

FLAIM

FLAIM FTS

Mixed reality firefighter training system

Train for a range of dangerous and difficult-to-conduct fire emergencies with a kinaesthetic feels-real experience with FLAIM FTS, enabling frequent training without compromising on safety, resources and the environment.



Readiness without the risks

Reduce exposure to carcinogens to minimise long-term health risks, whilst equipping trainees with the skills needed for a high-value live fire training event and real-life firefighting.

A tool for practice

Elevate preparedness through practice with FLAIM FTS, providing an accessible on-demand training solution for individual, team and incident command training.

Train, respond, review, repeat

Achieve end-to-end training with Capture, a cloud based reporting tool that delivers real-time performance data and enables After-Action-Reviews.

Who it's for

Defence

Aircraft Rescue and Firefighting (ARFF)

Equip your ARFF team with realistic on-demand training to prepare for high-risk low-frequency fires relevant to ARFF operations such as aircraft fire, tarmac emergencies, and in-flight compact space emergencies.

Navy Damage Control

Enable trainees to practice firefighting onboard, emergency response, and containment in a simulated environment that simulates confined spaces and challenging maritime conditions.

Emergency response

Fire & Rescue Departments

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.

Transport

Transit

Help transit safety teams prepare for vehicle fires and emergencies in public transportation systems, ensuring rapid and effective response to protect passengers and infrastructure.

Maritime

Train maritime crews in firefighting and emergency protocols, allowing them to practice to refine their skills and be better equipped for a fire emergency.

Aviation

Support aviation staff in mastering response techniques for in-flight and airport fires, with a focus on passenger safety and coordination with emergency services.

Industrial firefighting

Mining

Enhance the safety of mining firefighters with training scenarios focused on handling fires and hazardous incidents relevant to mines, improving the ability to react swiftly to life-threatening situations.

Energy

Prepare energy sector teams for fires in electrical, gas, and chemical environments to help trainees prepare for high-risk low-frequency fire emergencies in a safe and controlled environment.



Why integrate FLAIM FTS

Safe onboarding

Skills acquisition

Skills retention

Learn

Introduction to industry standard equipment with step-by-step guidance on 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 as with a team.

Periodic refreshers to help trainees retain critical techniques, upskill and improve risk awareness. Using diverse scenarios can be used to reinforce core firefighting skills in different environments.

Practice

Guided training simulations to support new trainees with real-time guidance from the system. New recruits start in lower-stress scenarios to build confidence.

Increasing difficulty to master equipment handling and hazard response skills. Repetitive scenarios can reinforce muscle memory and procedural accuracy through repetitive practice.

Introduce additional variables and complex scenarios. Enable trainees to practice with colleagues on a rotation for increased understanding of roles and develop unified

Assess

Real-time feedback to deliver instant feedback on performance to ensure understanding of basics. A foundational skills assessment will identify initial strengths and areas for improvement.

Track performance metrics like reaction time, accuracy, and decision-making under pressure. Use After-Action-Review reports to guide improvement.

Ongoing performance reviews to ensure skills remain sharp. Provide comprehensive data insights on performance for long-term growth tracking.

Train for environments that are too dangerous or difficult to replicate in real life

Purposeful training

Get more out of live fire training

Ensure trainees have the necessary skills, technique and situational awareness to the most out of a high-cost live fire training event.

Minimise skills fade and improve the safety of your team during live fire training.

Prepare for all scenarios

Trainees can practice for scenarios that are too dangerous or difficult-to-conduct in real-life.

Trainees can practice in a diverse range of scenarios relevant to your industry.

Reduce hazards

Trainees can practice frequently without the risks associated with the exposure to hazardous fumes produced during live fire training.

Reduce your environmental footprint and meet your sustainability targets.

Benefits

Accessible on-demand training in minutes

With a sub 10 minute set up time, you can deliver on-demand training in minutes, any time, any place, any weather. The full system fits within two pelican cases for ease of air travel and transport between facilities.

Centralise your training

FLAIM FTS is connected to Capture, our learning performance and analytics platform that lets you record, analyse and report on training outcomes with real-time data informing your After-Action-Reviews. Capture lets you centralise your training to external or remote locations and deliver consistent, repeatable training across your organisation.

Empowering the trainer

The system is purpose built to enable trainers to achieve their specific training objectives. Trainers can manipulate scenarios to assess specific skills and awareness, and identify skill gaps.

Boost cognitive retention with immersive learning*

- 4x faster to train than the classroom
- 275% more confident to apply skills learned after training

* <http://www.pwc.com/us/en/tech-effect/emerging-tech/virtual-reality-study.html>

Feels-real firefighter training tailored to your requirements.

