

USEFUL CIRCUITS

Two input alarm circuit

Most alarm systems have more than one sensor to detect an intruder. There are a number of possible input sensors. These include pressure mat, tilt switch and a reed switch. The circuit below uses a pressure mat and a tilt switch.

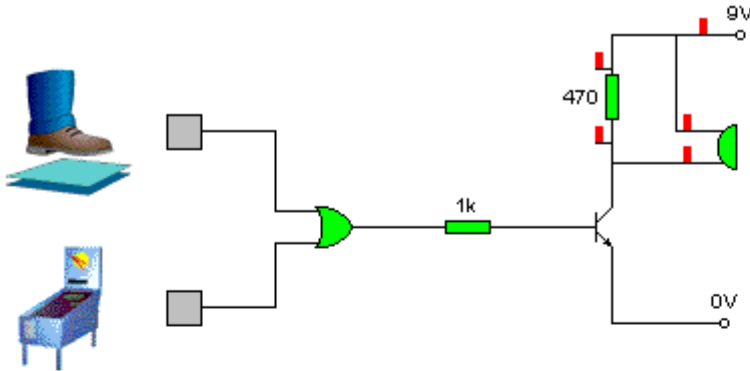


Fig 1.3

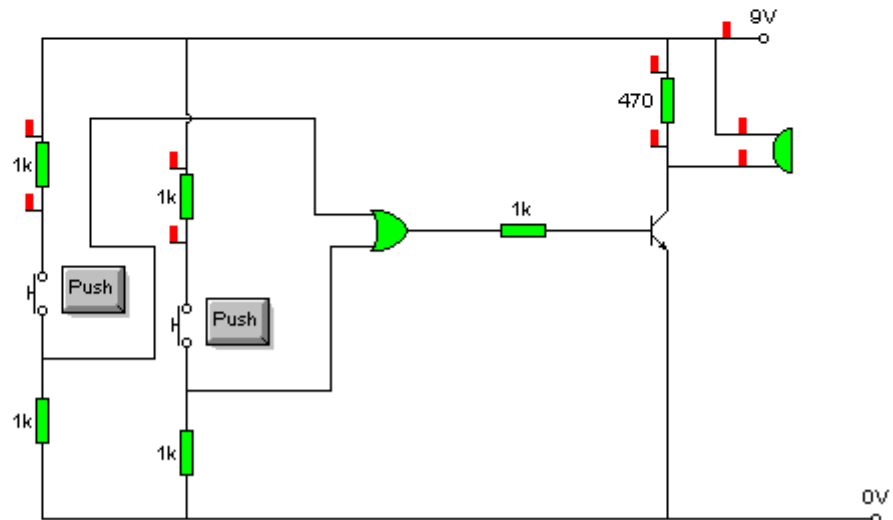


Fig 1.4

Although the circuit in fig 1.3 works on the computer, in practice a potential divider circuit needs to be added to the inputs so that a maximum of 5V is applied to the input of the logic gate. The values of the resistors are not critical as long as each pair are of the same value. Fig 1.4 shows the complete circuit.

The disadvantage of this circuit is that for example once you remove your foot from the pressure mat the buzzer goes off. What is required is a way of having the buzzer on for a period of time once the sensors are activated.