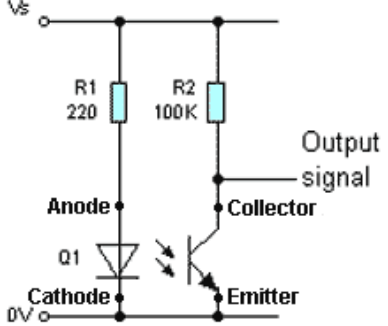


Selecting Components

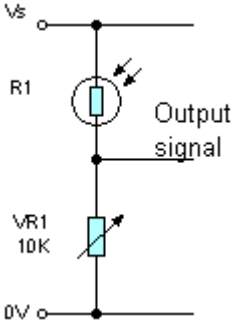
INPUTS

OPTOSWITCH



An optoswitch consists of an infra-red LED and a phototransistor. They are arranged so that the phototransistor can detect infra-red from the LED. A reflective optoswitch will only activate when an object near it reflects infra-red from the LED to the phototransistor.

LDR



An LDR usually gives out a low voltage when it is dark and a higher voltage when it is light, although sometimes they work the other way around.

PROCESSES

PIC

A PIC controls the whole circuit. There are many different types of PIC. How a PIC behaves is decided by its programming. It can behave like many components and once and perform complicated actions that would be more difficult to do if you were using just normal components.

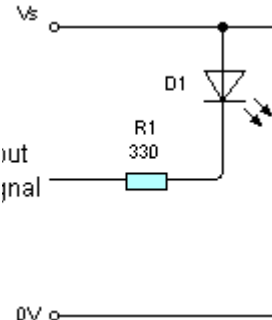
RESISTOR



Resistors resist current. They are used in almost all circuits to regulate current and control voltage. Most circuits would not work without resistors.

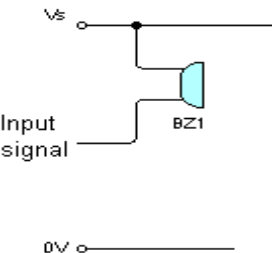
OUTPUTS

LED



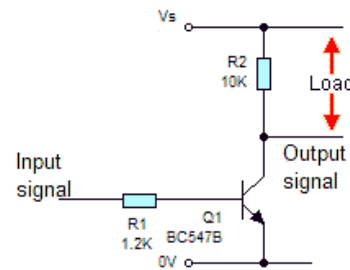
LED stands for light-emitting-diode. They emit light when current is passed through them and come in a wide range of colours and sizes.

PIEZO



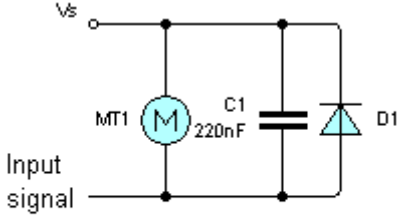
Piezo sounders are a type of buzzer. They come in a variety of voltages and currents but can only make simple sounds.

TRANSISTOR



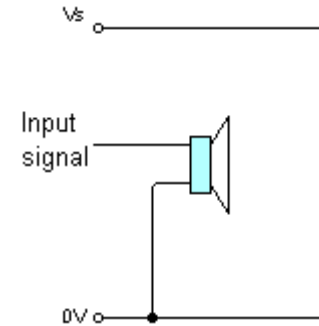
A transistor is an electronic switch that provides an output signal powerful enough to drive outputs requiring medium current.

MOTOR



A motor provides rotational motion when powered. They come in a variety of sizes, voltages and currents.

SPEAKER



Speakers convert signal voltage into sound. They can be mounted on the PCB or on the case and they only need a small current/