GoalRef™ to Become First Goal-Line Technology to Be Used in European Soccer Tournament

Fraunhofer IIS’s GoalRef™ goal-line technology will be used at the Copa Amsterdam soccer tournament from May 18 to May 20, 2013, to guarantee correct goal-line decisions. GoalRef™ uses magnetic fields to reliably determine whether the ball has completely crossed the goal line. To this end, the system will be installed at Amsterdam’s Olympic Stadium and used for all 18 games. The Copa Amsterdam will be contested by the world’s best under-19 club teams, including Ajax Amsterdam and Borussia Moenchengladbach.

GoalRef™ has been one FIFA’s preferred goal-line technologies since the FIFA Club World Cup took place in Japan in late 2012. An international audience witnessed the system successfully passing its first big test under real-world competitive conditions. For instance, during the final in Yokohama between Chelsea F.C. and Sao Paulo’s Corinthians, GoalRef™ helped to quickly clear up a confusing situation in front of the Brazilian team’s goal: Despite not having a clear view of the ball, the referee had no hesitation in allowing play to continue as his wristwatch had not received a “Goal” signal.

The Fraunhofer-developed goal-line technology uses a low-intensity magnetic field that is created by antennas attached to the goalposts and crossbar. As soon as the ball travels through the magnetic field created above the goal line, a signal is sent to the referee’s watch, allowing them to decide immediately whether or not a goal has been scored.

The system is easy and inexpensive to install at any soccer stadium. Apart from the antennas attached to the goal frames, all that is needed is a special ball. Embedded in the ball are coils that are able to trigger antenna signals and require no power supply. The Derbystar ball has been developed by Danish company Select and Fraunhofer IIS for use with GoalRef™ at the Copa Amsterdam.

For video footage of GoalRef being used at the FIFA Club World Cup go to: http://fifa.to/12aNgG5

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Goals are reliably detected even if the ball is obscured for a long time. © Fraunhofer IIS/Kurt Fuchs | Picture in color and print quality: www.iis.fraunhofer.de/pr.


Goal or no goal? © Fraunhofer IIS/Kurt Fuchs | Picture in color and print quality: www.iis.fraunhofer.de/pr.