

專業計時系統為香港單車運動帶來新突破

Professional Timing System Brings Breakthrough to HK Cycling Sport



我們對將軍澳香港單車館的機電技術支援，讓香港有機會舉辦世界大型場地單車賽，並訓練更多優質運動員。
Our E&M support for the Velodrome in Tseung Kwan O enables Hong Kong to stage the world's biggest track competitions and train more athletes.

我們在將軍澳香港單車館安裝的首個室內場地單車計時系統，能配合館內其他設施，讓香港有能力舉辦國際單車賽事，如爭先賽和凱林賽；而且，單車館亦有機會成為一個破紀錄的場地。我們相信這將有助推動市民對體育活動的興趣，更重要是培養更多像奧運獎牌得主李慧詩般具潛質的年輕場地單車運動員。

這香港首個室內場地單車館於2013年12月30日正式啟用，場內設施包括一條符合國際比賽標準、長250米的木質單車賽道、一個多用途運動場和可容納3,000人的觀眾席。機電工程署獲康樂及文化事務署委託，設計一套專業的計時系統，並負責場內各項設施的維修保養服務。

這套先進的計時系統，完全符合國際自行車聯盟的標準，精確度可達千分之一秒。在賽事起點，設有起跑閘將單車手保持在起點線上；在賽事終點則設置偵測線圈，並在場內不同位置安裝高速攝錄機，捕捉比賽完成時的先後次序。在高級別的國際賽事，我們更會在單車上安裝轉發器，收集賽事統計數據和計時記錄，以解決任何比賽爭議。

我們在場館的最大挑戰，是如何確保場內的所有設施，如照明系統和音響系統，都能正常運作，以保障運動員在國際賽事期間的表現。另外，場館頂安裝了太陽能光伏板，可採集太陽能並轉化成電能供單車館使用，但由於光伏板安裝在橢圓形的波浪屋頂，我們需特別注意工作人員進行維修時的潛在危險。

雖然我們的操作和維修服務於2014年10月才正式開始，但我們的專業團隊已經進行了多次實地檢測，並出席功能測試，確保單車館已經準備就緒，迎接各項國際單車比賽和其他活動。

Our installation of the first indoor track cycling timing system, along with other facilities at the Hong Kong Velodrome in Tseung Kwan O, enables Hong Kong to host international cycling competitions such as Sprint and Keirin. The Hong Kong Velodrome can potentially become a record-breaking venue. We trust it will help boost the community's interest in sports activities, and more importantly, train more potential youngsters like Olympic medallist Sarah Lee Wai-sze in track cycling.

Officially opened on 30 December 2013, the Velodrome is Hong Kong's first indoor track cycling venue comprising a 250-metre long wooden cycling track that meets international standards, a multi-purpose area and a spectator stand accommodating 3,000 people. EMSD was entrusted by the Leisure and Cultural Services Department to design a professional timing system, and take charge of the operation and maintenance services for various installations.

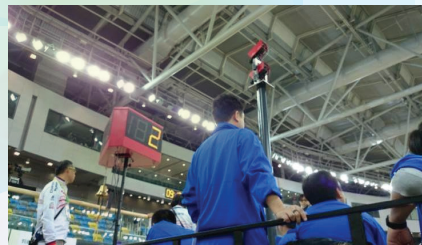
The sophisticated timing system, which complies fully with the International Cycling Union's standards, provides timing accuracy up to 1/1000th of a second. The starting gates hold the riders on the start line. Detection loops at finish point and high speed cameras at various points are installed to capture the order of finishing. For high level international events, transponders will be installed at bicycles to collect race statistics and details of timing records to resolve any race disputes.

One of the key challenges at the venue is to ensure the proper operation of all the installations such as floodlight and sound systems to safeguard athletes' performances, especially during international events. Furthermore, photovoltaic panels which capture solar energy and generate electricity for energy use in the Velodrome are installed on the rooftop. We need to pay special attention to maintenance work of the photovoltaic panels as their installation on the oval, wavy rooftop poses potential hazards for staff.

Although our operation and maintenance services only start in October 2014, our dedicated team has already conducted numerous site inspections and attended functional tests to ensure the readiness of the venue for international cycling competitions and other activities.

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由機電工程署設計及安裝於單車館的首個室內場地單車計時系統，計時精確度可達千分之一秒，讓單車館有機會成為破紀錄的會場之一。
Designed and installed by EMSD, Hong Kong's first indoor track cycling timing system at the Velodrome provides timing accuracy up to 1/1000th of a second. It may make the venue a record-breaking one.