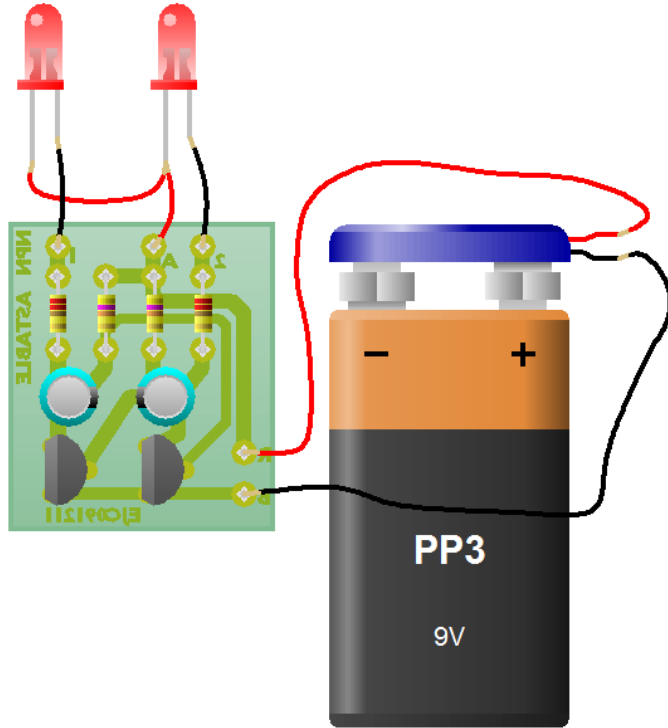


# Transistor Astable Circuit

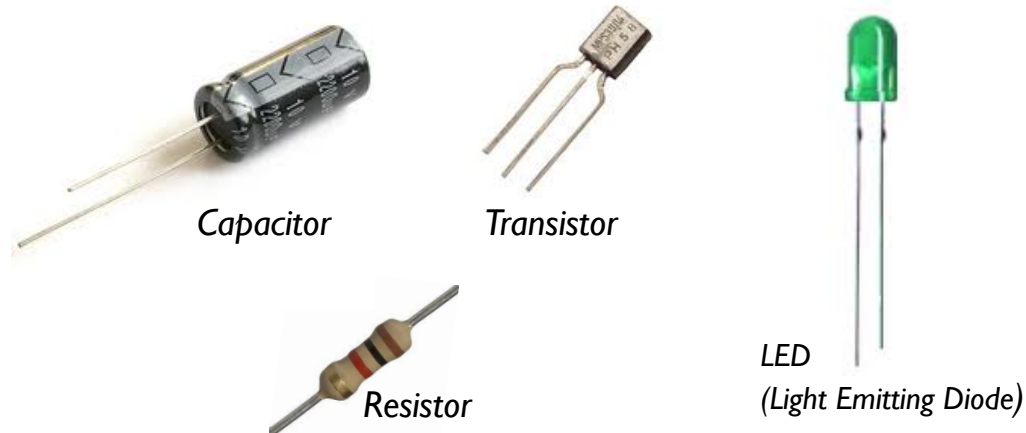


## Learning Outcomes

By the end of the lesson you will be able to:

Describe the functions of resistors, capacitors, transistors, LEDs and batteries.

