melcher studios

VR Tactical Edge:
Train, Demonstrate, Dominate

Empowering defense contractors with cutting-edge Virtual Reality solutions to revolutionize training and technology showcases for the **Canadian Department of National Defense**.

The Problem

The Defence Tech Communication Gap

Modern defense contractors face a growing challenge: bridging the gap between complex technology and clear stakeholder understanding.

Whether competing for contracts or training end users, traditional communication and delivery methods often fall short - making it harder to stand out, scale efficiently, and demonstrate real-world value. The following challenges highlight why a new approach is needed.

Cost & Resource Demands
Traditional training methods are costly, slow to scale, and limited in realism.

Limited Realism & Flexibility
Complex systems like naval weaponry are hard to convey through static presentations, PDFs, or even videos.

Content Understanding Among Stakeholders
Winning bids often hinges not just on product quality - but on how well capabilities are understood by stakeholders.

Proving Value in a Competitive Landscape
Contractors need to demonstrate impact, value, and readiness - faster and more effectively than ever.

A New Approach

Immersive VR for Tactical Training & Demonstration

Simulate Complex Systems

We develop high-fidelity VR simulations that would allow defense contractors to replicate complex systems - such as ship-mounted gun turrets, radar consoles, or tactical vehicles - in fully interactive environments. These simulations enable detailed system walkthroughs and skill-based scenarios that mirror real-world use cases with technical precision.

+

Train Personnel with Hands-On Scenarios

VR modules allow personnel to train in realistic, mission-relevant environments without relying on live equipment, travel, or extended scheduling. This reduces logistical strain while enabling repeatable, safe, and efficient skill development aligned with operational requirements.

+

Provide Immersive Demonstrations

Whether pitching to procurement teams or showcasing at trade shows, our VR solutions bring your products to life. These interactive experiences allow decision-makers to explore equipment functions, features, and benefits firsthand - making complex systems easier to understand and more compelling to support.

Visual sample of realism level achievable within VR

For Demonstration Purposes Only

Why Now?
The Timing Is Right for Immersive Innovation

The CAF's recruitment challenges are at a critical juncture, necessitating innovative solutions.

▷ The CAF is actively modernizing training and simulation across all branches.

▷ VR adoption is growing across NATO for both training and tech assessment.

▷ Canada's Strong, Secure, Engaged defense policy prioritizes innovation and force readiness.

▷ Contractors who can accelerate training timelines and showcase technology effectively are better positioned to win bids.

Market Opportunity

A National-Scale Opportunity for Impact

Canada's **$26 billion** annual defense budget includes significant investment in technology and training—driving growing demand for scalable, cost-effective training solutions.

Virtual Reality's Potential to Support Defense Needs

▷ Pre-deployment mission rehearsal.

▷ Equipment handling and maintenance simulations.

▷ New technology showcases for naval, air, and land platforms.

▷ Partnered demos at CANSEC, CAF Outlooks, and more.

CAF Resources

Targeted Outreach Channels

Next-Gen Solutions for Successful Defense Contracts

Case Study

Creating Interactive Resources that Recruit, Influence and Entertain!

Melcher has led the development of numerous game and training experiences. We have assembled a video demo reel of all our past project samples for you to watch with the link below:

