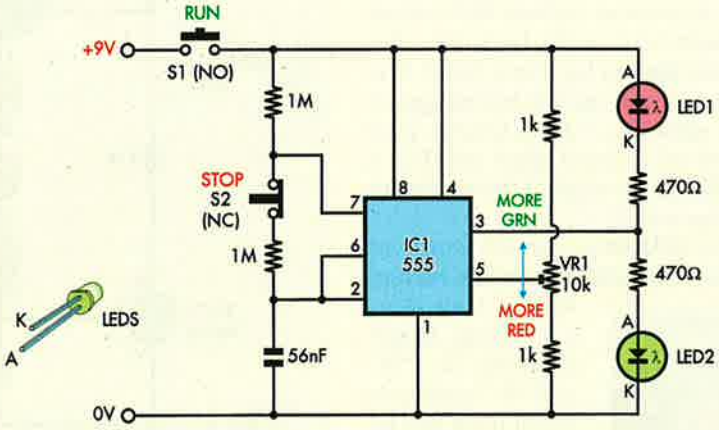
Biased yes or no circuit

This may look like a simple coin toss or decision circuit but it is designed to enable you to increasingly say "No, I won't" when confronted with temptations to eat snacks or otherwise indulge appetites which increase your waistline, threaten your heart, imperil your lungs or endanger your driver's licence. It has two LEDs – green for "GO AHEAD" and red for "REFUSE".

Unlike other deciders which are designed to simulate coin tossing with even chances for heads or tails, this circuit has adjustable bias so that as you start your program to increase your resolve power, you can set it for a roughly even chance of yes or no but then as your "won't power" improves, you can bias it to increase the chance of a "REFUSE" answer.

So when temptation rears its ugly head, just press RUN switch S1 and let the circuit make the decision for you.



The circuit is based on 555 timer IC1 which is wired as an astable oscillator. This lights red LED1 when pin 3 is low and green LED2 when pin 3 is high.

When you press RUN switch S1, both LEDs flash rapidly until you stop the timer by pressing STOP switch S2. The slightly unusual placement of S2 in the circuit is necessary because the more usual positions altered the status of the output – which is not wanted.

The bias of the circuit is set by trimpot VR1. This could be a 10-turn type if you want fine adjustment. It acts as a mark/space ratio controller to give longer green or red outputs.

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