

PHANTOMHIP 2.0

XR TECHNOLOGY

A breakthrough in medical training – the fusion of tactile realism with immersive augmented reality

Find out more:

 www.yoshisa.pl

WHO WE ARE?

Yoshi Innovation S.A. is a Polish technology fund listed on the NewConnect market, with over a decade of experience in investing in innovations across medicine, advanced technologies, and defense. We specialize in the transfer and commercialization of cutting-edge solutions — from research and certification to full-scale implementation.

Our mission is to create tools that offer real, tangible support to doctors, paramedics, and soldiers operating in time-critical conditions.

One of our flagship initiatives is PhantomSkin — a brand of high-fidelity medical simulators designed for intensive life-saving procedure training. Developed in collaboration with emergency and military medicine professionals, these products are actively used both in Poland and internationally.



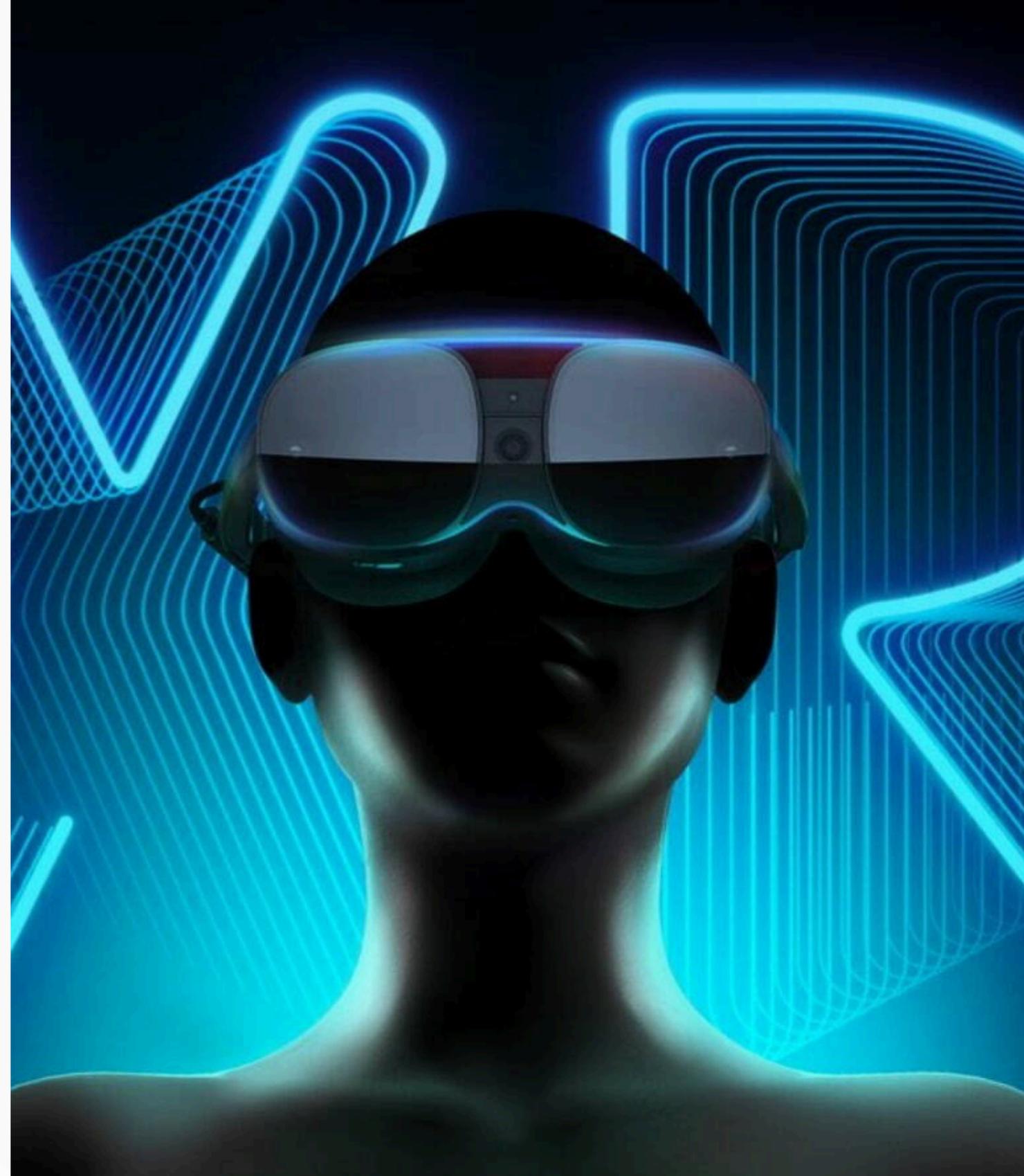
WHO WE ARE?

