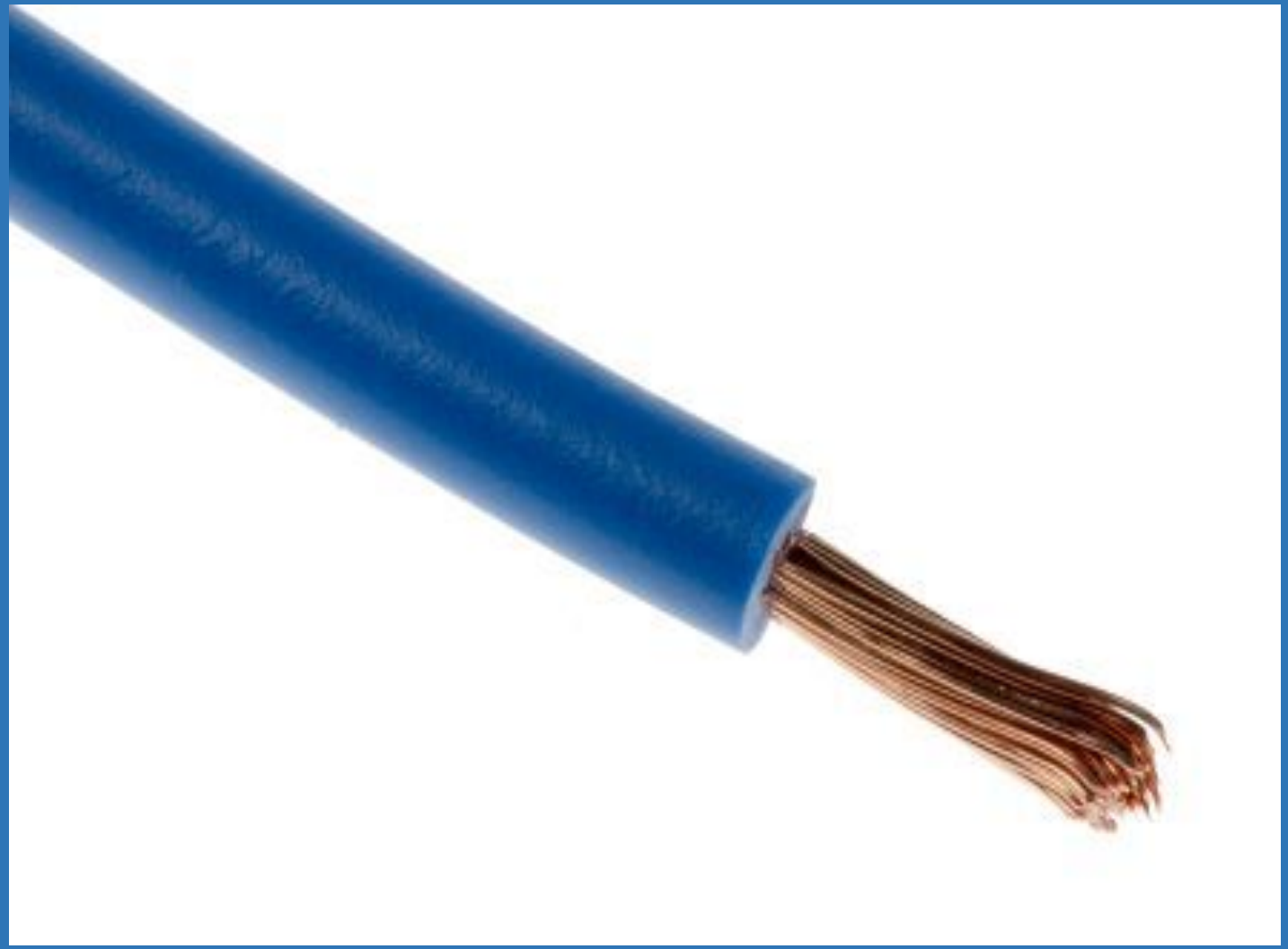
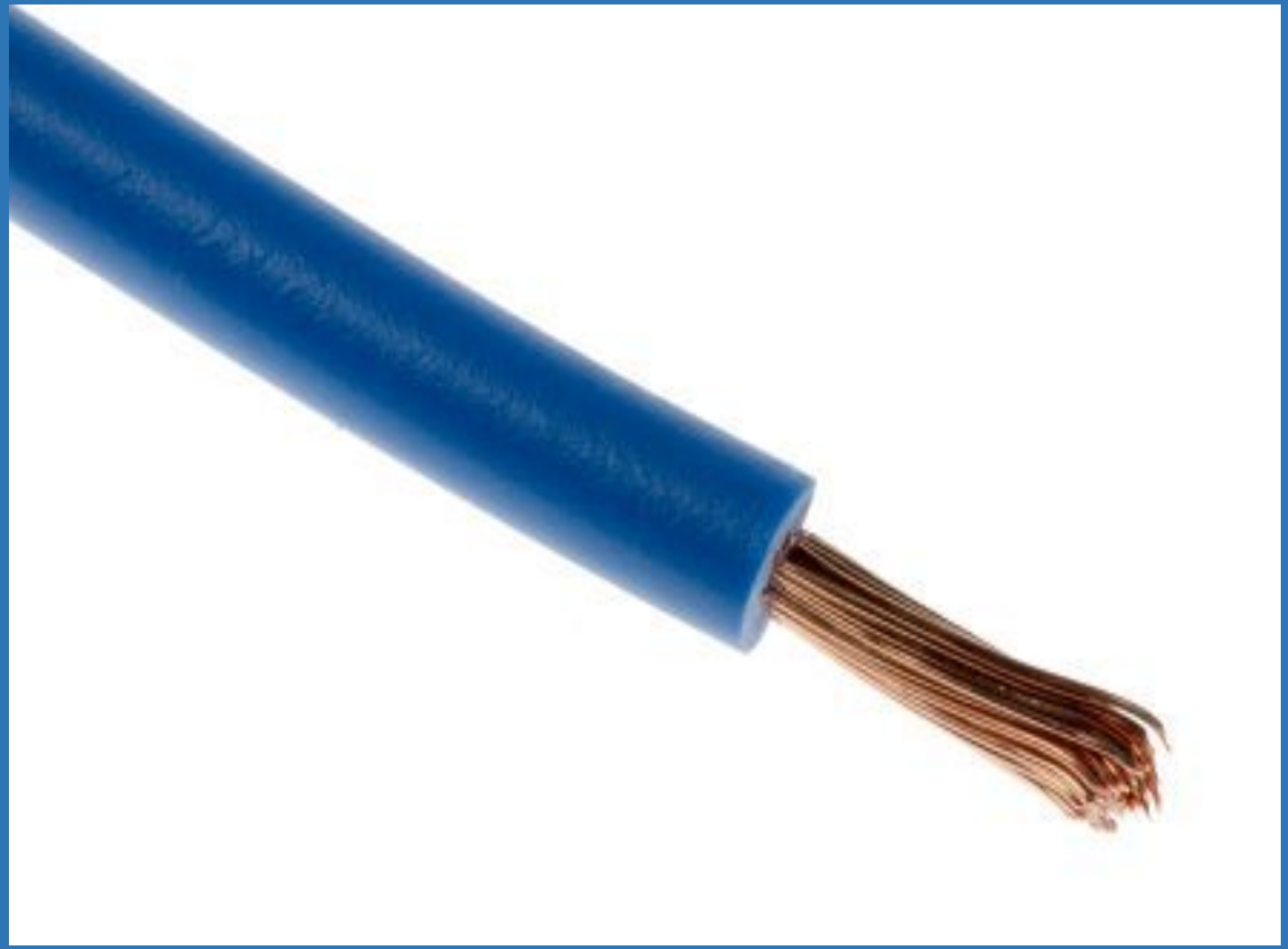
What is its function?



EMG Education

What is its function?



It connects the components together.

