

Design Technology Year 6

How could an alarm effect the safety of the vehicle?

Switches

- Simple on-off (toggle) switch



1. A switch operated when a lever is pressed.

- Push-to-make switch



2. When you push the electricity flows through the circuit, but when you release it the circuit is broken and the switch is off.

- Push-to-break switch



3. The switch is off while the button is pushed, but returns to its 'on' position when button is released.

- Tilt Switch



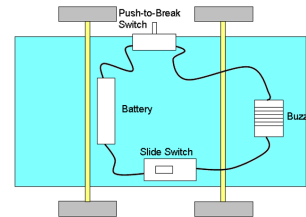
4. When tilting at a angle the ball bearing bridges the contacts inside, completing the circuit.

- Reed Switch

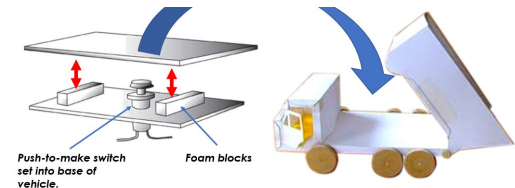


5. Activated by a magnet that closes the circuit.

Push to break switch



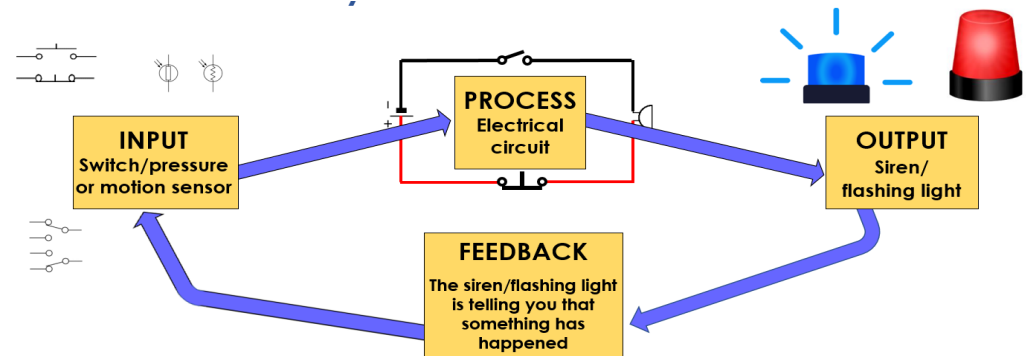
Push to make switch



Key vocabulary

9. **Output devices**—components that produce an outcome e.g. bulbs and buzzers.

10. **Input devices**—components that are used to control an electrical circuit e.g. switches or sensors.

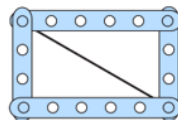


Making the vehicle

6. **Chassis**—The chassis needs to be large enough to hold the circuit & components. It can be made from correx, card or a wooden frame.

7. **Vehicle nets**—The vehicle net needs to be cut and folded to make the vehicle body, which includes hinged doors, bonnets and boots.

8. **Strengthened structures**—Some structures may need strengthening e.g. the alarmed door, using lolly sticks and the **triangulation** method can add strength.



11. **Computer control input**—when a switch sends a signal to a computer control box to activate a sequence of events such as buzzer or light used to attract attention or alert people.