
15 Haunted House

□ An eerie sound comes from a small box in a dark room. As your friends shine a light toward the sound, it whines with a higher pitch, but falls

again as they drop the light and run. The output at A can also be run into your hi-fi system to cause a very loud witch's squeal. The principle is

a NOR-gate oscillator with a pitch controllable via the light-sensitive transistor Q1. Changing R1 to a

higher value will give a lower-pitched wail.

PARTS LIST FOR HAUNTED HOUSE

C1—0.01- μ F ceramic capacitor, 15 VDC

D1—1N4001 diode

IC1—4000 dual NOR gate w/inverter

Q1—FPT-100 phototransistor

Q2—2N4401

R1—30,000-ohm, $\frac{1}{2}$ -watt resistor

R2—1,000,000-ohm, $\frac{1}{2}$ -watt resistor

R3—2,000-ohm, $\frac{1}{2}$ -watt resistor

R4—500-ohm, $\frac{1}{2}$ -watt resistor

S1—SPDT toggle switch