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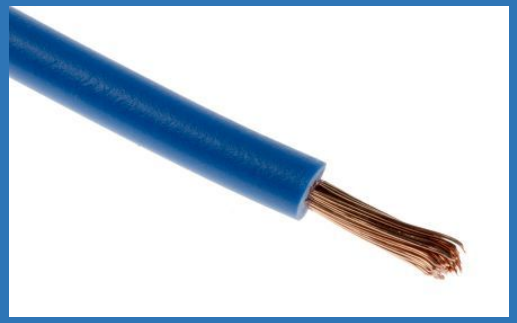
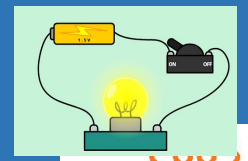
Components (parts of a circuit)



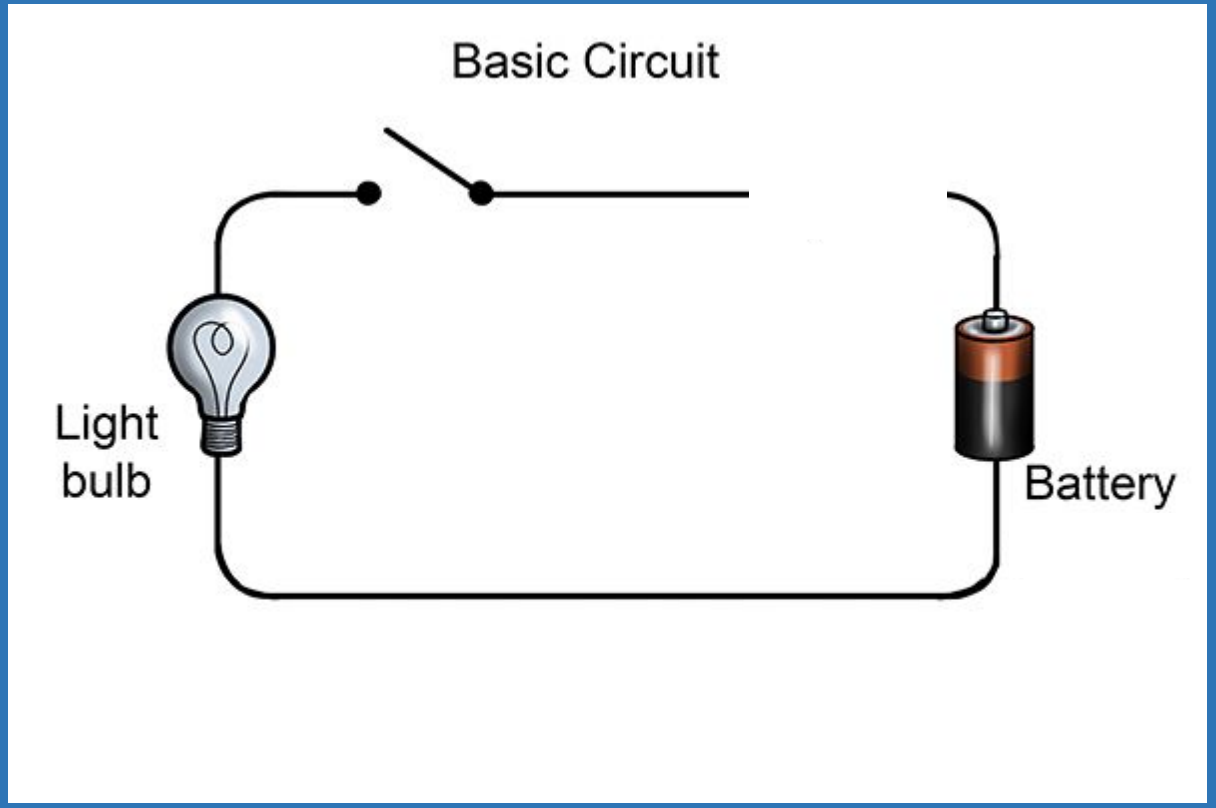


EMG Education

Time to think!

Will the light work?

Explain your answer.

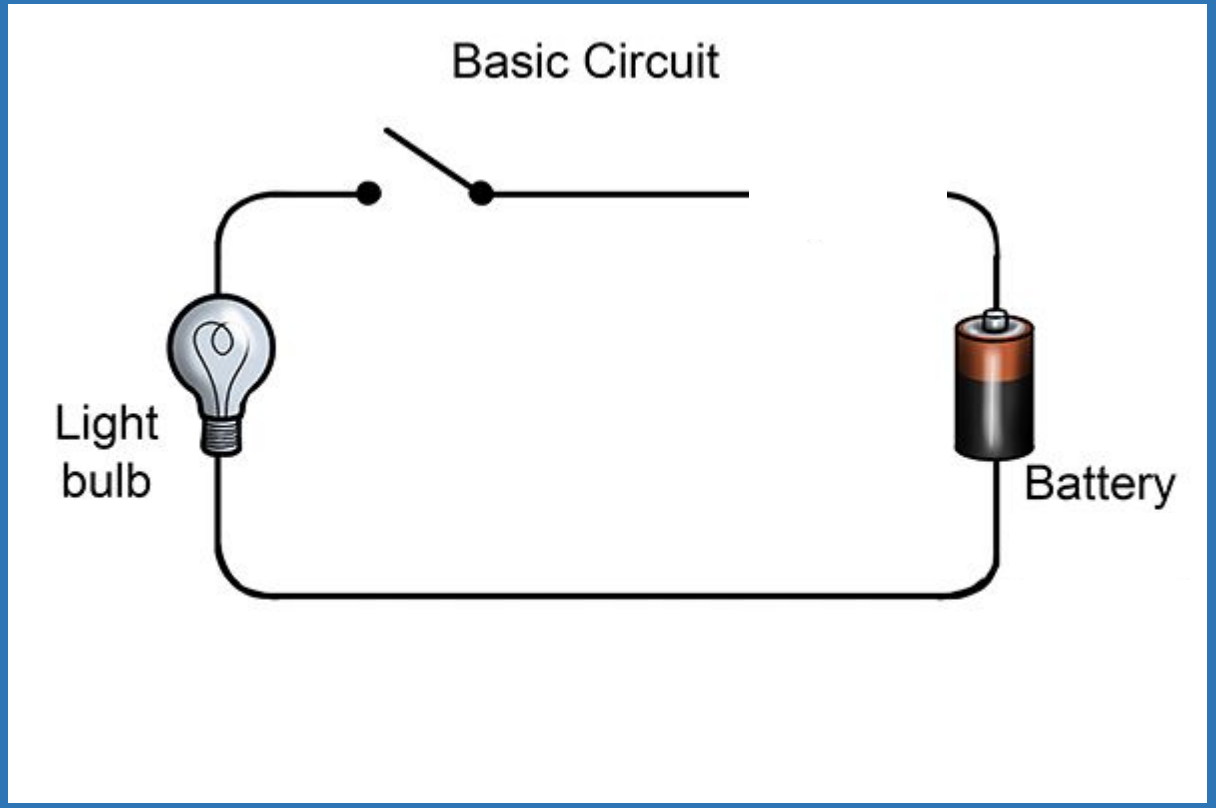


EMG Education

It won't work!!!

Will the light work?

Explain your answer.



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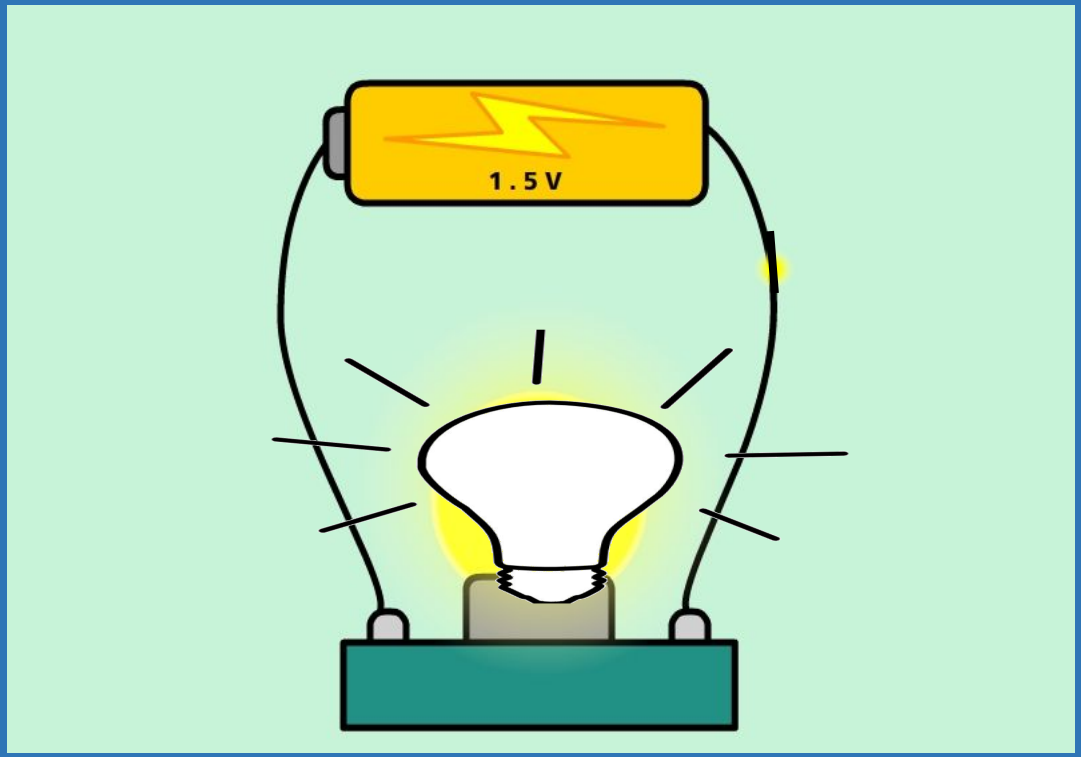
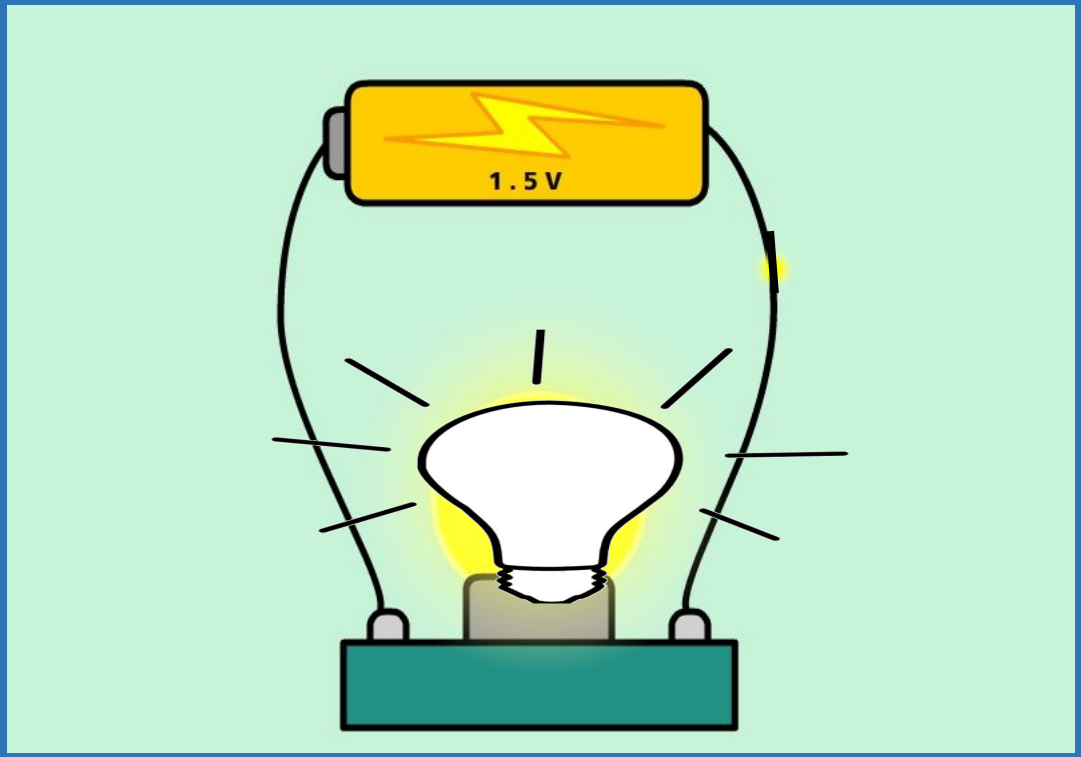


