



輕兵器射擊訓練模擬器

Small Arms Training Simulator



主要特色：

- 提供有效率、安全的射擊訓練，且減少彈藥消耗。
- 可同時提供12個學員執行射擊訓練。
- T91模擬槍之外觀、重量及操作方式與真實武器相仿，並模擬射擊後座力。
- 提供學員不同種類之射擊模擬訓練。
- 提供不同的環境變化(能見度、天候、風速、晨昏)等模擬環境。
- 在8公尺的訓練空間提供25至300公尺的射擊範圍。
- 中英文人機操作界面，系統操作簡便。
- 採用開放式系統架構，利於未來系統擴充或構型提升。
- 採用標準商規件，裝備維持與零備件籌補無虞。
- 系統操作自動化，三分鐘內可以完成系統開機。

Key Features

- For effective and safe shooting training, without ammunition consumption.
- Up to 12 trainees shooting simulation training simultaneously.
- Simulated real weapon is the same as the real T91 rifle in size, weight, operation and recoil effect.
- For different training goals and levels of marksmanship.
- Provides environment conditions simulation such as visibility, rain, wind, day/night, etc.
- Fixed at 8m simulated with scaled targets from 25 to 300m.
- The Chinese/English user interface is convenient for user.
- Open architecture, designed for growth and concurrency with minimal effort and cost.
- Maximum use of Commercial Off-The-Shelf (COTS) hardware and software.
- The system can be brought up in 3 minutes.



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主計算機系統：

- 負責彈道模擬計算、目標物控制模擬、碰撞偵測、射擊結果評分及系統網路資料控制。
- 提供系統監控畫面以確定系統及網路封包資料是否正常運作。
- 一部標準工業型處理器。
- 1000 Mbps乙太網路。
- Windows作業系統，設計具可擴充性。

音效系統：

- 一部標準工業型處理器。
- 提供杜比5.1聲道環繞音效，負責模擬環境音效、射擊音效及爆炸音效。
- 提供12個主動式射擊靶席喇叭模擬功能。

教官台系統：

- 全系統之控制中心，可控制各分系統之開關機以及執行射擊訓練時之各項功能設定，包括學員/教官資料、天候環境、訓練場景、目標物、彈藥數等。
- 提供射擊靶位彈著點顯示、瞄準軌跡線顯示、射擊成績顯示及列印功能。
- 一部標準工業型處理器。
- 三部22" 彩色液晶顯示器。
- 彩色雷射印表機。

輸出入擷取系統

- 嵌式系統負責處理各型模擬裝備數位/輸出入訊號。
- 四部紅外線影像擷取裝置負責擷取槍枝模擬器之瞄準點。

視效系統：

- 提供四部單槍DLP影像投射器投射於12米 x 3米平面銀幕，影像解析度為1400 x 1050。
- 四部標準工業型處理器負責射擊場景視效資料庫及各型射擊靶紙。

Visual System

- Provides 4 DPL projectors to project on 12m x 3m display flat screen with 1400 x 1050 pixels image resolution.
- Provides 4 industrial-grade PCs to display game areas and target sheets.

HOST Computer System

- The host computer is responsible for trajectory calculation, targets control, collision detection, shooting result scoring, and system network control.
- Provides system monitor mode to make sure the system is running normally and the network data packet is correct.
- One industrial-grade PC.
- IEEE802.3 1000 Mbps Ethernet network.
- Windows Operation System, upgradeable for the future.

Sound system

- One industrial-grade PC.
- Provides Dolby 5.1 surround speaker system to simulating sound effect of environment, shooting, and explosion.
- Provides 12 active speakers for shooting sound effect.

Instructor /Operator Station

- It is responsible for the system training operation control, including trainer/teacher information, environment, training battles, targets and bullets.
- Displays the points of impact, aiming trajectories, scoring, and printing shooting results.
- One industrial-grade PC.
- Three 22" Color LCD monitors.
- One color laser printer.

I/O interface an IR image capture system

- The embedded system is responsible for handling the digital I/O signals.
- Four IR image capture devices are responsible for acquiring the IR signals for the gunnery simulators.



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