

L3-C4 Sensors for manufactory line with humans

In a plan of a factory where mobile robots freely circulate in areas that are shared with humans, the paths of the robots among themselves, and with human, will cross very often as their density will be high. To ensure security, one colleague suggests to have on each robot a detector of collision, generating a stop of the robot, based on an active sensor that can be seen by the humans, in opposition to ultrasound or infrared sensors. This sensor is built using a human-safe red laser line projector directed to the ground in front of the robot, without any modulation, and a camera looking to the same area from another angle and equipped with a red filter adjusted to the laser red (see figure 9.1). This would allow humans to see the zone of detection. What do you think about this idea?

- A. It's a good idea, because of the nice interaction with humans.
- B. It's a good idea, because it's reliable for any obstacle on the ground.
- C. It's NOT a good idea, because it's generating interference between robots.
- D. It's NOT a good idea, because the laser can potentially impact some production processes.

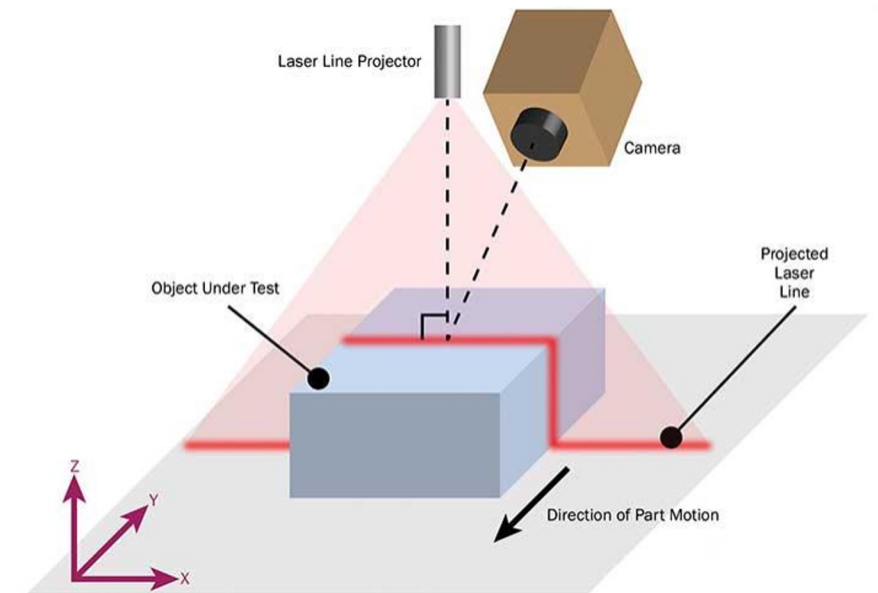


Fig 9.1: working principle of the sensor