EMG Education

It will work!

Will the light work?

Explain your answer.



EMG Education

Time to think!

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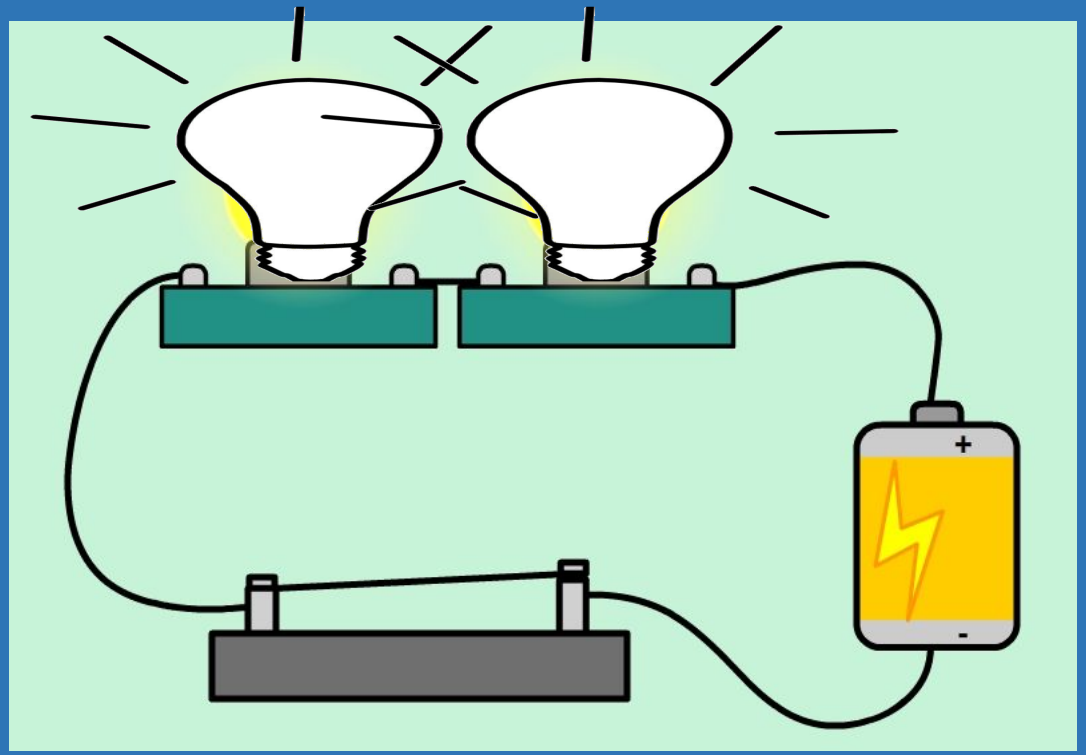
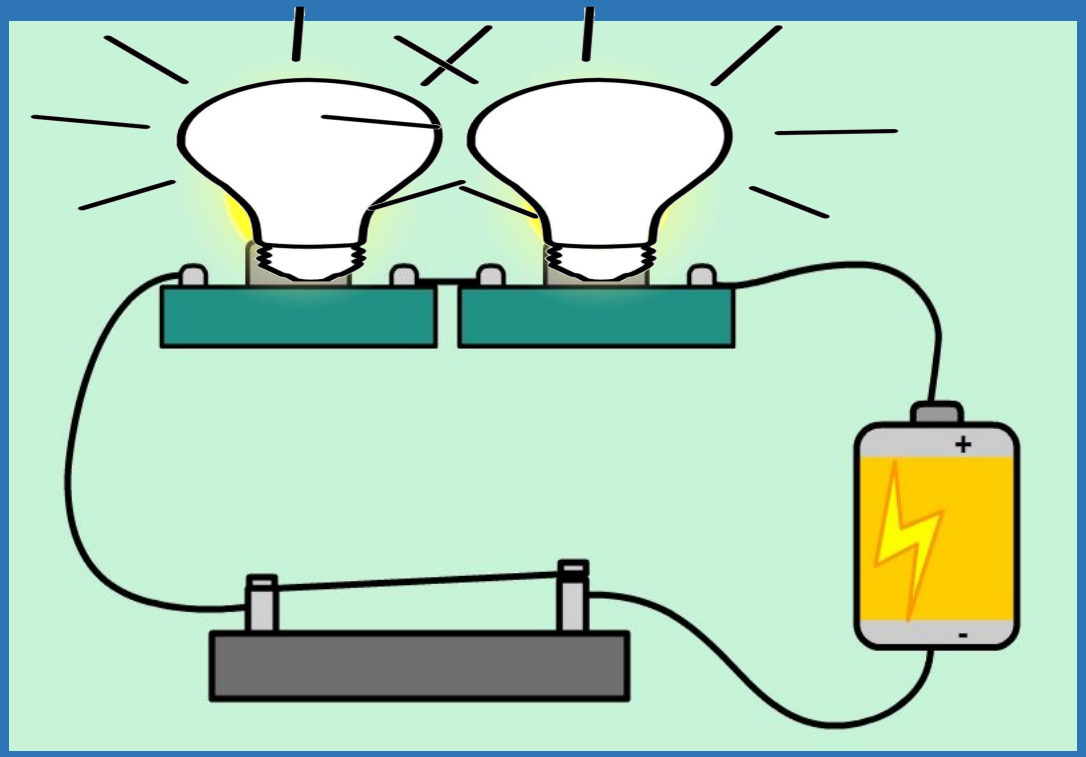
Explain your answer.



It will work!

