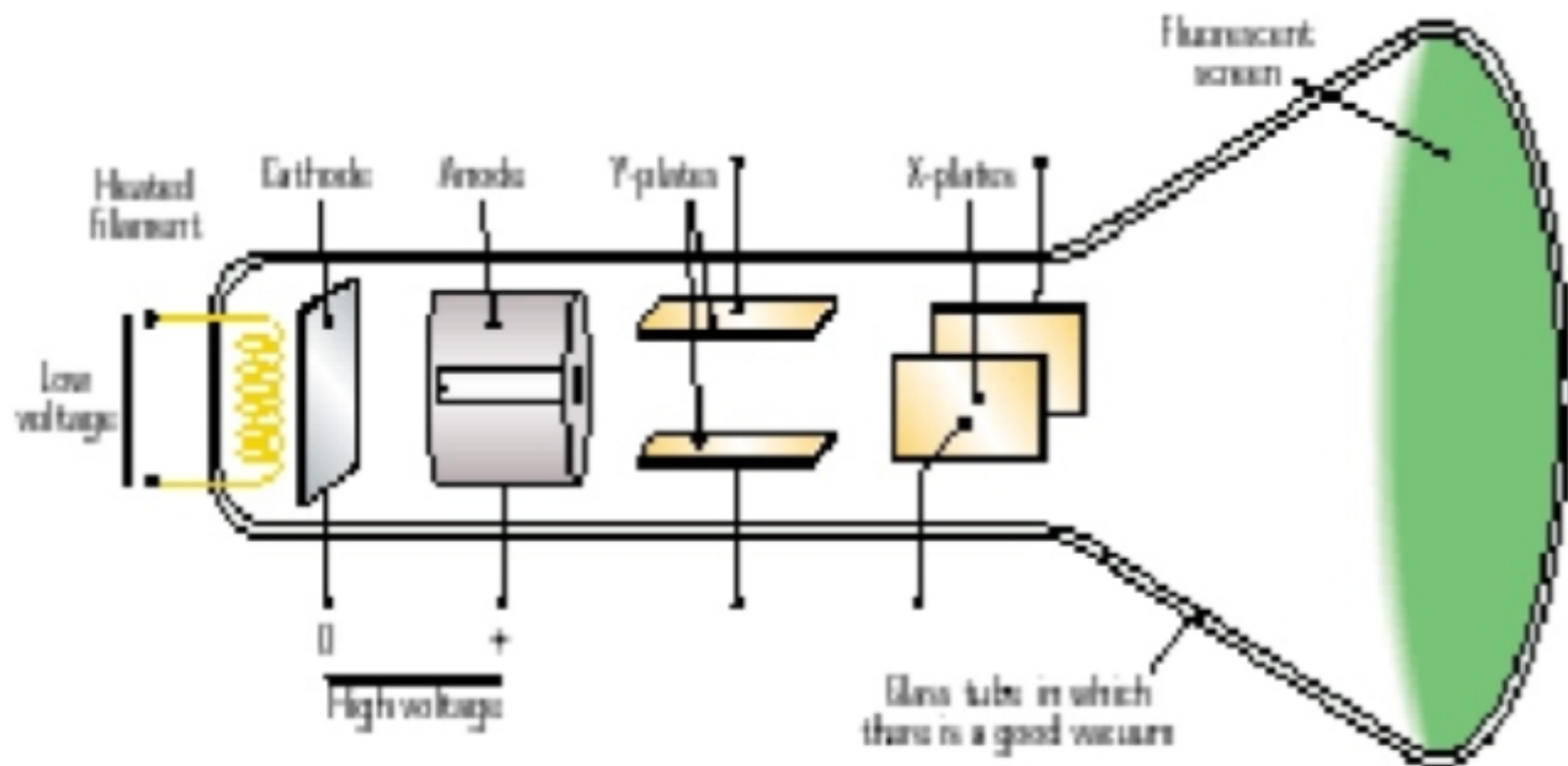


# WHAT IS CRT?

- The cathode ray tube (CRT) is a vacuum tube containing an electric gun (a source of electrons) and a fluorescent screen, with internal or external means to accelerate and deflect the electron beam, used to create images in the form of light emitted from the fluorescent screen. The image may represent electrical waveforms (oscilloscope), pictures (television, computer monitor), radar targets and others.

