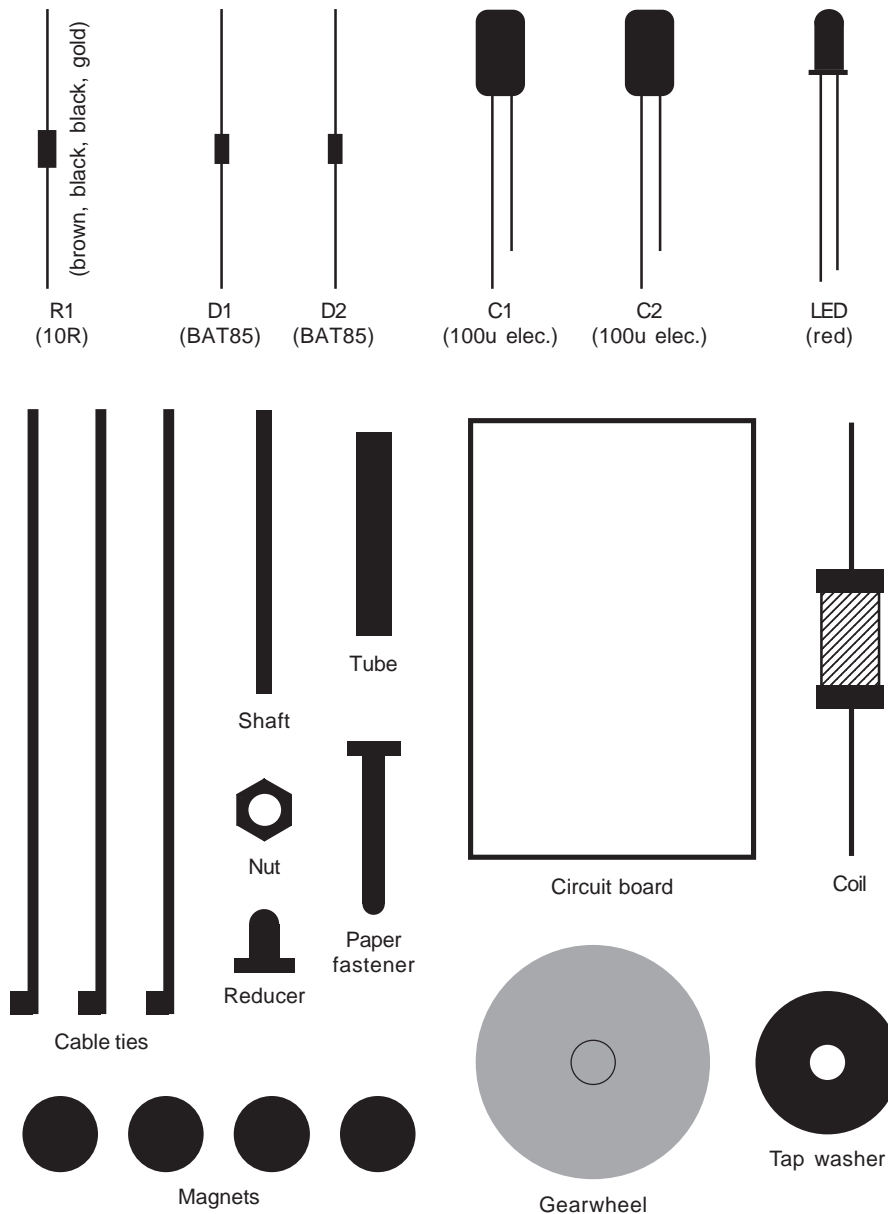
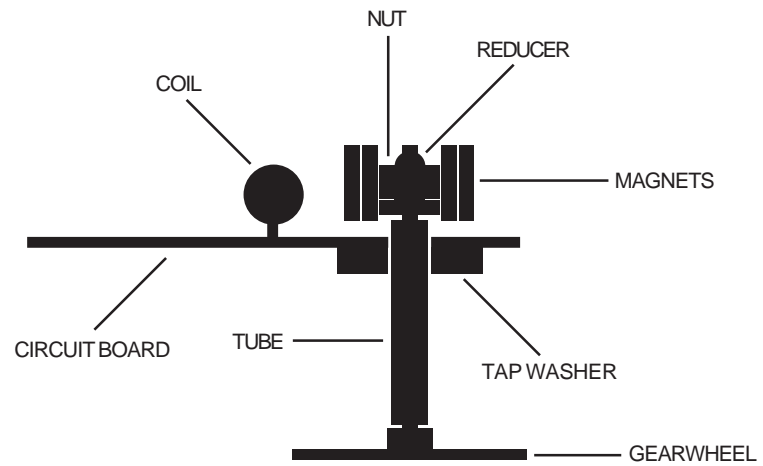


# WIND GENERATOR



## CONSTRUCTION

1. Identify the different components using the spotter chart.
2. Fit the resistor (R1) flat onto the picture side of the circuit board either way around. Solder the legs of the resistor to the metal side of the board then clip the legs close to each solder joint.
3. Solder the diodes (D1 and D2) matching the black stripe to the 'k' sign on the board.
4. Fit the capacitors (C1 and C2) to the board putting the shorter leg (the leg by the stripe on the body) into the hole with the – sign. Solder the capacitors to the board and trim their legs.
5. Solder the light (LED) to the board putting the shorter leg (the leg by the flattened edge on the rim) into the hole with the line.
6. Solder the coil (COIL) either way around.
7. Push the plastic tube through the large hole in the board from the metal side so that it protrudes by a few mm on the component side. (It should be a tight fit but a tool such as a small reamer may be needed to slightly enlarge the hole.) Push the tap washer onto the tube and slide it down until it's flush with the metal side of the board.
8. Push the gearwheel onto one end of the shaft with its flat face outermost. (A small hammer may be useful to tap it into place.)
9. Slide the shaft into the tube then push the reducer onto the other end of the shaft. The flange (wider end) should be on the inside. Make sure the shaft can rotate freely in the tube but is not too loose.
10. Glue the nut to the reducer then attach a pair of magnets to opposite faces of the nut. (The polarities of the magnets will naturally arrange themselves.)
11. Adjust the height of the tube such that the magnets are close to the coil. See diagram overleaf.
12. The light should flicker when you twist the shaft with your fingers.
13. Take the vanes template and cut around the outline then cut down along the lines to the inner circle. Fold the points in and secure with the paper fastener. Glue the vanes to the outer face of the gearwheel.
14. Optionally use the cable ties to attach the board to a support (use either side of the board).



**Note that this kit contains Neodymium magnets which should be kept away from small children as they can be a hazard if swallowed.**