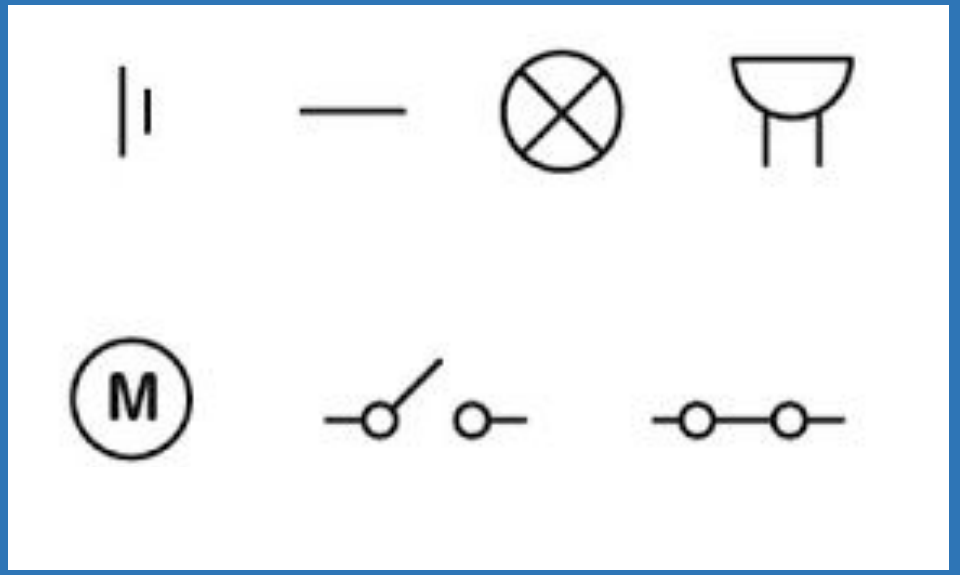
Will the light work?

Explain your answer.



Circuit Symbols

To make drawing circuits easier we use circuit symbols.



These are circuit symbols.

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What is the symbol for a light?

Does anyone know?

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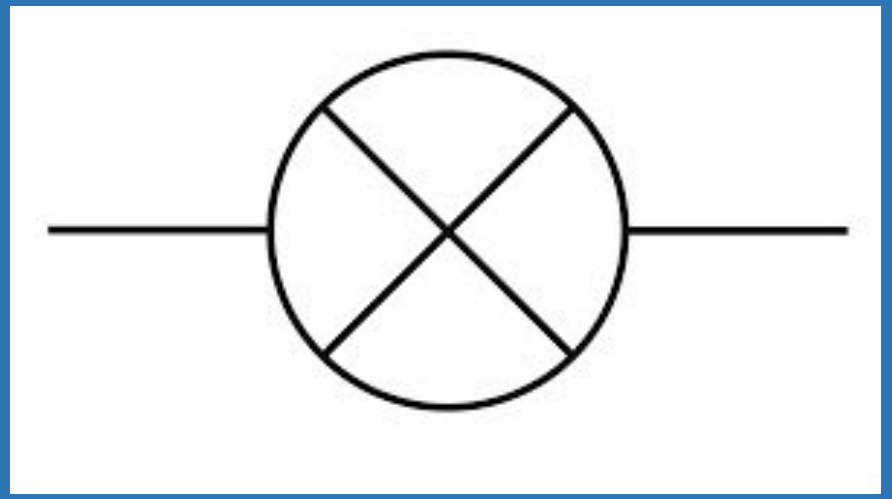
What is the symbol for a light?



That's how we draw a light.

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What is the symbol for a battery?

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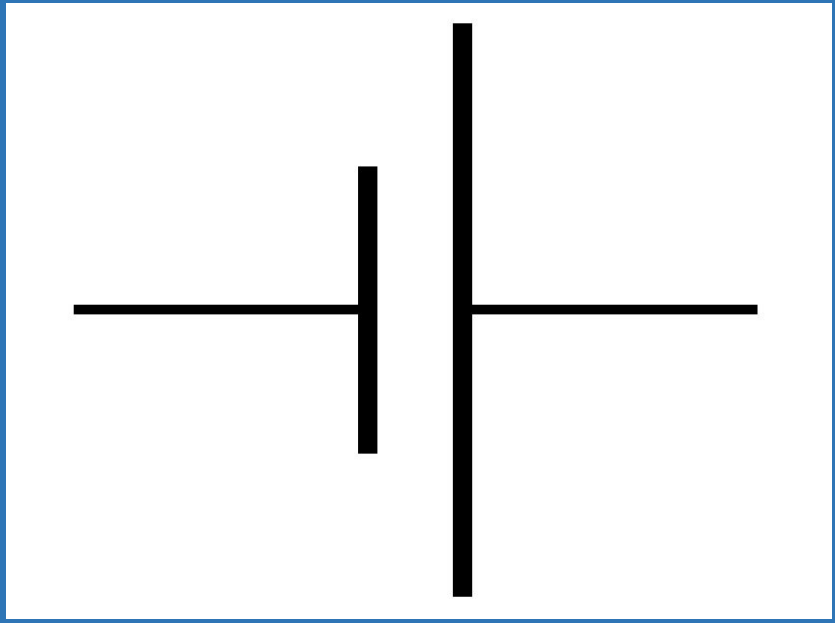
What is the symbol for a cell?



That's how we draw a cell.

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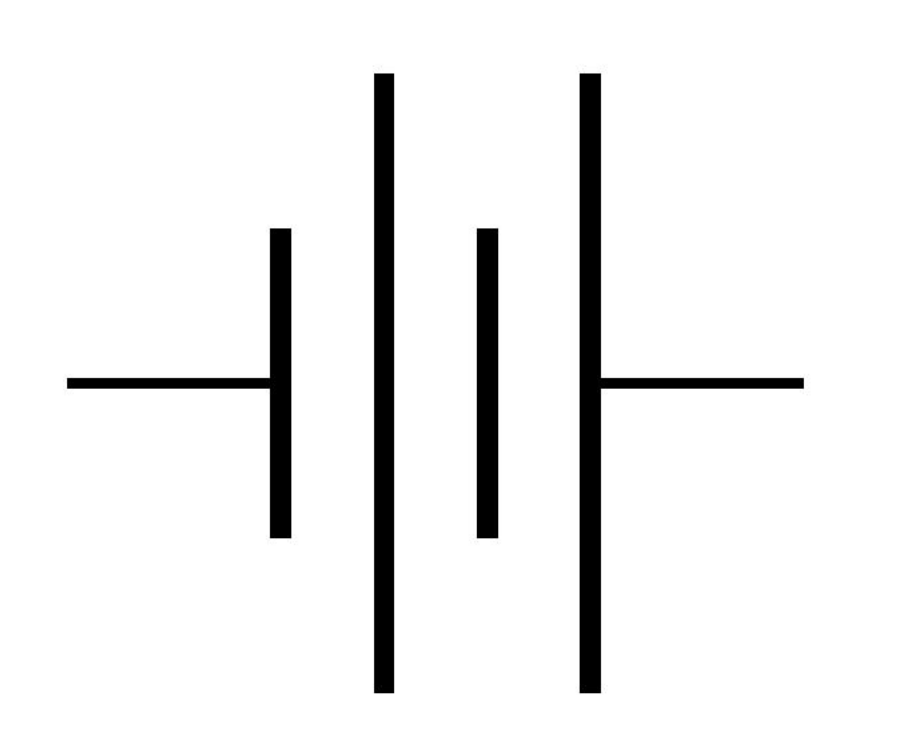
Two batteries together looks like this.....



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What is the symbol for a motor?

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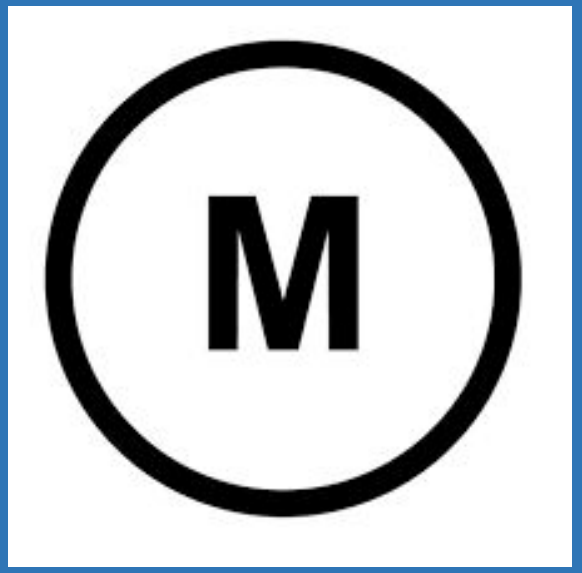
What is the symbol for a battery?



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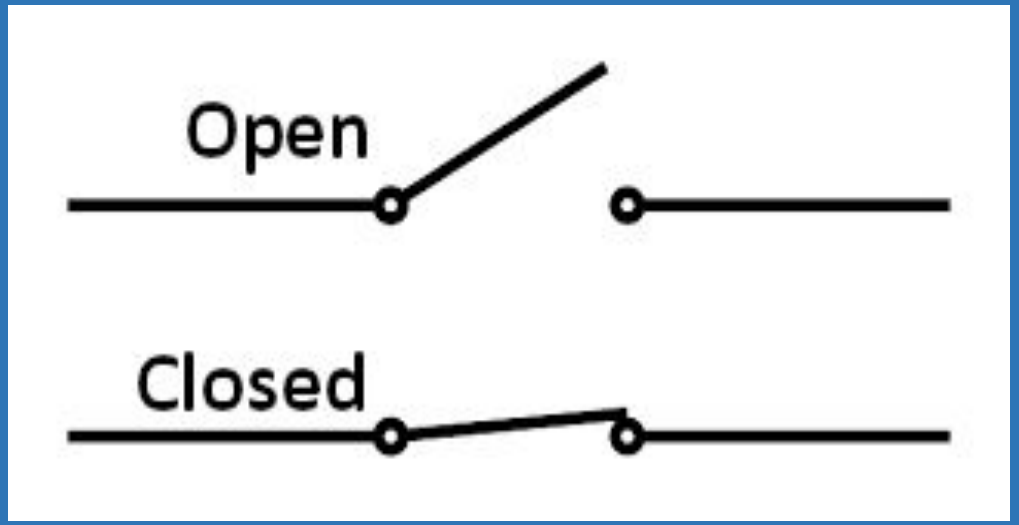
What is the symbol for a switch?

