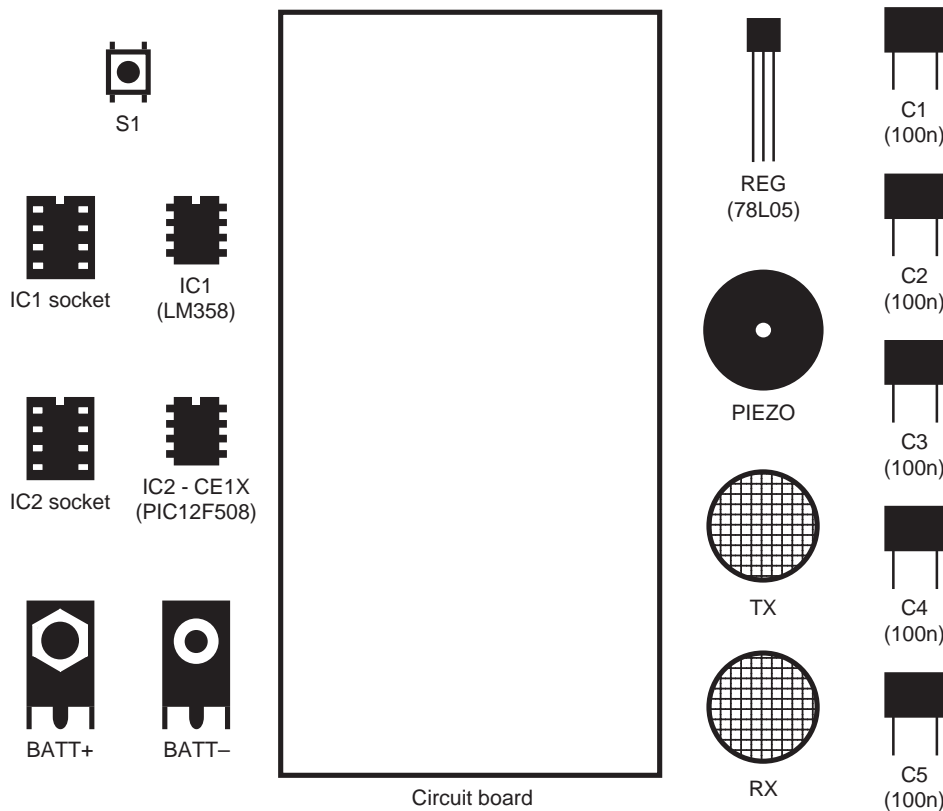
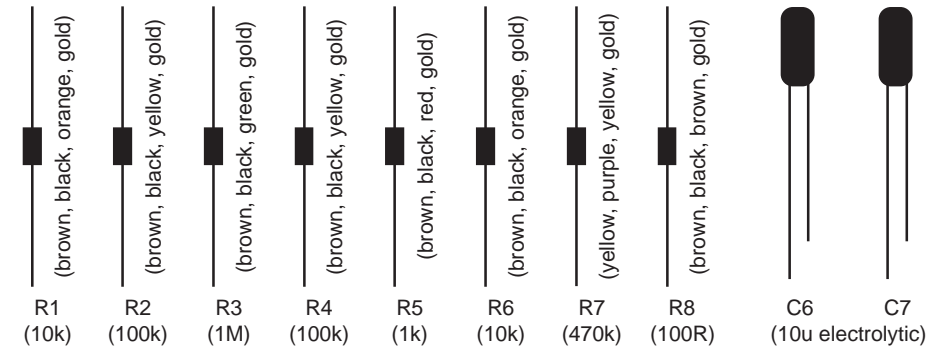


SONAR EXPLORER



CONSTRUCTION

1. Identify the different components using the spotter chart.
2. Fit and solder all the resistors (R1 to R8) to the circuit board. Identify the resistors by the coloured stripes on the body.
3. Fit and solder the electrolytic capacitors (C6 and C7) 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 capacitors (C1 to C5) either way around.
4. 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).
5. Solder the chip sockets (IC1 and IC2) matching the notch in the socket to the notch on the board. Do not solder the chips directly to the board.
6. Solder the piezo (PIEZO) either way around.
7. Solder the pushbutton (S1) to the board.
8. 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.
9. Solder the ultrasonic transducers (TX and RX) to the board. The transmitter (TX) is marked with a 'T' on the back, and the receiver (RX) is marked with an 'R'.
10. Carefully bend the legs of the chips inwards a little with your fingers. Fit the chips into their sockets matching the small notch in the chip to the notch in the socket. Make sure the right chip goes in the right socket.
11. Connect a battery (9V PP3) to the battery connectors.
12. If *Sonar Explorer* is working properly it should beep twice.