▶ **Our Past Work**
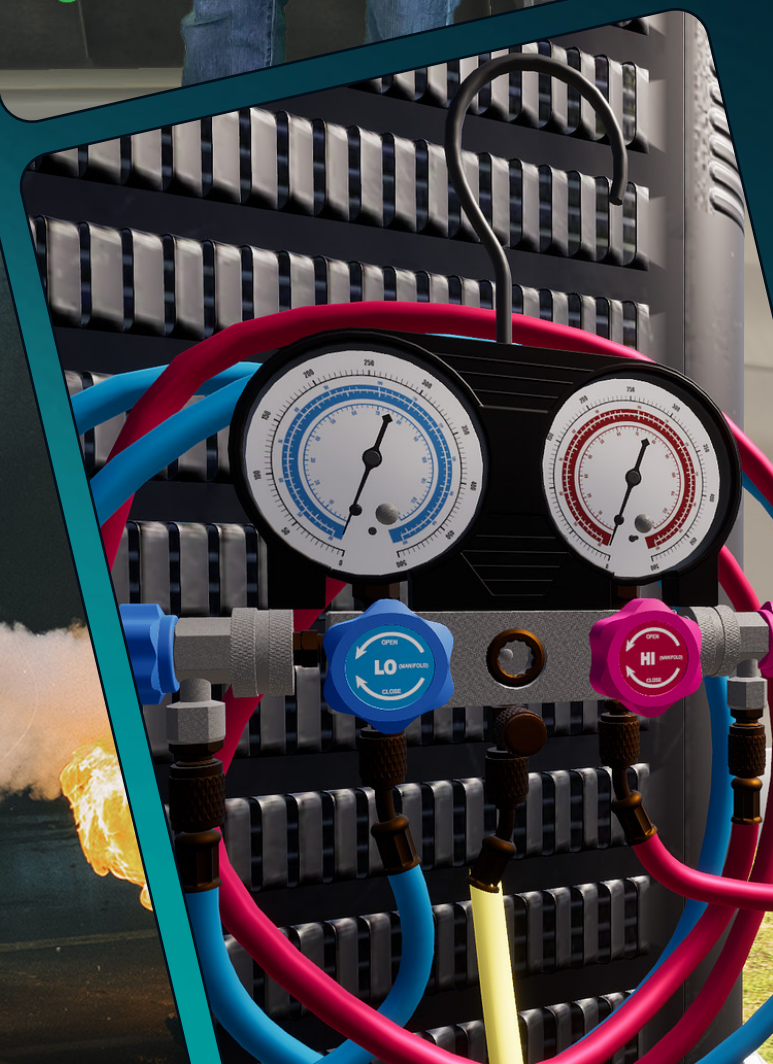
Traction

Proven Momentum Toward Scalable Deployment

We're actively building partnerships and laying the groundwork for real-world testing, with a strong foundation of experience in both training and education-focused VR development.

Some of Our Past Clients Include:

Nutrien Ag Solutions™

ROGERS

Royal Canadian Mounted Police

CBC

BACARDÍ

SaskEnergy

DreamWorks

NBC UNIVERSAL

new balance

A Decade of Immersive Innovation

We launched our first VR project in 2014. Our early adoption and continued refinement of VR technologies position us as one of Canada's long-standing leaders in the space.

Award-Winning Excellence

Our most recent award is from 2024, where we received the Bronze Medal for Best Advance in Augmented and Virtual Reality from the Brandon Hall Group - recognition of our ability to deliver impactful, forward-thinking VR solutions.

Future-Focused with AI and Scalable Infrastructure

We're embracing the future by integrating AI into our platform for adaptive learning, analytics, and personalized feedback. Our growing VR Hub serves as the central access point for career simulations, skill tracking, and data-driven decision-making.

Business Model
Our Models for Long-Term Value and Growth

01.

White-Label VR Solutions

Deliver immersive training modules under your brand, tailored to your contract requirements and seamlessly integrated into your existing offerings.

02.

Custom Modules

We can develop targeted VR experiences for individual equipment types, vehicles, or weapon systems - ensuring accurate procedures and role-specific fidelity. Support includes scenario authoring, analytics integration, and secure deployment.

03.

Flexible Licensing

Choose the licensing structure that fits your project scope - whether you need limited training access, scalable deployment across regions, or targeted use for demonstrations and showcases.

How We Stand Out

Going Beyond Traditional VR Creation

Unlike basic simulation software, our platform delivers high-fidelity, operationally relevant experiences that can be tailored to meet defense training and procurement needs.

Train for Real-World Complexity:

▷ Our approach to simulation development prioritizes operational realism and immersive user experience. We create high-fidelity virtual environments that could reflect the complexity of real-world defense scenarios, enabling trainees to engage with systems and make critical decisions in a realistic and operationally relevant way.

▷ For example, a VR simulation might place users in a mission-critical role, such as operating advanced equipment while responding to threats or engagement scenarios. We can then apply realistic constraints that require users to follow specified mission parameters, creating a repeatable and highly interactive experience for skill development within a safe and controlled environment.

Know Exactly How They Perform:

▷ Our integration of AI goes further than traditional training by generating detailed after-action reports that analyze user behavior and decision-making in real time. These reports provide performance metrics that highlight skill gaps, track improvement over time, and inform next-step recommendations for both trainees and instructors. [Learn more]