We've developed a comprehensive library of training material to support over 70 firefighter training scenarios.

- Apply immersive learning to your training program
- Build your own training modules
- Deliver relevant playlists straight to the trainee



How it works

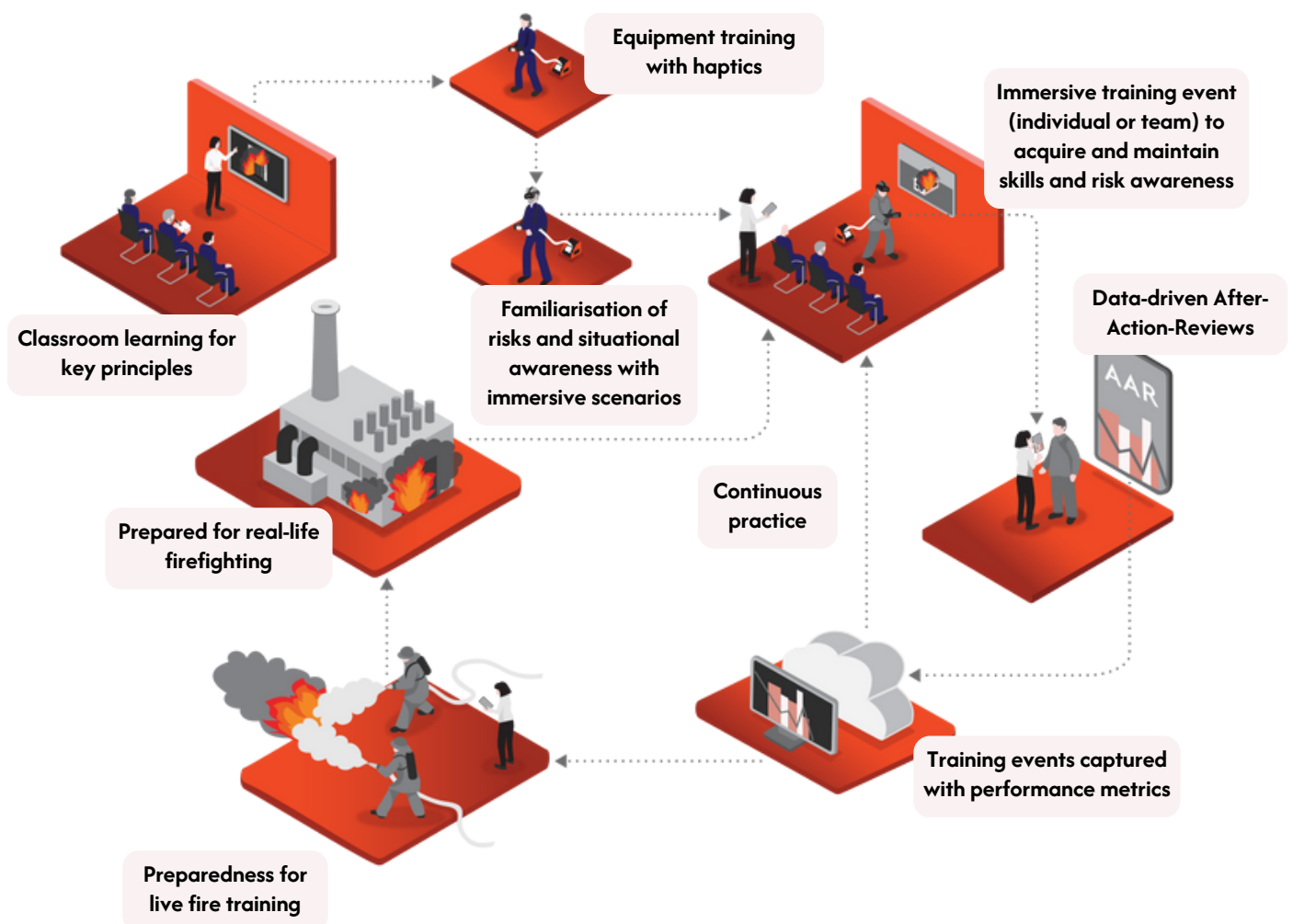
The system replicates the physical behaviours of industry standard equipment to deliver a feels-real experience. Examples include the temperature response of the heat vest and the replication of physical properties when using the hose-reel. Whilst the trainee combats the fire, the audio and scenario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

The system includes a tablet to 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.

Capture provides real-time data recording, analytics and reporting to highlight performance metrics and inform future training strategy.

