

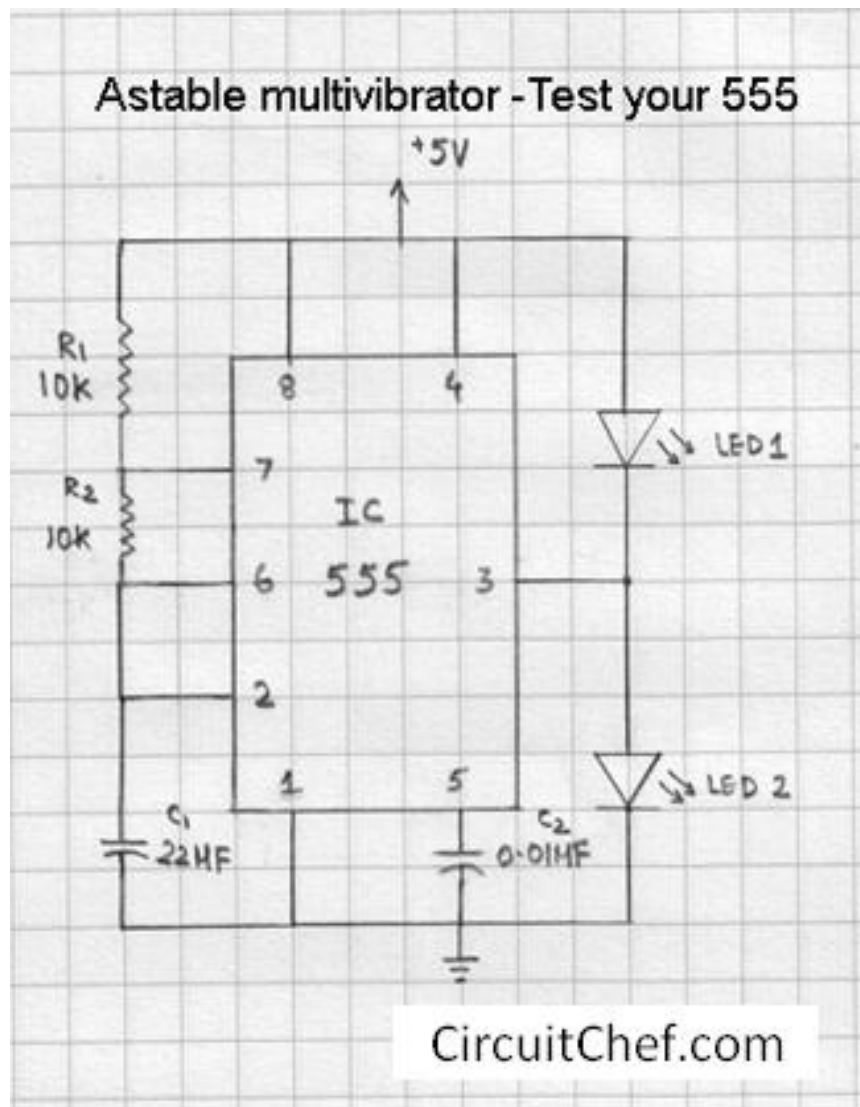
Circuits with IC 555

With Circuitchef.com

Disclaimer: These are some of the old circuits from my notes; some gathered years back from internet or other sources, some my own. If you find any violation, or if you want to credit someone else, please let me know – will add appropriate credits! Use at your own risk ! 😊

