

Case Study

With thousands of passengers traveling through Heathrow Airport every day, a British engineering firm developed a faster method to move luggage through security X-ray without adding additional personnel.

Results

- Conveyor platform automatically rotates luggage into correct position for x-ray machine
- Eight ifm pmd distance sensors, mounted on the sides of the platform, monitor the position of the rotating luggage
- Sensors provide reliable detection regardless of luggage surfaces, colors and textures.



Eight PMD distance sensors are used to monitor the position of rotating luggage at Heathrow Airport. The sensor's red beam is visible on the suitcase above.

efector pmd Distance Sensor Ensures Smooth Luggage Processing



Over one billion passengers travel worldwide by airplane every year. The luggage transport system is a logistic challenge. Now, the security X-ray screening between check-in and the airplane has been successfully automated.

At Terminal One, in London's busy Heathrow Airport, two operators are needed to re-orient the pieces of luggage so that they can properly pass through security screening.

Hands-free luggage processing with efector pmd

To automate luggage processing, the company F.J. Herbert Engineering, Ltd., in England developed the "Pathfinda," a conveyor platform that centralizes luggage and reorients it parallel to the conveyor belt. Eight ifm pmd distance sensors are used to detect the position and orientation of the luggage. The sensors monitor the conveyor belt from the side, positioned at a right angle. A vertically-oriented piece of luggage is rotated on a special conveyor belt until all sensors measure the same distance to

the object. The luggage can now pass through the X-ray screening machine without any additional handling.

Reliable performance, easy to use

During the development of the Pathfinda, many sensors from different manufacturers were tested. Several solutions failed to give accurate and repeatable signals due to the nature and variants of luggage. But, not the efector pmd. The pmd sensor provided reliable results with all luggage surfaces, colors and textures. Further advantages included the sensor's compact size, integrated numeric display, pushbutton setup, analog output and switching outputs. The manufacturer's decision to select the efector pmd was also based on their bottom line: efector pmd costs only one tenth of the competitor's products.

For more information about ifm pmd sensors, call 800-441-8246 or visit www.ifmefector.com. Questions about editorial content, contact Lizanne Dathe 610-525-2825; lizanne_dathe@ifmefector.com

