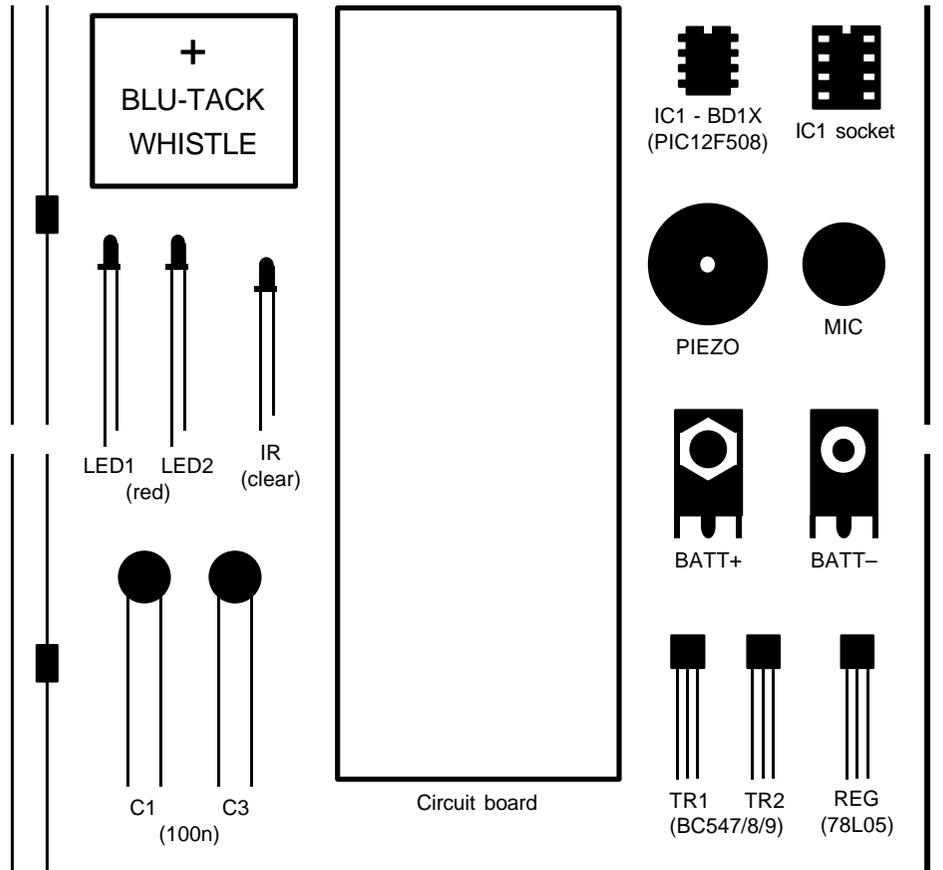
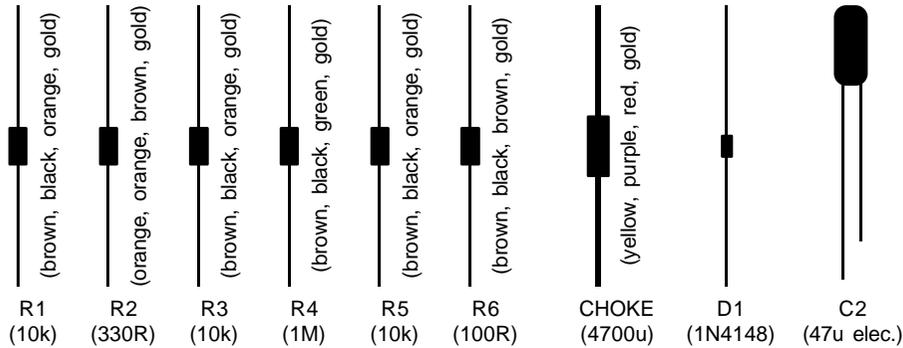


# INSECTOID



## CONSTRUCTION

1. Identify the different components using the spotter chart.
2. Fit and solder all the resistors (R1 to R6) to the circuit board. Identify the resistors by the coloured stripes on the body.
3. Fit and solder the electrolytic capacitor (C2) to the board putting the shorter leg (the leg nearer the stripe on the body) into the hole with the - sign. Fit and solder the other two capacitors (C1 and C3) either way around.
4. Solder the choke (CHOKE) to the board either way around.
5. Solder the transistors (TR1 and TR2) matching the half-circle shape of the transistor to the half-circle shape on the board (flat side against flat side). Be careful not to mistake the regulator for a transistor.
6. Solder the regulator (REG) matching the half-circle shape of the regulator to the half-circle shape on the board (flat side against flat side).
7. Solder the diode (D1) matching the black stripe to the + sign on the board.
8. Solder the lights (LED1 and LED2) putting the shorter leg into the hole with the line. Double check the correct orientation.
9. Solder the infra-red sensor (IR) putting the shorter leg into the hole with the line.
10. Solder the chip socket (IC1) matching the notch in the socket to the notch on the board. Do not solder the chip directly to the board.
11. Solder the microphone (MIC) to the board so that it fits within the circle.
12. Solder the piezo (PIEZO) either way around.
13. Solder the battery connectors (BATT+ and BATT-) matching the shape to the symbol on the board (the hexagonal connector is positive, the circular negative). Make sure the connectors are pushed fully into the board, and all the holes are well soldered.

**continued overleaf**

## CONSTRUCTION (continued)

**14.** Carefully bend the legs of the chip inwards a little with your fingers. Fit the chip into its socket matching the small notch in the chip to the notch in the socket.

**15.** Solder the legs (thicker wires) to the board. Bend the legs as in the diagram below.

**16.** Bend one of the leads of each magnetic bead to make a small kink as in the diagram below. Solder the thinner wires to the opposite leads to make the antennae. Solder the antennae to the board. Adjust the antennae so that the beads are alongside and almost touching the choke.

**17.** Bend the antennae a little in the middle at the solder joints to point outwards. Add a small piece of Blu-Tack to the end of each antenna.

**18.** Connect a 9V PP3 battery to the battery connectors.