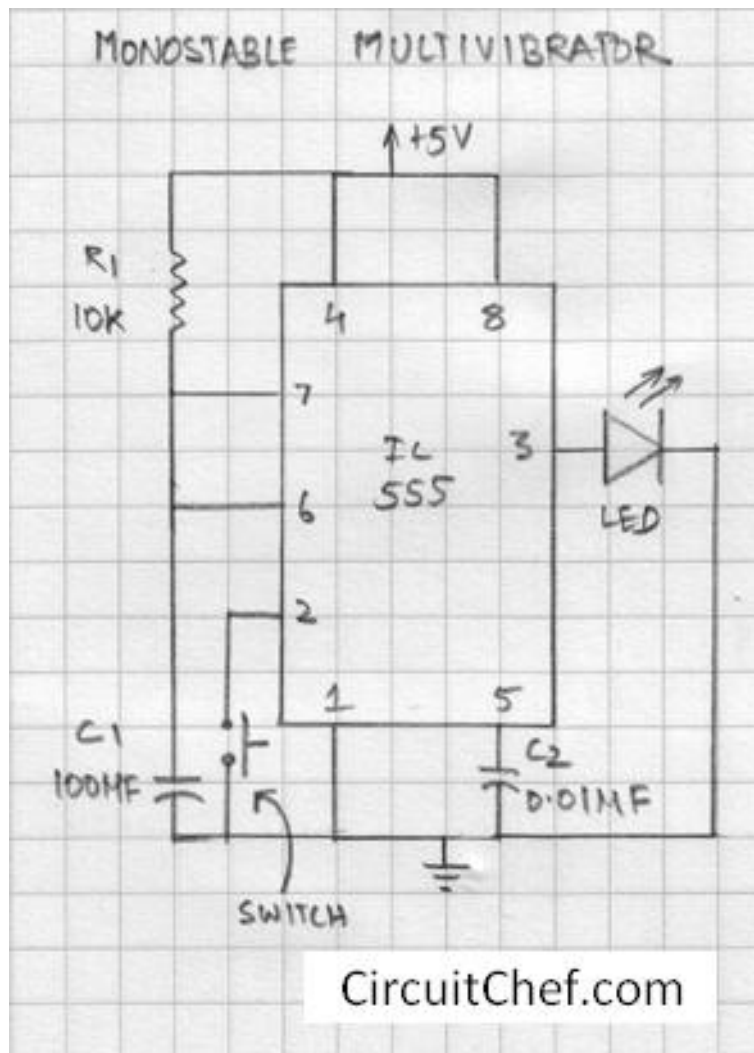
1. Astable Multivibrator

This is a basic 555 configuration, gives you a square wave output. Useful when you want a standard frequency square wave output. Also handy to check if your 555 is still alive !



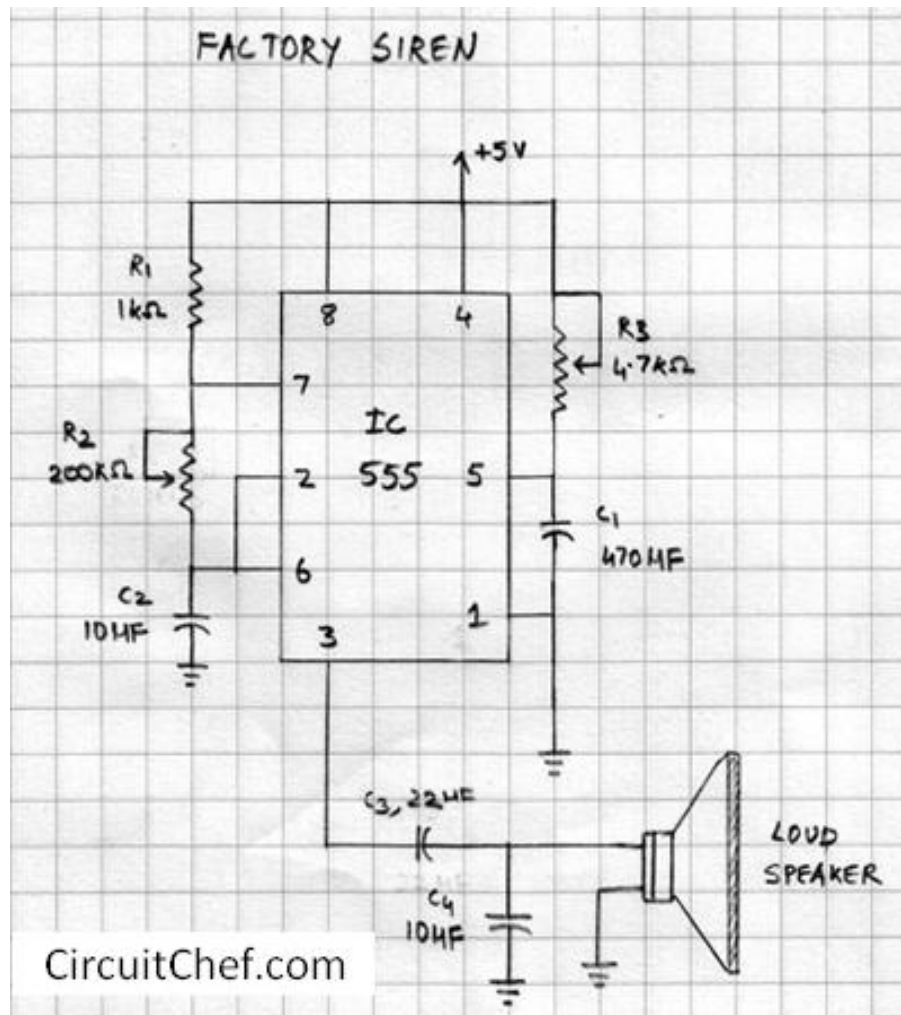
2. Monostable Multivibrator

Also called as “One shot vibrator” – This is handy when you want to trigger a circuit. Gives a high once the switch is pressed!