Trusense is a leading provider of Virtual Reality (VR), Augmented Reality (AR), and Artificial Intelligence (AI) solutions. Operating in the international B2B market, the company develops cutting-edge educational and training tools for businesses, universities, and public institutions.

Trusense technologies are trusted by top universities, European corporations, government agencies, and forward-thinking organizations.

Why Trusense?

- 10 years of market experience
- Over 40 successfully delivered projects across Poland and Europe
- Deep expertise in VR / AR / AI technologies
- Specialized in developing digital twins for simulation and training purposes





PHANTOMHIP 2.0

PhantomHip 2.0 is a next-generation medical training simulator, developed in close collaboration with professionals from the military, emergency response, and healthcare sectors. It is an ideal solution for organizations that require durable and highly realistic tools for intensive, high-fidelity training.

✔ Realistic hemorrhage simulation

Adjustable blood pressure allows simulation of various bleeding scenarios – including hypovolemic shock.

✔ Durable, skin-like silicone

The material faithfully replicates human skin, ensuring both durability and realistic tactile feedback.

✔ High anatomical accuracy

The anatomically accurate shape and structure of the hip enhance training realism and credibility.

✔ Wound packing functionality

Ideal for practicing the treatment of gunshot and deep trauma wounds – using tourniquets, gauze, and other materials.



International educational program

STOP THE BLEED is a global education initiative launched by the U.S. Department of Defense and developed by the American College of Surgeons. Its goal is to prepare the public to quickly and effectively control life-threatening bleeding — one of the leading preventable causes of death.

The program teaches simple yet effective techniques — such as applying tourniquets, direct pressure, or wound packing — that can be used by anyone, regardless of their medical background.

Collaboration with STOP THE BLEED instructors

PhantomHip 2.0 was designed and developed in collaboration with certified STOP THE BLEED instructors.

Their knowledge and hands-on field experience enabled the creation of a simulator that accurately replicates real-life trauma scenarios and supports the training of procedures aligned with international emergency care standards.



PhantomHip 2.0 elevates medical training to a new level of realism by combining a physical hip phantom with a digitally rendered patient, visible in virtual reality. Participants are no longer interacting with a static model – they are immersed in a fully simulated clinical scenario, where they can observe and assess the entire body of the casualty, respond to hemorrhage, and make critical decisions just as they would in a real-life emergency.



PHANTOMHIP 2.0

+ XR

✓ Stress scenario simulation

XR enables the creation of realistic training environments under pressure – noise, chaos, limited visibility – which develops rapid decision-making and reaction skills.

✓ Safe error testing

Participants can make mistakes without endangering real patients, then reflect on their decisions – accelerating the learning process.

✓ Repeatability and training standardization

XR allows for the exact reproduction of training scenarios across multiple users, improving result comparability and the overall quality of the educational process.

FULL INTERACTION WITH A VIRTUAL PATIENT

PhantomHip 2.0 with XR technology goes far beyond static patient visualization. It offers a fully interactive environment in which the user engages in a realistic medical scenario and makes decisions in real time.

The virtual patient responds to actions – changing facial expressions, breathing, vocalizing pain, and dynamically improving or deteriorating based on the procedures performed.

