Output devices

Core BUILD THE BASICS

C1 **State** the name of this symbol. [1]



C2 **State** the name of this symbol. [1]



C3 **State** the energy change in an LED. [1]

C4 **State** which leg of a real LED is the anode. [1]

C5 **State** an output device that gives sound. [1]

C6 **State** an output device that gives movement. [1]

C7 **State** why an LED needs a series resistor. [1]

C8 **State** one advantage of an LED over a filament lamp. [1]

C9 **State** what happens if an LED is connected the wrong way round. [1]

Output devices

Stretch GO FURTHER

S1 **State** a suitable output device for: (a) a smoke alarm (b) a cooling fan (c) a 'power on' indicator. **[3]**

S2 A lamp is rated 6 W and an LED 0.5 W. Both give similar light. **Explain** which is more efficient. **[2]**

S3 Justify the use of a buzzer, not a lamp, in a bedroom smoke alarm. **[2]**

S4 **Justify** the use of a motor in a car-park barrier. **[2]**

S5 **State** the two output devices at a level crossing. **[2]**

Exam Ready QUALIFICATIONS SCOTLAND STYLE

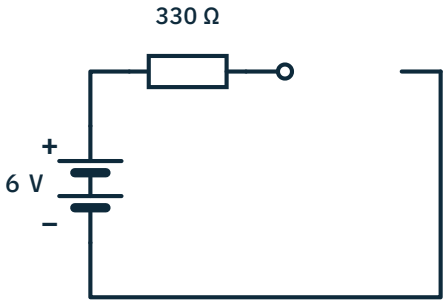
E1 A level-crossing warning uses flashing lights and a buzzer. **Explain** why two different output devices are used. **[2]**

E2 **State** the external outputs in a system diagram for a hair dryer. **[2]**

E3 **Describe** how to connect an LED so that it lights. **[2]**

Output devices

E4 **Complete** the circuit by drawing an LED so that it lights. **[2]**



E5 **Explain** why LEDs are used in warning signs powered by solar panels. **[2]**

E6 **Justify** a buzzer rather than a lamp for a frost alarm in a bedroom. **[1]**

Total: 31 marks. Use the Data Booklet. Show your working and give units.