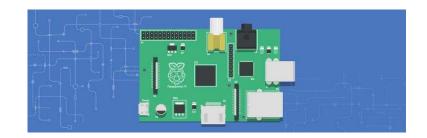


Using Analog Sensor With Raspberry Pie

Location West Midlands, Staffordshire https://www.freeadsz.co.uk/x-374538-z





In order to unleash the potential of embedded system and artificial intelligence, an extension to Linux platform Raspberry Pi has been developed. They are small sized rectangular circuit boards that provides a digital interface and general purpose input/output-GPIO to control motors, activating switches and monitoring of digital sensors. Despite the fact that the Raspberry pi doesn't directly support analog inputs, it takes input from analog to digital converter for processing. Micro controllers that are used in conjunction with Raspberry Pi, such as Arduino and BeagleBone help in monitoring and sensing of data like temperature, humidity, light and wind speed with the help of analog sensors. Processor MCP3008 is commonly used for analog to digital conversion. GPIO support two different types of protocols or communication standards. Serial peripheral interface or SPI, allows the digital devices to share data serially and the Inter-integrated circuit or I2C, was developed to attach device ICs to microcontrollers. Both these protocols help to let the external devices communicate with Rasberry Pi. The SPI protocol requires four wires to connect between the GPIO interface and the MCP3008: SCLK: Serial clock, MOSI: Master out, slave in, MISO: Master in, slave out and SS: Slave select. Since the SPI standard uses bus architecture for data communication, multiple SPI receiving devices can be connected to the same bus.;

