

輕兵器射擊訓練模擬器

Small Arms Training Simulator

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之太網路。
- 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

- 嵌入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12m 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 DLP 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.



Simulation Section, Aeronautical Systems Research Division

P.O.Box 90008-11-21 Taichung 40722,Taiwan,R.O.C.

TEL:886-4-27023051 ext 503530 FAX:886-4-22846535

