

Seamless Triathlon Success: ClearStream RFID Powers Young Athlete Achievements

Empowering young triathletes' dreams with precise timing and seamless event management, thanks to ClearStream RFID technology.

United Kingdom (April 2024) - Focussing on our 'young persons' events, it's now been 7 years of unrelenting triathlons and duathlons where we've seen some of our youngest qualifying triathletes in the UK series from 8 years of age traverse through their age categories to completion at the age of 14. Regardless of age when we first see them going through their paces, there is no lack of determination and ambition in every child to compare their times with their peers and their own previous 'personal bests'. They can see their overall times broken down into leg sections and laps within those sections. A whole raft of collected data to report against. Naturally, the importance of reliable, accurate, and robust time collection cannot be overemphasized. This would simply not be possible if ClearStream RFID was not on the team! Apart from the obvious data collection when a tag is seen at a waypoint, each competitor is encouraged when they hear the RFID reader buzzer 'beep' (added to a GPO port) in response to the tag they are wearing.

Although a very small element of the whole system, this very handy feature afforded by a simple reader GPO setting in ClearStream is an important part of the competitors' experience.

From the onset, we at EntryApp have used ZEBRA FX7500 readers mainly to leverage the shared industry standard LLRP instruction set and its seamless integration with ClearStream configurations. These fixed RFID readers are compatible with a large range of high-gain antennas.

EntryApp's antenna hardware consists of:

ZEBRA AN440 - Dual element side or predominately overhead use with exceptional performance when used with disposable helmet tags (i.e.: Smartrac Dogbone)

KEON P16 - Ground mounted for localised detection of ankle-worn tags

YR2013 Invelion and MTI-MT-242014-SRH side antennas. Good general detection for ankle and disposable bib-worn tags. Works well too on cycle sections.

Finally, with the advent of different types of multi-sport events, ClearStream configurations accommodate layouts demanded by different geographical event courses. For instance, a basic track/trail running event setup in its most minimal form, uses one RFID reader at the finish. However, by way of an example, a more comprehensive layout could see several RFID readers and their antennas arranged to detect a mass start, along with lapping RFID readers.

A simpler multi-sport layout (i.e.: aquathlon = swim, run) could detect competitors passing the water entry section (safety) ready for a mass swim start. An RFID reader at the water exit point (timing and final safety check), a further RFID reader as the run is started, run laps and finish, etc.

These geographically differing event layout requirements are simply entered into ClearStream as a named PROJECT configuration that can be called up depending on the style of the event in question.

A useful feature of ClearStream is that each read record contains the RFID reader's identification and port along with the tag's time and EPC enabling one reader to service one or more different sections of the event course by way of judicious antenna placement.

This very useful feature saves on hardware costs and makes better use of the available RFID readers for the task.

With ClearStream being a valuable and dependable "member of the team", things run smoothly from start to finish!