The use of realistic, tailored experiences - combined with AI-driven observation and data collection, empowers instructors and program leads to assess readiness, identify skill gaps, and adapt future training accordingly. Delivering measurable outcomes that support both learning and procurement strategies.
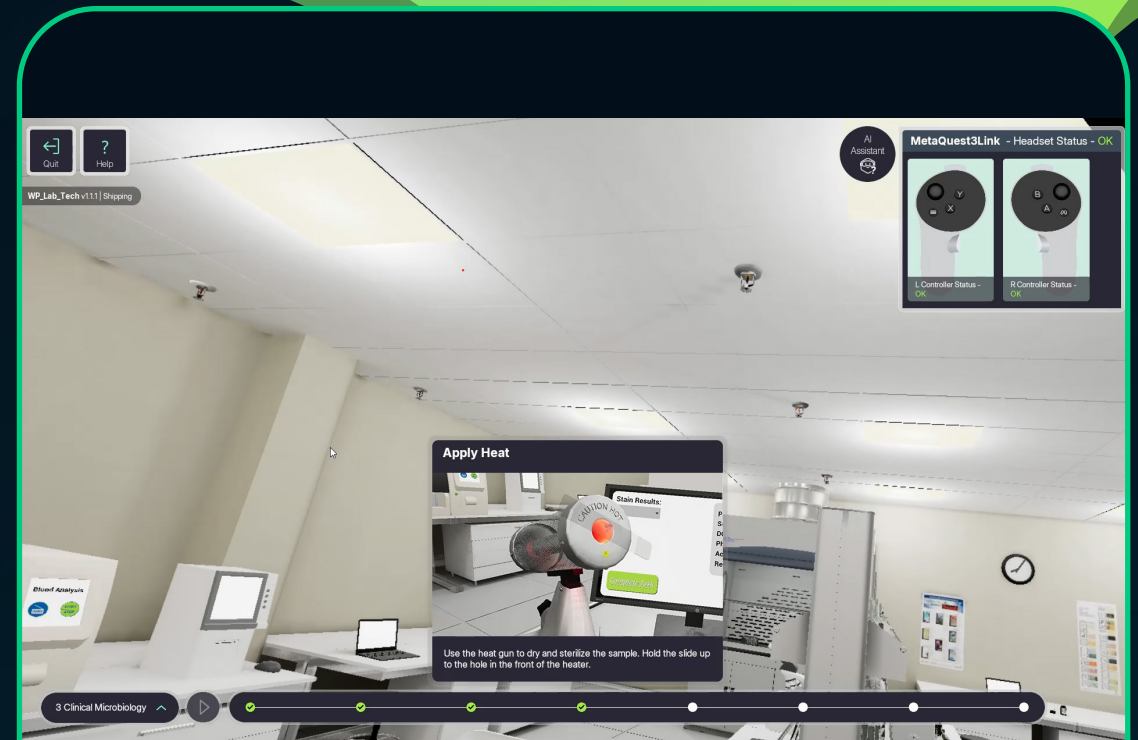
Real-Time Experience Controls
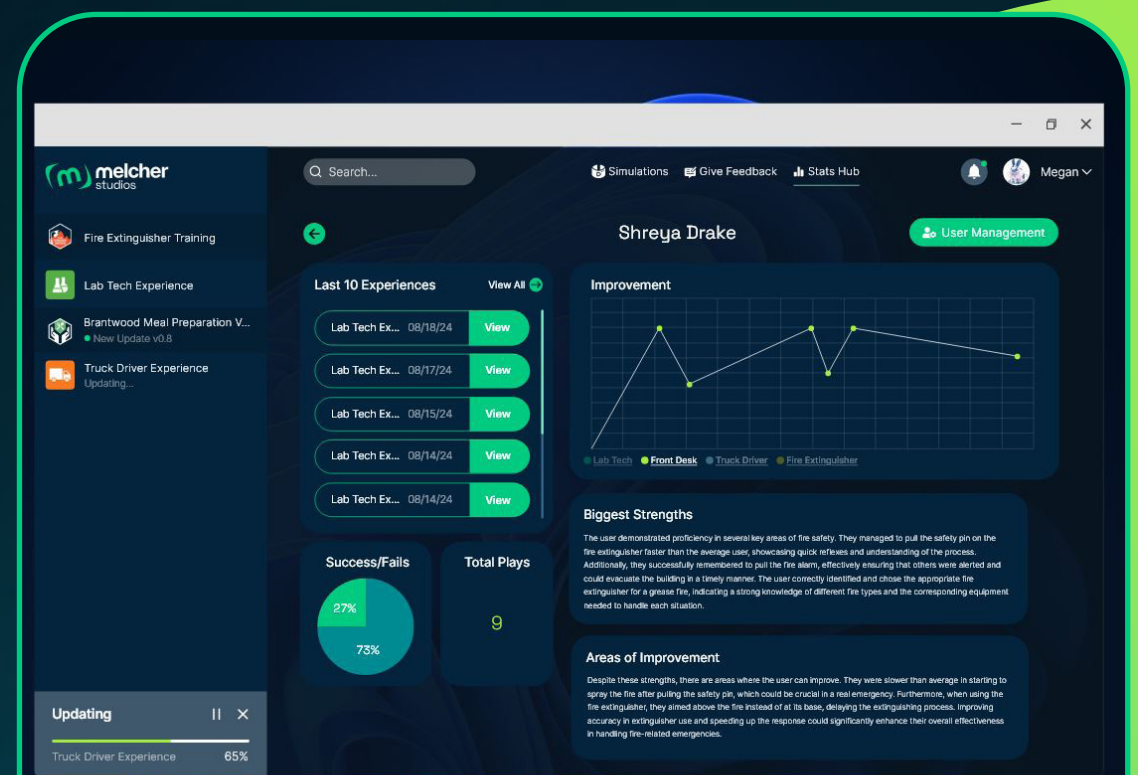
Analytics for Training

