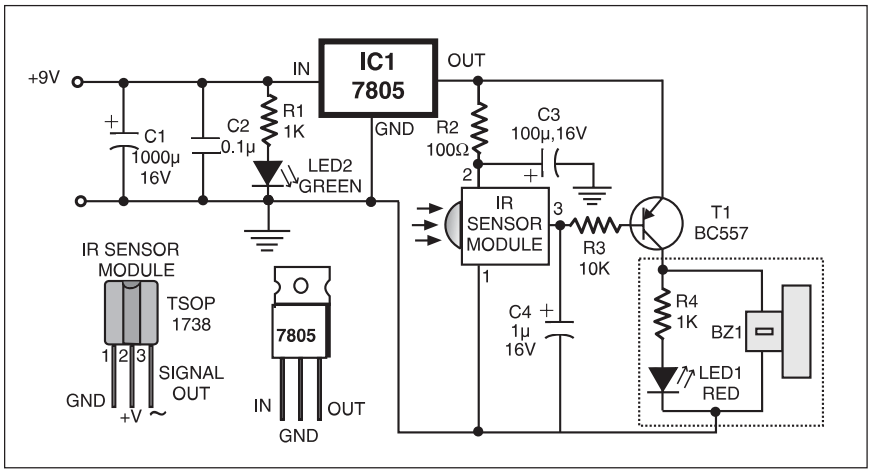
SIMPLE SENSITIVE REMOTE CONTROL TESTER

Here is a handy gadget for testing of infrared (IR) based remote control transmitters used for TVs and VCRs etc. The IR signals from a remote control transmitter are sensed by the IR sensor module in the tester and its output at pin 2 goes low. This in turn switches on transistor T1 and causes LED1 to blink. At the same time, the buzzer beeps at the same rate as the incoming signals from the remote control transmitter. The pressing of different buttons on the remote control will result in different pulse rates which would change the rate at which the LED blinks or the buzzer beeps.

When no signal is sensed by the sensor module, output pin 2 of the sensor goes high and, as a result, transistor T1 switches off and hence LED1 and buzzer BZ1 go off. This circuit requires 5V regulated power supply which can be obtained from 9V eliminator and connected to the circuit through a jack.

Capacitor C1 smoothes DC input while capacitor C2 suppresses any spikes appearing in the input supply.

Proper grounding of the metal case will ensure that the electromagnetic emissions which are produced by tube-lights



and electronic ballasts etc (which lie within the bandwidth of receiver circuit) and repeats the steps shown in step 1 above and notes down his new score (say, X2). He adds up this score to his previous score. The same procedure is repeated by player 'Y' in his turn. 4. The game carries on until the score attained by one of the two players totals up to or exceeds 100, to be declared as the winner.

Several players can participate in this game, with each getting a chance to score during his own turn. The circuit may be assembled using a multipurpose board. Fix the display (LEDs and 7-segment display) on top of the cabinet along with the three switches. The supply voltage for the circuit is 5V. are effectively grounded and do not interfere with the functioning of the circuit. The proposed layout of the box containing the circuit is shown in the figure. The 9-volt DC supply from the eliminator can be fed into the jack using a banana-type plug.