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A photodiode is one type of light detector used to convert the light into current or voltage based and the mode of operation of the device. It comprises of optical filters, built-in lenses and also surface areas.

- The working principle of a photodiode is, when a photon of ample energy strikes the diode, it makes a couple of an electron-hole. This mechanism is also called as the inner photoelectric effect. If the absorption arises in the depletion region junction then the carries are removed from the junction by the inbuilt electric field of the depletion region.

- The applications of photodiodes involve in similar applications of photodetectors like charge coupled devices photoconductor and photomultiplier tubes.
- These diodes are used in consumer electronics devices like smoke detectors compact disc players and televisions and remote controls in VCRs.
- In other consumer devices like clock radios, camera light meters and street light photo conductors are more

frequently used rather than photodiodes.
- Photodiodes are frequently used for exact measurement of the intensity of light in science & industry. Generally they have an enhanced, more linear response than photoconductors.
- Photodiodes are also widely used in numerous medical applications like instruments to lik analyze samples detectors for computed