BASIC OPERATION OF PHOTO-ELECTRIC SENSORS

The operation of the photoelectric sensor is quite simple. **A source LED sends a beam of light, which is picked up by a photodetector. When an object moves into the path of the light beam, the object is detected.**

Let's look at how a photoelectric sensor works.

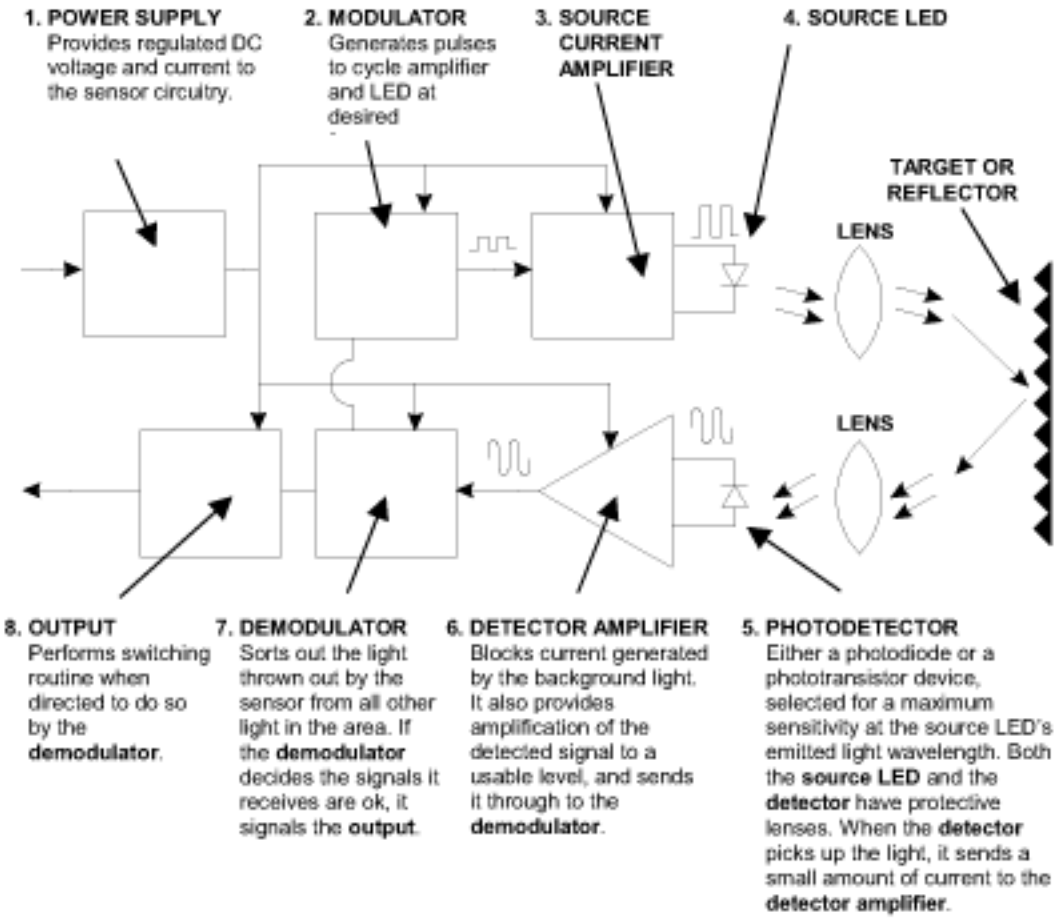

FIGURE 70: PHOTOELECTRIC SENSOR OPERATION

The Light Source

The light generated today by a photoelectric sensor comes from light emitting diodes, called *LEDs*. Using LEDs offers many significant advantages:

- can be rapidly switched and instantly turned on and off
- extremely small
- consume very little power
- generate a negligible amount of heat
- life exceeds 100,000 hours (11 years) continuous use
- easily modulated to block false sensor triggering from ambient light