



## AMSTERDAM AIRPORT INTRODUCES ROBOT GUIDE TO STOP PASSENGERS MISSING FLIGHTS

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**Passengers at Amsterdam's Schiphol airport will be greeted by Spencer, a robot to help them navigate around the busy international terminals, from Monday morning.**

Initiated by Dutch airline KLM to decrease the number of missed flights due to passengers getting lost, Spencer was built by university and corporate researchers from five different European countries, including Germany, France, Sweden, Switzerland and the Netherlands.

The robot, which is taller than a human and has a face set atop a rectangular body with an interactive screen, was taught to navigate its surroundings by researchers at Örebro University in Sweden.

Spencer's robotic body is equipped with two front- and two rear-facing visual and depth sensors, two 2D laser scanners, a stereo camera pair (which look like eyes) and five onboard computers.

Spencer is equipped with maps that show fixed obstacles including walls or baggage carousels but can also survey its surroundings by measuring the distance to temporary objects around it, using

reflected laser beams.

"We do not know, for instance, how long that luggage trolley will be parked in a particular spot, which makes it harder for the robot to determine its own location. We are working on a general map representation that includes and allows the robot to handle temporarily permanent objects," said Achim Lilienthal, who heads up the project at Örebro University, in a press release.

Spencer won't be just a walking-talking map though. It will be socially-aware, which means it can perceive and learn human behaviours, and respond appropriately.

What this means is that Spencer will be able to guide groups of people through fast-paced, dynamic and crowded pedestrian environments, such as airports or shopping malls, while behaving in a socially "normal" way - for instance, it won't cross in between families or couples.

The trial next week will be a one-week pilot, and the official launch of Spencer will be in March 2016.

The final goal, according to the project page, is to "deploy a fully autonomous mobile robot for smart passengers flow management at the Amsterdam Schiphol Airport".

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**SOURCE: THE TELEGRAPH**

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