Artificial Intelligence

How AI Elevates VR Training

Building on our use of adaptive AI in immersive training, this page explores how our system supports contractors and clients with actionable, high-value intelligence. From advanced performance tracking to tailored scenario delivery, our AI helps transform VR simulations into measurable outcomes that support both training and procurement objectives.

Benefits of AI-Enhanced Training

▷ **Operationally Relevant User Reports:** The system can track metrics like reaction time, task accuracy, and decision flow to produce reports aligned with operational benchmarks and contractor goals.

▷ **Adaptive Scenario Design:** Simulations can respond to user performance by adjusting complexity, pacing, and guidance. This ensures relevant, role-specific training for every user.

▷ **Comprehensive Analytics Tracking**: Captures user progression, completion rates, and behavioral trends, providing clear evidence of training effectiveness for proposals and stakeholder review.

▷ **Scalable Across Use Cases:** Whether focused on technical systems or tactical decision-making, the AI supports a wide range of training modules that can be tailored to evolving requirements.

▶ **AI Conversation Demo**

Who We Are

Melcher Studios Development Team

Melcher Studios is a multidisciplinary team of developers, designers, 3D artists, and immersive learning specialists with deep expertise in VR/AR, gamified training, and simulation development. We bring together VR developers and instructional designers with experience spanning multiple sectors, including mining, transportation and logistics, emergency response, and law enforcement.

This cross-sector experience allows us to deliver end-to-end solutions, from early-stage concepting and instructional design to final deployment and support. With decades of combined experience and over 100 VR simulations delivered, our team is equipped to create engaging, scalable experiences tailored to each industry's unique requirements.

Dwayne Melcher - President and Partner

Dwayne has acted as a Designer, Process Architect and Project Manager ever since his graduation in 2003. He established his own company and built the Melcher Studios team of talented designers and programmers. Throughout his career, Dwayne has pioneered partnerships with over 250 companies locally & nationally.

Daniel Price - Chief Operating Officer

Daniel has over 10 years of experience managing and delivering projects for clients across Canada, including Imperial Oil and Enbridge. In 2020, he transitioned into the VR industry, recognizing its potential to strengthen talent acquisition and training solutions.

Greg Hutch - Executive Coordinator

Greg has been a leader and consultant in several industries building transformational partnerships and technology programs. Greg is passionate about science education and is currently the Chair of the Board of Directors of the Saskatchewan Science Centre. Greg is also involved in supporting mental health and reducing homelessness for Canada's veterans and first responders.

Jada Yee - Indigenous Advisor

Jada and 7 Arrows Consulting Group bring deep expertise in Indigenous engagement, reconciliation, and defense sector integration. Their team has led major initiatives, including the National Indigenous Defense Conference, and supported Indigenous participation strategies for national aerospace and defense organizations. Through advisory and operational roles, 7 Arrows continues to bridge Indigenous communities and defense institutions with culturally informed, results-driven solutions.

The Ask

Partnering to Deliver Next-Generation Solutions

Melcher Studios is seeking strategic partnerships with defense contractors to co-develop high-impact VR modules tailored to Canadian Armed Forces training and procurement needs.

Our Collaboration Goals

▷ **Co-developing VR training modules** aligned with specific platforms, systems, or operational roles.

▷ **Showcasing immersive experiences** to DND stakeholders and decision-makers through demos and private previews.

▷ **Gaining access to SMEs** or platform data to ensure simulations are accurate, mission-relevant, and technically precise.

▷ **Co-marketing at defense expos** and during procurement cycles, strengthening bids and positioning partners as innovation leaders.

▶ **Contact**

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