DECISIONS DECISIONS

makes all your important decisions for you

R1 (470R) — (yellow, purple, brown, gold)
R2 (47k) — (yellow, purple, orange, gold)
R3 (10k) — (brown, black, orange, gold)
R4 (470R) — (yellow, purple, brown, gold)
R5 (47k) — (yellow, purple, orange, gold)
LED1 (orange)
LED2 (orange)
Battery snap

D1 (1N4148)
D2 (1N4148)
Circuit board

C1 (220u elec.)
C2 (10u elec.)
C3 (10u elec.)
TR1 (BC547/8/9)
TR2 (BC547/8/9)
S1
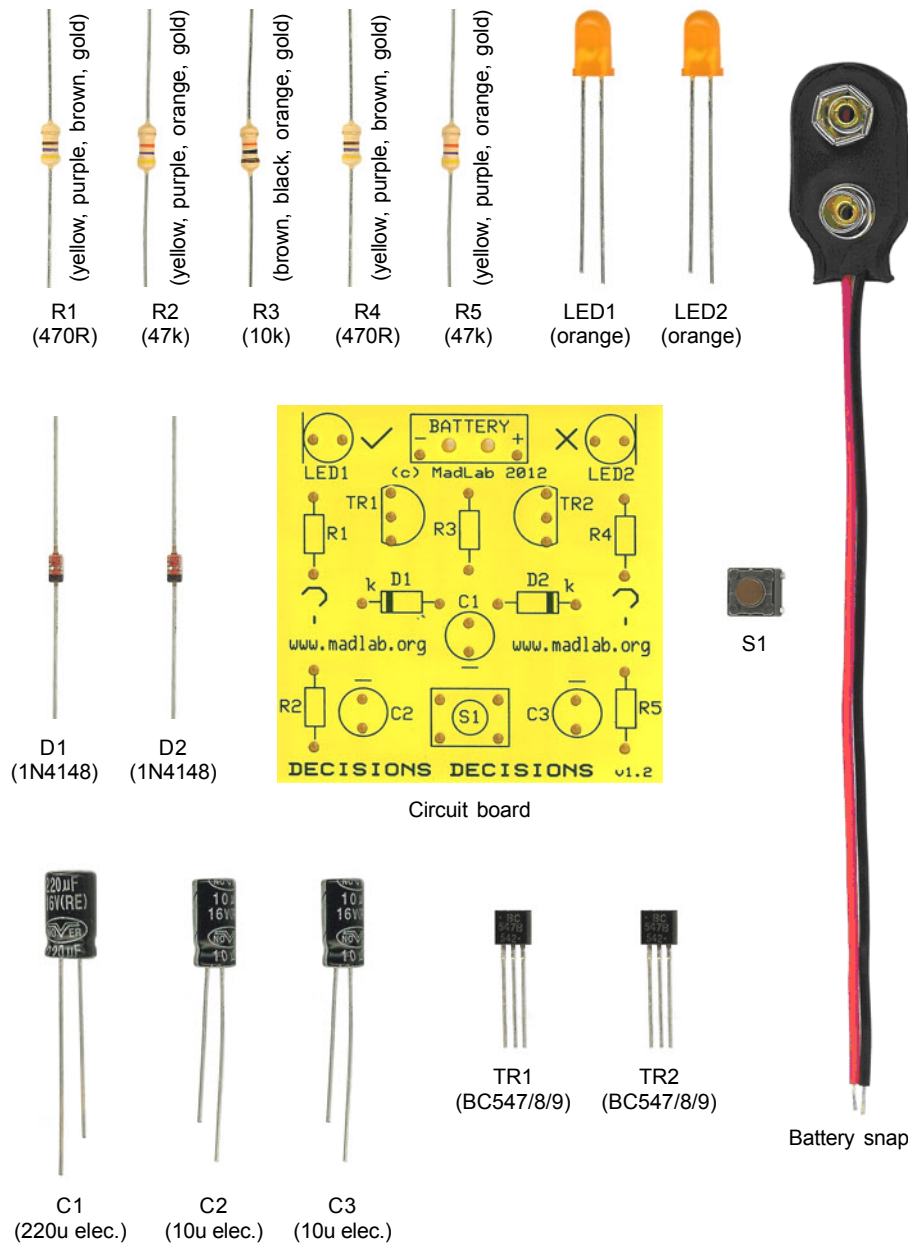
(1) Identify the different components using the spotter chart.

(2) Find the resistors (R1, R2, R3, R4 and R5) telling them apart by the coloured bands around their bodies. Bend the legs into a U-shape then fit them flat onto the picture side of the circuit board. Bend the legs outwards into a V-shape to hold them in place. They can be fitted either way around.

(3) Fit the capacitors (C1, C2 and C3) to the board putting the shorter leg into the hole with the – sign. The shorter leg also has a stripe on the side of the body. Bend the legs outwards a little to hold them in place. Note that C1 is bigger than C2 and C3.

(4) Fit the diodes (D1 and D2) matching the black stripe to the 'k' sign on the board. Bend the legs outwards into a V-shape.

(5) Fit the lights (LED1 and LED2) to the board putting the shorter leg into the hole with the line. The shorter leg also has a flattened edge on the rim. Bend the legs away from each other.

(6) Open the legs of the transistors (TR1 and TR2) a little and fit them to the board matching the half-circle shape of the transistor to the half-circle shape on the board. Push the transistors half way down and bend their legs.

(7) Fit the pushbutton (S1) to the board either way around.

(8) Solder the legs of all the components to the metal side of the board then clip the legs close to each solder joint.

(9) Push the battery snap leads up through the larger holes in the board from the metal side of the board. Fit the metal tip of the red lead into the BATTERY + hole and the metal tip of the black lead into the BATTERY – hole. Solder the metal tips to the tracks on the board then pull the wire loops back.

(10) Connect a battery **(9V PP3)** to the battery snap. One of the lights should come on and when you press the pushbutton the two lights should flash.

HOW TO USE

Decide the question you want answering, then press and hold the pushbutton for about a second. The two lights will flash alternately and when you release the pushbutton the flashing will slow down. Eventually the flashing will stop with one of the lights remaining on. If the light with the tick is on then the answer to your question is YES (or whatever you decide the tick is going to mean). If the light with the cross is on then the answer is NO.