

DOOR KNOCK ALARM WITH TIMER

■ PRADEEP G.

This low-cost circuit uses the piezoelectric element of a piezobuzzer as the input sensor. The piezoelectric element plate is fixed at the centre of the door wing by using a cello tape. Apply a small quantity of adhesive at the edges between the plate and the door. Extend

wires about 1-1.5 metres from the piezoelectric to the circuit.

IC NE555 (IC1) is configured in monostable mode. When it gets an input pulse set by VR1, resistor R5 and capacitor C3. IC UM66 (IC2) is used as a melody generator. When the door is knocked at,



the piezo plate generates an input pulse, which is amplified by transistor T1.

The amplified signal triggers the timer IC NE555 and its output pin 3 goes high to enable the melody generator. Music is heard from the speaker LS1. After the set time period, the melody sound stops.

Assemble the circuit on a general-purpose PCB and enclose in a suitable case. Fix the piezo element at the door and place the speaker in a central room inside the house using long wires. The circuit works off 5-12V DC. The music time can be adjusted through VR1 by changing the R-C time constant of the timer. ●