3. Factory Siren

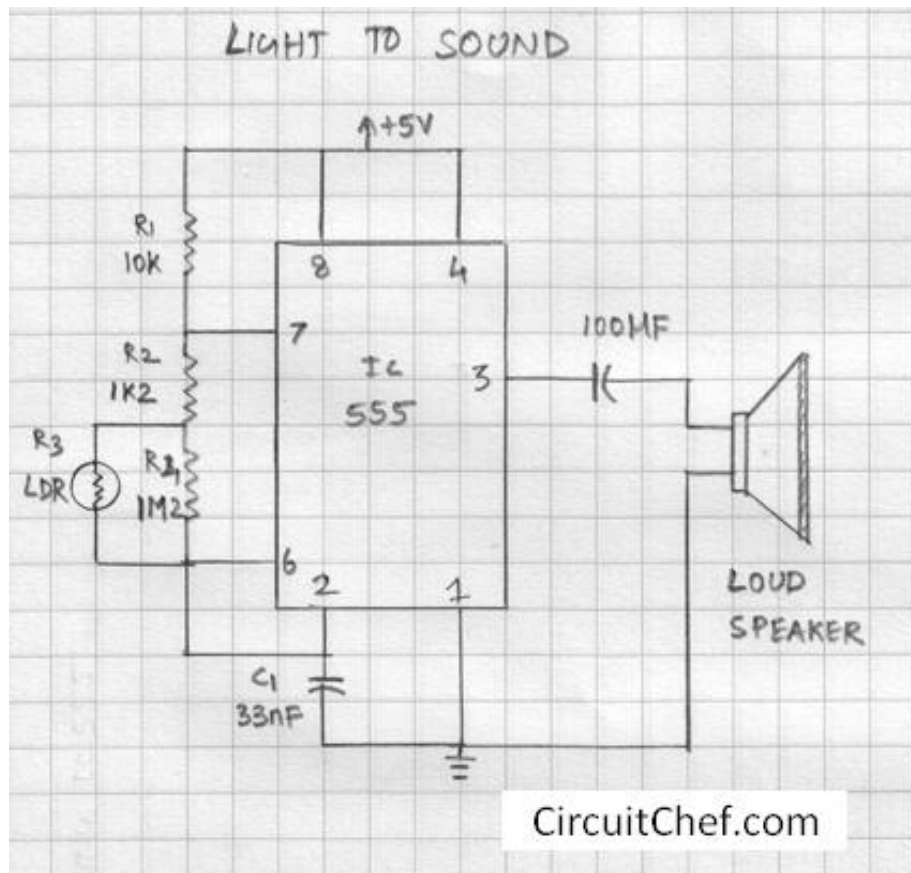
Have you heard that long factory siren???? used to denote shift changes etc ? Well the below circuit just does that! You can change the tones using the R2 resistor.



4. Light to sound

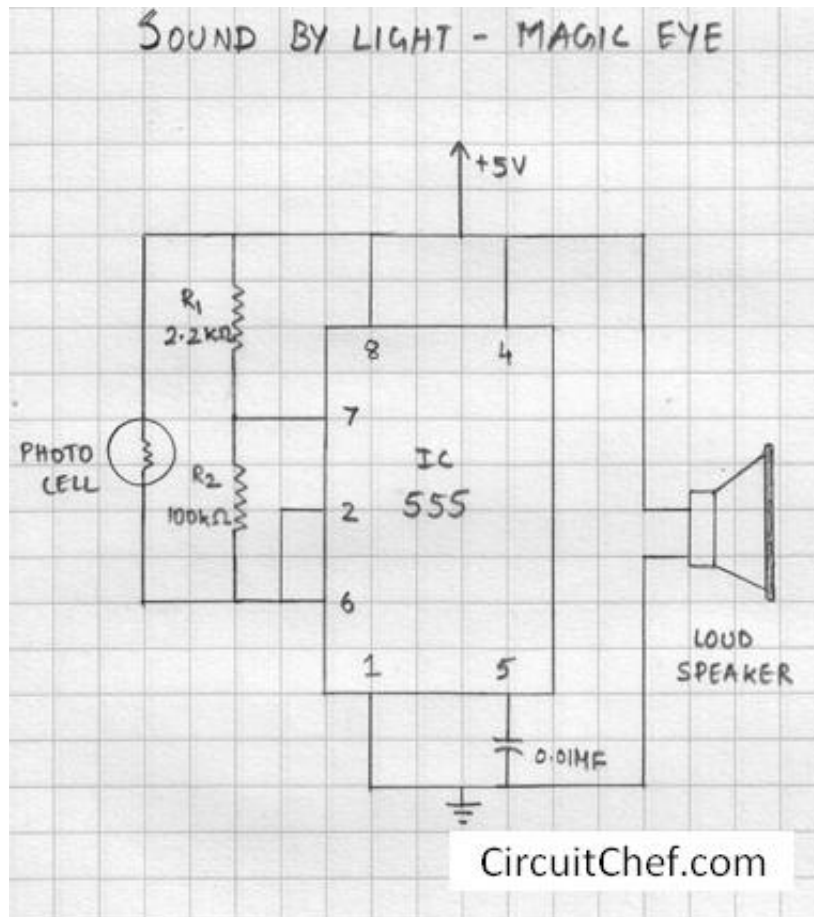
Do you want to create sound based on brightness/intensity of light? The below circuit does that!

The resistor R3 is an LDR (Light dependent resistor) whose resistance is directly proportional to the light falling on it! Now this resistance is parallel to R4, The overall combination changes with light falling on that leg, this in turn changes the output frequency, This when passed through a capacitor is your tone!



