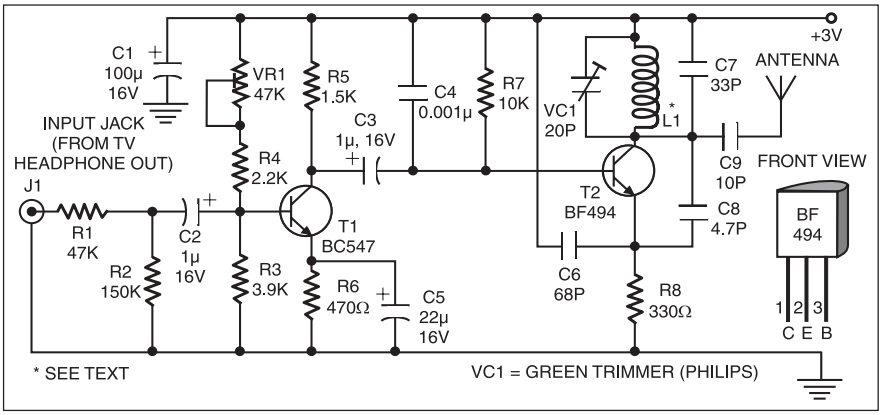
# WIRELESS TV HEADPHONE CIRCUIT


**PRADIPTA BANERJEE**

This circuit allows you to watch your favourite TV programmes late at night without disturbing other family members. As against imported stereo wireless TV headphones available in the market for around Rs 1200, it costs just Rs 30, or even less, if the components are taken from a discarded transistor receiver, with no compromise on performance.

The unit is basically a simple FM transmitter housed in a plastic or metal enclosure. Transistor T1 acts as an audio preamplifier. Transistor T2 works as an FM oscillator and modulator in conjunction with other passive components. Trimmer capacitor VC1 connected across inductor L1 can be varied to achieve the desired frequency. Inductor L1 comprises 4 to 6 turns of closely wound 25SWG enamelled copper wire on a 4mm dia. air core. A 20-30cm long wire serves as an antenna.




Most modern TVs are nowadays equipped with audio-in/out and video-in/out RCA sockets. Using an RCA-to-RCA cord, connect the audio output of your TV to the transmitter's input. Adjust the gain of the audio preamplifier with the help of preset VR1 for clear reception in a portable FM receiver equipped with an earphone socket. Use a good-quality earphone.

This transmitter draws only a few milliamperes of current and doesn't require on/off switch. It can be fabricated on a small piece of stripboard. All connectors should be firm and as short as possible to prevent unwanted oscillations. The circuit operates off two AA-size penlight torch cells.

The circuit is meant for mono reception. ***EFY note.*** All TVs don't have headphone jacks.