

Activity 5

Noor is examining how microcontrollers receive and send data/signals.

Explain data signalling.

Use the words to fill in the blank spaces.

analogue	binary	Signals	numbers	Digital	pulse
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Electronic devices such as microcontrollers communicate with other devices and component using electronic _____. There are two methods of sending and receiving electronic data signals, these are _____ signals and digital signals.

Microcontrollers are digital devices which means they can communicate easily with other devices and components that use digital signals. A digital signal is an electrical signal that sends and receives information using _____ digits.

Analogue signals contain more information than digital signals. They can use many _____ to represent their values. Analogue devices and components cannot communicate as easily with digital devices.

To input data from an analogue device or component, microcontrollers use analogue to _____ converters (ADC). These devices convert analogue signals to digital values that they can use.

To output data to an analogue device or component a microcontroller can use a digital to analogue converter (DAC). In some cases, microcontrollers do not have DAC converters. However, some microcontrollers use _____ width modulators (PWM) to generate analogue signals.