5. Sound By light

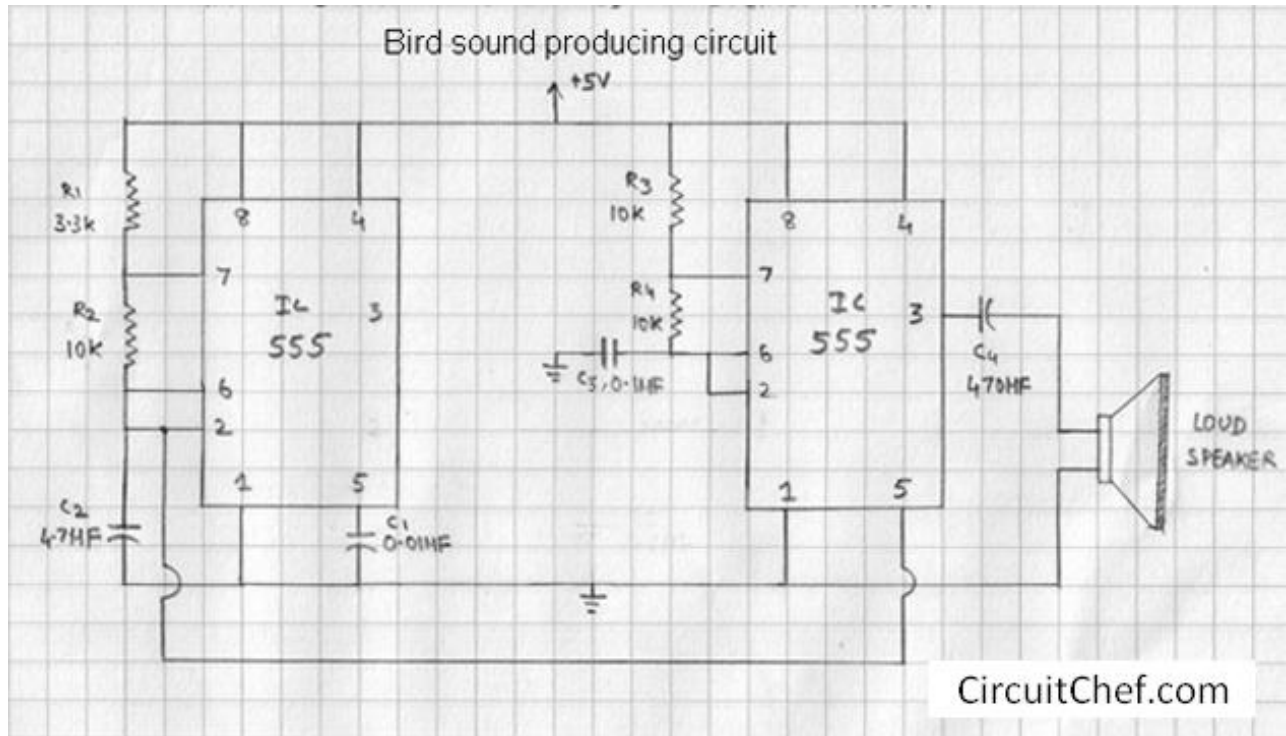
Similar to the previous circuit, this circuit also gives a proportional output to the input light. The only difference being the resistor leg (RA and RB configuration – in this the R1 and R2 configuration)



6. Bird sound producing circuit

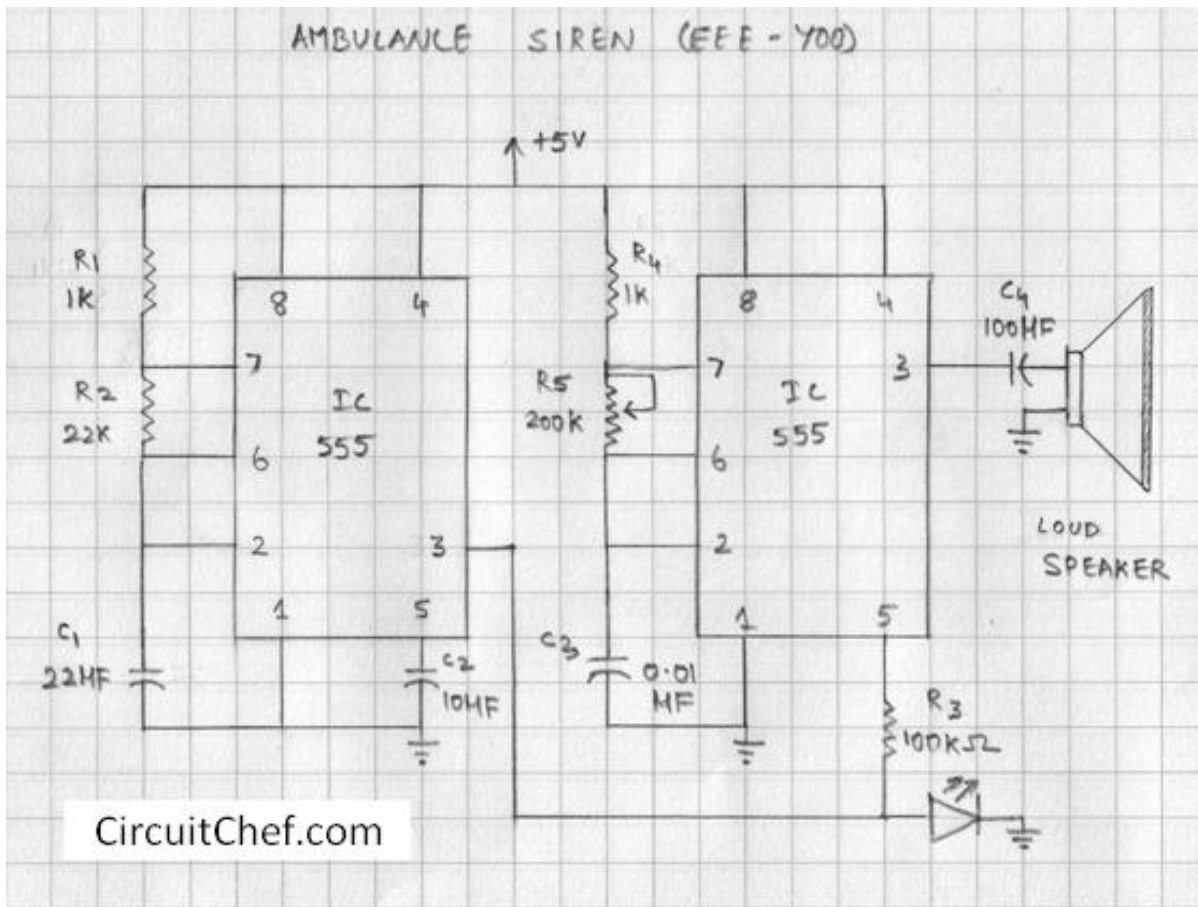
Wanted a chirping bird sound producing circuit? Below is the one!