How to integrate

Purposefully built to integrate into your training program



Incident command

The Incident Command module empowers trainees to develop and refine role-specific leadership skills in high-pressure fire emergency scenarios. Designed for role-based incident command training, this module allows participants to practice decision-making, communication, and coordination techniques within a team training environment. Trainees can step into leadership roles, manage resources, and direct firefighting efforts in realistic, immersive scenarios, whilst receiving immediate feedback on their performance. By simulating the challenges of real-world incident command, this module ensures leaders are prepared, confident, and capable of guiding their teams through critical situations.



A validated firefighter training solution

“

Instructors and students believed the system provided learning opportunities in decision-making; exposure to infrequent, but needed, hazardous environments; and practice of tactics, techniques, and procedures.

”



“

The fire department in Nebraska used innovation funds to purchase a simulator that provides real world scenarios to enhance their skills without being in an unsafe environment.

With the cost of firefighter personal protective exceeding \$3,000 and the high cost of specialized firefighting vehicles – \$500,000 to \$800,000 – FLAIM FTS saves wear and tear, fuel and operational costs on these high dollar assets as they are not used as often.

”

David Eblin
55th CES Installation Fire Chief,
US Airforce

In the box

Case 1: FLAIM System Case

- Safety Guide
- Hose Reel
- Headset Charger
- Permanent Mounting Kit (2)
- Rope Ratchet Tie Down (2)
- Host Reel Power Cable Country Specific (2)
- Hose Reel Power Supply (2)
- Branch / Nozzle
- Branch / Nozzle Tracker
- VR Headset and VR Headset Battery 1
- Controller
- iPad
- Keyboard
- iPad Charging Cable
- HDMI Cable
- USB-A to USB-C Cable (Black)
- USB-C Y Splitter Cable
- VR Headset Charging Cable
- HDMI F to F Adapter

Case 1: SCBA Case

- SCBA
- SCBA Battery Charger
- Half Face Mask and Lung Demand Value
- Heat Suit
- SCBA Battery (2)
- Only supplied in Australia
- VR Headset Battery 2
- See item for VR Headset Battery 1
- Rigid Hose Fitting

Service Level Agreement

Software

3-year access to the latest software updates to deliver new features and scenarios.

Warranty

3-year limited system warranty under a fair wear and tear policy.

Support

- Access to technical support
- Comprehensive library of support articles and documentation
- Service requests can be logged at support.flaimsystems.com

Optional

- Modem
- Modem USB-A to USB-C Cable
- Ethernet Cable
- Armband Heart Rate Monitor & Charging Base



Technical Specifications

Head Mounted Display (HMD) & Controllers

Screen	Dual 2.88" LCD panels
Resolution	4,896 x 2,448 Pixels combined
Refresh Rate	90Hz
Field of View	Up to 120 degrees
Connectivity	2x USB 3.2 Gen-1 Type-C peripheral ports. Bluetooth 5.2+BLE Wi-Fi 6 + 6E1
Audio	Dual microphones with echo cancellation 2x Dual driver with patented directional speakers
Sensors	4x Tracking cameras.
Battery	G-Sensor, gyroscope and proximity sensor
Controller Battery	26.6w with 2-hour charge 4-hour charge capacity

Physical Specifications: Case One

Items	Hose Reel, Computer and HMD
Dimensions	84L (33") x 48W (19") x 30D (12")
Weight	32kg or 70lbs
Configuration	Wheeled with retractable handle

Physical Specifications: Case Two

Items	SCBA Pack and Heat Vest
Dimensions	84L (33") x 48W (19") x 30D (12")
Weight	Weight 15kg or 33lbs
Configuration	Wheeled with retractable handle

Computer System

Processor	Intel Core i7-11800H (8-core 2.3 GHz, up to 4.6 GHz)
Graphics	NVIDIA GeForce RTX 3070 GPU 8GB GDDR6 256-bit, up to 150W
Resolution	Up to 7,680 x 4,320 @60Hz
Memory	16GB
Storage	240GB
Power	110-240V
Connectivity	USB 3.1 GEN 2, Dual LAN Wi-Fi 6, Bluetooth 5

Touch Screen Tablet

Display Size	10.2"
Storage	64GB
Connectivity	Wi-Fi 6 or 6E

Hose Reel

Force Feedback	400-700KPA (Up to 300Nm)
----------------	--------------------------

Branch

Modified Task Force Tips G-Force with Pistol Grip and embedded electronics.

Connectivity	BLE plus 2xAAA batteries
--------------	--------------------------

Self-Contained Breathing Apparatus (SCBA Pack)

Connectivity	BLE
Batteries	Milwaukee M18 System (refer manufacturer)

Heat Vest

Connectivity	BLE
Operating Temperature Range	Up to 75 degrees Celsius

FLAIM is trusted by:



FLAIM at a glance

Customers	Systems deployed	Countries	Languages	Immersive scenarios
400+	1,000+	49+	28	180+