

FIREFIGHTING VIRTUAL REALITY TRAINER

Redefine the Future of Firefighting Training





LEADING-EDGE SIMULATION TRAINING

ST Engineering redefines the future of Firefighting training by adopting the latest technologies in training and simulation solutions. Addressing the modern and safety needs of conducting training, our FireFighting Virtual Reality Trainer is your go-to solution for an immersive and realistic training experience.

The FireFighting Virtual Reality Trainer provides a safe, smart and scalable fully immersive firefighter training solution, combining high fidelity virtual hazardous fire environments, haptic feedback and industry standard equipment. Through a multi-sensory experience, firefighters can train essential skills to prepare for dangerous and adverse conditions.

The FireFighting Virtual Reality Trainer can be deployed for both individual and team training.

COMPREHENSIVE TRAINING ACROSS MULTI-DOMAIN USAGE

1. Maritime Domain

- Train maritime crews in firefighting and emergency protocols, allowing them to practice and refine their skills.
- Enable trainees to practice firefighting onboard, emergency response and containment in a simulated environment that simulates confined spaces and challenging maritime conditions.



2. Air Domain

- Realistic on-demand training to prepare for high-risk low-frequency fires relevant to Aircraft Rescue and Firefighting (ARFF) operations such as aircraft fire, tarmac emergencies and in-flight compact space emergencies.



3. Land Domain

- Provide firefighters with immersive training for various fire scenarios, from structural fires to wildfires to improve situational awareness, readiness and critical decision-making under pressure.



KEY BENEFITS

1. Train Remotely as a Team or Individually

- Enables seamless remote team training without logistical constraints, reducing downtime and travel costs.
- Trainees can practice in rotation to enhance role understanding and team coordination.

2. Reduces Environmental Impact and Health Hazards of Physical Training

- Practice anytime without the risks of being exposed to hazardous fumes produced during live fire training.
- Eliminate toxic exposure risks and environmental damage from live fire training by leveraging clean, repeatable virtual scenarios.

3. Lightweight, Portable and On-Demand Training

- Train anytime, anywhere, using a fully portable system that can be deployed within minutes, ensuring high operational readiness.

4. Customisable & Scalable Learning Scenarios

- Comprehensive library of training materials to support over 70 training scenarios.
- Trainees can practice scenarios that are dangerous or difficult-to-conduct in real-life.
- Customisable Scenarios where trainers can recreate various shipboard emergencies, from engine room fires to deck-level incidents, under different weather and operational conditions.

5. Training Analytics for Post-Performance Assessment

- Provides instant feedback to identify strengths and areas for improvement.
- Receives real-time analytics, including decision-making speed, accuracy and coordination, to improve firefighter efficiency and readiness.

6. High-Fidelity Visuals

- Combining high-fidelity visuals, physics-based fire behaviour and wearable haptics, trainees get to experience the heat, sound and weight of real firefighting scenarios — all within a controlled and safe environment.



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Access Performance Data to Inform Training



Consistent & Standardised Training Methodology



Train Remote as a Team or Individually



Replicable Training for Practice & Skill Building



Reduces No Live Fire Equipment



Reduce Environmental Impact



Reduce Logistics & Cost of Live Fire



Train for a Variety of Relevant Fire Scenarios



Reduces Human Health Hazards





WHY INTEGRATE WITH FIREFIGHTING VIRTUAL REALITY TRAINER



LEARN

- Introduction to industry standard equipment with step-by-step guidance on Trainer Usage, controls and setup. Familiarisation with various environments for safe exposure to risks, enhancing situational and risk awareness.
- Immersive, evidence-based scenarios for understanding real-world firefighting dynamics. Achieve key learning deliverables by choosing the relevant scenario and enable trainees to train individually or as a team.

PRACTICE

- Guided training simulations to support new trainees with trainer's guidance.
- Increasing difficulty to master equipment handling and hazard response skills. Repetitive scenarios to reinforce muscle memory and procedural accuracy.

ASSESS

- Delivers real-time feedback and use of After-Action-Review reports for performance assessment, identifying strengths and areas for improvement.
- Provides comprehensive data insights on performance for long-term growth tracking.