Here the 'control' pin of 2nd 555 IC is controlled by IC1



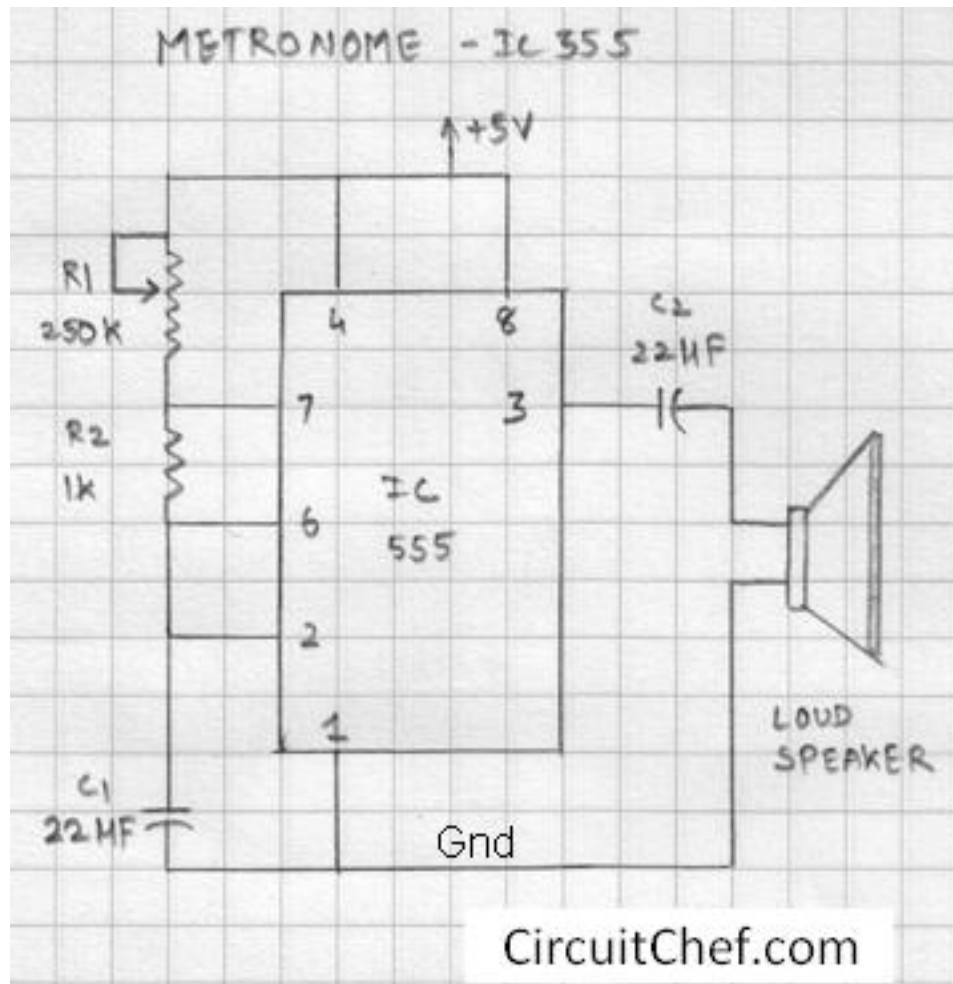
7. Ambulance siren

The second 555's control pin is manipulated by the output of the first 555 IC. This ensures the ambulance sound output whose period is defined by the first IC.



