

Solution Case Study



World Golf Systems take a swing at tagged golf balls for an interactive driving range using Eureka RFID

World Golf Systems wanted to take the golf driving range concept a step further by providing an interactive and entertaining game play to any ability of player using an RFID based solution.

The Concept

The concept was to use RFID tags embedded into golf balls, a computer system and hardware to allocate balls to a player and to record where a ball was played.

The challenge

The challenge was to tag a golf ball in a way not to damage the tag or integrity of the ball by the enormous forces placed on it during play.

Also the system had to ensure that players were identified correctly, balls were allocated to them, identified, tracked and integrated into a scoring system.

The provided solution

A passive 125 kHz tag was chosen to be specially manufactured into balls that would last as long as the balls operational life.

To identify players a passive RF card was provided that would be linked to the systems database. This card acted as a membership card and would also activate a ball dispensing system that identified the balls as they were dispensed into a bucket

and linked them to the player.

A player would log into a bay and prepare to tee off. Each ball as it was placed on a tee required identification before a swing was taken. A special antenna system was used to make sure balls were identified each time with an indicator light that illuminated to tell the player to play on.

The player would then take a swing at the ball aiming for one of the specially designed targets roughly the size of a golf green. The targets consist of a matrix of netting with a large number of holes for the ball to drop down into, much like a giant dart board.

As a ball dropped down one of the holes the system identified the ball and the area of the target where it landed and then relayed the score back to the player.

The system

Having successfully designed several unique RFID systems for the project, each area then had to be fully integrated together. It was extremely important to ensure that there was no interfere from the RF hardware with each other and that everything communicated as it should back to the centres data management software.

Conclusion

This challenge presented new approaches to the use of RFID but

using their experience and knowledge of electronic hardware design and RFID technology, Avonwood turned a unique concept into reality.

The game of Top Golf was developed for all ages and abilities of golfer and non golfer alike to play for fun, develop your skills and enjoy.



Interactive Golf Driving Range Using Eureka RFID

Avonwood Developments Ltd.

Knoll Technology Centre, Stapehill Road, Wimborne, Dorset, BH21 7ND

tel: +44 (0)1202 868000 fax: +44 (0)1202 868001

email: sales@avonwood.co.uk web: www.avonwood.co.uk

