

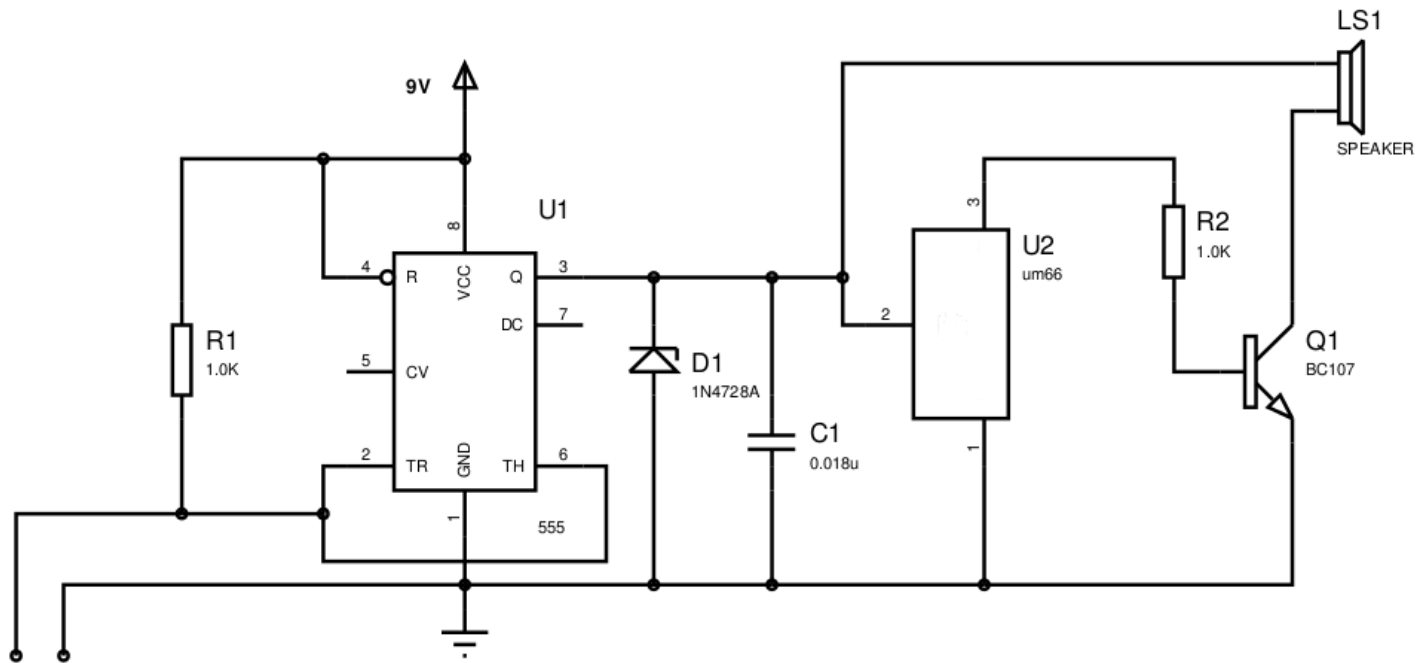
# Continuity Tester With Melody

A continuity tester is a device which tests the continuity of the wire at hand. It is an indispensable tool to check broken wires and undesired shorting of wires.

If we want to check if the wire is connected from one end to another, then use the probes of the continuity tester and put to the ends of the wires to be tested. If the wires are connected, then the circuit makes a sound indicating that the wires is continuous without any break in the middle.

We can also make use of this tool to make a tester to check discontinuity of wires. Many a times when we are connecting the components on the printed circuit board or the bread board, then there is always a possibility of the components to get attached weather due to defects in the printed circuit board or bread board or due to the mistakes which we may commit while assembling the circuit. What so ever the case is, the continuity tester helps us to debug our circuit with ease.

*Circuit Diagram of Continuity Tester:*



There are many circuit testers already designed but this comes with an improvement that when the circuit detects the connection, it makes a melodious sound which is pleasing to hear instead of the irritating buzzer sound which is intolerable to hear. That too, this circuit does it using integrated circuits wherever possible in an efficient manner so that the hardware is kept to a minimum and the circuit size is also reduced.

The circuit uses the 555 IC timer in buffer mode. The output of the 555 IC is a DC voltage when the circuit probes detects the connection shorted. This output is given to a music generating IC which is UM66. This music generating integrating circuit is then given the input from the output of the IC 555. The output is high only when the circuit detects the probes are shorted. If not, the output is kept low. The music which is generated by the integrated circuit um66 can be heard through the loudspeaker. The loudspeaker used is a mini 8 ohms loudspeaker. The circuit can be conveniently assembled onto a printed circuit board so that it comes handy whenever we need to test a circuit for continuity or short circuits. A battery power supply can be used for powering this circuit as the circuit is made to consume very little power due to which using a battery based power supply is ideal as the batteries will last longer maintaining the portability of the circuit.

Source: <http://www.electronicshub.org/continuity-tester-with-melody/>