

FLAIM

Training for a better tomorrow

About FLAIM

FLAIM creates immersive mixed-reality (MR) training systems to aid first responders, defence teams, and high-risk industry workers to prepare more effectively and confidently for real-world emergencies and life-threatening situations.

We serve those who serve by innovating and customising our training systems to address customers' unique risks.

Our main focus areas include fire and emergency response, defence, resources, energy oil and gas, transportation, and workplace safety.



Our promise is to deliver better training for a better tomorrow

Our vision

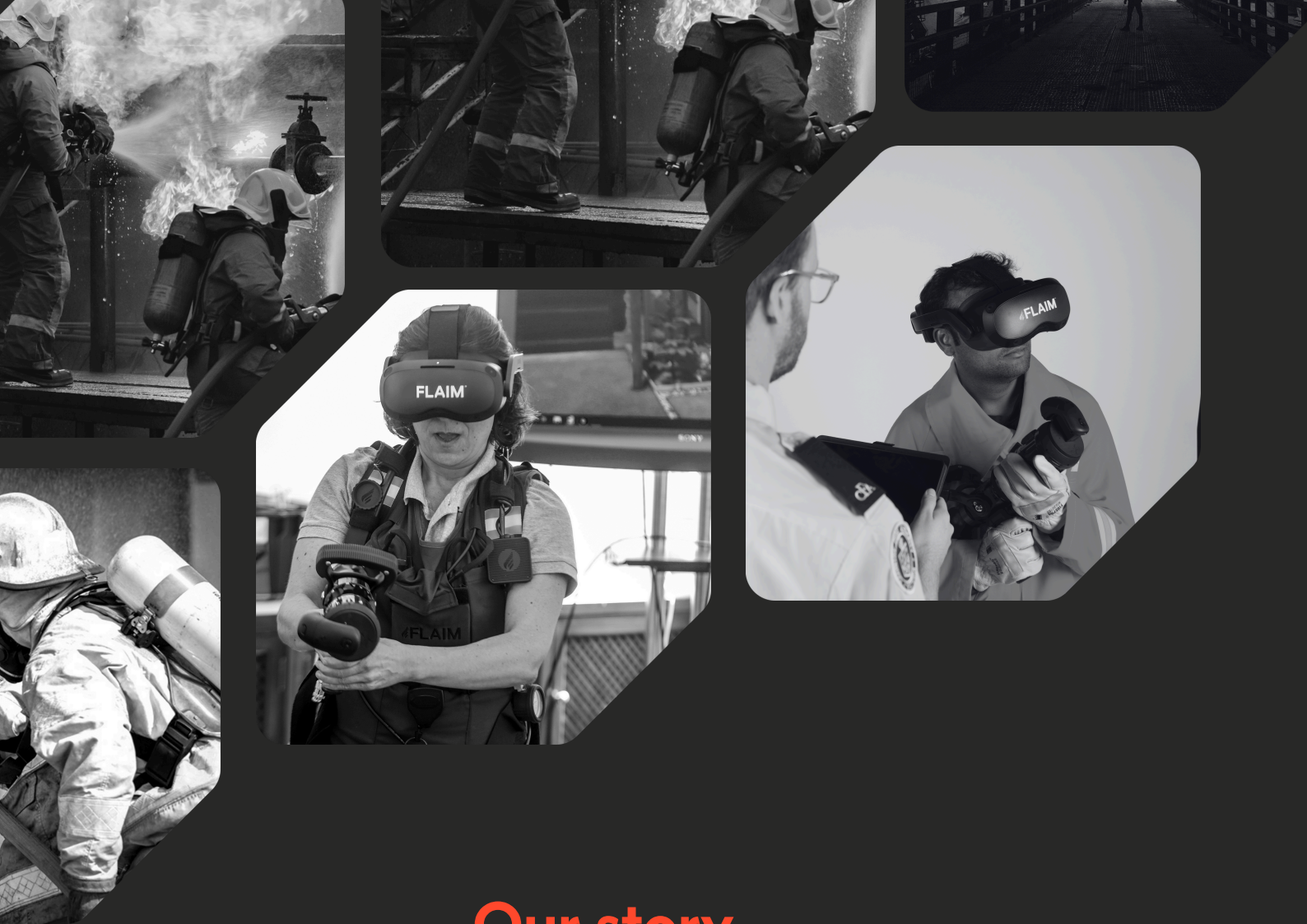
To help people make intelligent, safe, and life-saving decisions through innovative training systems.