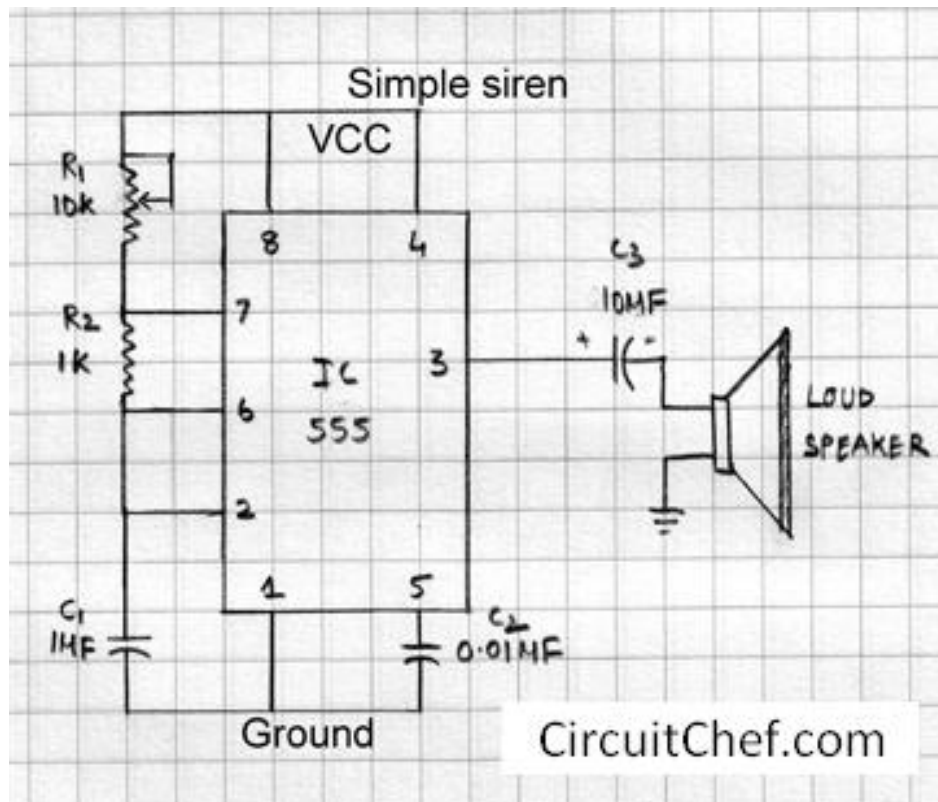
8. Metronome

Want to practice music? Need a simple metronome! Below is your need!
The beats per second can be controlled using the variable resistance R1.



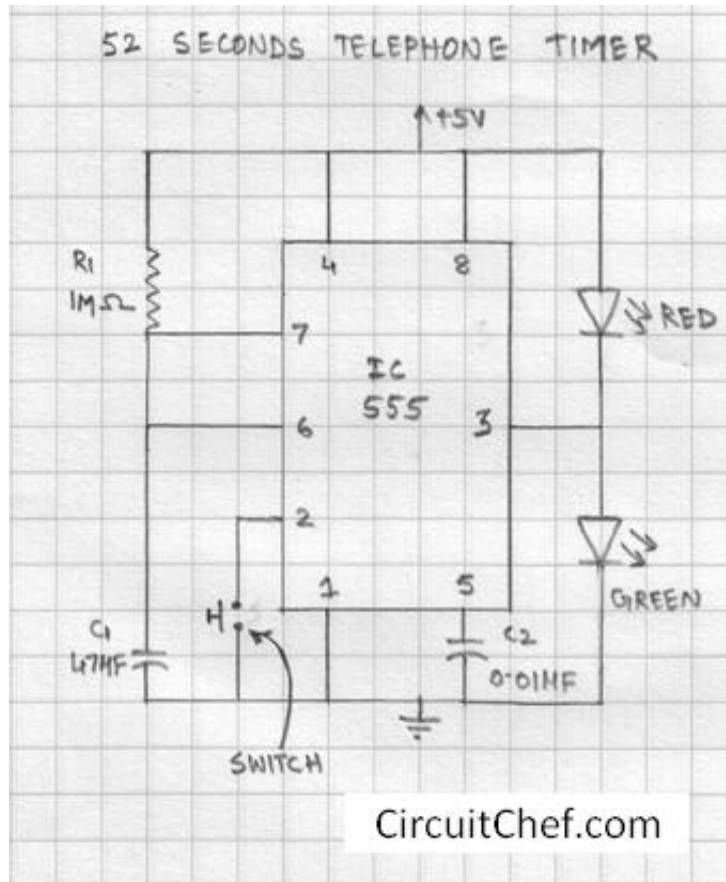
9. Simple Siren

Need a simple siren? A simple astable multivibrator!



