

SECURITY MAT TRIGGER

Security mats close a circuit when stepped on, and are available from dealers in home security systems. They can be used to detect intruders, or to monitor children or invalids who shouldn't be getting out of bed. The circuit can also be used with any circuit closure device, such as door switches.

The 555 and 4017 decoder drive five LEDs which flash at a slow rate when on standby. If one mat is triggered, the array speeds up (this is used to indicate that someone has stepped out of bed — it has less use for home security purposes). If other mats switch on, relays operate piezoelectric (or other) buzzers.

The relays should have coils of 500-1000 ohms and operating voltages of 6-9 volts. The battery should be a 9V alkaline or rechargeable; if a line-operated plug-pack is used, heavier relays and audible devices can be substituted.