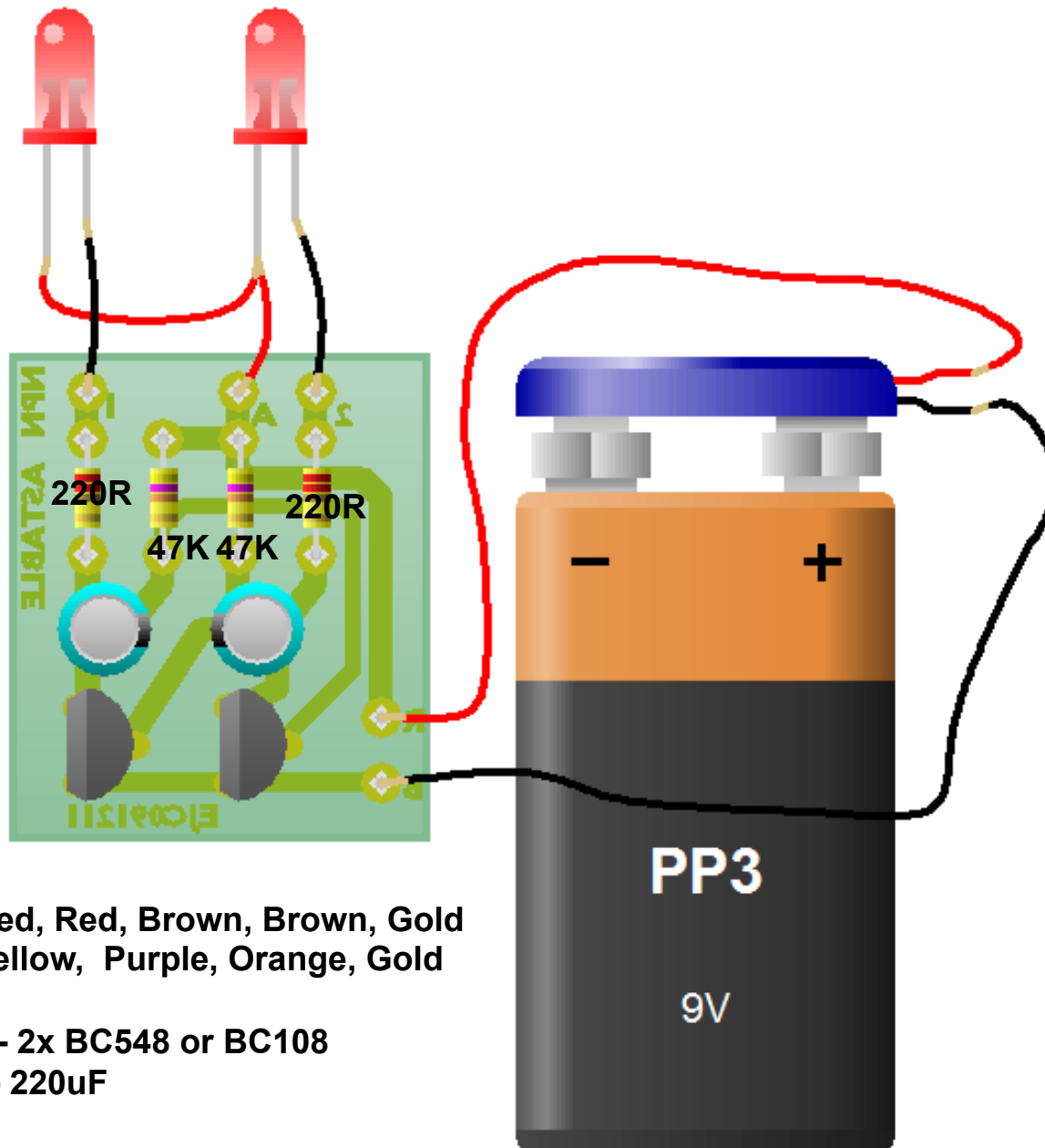
Solder electronic components onto a circuit board (PCB)



## Key facts

- The shorter lead on capacitors and LEDs identifies the negative connection, if they are inserted the wrong way round they will not work correctly. The *positive* and *negative* leads are also called the *anode* and the *cathode*.
- The strip down the side of the capacitor also indicates the negative connection.
- The plastic part of the LED also has a flat side which indicates the negative.
- Resistors come in different values, just like eggs come in different sizes, and are differentiated by coloured bands, each colour representing a different number. Values are not printed on resistors since they would be too small to read.

# Transistor Astable Circuit



220R - Red, Red, Brown, Brown, Gold  
47K - Yellow, Purple, Orange, Gold

Transistors – 2x BC548 or BC108  
Capacitors – 220uF

# Transistor Astable Circuit