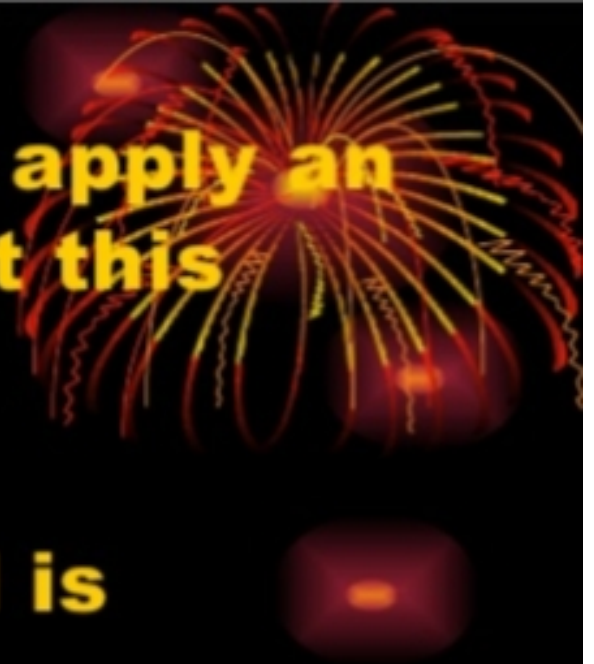
# Cathode Ray tube



- **The heated filament which heats a cathode, which emits electrons by thermionic emission.**
- **These electrons are then attracted through a large potential difference to a positive anode.**
- **The anode has a hole in the centre through which a beam of electrons flows.**

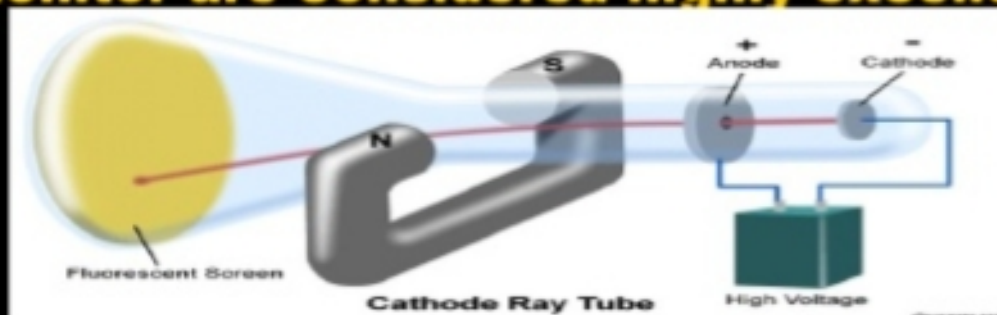


- **The x and y plates can apply an external field to deflect this beam.**
- **The beam then hits a fluorescent screen and is detected as light**



# Advantages of CRT

- **The cathode ray tube can easily increase the monitor's brightness by reflecting the light.**
- **They can produce more colours**
- **The CRT monitors have lower price rate than the LCD display or Plasma display.**
- **The quality of the image displayed on a CRT monitors is superior to the LCD and Plasma monitors.**
- **The colour features of the cathode ray tube monitor are considered highly excellent.**



# Disadvantages of CRT



- **They have a big back and take up space on desk.**
- **The electromagnetic fields emitted by CRT monitors causes a health hazard to the functioning of living cells.**
- **CRTs emit a small amount of X-ray radiation which can result in a health hazard.**
- **Constant refreshing of CRT monitors can result a headache.**
- **CRTs operate at very high voltage which can overheat system or result in an implosion.**
- **They are heavy to pick up and carry around.**