



**Stepper Motor**

Each of the Buggy's driving wheels is powered by a stepper motor. The gearing is designed so that one pulse to the motor moves the driving wheel by one degree

**Control Board**

All the signals to and from the computer are processed by this interface card before being relayed

**Driving Wheel**

The rubber-tyred wheel on each side of the Buggy provides the movement, and stops the device from slipping, so that accurate movements can be made

**Trailing Castor**

The rear of the Buggy's triangular undercarriage is this freely rotating castor

**Driving Chain**

This is the connecting link between the stepper motor and the driving wheel

**Bar Code Reader**

The second analogue detector. It consists of a Light Emitting Diode (LED) and a Light Detecting Diode (LDD). Light from the LED is reflected from the surface under the Buggy and detected by the LDD. The amount of light reflected depends on the material and its colour, so as well as reading bar codes, the detector can also be used for following lines on the floor

**Light Detector**

One of the BBC Buggy's two analogue detectors. The detector sends a signal to the computer's analogue input port that is proportional to the amount of light detected — the more light shining on the Buggy, the bigger the signal

**Pen Holder**

The BBC Buggy can be fitted with an optional pen holder between the wheels to enable it to draw lines on the surface it crosses. The holder is moved up and down under the control of the computer

**Front Collision Detectors**

Each side of the split front bumper is fitted with a microswitch that gives an on (collision) or off (no collision) signal to the computer

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