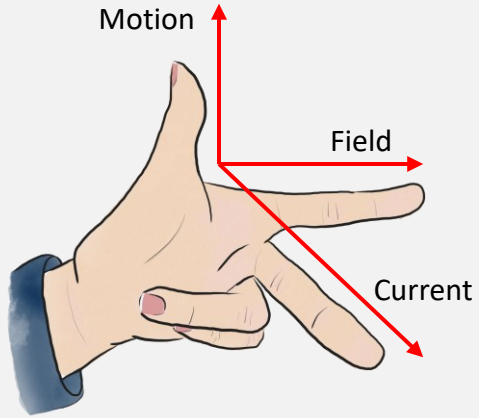
Electromagnetism

- Magnetic Force (F) = Magnetic Field Strength (B) x Current (I) x Length (L) x Number of coil (N)
- Transformer Voltage to coil ratio
  - $\frac{V_p}{V_s} = \frac{N_p}{N_s}$
- For 100% efficiency transformer
  - $IpVp = IsVs$
  - $P = I^2R$

Force on current carrying conductor in Magnetic field (Electric Motor)
Direction of force – Fleming's Left Hand Rule



Electromagnetic Induction (Electric Generator)
Direction of current – Fleming's Right Hand Rule