EMG Education

What is the symbol for a switch?



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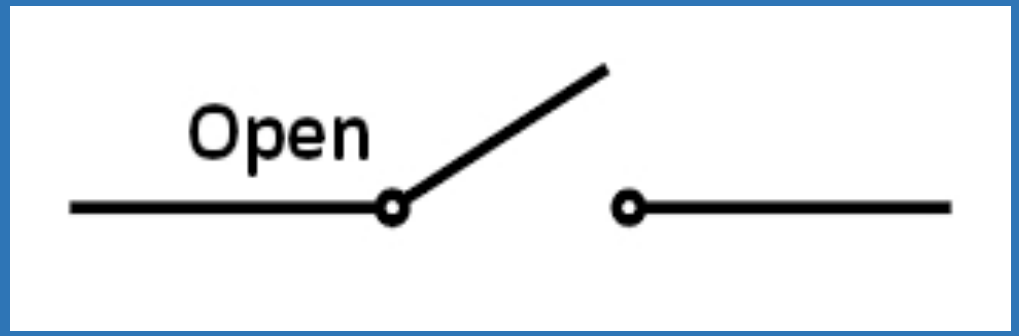
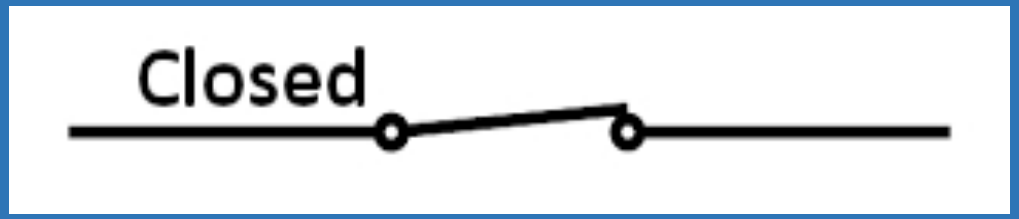
open switch



the circuit is off

closed switch



the circuit is on

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What is the symbol for a buzzer?

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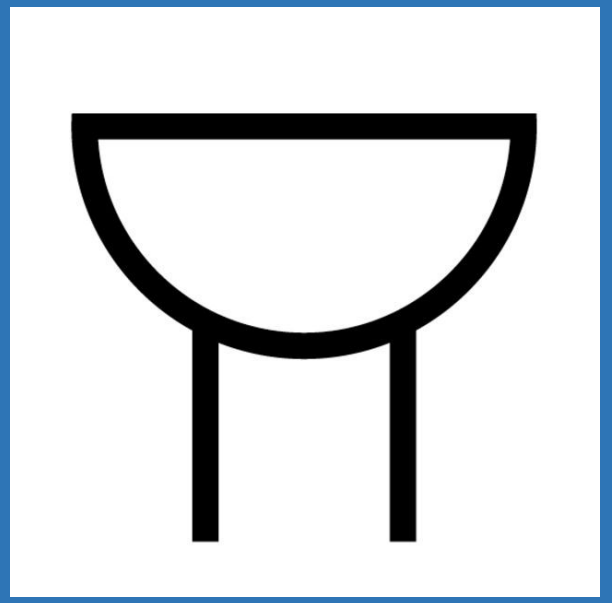
What is the symbol for a buzzer?



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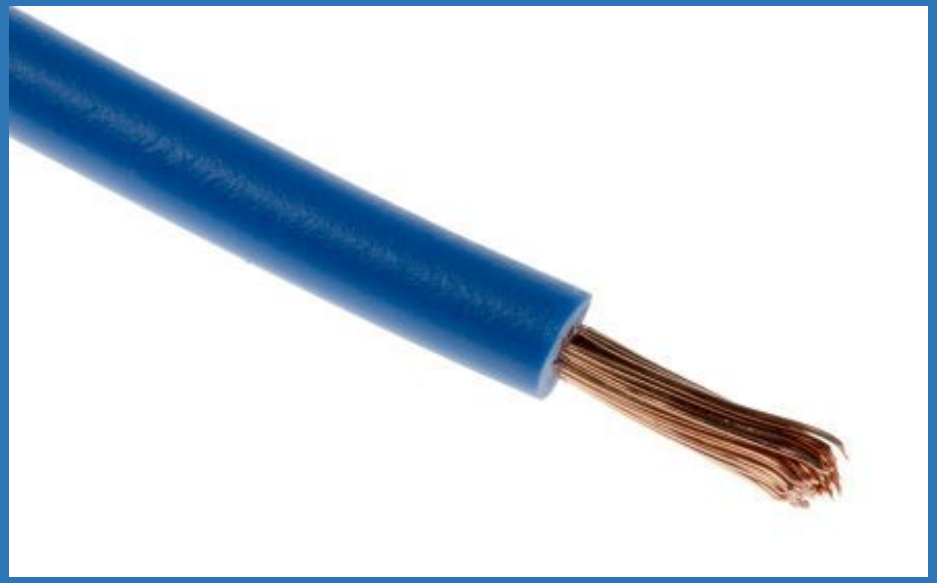
What is the symbol for a wire?



EMG Education

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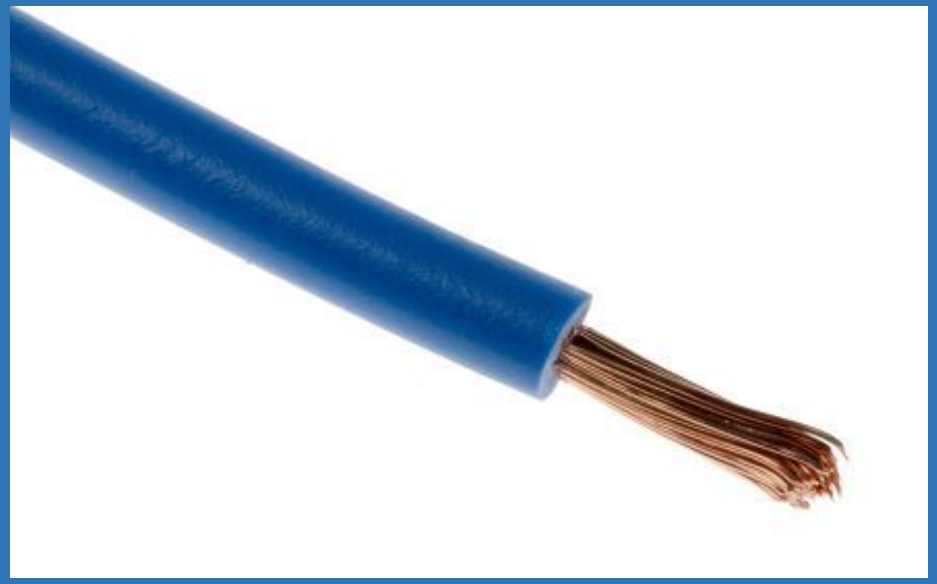