Our purpose

To prepare our customers' teams to perform at their best during life threatening emergencies, when split-second decisions can lead to life or death outcomes.

FLAIM at a glance

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



Our story

FLAIM commenced in 2014 with the goal to revolutionise firefighter training for Navy sailors. Building on over a decade of robotics research at Deakin University, we have evolved to develop the world's first mixed reality multi-sensory firefighter training system. Our innovative approach is to build highly immersive training simulations by combining real world physical equipment in high fidelity virtual environments to deliver realistic feels-real training simulations that can build a more prepared and resilient workforce, ready to respond to hazards and emergencies in life or death situations.

Since commercialisation in 2019, we have developed capabilities in the broader firefighter domains expanding our solutions to improve first responder and initial responder preparedness across multiple fire safety related industries.

In 2024 we expanded our portfolio through the development of an immersive Counter Explosive Ordnance and Disposal (EOD) training solution that enables defence and humanitarian mine detector workforces to increase training access and better prepare themselves for the task ahead.

We are proud in the knowledge that our immersive environments simulate real emergencies, we help trainees gain skills and build confidence. We work closely with our clients to build tailored solutions that ensure safe, effective training across defense, industry, and emergency sectors. Guided by our values - partnership, purpose, and progress - we're committed to making society safer, one training event at a time. Join us as we continue to innovate and push boundaries.

Why immersive learning

Immersive learning is a teaching strategy that uses technology to imitate real-world locations and scenarios, increasing the learning experience by engaging multiple senses and incorporating interactive features.

With immersive learning, trainees are:

4x

Faster to train than
in the classroom

275%

More confident to apply
skills learned after training

3.75x

More emotionally connected
to content than in the
classroom

4x

More focused than
their e-Learning peers

What makes us different

At FLAIM we work closely with our partners to deliver purposeful training systems for high-risk situations.

Through feels-real training, trainees develop the collaboration skills, confidence, situational awareness and readiness needed to safely and effectively perform when facing a real-life high-stress emergency.

The ability to continually experience life-like training delivered through immersive learning can lead to a higher level of cognitive retention through the process of myelination* where heightened stress experiences (fear conditioning) can improve the consolidation of memory and recall, to better respond when real emergencies occur.

*<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8240098/>

Our approach

Readiness for high-risk situations

For complex environments that require high-value live training, FLAIM aims to prevent first time live training accidents and injuries by familiarising trainees with equipment and scenarios, whilst enabling the acquisition of skills, situational awareness and the understanding and assessment of risks.

FLAIM provides accessible training systems that increase the frequency of practice to develop deep set muscle memory and motor skills. The more we practice the more we learn.



The science

Fire, smoke and suppressants

As a leader in immersive learning solutions for high-risk situations, one of FLAIM's expertise lies in the simulation of synthetic fire, smoke and suppressant behaviour. We continuously strive to improve the algorithms that deliver the most life-like fire behaviour when interacting with variable combustibles, different types of suppressants, and variable environmental conditions.

Our smoke and flames are not static graphics - behind each frame and every pixel, millions of calculations are being performed in real-time to deliver life-like heat transfer, fire dynamics, fire growth and spread, material combustion, and fire extinguishment effectiveness. Real-life smoke behaviour and air-flow models help trainees experience and interpret simulated smoke movement. This allows them to better plan their real-world firefighting tactics and experience realistic outcomes from the techniques they apply without the exposure to hazardous carcinogenics.

For training accuracy, scenarios can be managed with a variety of suppressants including water, foam and dry chemicals. Incidents respond accordingly to help trainees understand their unique levels of effectiveness.

