

CONFIDENTIAL — AUTHORISED DEFENCE PERSONNEL ONLY



VRTCCC

VIRTUAL REALITY TACTICAL COMBAT CASUALTY CARE

DEFENCE-GRADE VR MEDICAL TRAINING SYSTEM



MISSION

VRTCCC delivers **battlefield-realistic medical training** through a self-contained, portable VR system built for global defense units. It enables Combat Casualty Care training without physical mannequins, specialised facilities, or live instructors — **deployable anywhere, at any time.**



Indian Army Soldier Experiencing VRTCCC - Step 7: Limb Elevation



Step 5: Semi-Pressure Dressing Procedure In VR

6

TRAINING MODULES

4

COMBAT ENV

24/7

DASHBOARD

100%

PORTABLE

0

INFRA REQUIRED

CONFIGURATION

VRTCCC TACTICAL TRAINING KIT

◆ VR HEADSET

◆ COMMAND TOUCH SCREEN

◆ FIELD ROUTER

◆ CPU

◆ EXTENSION BOARD [2 C-TYPE PORTS, 2 USB PORTS , 1 THREE PIN PORT.]

◆ CONNECTIVITY CABLES

PROGRAM SCOPE (SUMMARY)

Voice & Menu Driven

Trainee Selects Modules And Interacts With Casualties Via Intuitive Voice Commands Or Tactical Virtual Menus.

Real-Time Immersive Rendering

High-End PC Driven, Fully Interactive 3D Battlefield And Clinical Environments With High-Fidelity Sensory Feedback.

Unified Standalone System

Familiarisation, Training And Evaluation In One VR Platform — No Physical Equipment Or Training Facilities Required.

Scalable Multi-User

Future-Ready For Collaborative Multi-Trainee Sessions With Full Avatar Representation And Joint Medical Procedures.

CORE TRAINING CAPABILITIES — 6 MODULES

- 01 HUMAN ANATOMY & PHYSIOLOGY

3D Anatomical Models (Skeletal, Muscular, Circulatory, Etc.) With Real-Time Response To Trauma And Tactical Interventions.
- 02 CBRN RESPONSE

Chemical, Biological, Radiological & Nuclear Casualty Management. Decontamination Protocols And Toxicity Neutralization Drills.
- 03 PATIENT SAFETY PROCEDURES

Triage, Lifting, Asepsis, And Universal Precautions Under Direct Or Indirect Fire. Emphasis On Situational Awareness And Team Integrity.
- 04 CRITICAL CARE TRANSPORT

CASEVAC & MEDEVAC Drills By Ambulance, Animal Transport, And Helicopter. In-Flight Stability And Transit Triage Protocols.
- 05 COMBAT MEDICAL CARE

Hemorrhage Control, Airway Management In Desert, Jungle, And Mountain Scenarios. Multi-Climate Equipment Durability Simulations.
- 06 TRAINING EVALUATION & SCORING

Unaided Trainee Assessment With Automated Real-Time Scoring. Comprehensive Data Logging And Predictive Performance Analytics.



Simulation View – Step 5:Semi-Pressure Dressing With Eyes Closed



Simulation View – Step 7: Raise Injured Part Above Heart Level

CASUALTY & FIRST-AID PROCEDURE LIBRARY

VRTCCC's simulation database covers a comprehensive set of battlefield casualty types and standardised first-aid sequences across all combat environments, graded automatically against ideal procedure sequences.

DESERT CASUALTIES	HIGH ALTITUDE CASUALTIES	JUNGLE CASUALTIES
Control of bleeding Gunshot wound — limb Gunshot wound — chest Open chest wound / flail chest Burns (1° , 2° , 3°) & chemical burns Heat stroke Mine blast injury Smoke inhalation / suffocation	Frost bite Snow blindness CPR Choking Shock Fractures Pulmonary oedema	Snake bite Control of bleeding Drowning Poisoning — food / chemical / gas

| TACTICAL ENVIRONMENT MODELLING

Live-Fire Combat Effects

Tanks, BMPs, Artillery, Shelling, Smoke And Weapon-Fire Effects Rendered For Realism.

Dynamic Conditions

Time-Of-Day, Weather (Fog, Snow, Rain) Adjustable Before And During Runtime.

Sequential Treatment Engine

Step-By-Step Virtual Window + Voice Instruction For Every Procedure.

Living Patient Model

Vitals, Expressions And Audio Cues Respond Dynamically; Condition Deteriorates With Delay/Error.

| VISUAL & SYSTEM PERFORMANCE

90+ FPS REAL-TIME RENDERING Zero Perceptible Latency PC Driven Render Pipeline.	FREE ROAM ENVIRONMENT Trainee Can Move Freely Within The Virtual Tactical Space.	MULTI-MODAL INPUT Virtual Menu, Voice Command, And Physical Trainee Action (Evaluation Mode).	1-YEAR SUPPORT Vendor Support On Requirement Basis; System Upgradable For More Collaborative Players.
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ECHELON OF CARE — EVACUATION FLOW

Self-Aid / Buddy-Aid

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Combat Lifesaver

 →

Emergency Medical Treatment

 →

Advanced Trauma Management

 →

Stabilising Surgery

 →

Critical Care Transport

DEPLOYMENT CONFIGURATIONS

VRTCCC scales from individual operator kits to full-base enterprise deployments with central analytics and custom scenario modules.

FIELD • PATROL • DEMO Single-Unit Tactical Kit 1x VR Headset 1x Command Touch Screen 1x Field Route 1x CPU 1x Extension Board [2 C-type ports, 2 USB Ports , 1 Three Pin port.] Connectivity Cables Self-Contained Carry Case	COMPANY • PLATOON • COY HQ Multi-Unit Training Cell Up to 4x VR Headsets 1x Command Touch Screen 1x Router hub 1x CPU 1x Extension Board [2 C-type ports, 2 USB Ports , 1 Three Pin port.] Connectivity Cables Rack-Mounted Field Case	REGIMENT • BASE • ACADEMY Enterprise Base Deployment 10+ VR Headsets Central server integration Base Wi-Fi infrastructure Enterprise analytics Custom scenario modules Dedicated Tech Support
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OPERATIONAL ENVIRONMENTS

Desert Warfare

High-Temperature Arid Scenario With Dust, Limited Cover, And Mass-Casualty Events.

High Altitude

AMS, Hypoxia Management, HADR Missions, Mountain Rescue Protocols

Jungle Operations

Dense Terrain, Limited Visibility, Snake/Fauna Injuries, Extraction Challenges.

Mountain Warfare

Cold-Weather Injuries, Avalanche Scenarios, Rocky Terrain CASEVAC.

COMPATIBLE FORCES

Indian Army

Indian Navy

Indian Air Force

Paramilitary Forces

NSG / SF Units

Defence Academies

GENERAL DEVELOPMENT ASSURANCES

01 Full SDLC Compliance

Complete Software Development Lifecycle With Detailed Documentation, Source & Testing Records.

02 IP & Data Security

All Copyrights Rest With The Client; NDA Signed For Any Offsite Development; Data Deleted Post Handover

03 Rigorous Acceptance

In-House Testing And User Trials Prior To Final Acceptance And Payment.

04 Windows 10 Compatible

Built For Standard Defence-Issue Computing Environments.



CERTIFICATIONS & STANDARDS



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