

NIGHT ALERT

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Idea of this circuit came to me at midnight when my pet dog started barking continuously on sensing a moving shadow, perhaps that of an intruder. Dogs have a night adaptation capability to maximise the sensitivity of vision in low light. They are well adapted to see moving objects rather

Transistor T1 along with transistor T2 amplifies the sound signals and provides current pulses from the collector of T2.

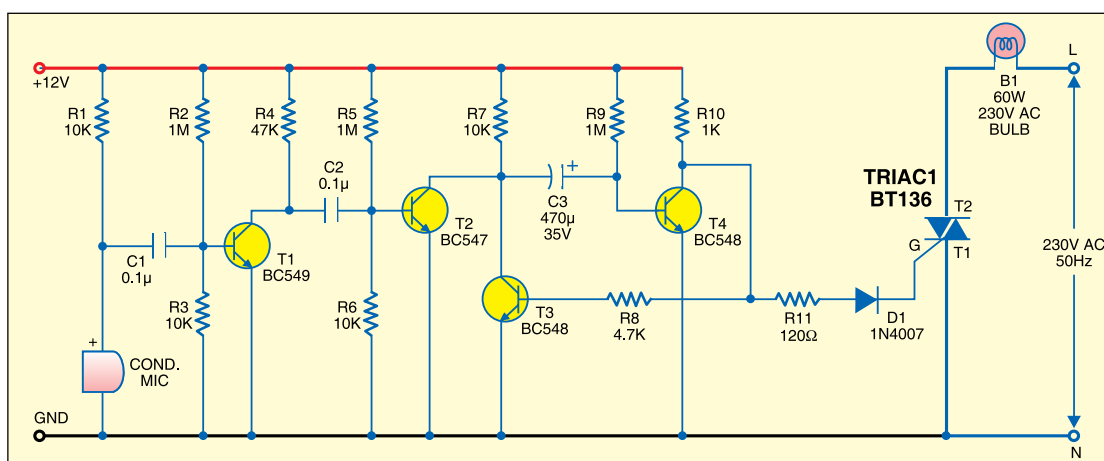
The input trigger pulse is applied to the collector of transistor T3 and coupled by capacitor C3 to the base of transistor T4 causing T4 to cut off. The

capacitor C3 are timing components. When fully charged, capacitor C3 takes about two minutes to discharge.

So when sound is produced in front of the condenser mic, TRIAC1 (BT136) fires and the bulb (B1) glows for about two minutes.

Assemble the circuit on a general-purpose PCB and enclose in a plastic cabinet. Power to the circuit can be derived from a 12V, 500mA step-down transformer with rectifier and smoothing capacitor. Solder the triac ensuring

sufficient spacing between the pins to avoid short circuit. Fix the unit in the dog's cage, with the lamp inside or outside as desired. Connect the microphone to the circuit using a short length of shielded wire. Enclose the microphone in a tube to increase



than stationary ones in darkness.

This circuit turns a lamp 'on' for a short duration when the dog barks, giving an impression that the occupants have been alerted.

The condenser microphone fitted in the dog's cage senses barking sound and generates AC signals, which pass through DC blocking capacitor C1 to the base of transistor BC549 (T1).

collector voltage of transistor T4 forward biases transistor T3 via resistor R8. Transistor T1 conducts and capacitor C3 discharges to keep transistor T4 cut-off. Transistor T4 remains cut-off until capacitor C3 charges enough to enable it to conduct.

When transistor T4 conducts, its collector voltage goes low to drive transistor T3 into cut-off state. Resistor R9 and

its sensitivity.

Caution. Since the circuit uses 230V AC, many of its points are at AC mains voltage. It could give you lethal shock if you are not careful. So if you don't know much about working with line voltages, do not attempt to construct this circuit. EFY will not be responsible for any kind of resulting loss or damage. ●