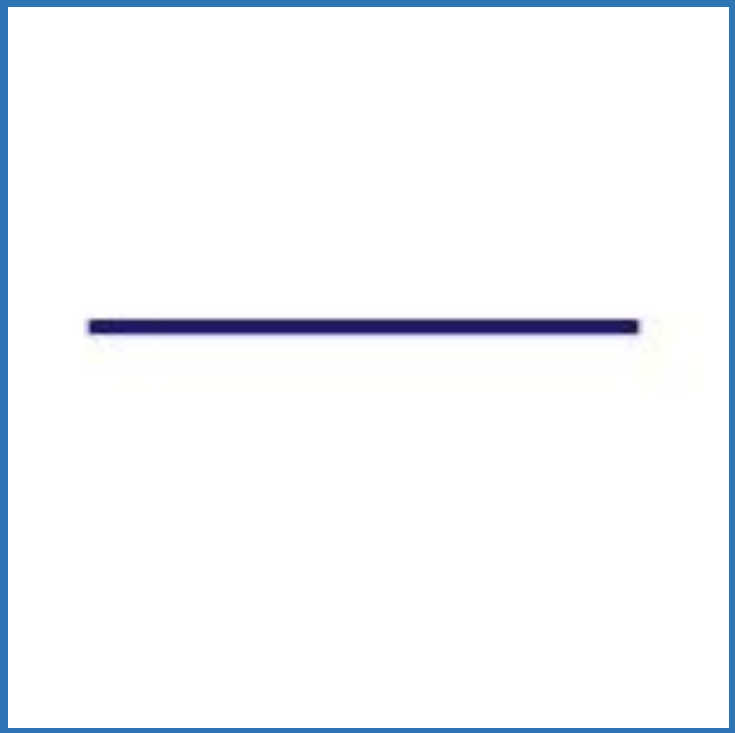

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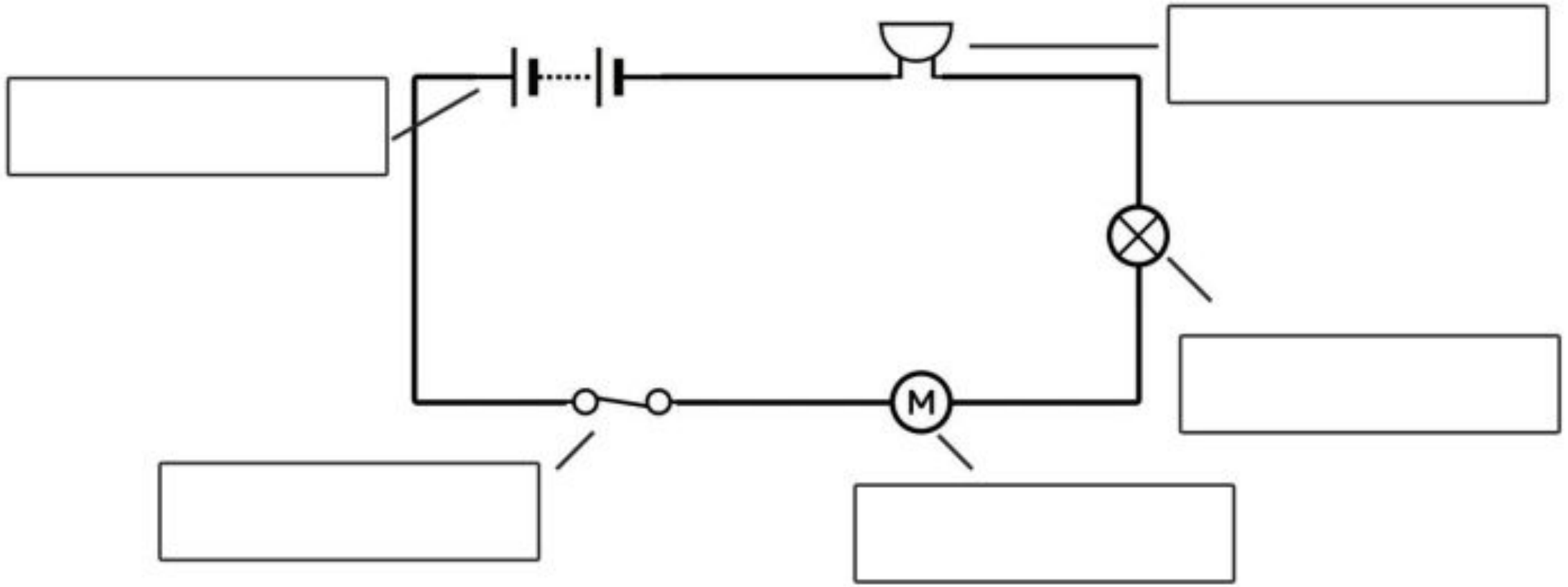
Look at this circuit. What are the components?



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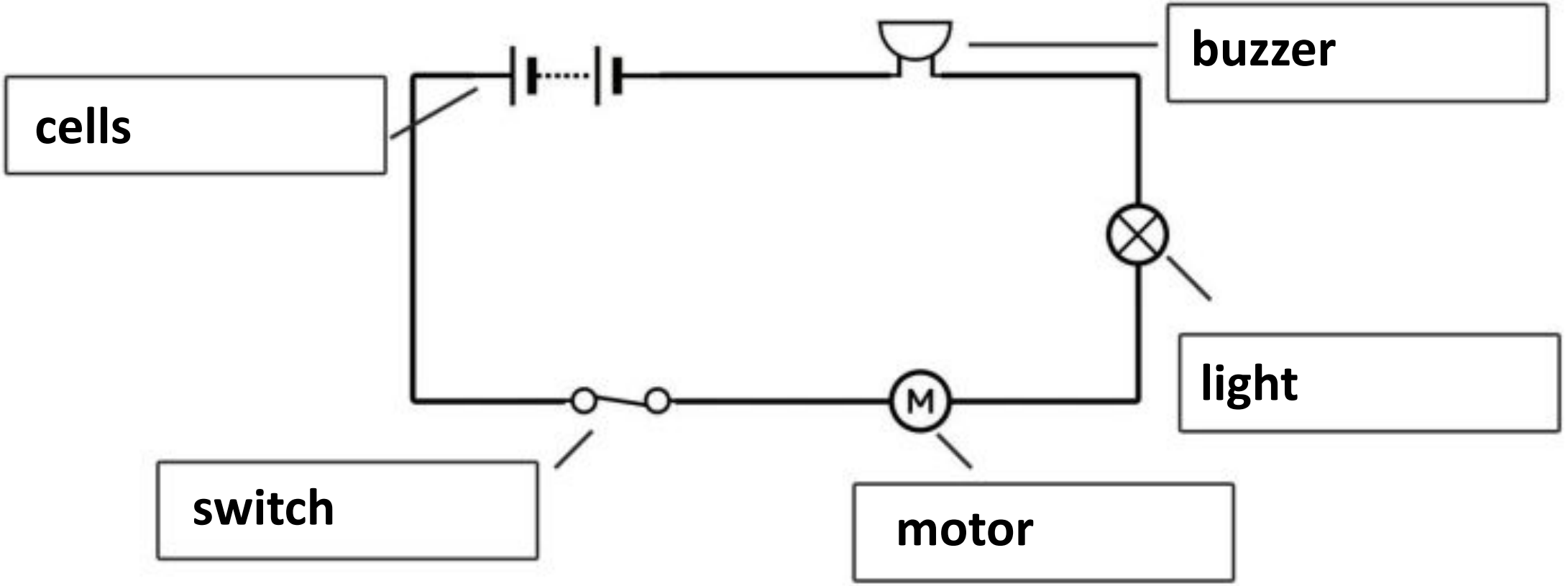

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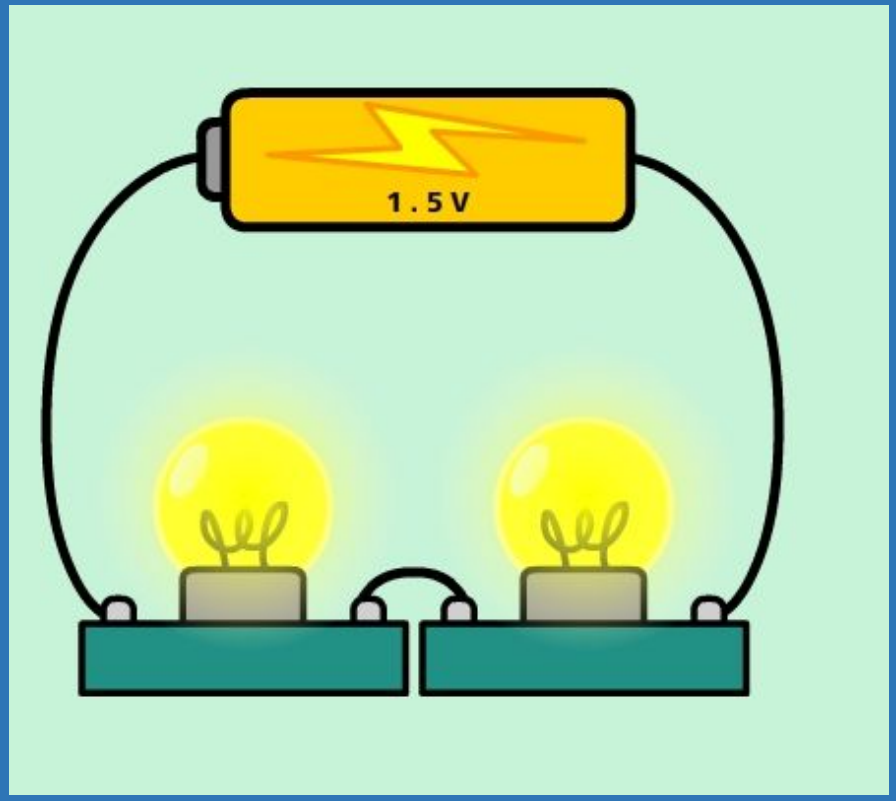
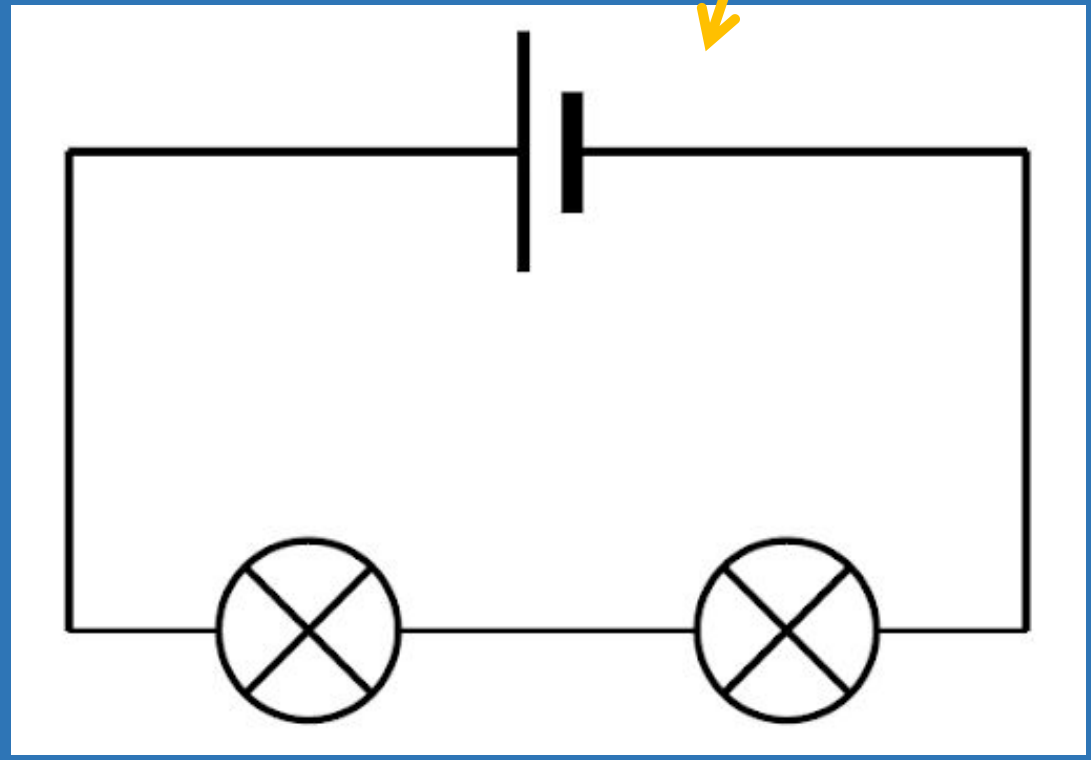
Drawing a complete circuit

