

### ENW Exp. ③

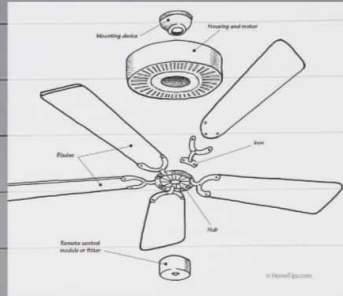
Aim - To study the repair of household appliances & m.e.

Apparatus - Switches, multimeter, ceiling fan

Theory -

1) Ceiling fan :-

It is a mechanical fan mounted on ceiling usually electrically powered that used hub mounted rotating blades to circulate air. Fan increases the temp. by releasing the heat from itself.

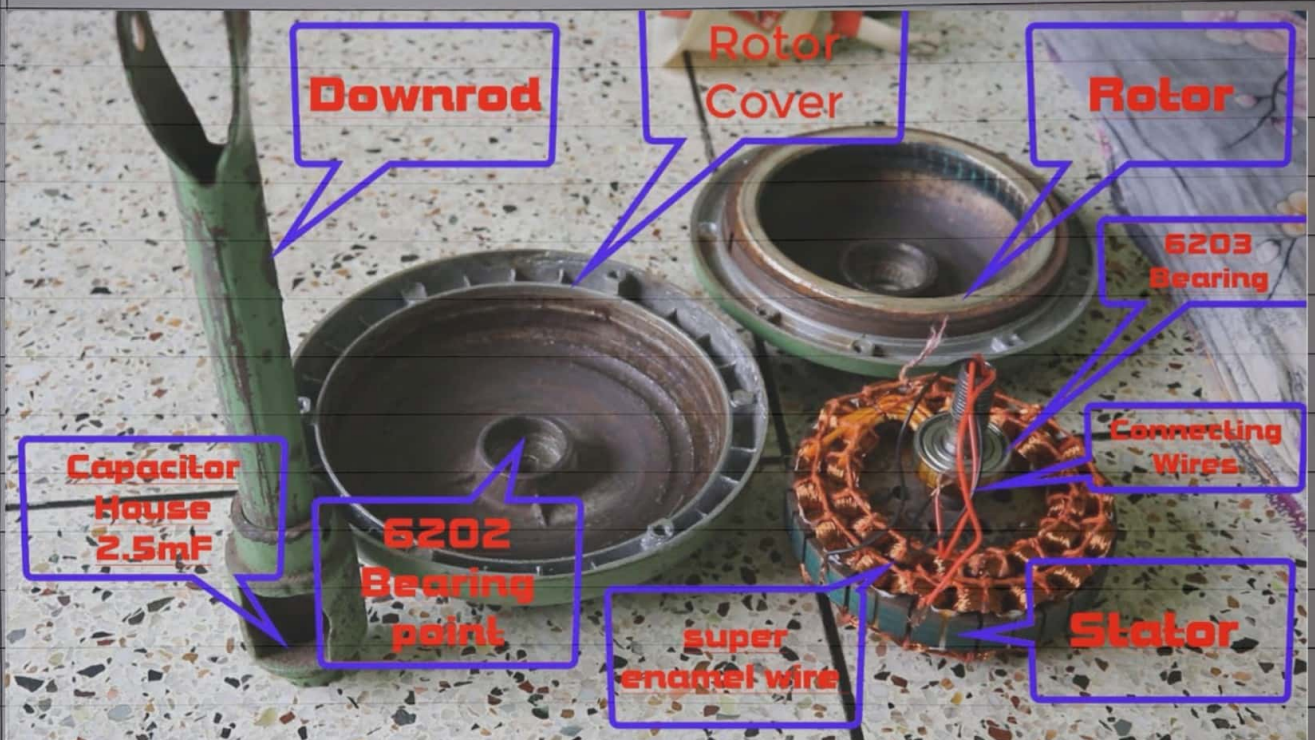


② Testing - It can be done by two ways one with the help of multimeter & one with series lamp with this two technique.

i) With the help of series lamp we can check the common wire & out there wire which are from motor, which are rotating winding wire, run winding wire & common while connecting the series lamp +ve & -ve terminal we can check that common wire when the bulb glows we can also check which winding is having fault as the capacitor is having fault very easily.



FOR EDUCATIONAL USE

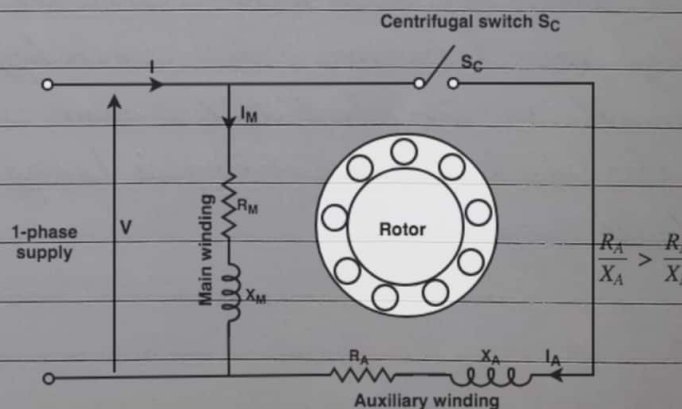




- ③ Fault Detection :- There are 4 common faults,
- load noise, low speed, Not working, getting stuck
  - load noises Because of loose or stuck  
Because of no proper lubrication  
Because of air gap in rotor & stator.
  - low speed Because of Damage of capacitor  
Because of voltage is low.
  - Not working Because of wire break  
Because of No power supply  
Because of faulty
  - brething stuck Because of no proper alignment  
Because of faulty

#### ④ Repair :-

- After find fault we repair it
- After Ismeltting it we change capacitor if it is damage
- After repairing the fault assemble the fan & test if it works in progressive order



Conclusion :- Thus, with the following steps we have learnt how to repair the household appliances with FAN.