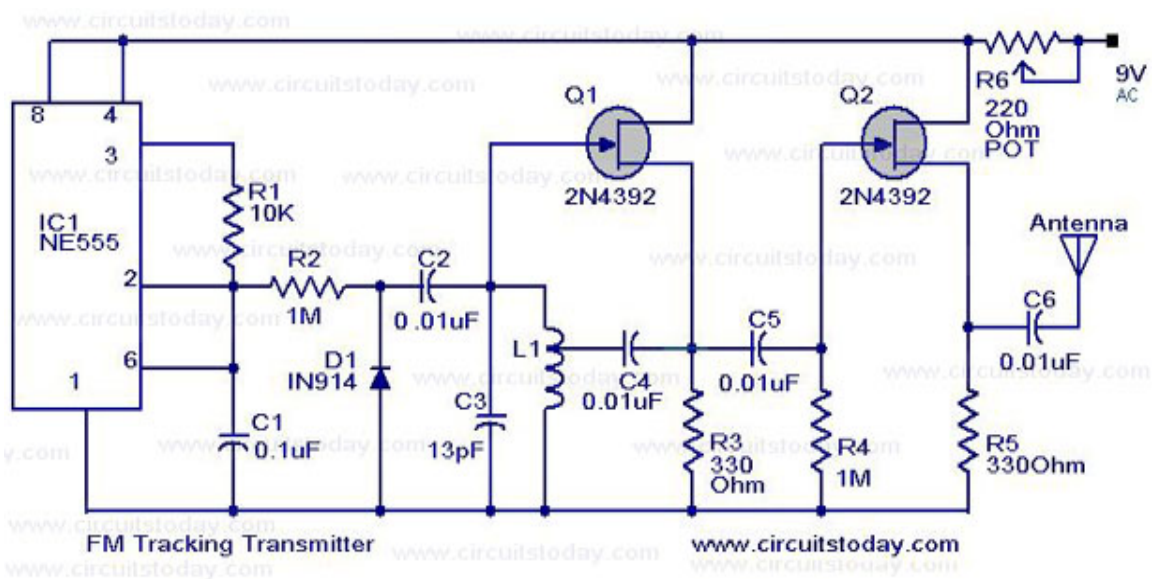


FM Tracking transmitter

Description.

The circuit presented here will transmit an audio tone in the FM band. The circuit can be used as a tracking signal transmitter or a remote control transmitter. The circuit uses only easily available components and any one can build this. The transmitter has a range of 100m @ 9V supply, with a matching antenna. The NE555 timer (IC1) is used for producing the audio tone. The first JFET (Q1) is wired as a Hartley oscillator which is frequency modulated by the audio tone. The second (Q2) JFET is wired as a buffer to isolate the oscillator based on Q1 from the antenna. The diode D1 is used as a varactor here. The diode is reverse biased by the ramping voltage produced at the pin 6 & 2 of the IC1. This results in the change of junction capacitance of the reverse biased diode, which in turn alters the frequency of the oscillator to attain the frequency modulation.

Circuit diagram with Parts list.



Notes.

- The inductor L1 can be made by winding 5 turns of 18 SWG enameled copper wire on a 3/8 inch long, 3/16 inch diameter plastic tube. The coil must be tapped at the center.
- The antenna can be a 20cm long wire.
- The circuit can be powered from a 9V battery.
- POT R6 can be used to adjust the transmission power.

Read more: <http://www.circuitstoday.com/fm-tracking-transmitter#ixzz0mPVPEicv>
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