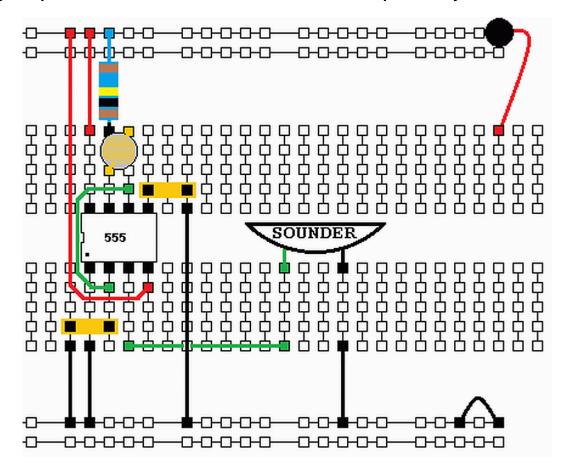
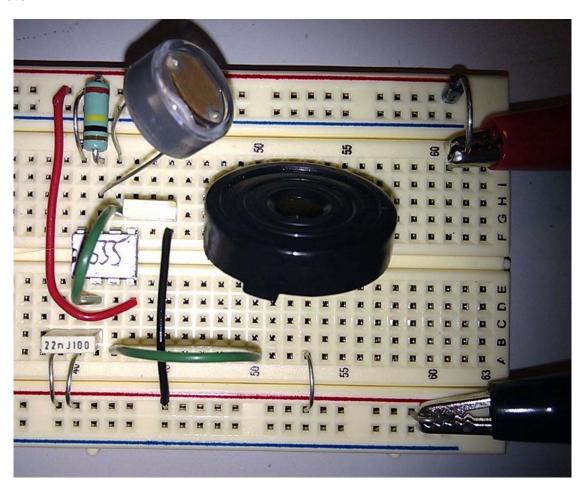
## Science Taster Day – Engineering

Build a Light Dependent 555 Astable Oscillator - Here is the Component Layout



## **Layout Photo**



## 555 Timer Astable – Buzzer

- This circuit uses a CAPACITOR.
  This is like an electronic bucket.
  It's repeatedly filled and emptied.
- The two **RESISTORS** control how quickly the **CAPACITOR** fills and empties.
- The light dependent resistor (LDR) makes it possible to play a tune by shading the light.
- The 555 Timer fills the CAPACITOR until it's 2/3 full.
  Then it empties it until it's 1/3 full.
  This repeats for ever.
- The 555 Timer also drives the SOUNDER.
- The **DIODE** passes current in one direction only.
  If you wire up the power the wrong way round, this protects the circuit.