Graphics

Realistic graphics help create a fully immersive environment for the trainee and make the fire experience as real as possible. This realism helps trainees suspend disbelief, engage more deeply in the training, and better transfer their skills to actual situations.

Trainees can practice skills in relevant environments to familiarise them to the setting; allowing them to move with precision in emergency situations, quickly locate essential equipment, access emergency exits and respond effectively to incidents.

The ability to realistically recreate any location and situation with intricate details enables trainees to train in environments and conditions that would otherwise be too challenging to recreate in real-life. This form of supplemental firefighter training allows trainees to see and interpret things that are often not possible in live fire training, where physical infrastructure and the visual environment are often less realistic, and the trainee's vision is often compromised by smoke and steam.

These images incorporate a mix of real and synthetic smoke.

Can you tell the difference?



Mixed reality training systems

Delivering connected mixed reality training systems to enhance operational readiness.

FLAIM FTS

MR Firefighter Training System

FLAIM FTS is an immersive mixed reality (MR) firefighter training system that blends high-fidelity virtual fire scenarios with industry-standard equipment to deliver feels-real training experiences. The system equips firefighters with the essential skills to enhance the quality of live fire training and improve situational awareness during real-life firefighting.



FLAIM FEX

MR Fire Extinguisher Training System

FLAIM FEX is an immersive mixed reality (MR) fire extinguisher training system providing a cost-effective, end-to-end solution for organisational safety and compliance. The system delivers engaging, on-demand fire safety training without the human and environmental risks of live fire training.



FLAIM EOD

MR EOD Training System

FLAIM EOD is an immersive mixed reality (MR) EOD training system that integrates industry-standard mine detection equipment with virtual reality. It features high-fidelity virtual mine clearance and explosive hazard training scenarios in a compact, portable system for on-demand training, anytime, anywhere, in an indoor environment.



FLAIM Capture

Learning performance & analytics platform

FLAIM's solutions are connected with FLAIM Capture, a web-based learning and analytics platform that enables organisations to capture data and report on training. Capture securely records performance and competency to inform organisational training strategy and learning outcomes. FLAIM Capture transforms immersive simulations into powerful training events, helping your team build real skills for real-world emergencies.



Our customers



Find out what our customers have to say:



"From house and building fires, to motor vehicle crashes, structural collapses and bushfires, this state-of-the-art software creates realistic scenarios that will allow our firefighters to make crucial decisions during simulated high-risk situations in a safe work (and environmentally friendly) setting"

Paul Baxter | Former Commissioner



"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, Offut Air Force Base



"VR Training like FLAIM offers a clear advantage for staff health and safety, and the environment whilst maintaining a high level of training realism."

Laurent Costa | Manager, Safety and Damage Control Training.

RioTinto

"FLAIM is the latest and greatest technology to hit the emergency services. With the haptics feedback system, the hose reel, heat vest and integrated breathing apparatus, FLAIM provides a unique training experience without exposing firefighters to the risk and hazards associated with firefighting operations."

Adam Browne | Cape Lambert, Coastal Operations



"There has been a 100% positive feedback reaction from the students during and after using the FLAIM Trainer. They have been extremely enthusiastic regarding how FLAIM FTS realistically replicates incidents and if mistakes are made it is within a safe environment, those mistakes can be used in the debrief as a powerful training and learning point adding to their proficiency, competency, and future safety without the danger of injury..."

Graham Reeve | Senior Training Instructor



"Fire wardens are really liking the fact that this system takes them out of the training room and into a scenario which is as close as possible to the hospital ward areas where they work every day... The quality and vastness of the VR images being presented to the participants are superb".

Andrew Huff | Fire Safety Coordinator at Central Queensland Hospital

CINTAS



RelyOn Nutec
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BAE SYSTEMS



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AUTHORITY



أدنوك
ADNOC

XcelEnergy

Australian Government
Department of Defence

BHP

أرامكو السعودية
saudi aramco



CFA



FLAIM

**When split-second decisions can make
the difference between life and death**

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