You need to draw circuit diagrams like this





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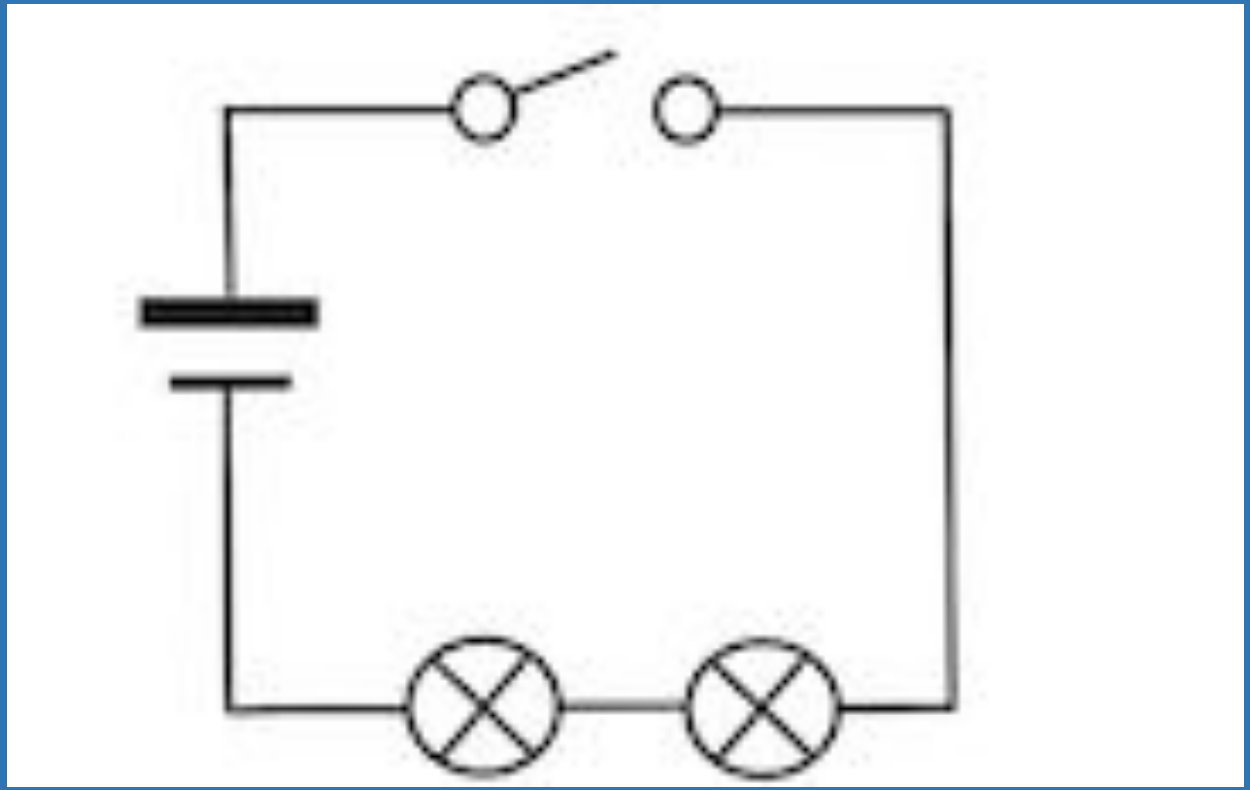
What components do you see?



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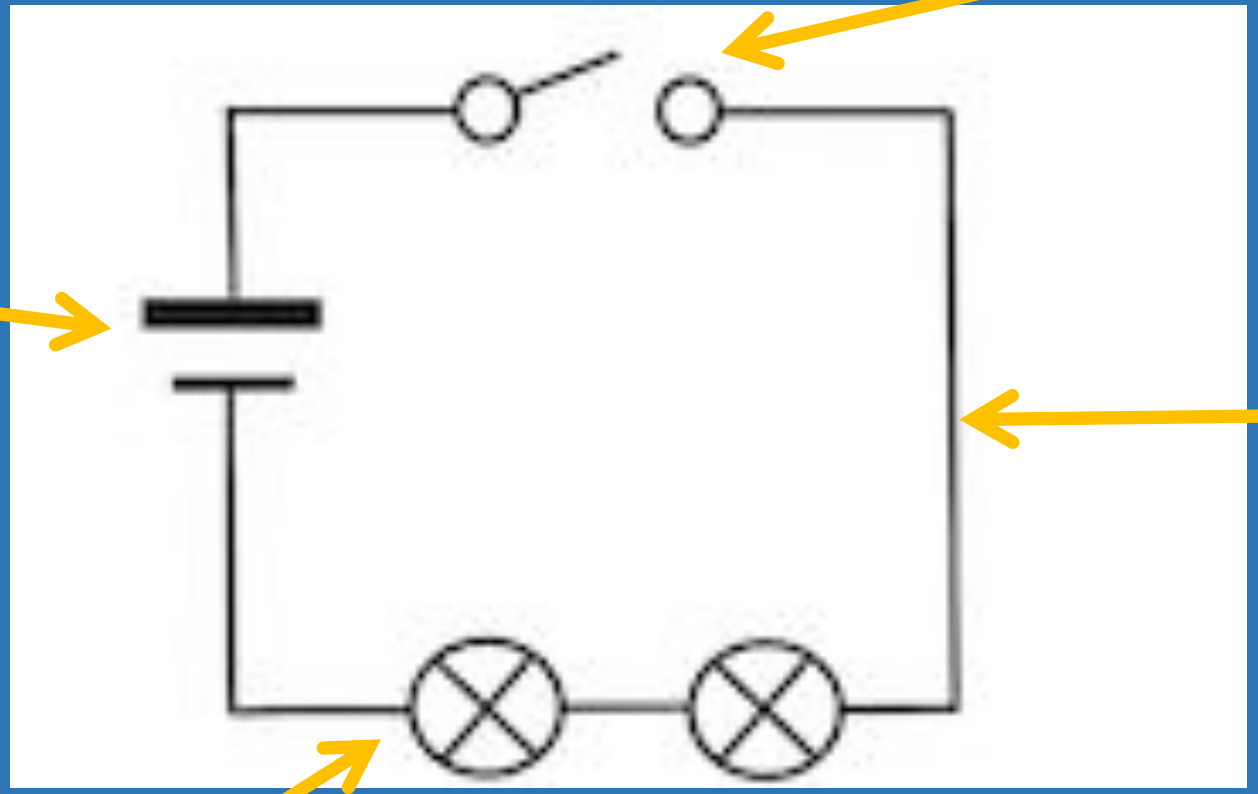
What components do you see?

