Superior Heads-Tails Indicator

THIS Heads-Tails Indicator (see Fig.1) is superior to other designs in several ways. It is random to a fault, needs no setting up and operates with a single pushswitch to display either red or green on a single l.e.d.

In the circuit diagram of Fig.1, the oscillator based around IC1a and IC1b, feeds a rapid train of pulses via IC1c to IC2a, a D-type flip-flop. As each pulse is received, IC2a changes state from "heads' to "tails" and vice versa. Within 70 milliseconds, IC2a receives about 500 pulses, then timer IC1c stops the clock. Within a further 20ms, IC1d switches on transistor TR1 which causes the tricolour l.e.d. D1 to display either red or green.

The purpose of IC1d/TR1 is to prevent the differing loads related to D1 from biasing the timer IC1c in favour of either heads or tails. Various factors combine to ensure that the Superior Heads-Tails Indicator is virtually completely random.

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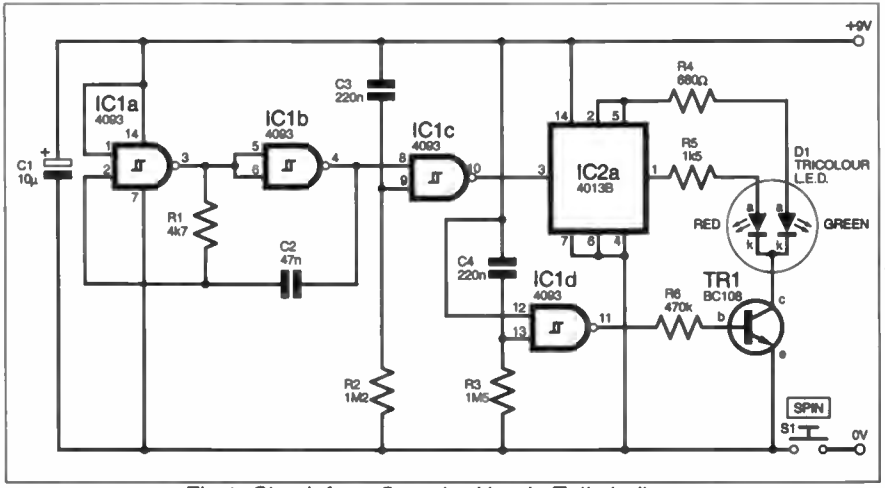

Fig.1. Circuit for a Superior Heads-Tails Indicator.