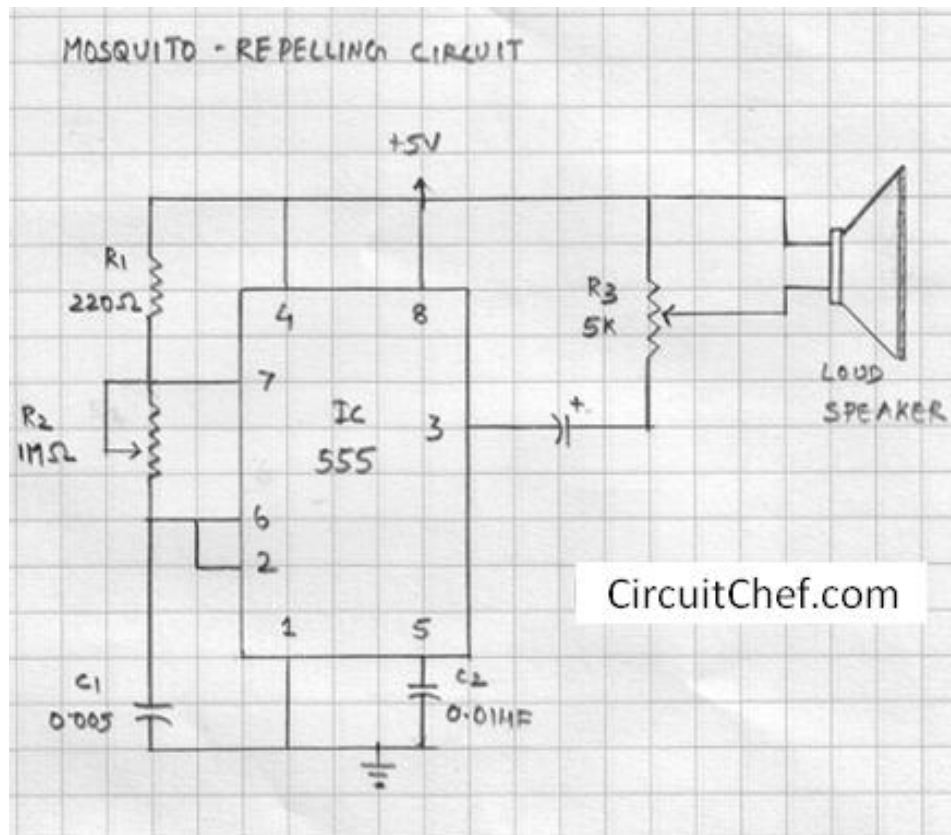
10. A simple 52 second timer

Press the switch to reset the timer, The Green will keep glowing till 52 seconds post which the red LED will glow – Time to hang up the phone!



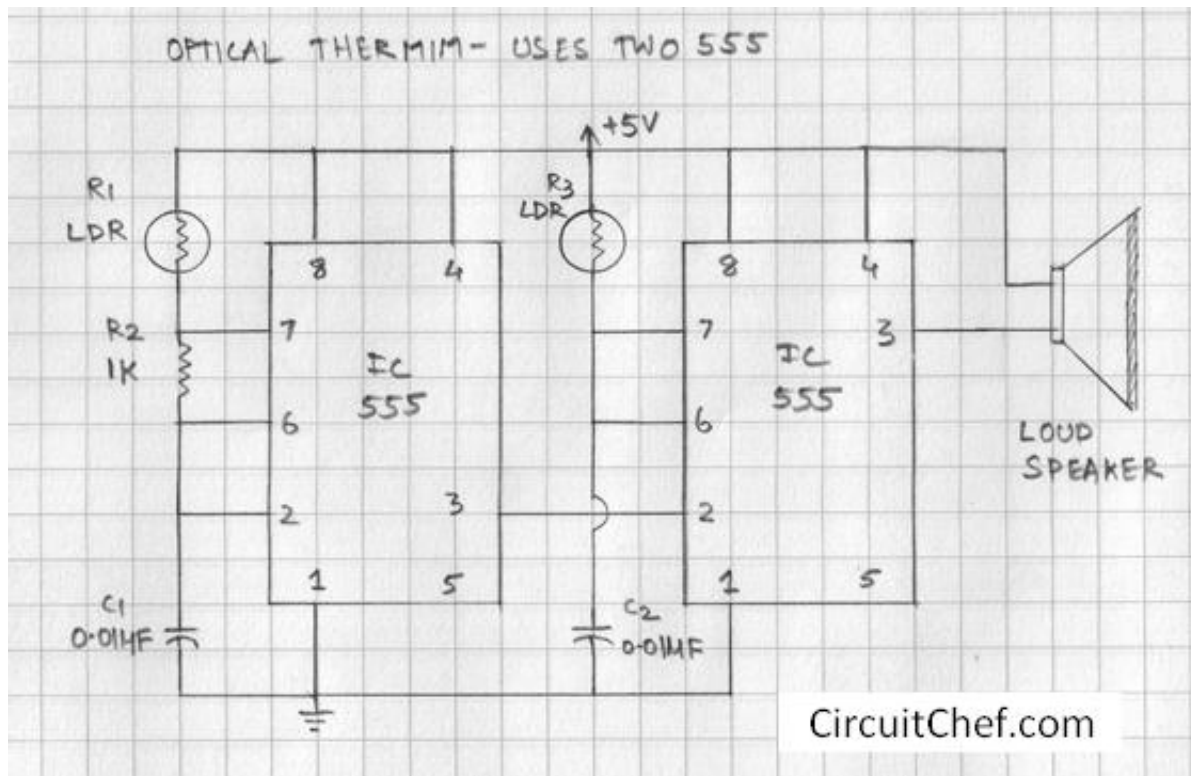
11. Mosquito Repellent

Produces a high pitch “wave” which will drive out the mosquitoes!