switch



cell

wire

lamp

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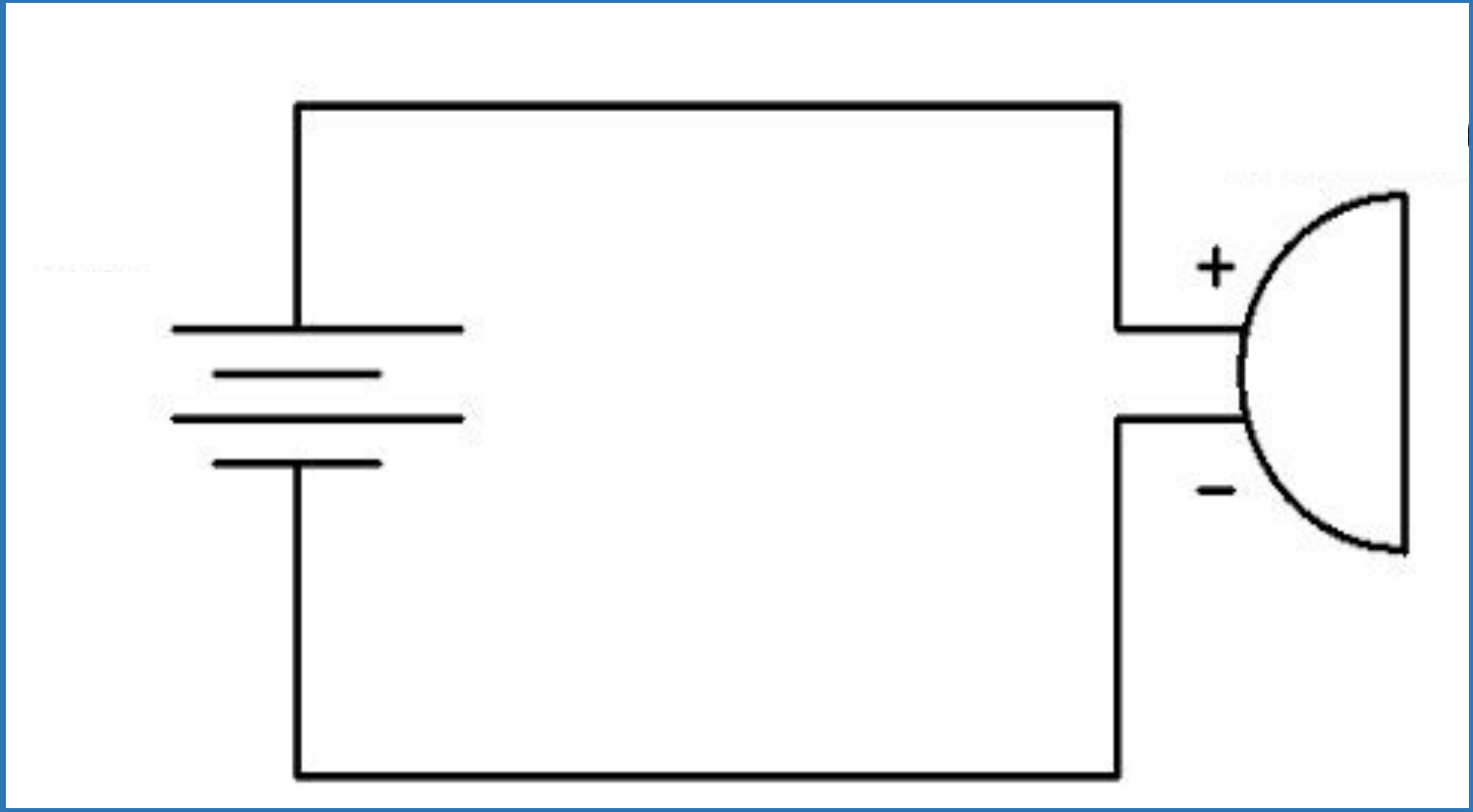
What components do you see?



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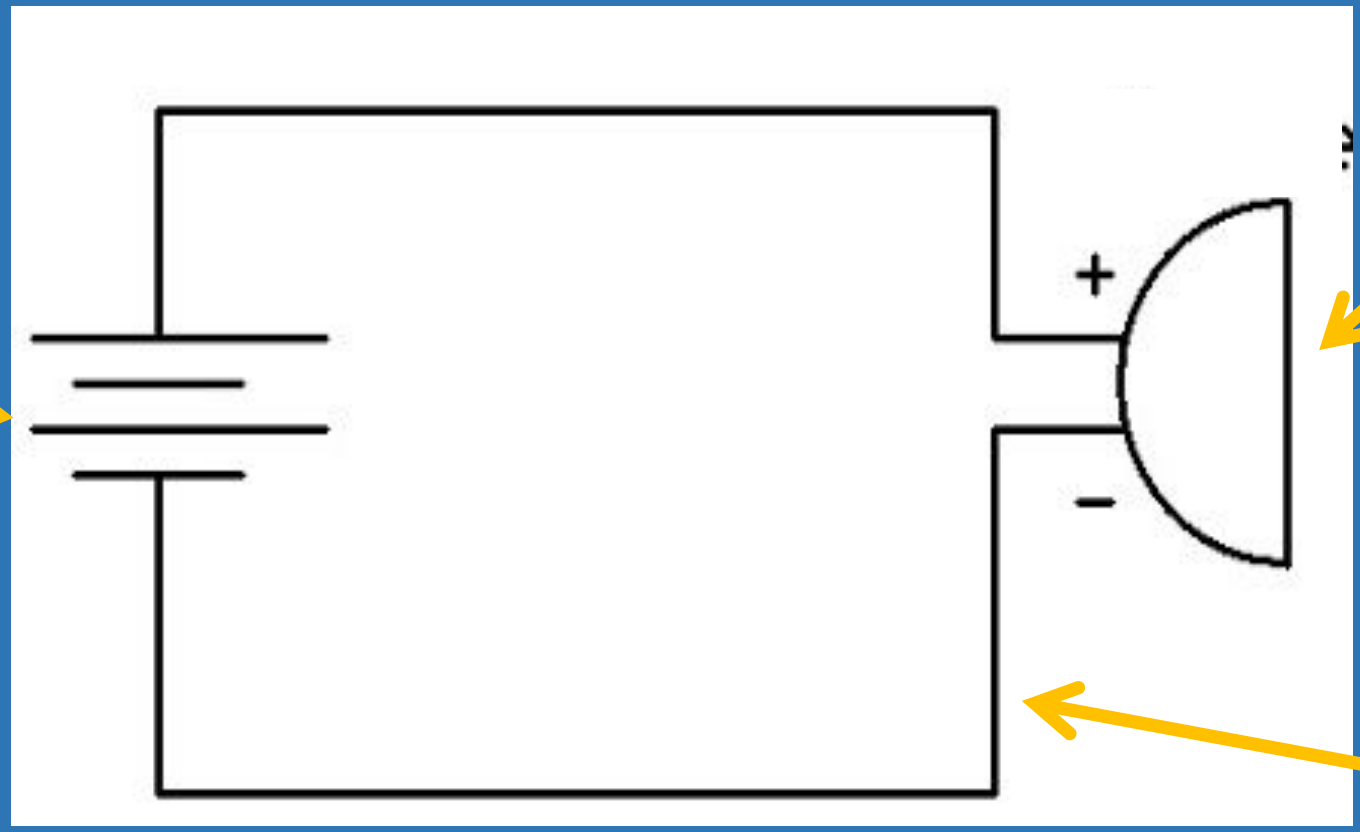
What components do you see?

motor



cells

wire

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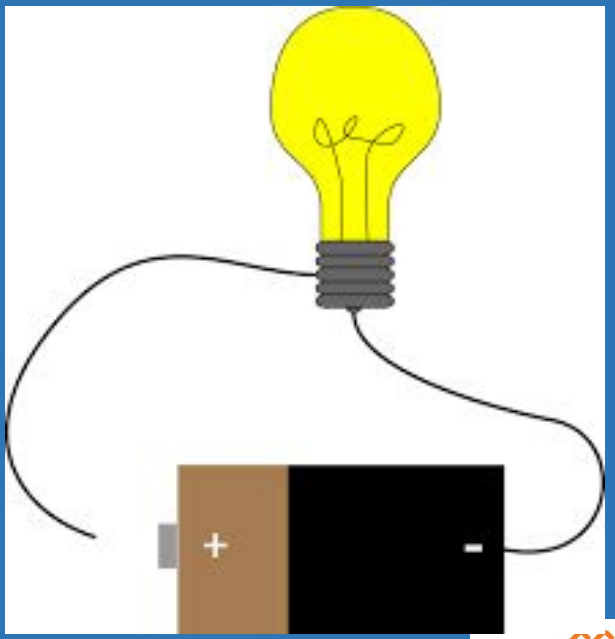
Today we have learned:

- parts of a circuit
- component functions
- circuit symbols
- how to draw circuits



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