

## 7.5 Capacitor/transistor circuits



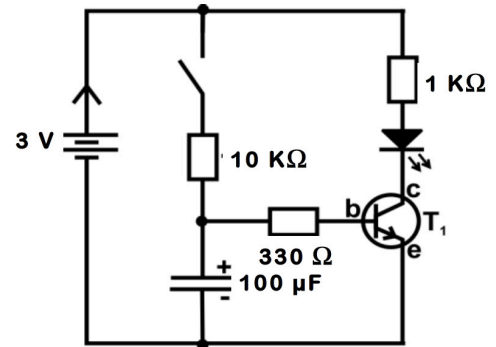
How does the circuit shown below function and what is the importance of the capacitor in this circuit?



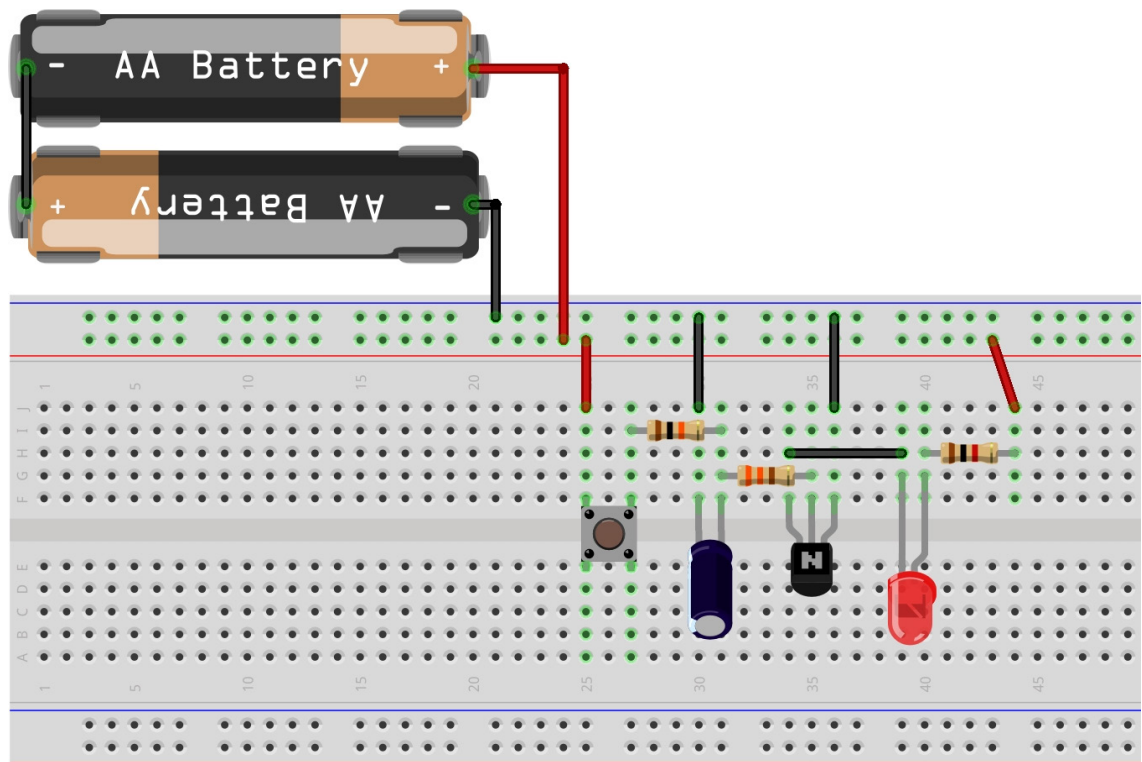
Remember the properties of a transistor and of a capacitor.

Connect the circuit shown on the right on a breadboard as shown in the diagram. If needed, use the breadboard diagram as guidance or support.

Note the international (IEC) symbol for resistors that differs from the American symbol (IEEE).



**Note:** The electrolytic capacitor must be installed in the correct direction (look at the + and – symbols on the component).



- Close the switch and observe what happens to the LED.
  - Open the switch and observe what happens to the LED.
- What happens to the capacitor when the switch is closed and when it is opened?



Observing and documenting:

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Analysing and reflecting:

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Replace the 10 k $\Omega$  resistor and the 330  $\Omega$  resistor with resistors of different values and observe.