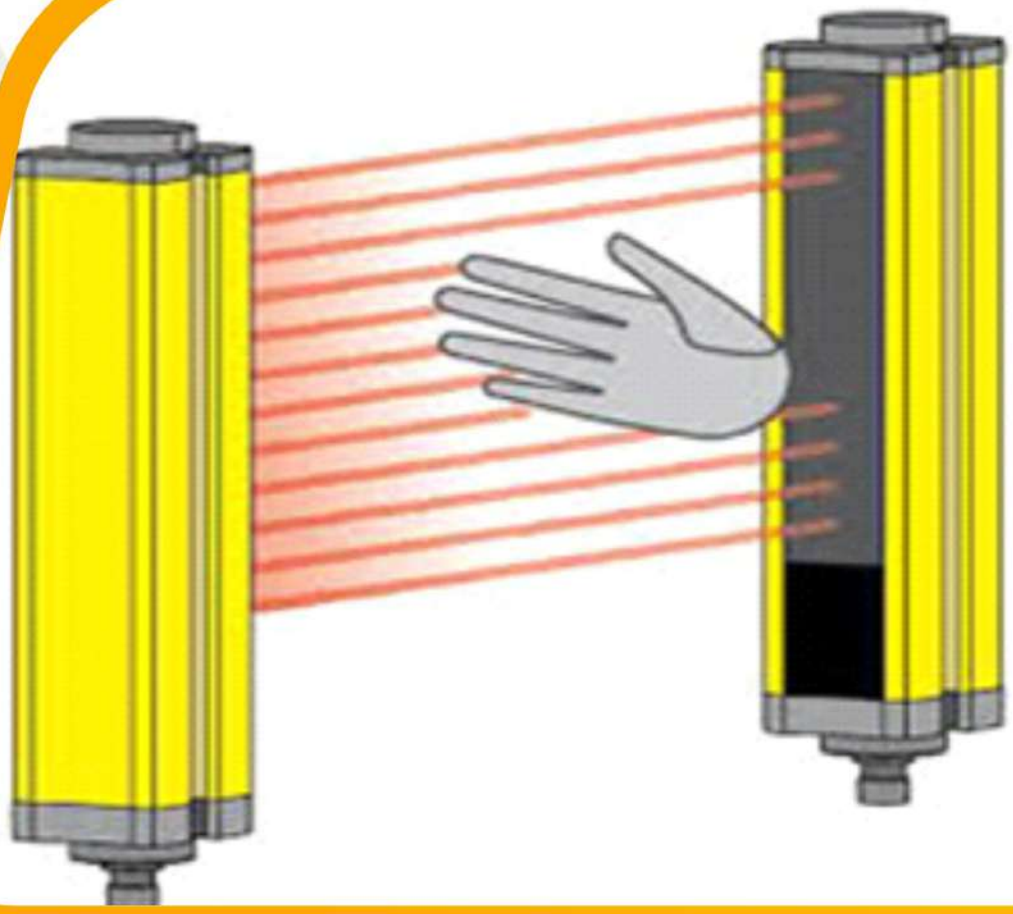
AKGEC-KUKA
INDUSTRIAL ROBOTICS TRAINING CENTRE



Integration of safety light curtain sensor with KUKA Robot

To ensure safety in industrial robot work envelope, safety light curtain sensors can be used. Safety light curtain sensor is an effective and optimized device that can reduce numerous accidents.Safety is an important consideration in human-robot interactions (HRI). The continuously growing rate of production and use of industrial robots has proved that, in parallel with other implementation aspects, due attention should be paid to problems related to their operational safety. Safety has to be planned and built in at the level of robot workplaces.

Although safety problems are encountered by various groups of personnel, it is mainly the programmer and the trouble-shooter who are at risk. Even though collaborative robots are designed to be inherently safe, it doesn't mean you can just forget about risk. Safety sensors are important for industrial robots, but they can also benefit collaborative robots. They don't just improve safety around the robot, they can also improve its performance. Robots can produce powerful and very rapid movements through a large operational space. Hazard threats arise from unintended contact between these robots and humans. The forthcoming paths of robots or robots' arms are difficult to predict (e.g., due to changing operational requirements). Operators can be required to work in close proximity to the robot system.