

## 23 Hands Off

□ This circuit finds the 555 timer as a watchdog ready to cry out if an inquisitive finger comes too close. The trigger input is terminated with a one megohm resistor, attached to a coin or some other small metallic object. Hand capacity is

sufficient to initiate the time for about five seconds. The output is fed not only to a warning LED, but to a unijunction type oscillator, whose tiny two-inch speaker can make itself heard throughout the room.

### PARTS LIST FOR HANDS OFF

- C1, C3**—0.1- $\mu$ F ceramic capacitor, 15-WVDC  
**C2**—0.01- $\mu$ F ceramic capacitor, 15-WVDC  
**C4**—1- $\mu$ F electrolytic capacitor, 15-WVDC  
**D1**—Light-emitting diode, any color  
**D2**—1N4148 diode  
**IC1**—555 timer integrated circuit  
**Q1**—2N2646 field-effect transistor  
**R1**—470-ohm,  $\frac{1}{2}$ -watt 10% resistor  
**R2**—1,000,000-ohm,  $\frac{1}{2}$ -watt 10% resistor  
**R3**—220,000-ohm,  $\frac{1}{2}$ -watt 10% resistor  
**R4**—15,000-ohm,  $\frac{1}{2}$ -watt 10% resistor  
**SPKR**—8-ohm PM type speaker  
**T1**—audio output transformer 500-ohm primary/8-ohm secondary

