

Chronotrack Sports System

Location – Evansville, IN U.S.A.

Project Introduction: The objective is to provide the participatory sports community with the best disposable Radio Frequency Identification (RFID) system in the world, a system that is not only extremely accurate but also cost effective and user friendly as well. To achieve this goal, ChronoTrack™ talked to timers, event directors, and athletes on what their expectations and needs were to come up with the best possible timing and tracking solution. These discussions resulted in the ChronoTrack Timing System™, the next step in the evolution of transponder timing.

System Requirements: ChampionChip was the most popular timing system in place and worked great for its intended use at the time. Despite ChampionChip's success, there were some underlying needs that were not being met with their current timing system. Recognizing ChampionChips let down, ChronoTrack System developed an all-weather option that is better suited for the logistics and pace of today's style of events. ChronoTrack Systems solution uses a "D-tag™", Interrogator™ (Gator or timing mat), and a control box. The D-tag is a disposable RFID tag that the athletes place on their shoe to record their time. By creating the D-tag, the need for chips are eliminated thus, eliminating chip assignment, eliminating the cost of shipping the chips, lost chips, and the need to create a secure zone for chip collection. In addition to those benefits, the creation of the D-tag also allows ChronoTrack users to reduce staff/volunteers at each event. There is no longer the need for hundreds of people and large allocations of space to have a packet pick-up solution due to the fact that there is no packet, just a bib with the D-tag adhered directly on it.

Project Implementation:

Advantech products used: TPC-30 – 3.5" QVGA TFT LCD Xscale PXA270 Touch Panel Computer



System Description: ChronoTrack's D-tag application is simple and quick. The disposable D-tag is an all-weather design for attaching EPC global-certified, commercially available RFID tag to the foot of a runner. As the runner crosses the finish line, he/she will also crossover the Gator (a timing mat). As an athlete crosses the Gator, it interacts with the D-tag to record the person's finish time. At the end of the Gator is the control box that records the time and transfers the data over the web instantly.

Conclusions: The system has been a great success and can be seen at some of the top racing events in North America, such as the Marine Corps Marathon, Las Vegas Marathon, Cleveland Marathon, Crim Festival of Races, Detroit FreePress Marathon, Falmouth Road Race, Philadelphia Marathon, New York Nike Human Race, Philadelphia Distance Classic, Rock n' Roll Marathon, Pittsburg Great Race, JPMorgan Chase Corporate Challenge Championship, and many more.

