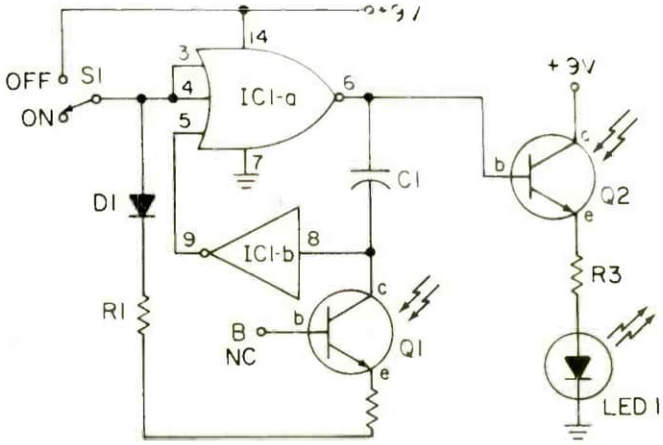
1 Tinkerer's Blinker

☐ We call it "Tinker's Blinker," but what's in a name, if you don't know how the circuit works. Tinkerer's Blinker is a small black box that you place on a table in front of your friends. Connected to the box with a thin wire is a wand with a small red light (LED1) on the end. The light flashes about twice a second, but at your command, it flashes faster and faster. You hand it to your friends, but they cannot do it. The secret? In the box is a small hole with phototransistor Q1 showing through. As LED1 gets closer to Q1, it flashes faster and faster but it will take your friends a long while to catch on. It's especially effective when all the room lights are out. Have fun.

PARTS LIST FOR TINKERER'S BLINKER

C1—0.01-uF ceramic capacitor, 15 VDC
D1—IN4001 diode
IC1—4000 dual NOR gate w/inverter
LED1—Light-emitting diode
Q1—FPT100 phototransistor
Q2—2N4401 trransistor
R1—5,000,000-ohm, 1/2-watt resistor
R2—1,000,000-ohm, 1/2-watt resistor
R3—680-ohm, 1/2-watt resistor



NOTE: BUILD LED1, Q2 AND R3 IN WAND