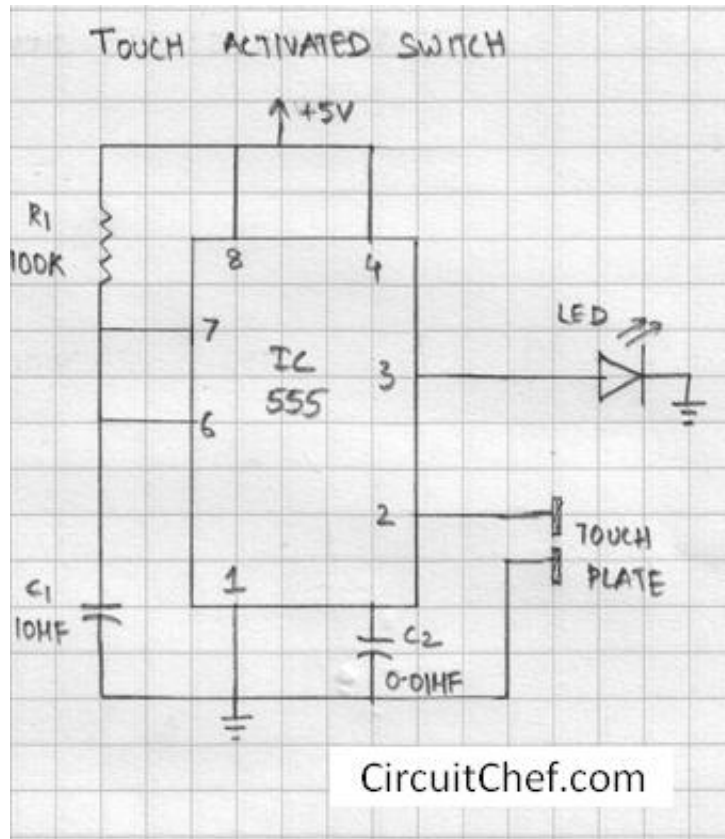


12. Optical Thermim

Wanna play music by just moving your hands? Below is the circuit you need. By waving your hands in front of the LDR, the resistance changes in turn changing the output sound / music.

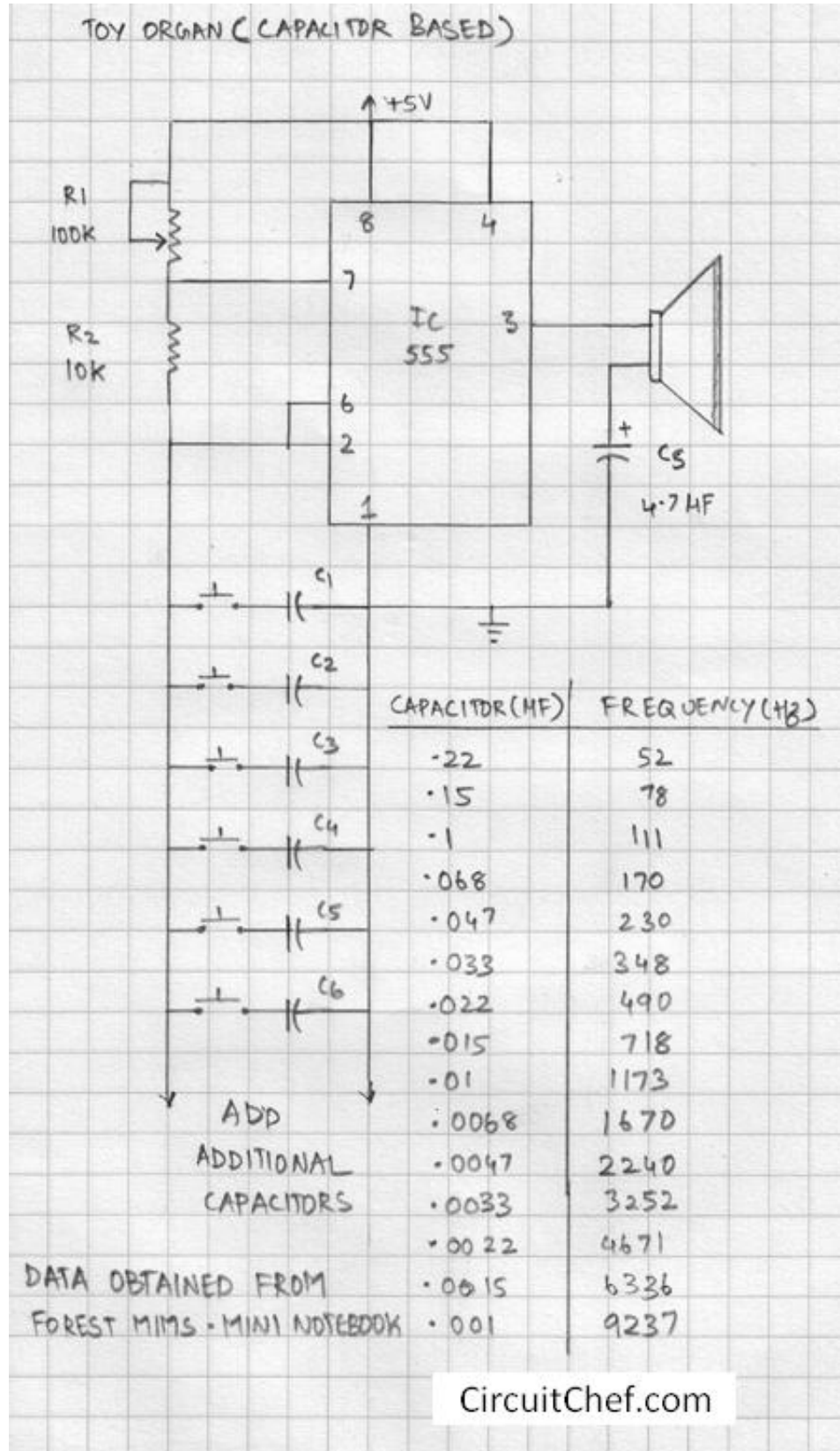


13. Touch activated switch



14. Toy organ – Capacitance based

The frequency of the output changes based on the capacitor selected – making this a small toy Piano!



15. Toy organ – resistance based

The frequency of the output changes based on the resistance selected – making this a small toy Piano!