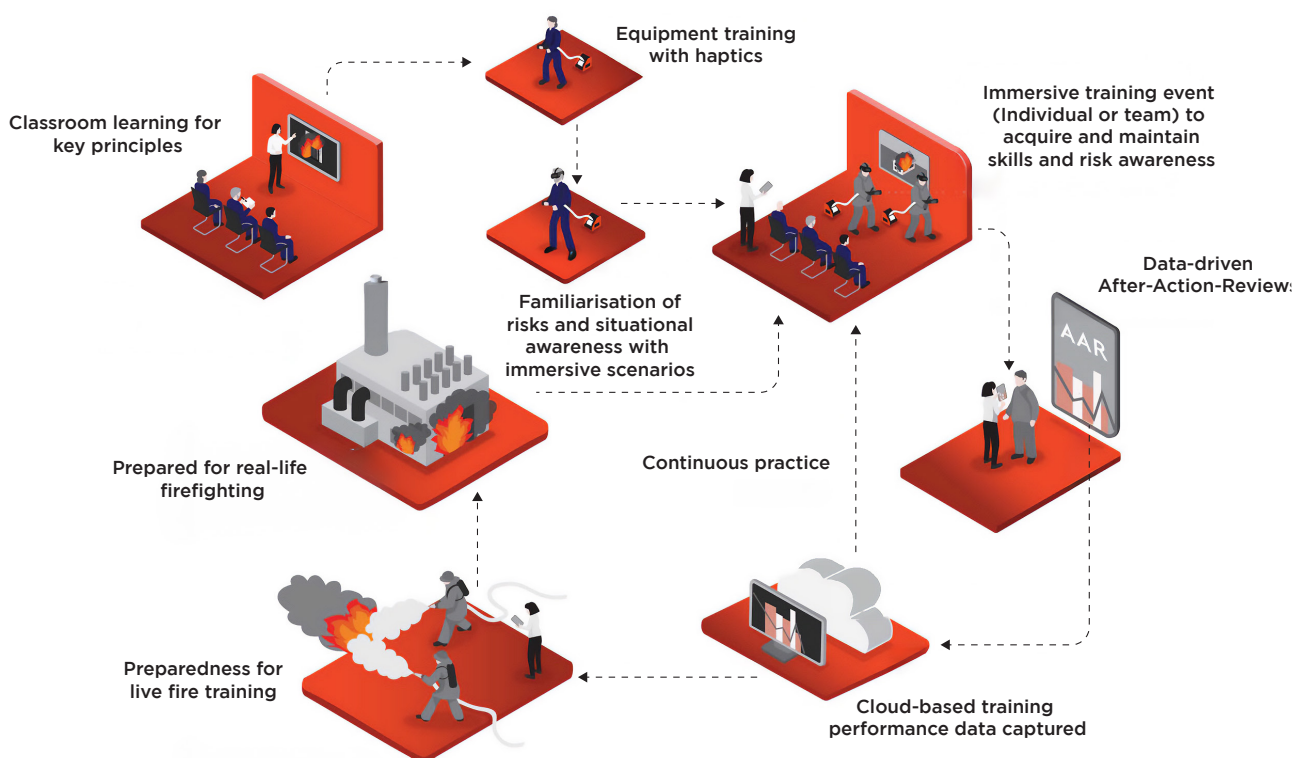


SEAMLESS INTEGRATION INTO YOUR TRAINING PROGRAM

The system replicates the physical behaviours of industry standard equipment to deliver a feels-real experience. This includes the temperature response of the heat vest and the replication of physical properties when using the hose reel. While the trainee combats the fire, the audio and scenario respond in real-time based on the technique applied by the trainee.

The system includes:

- A Trainer Tablet – Empower trainers to set learning objectives and incorporate injects based on their training requirements. Trainers can access live performance data to deliver data-driven After-Action-Reviews.





As the official Value-Added Reseller for FLAIM in Singapore, ST Engineering provides not only the distribution of FLAIM's cutting-edge firefighting simulator solutions but also local technical support & maintenance, training curriculum development, tailored training programs and system integration to meet the unique needs of air, land and maritime domains.

Ready to redefine your firefighting training?

Contact ST Engineering Training & Simulation Systems for a free consultation and demonstration to see how the FireFighting Virtual Reality Trainer can integrate into your training program.



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