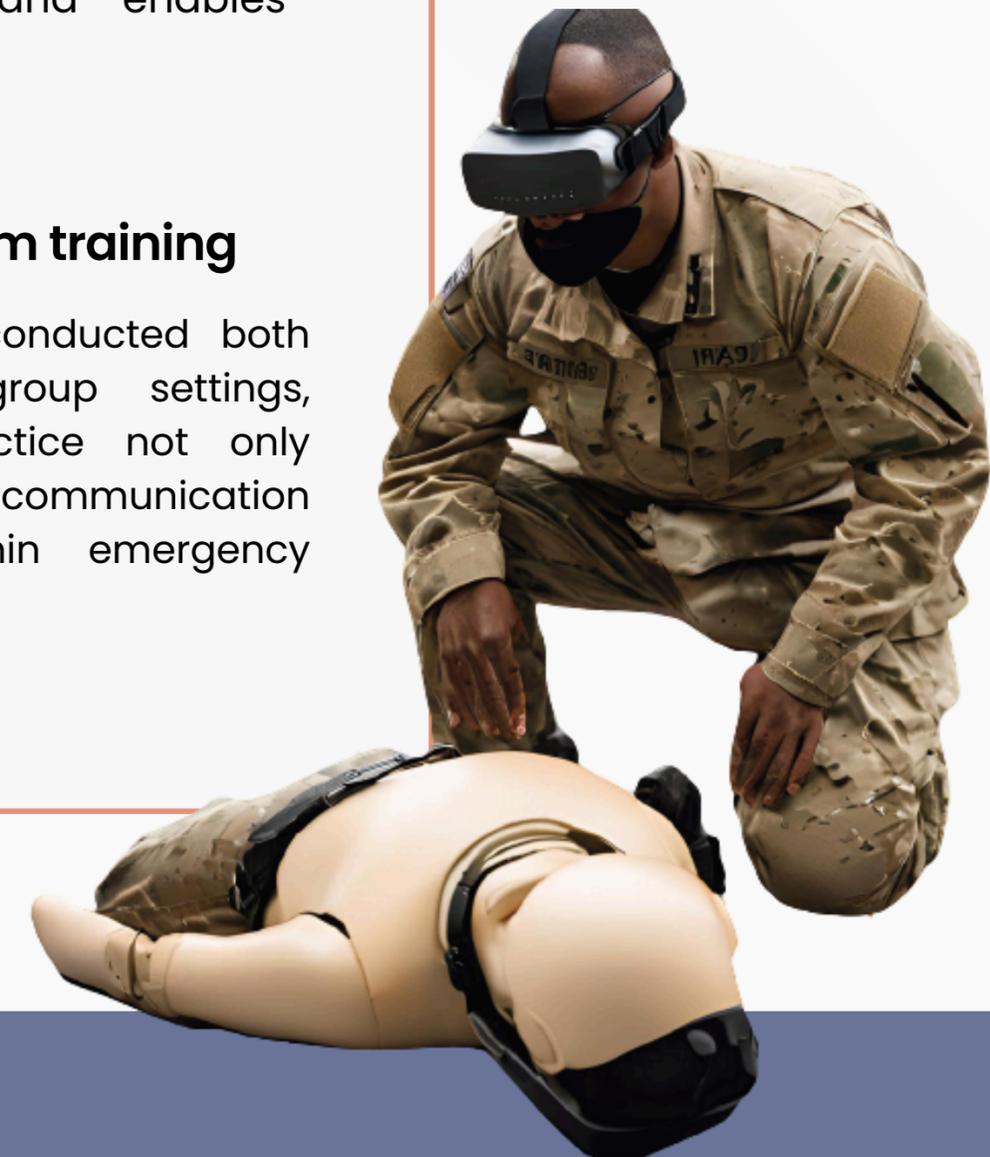
This level of realism enables not only the practice of specific techniques (e.g., hemorrhage control), but also the development of critical clinical thinking, patient assessment, and performance under pressure. As a result, training becomes more comprehensive, deeply immersive, and significantly more effective.

✔ Immediate feedback

The XR system can signal correct or incorrect execution of procedures – e.g., insufficient pressure or incorrect tourniquet placement – which accelerates learning and enables real-time corrections.

✔ Individual and team training

XR scenarios can be conducted both individually and in group settings, allowing users to practice not only technical skills but also communication and collaboration within emergency response teams.



TRAINING KIT COMPONENTS

✓ Mobile XR Goggles (HTC XR Elite)

A lightweight and comfortable headset for realistic training in augmented reality.

✓ Hip Training Phantom

A physical hip model designed for hands-on practice of emergency medical procedures.



✓ Tourniquets and Bleeding Control Clamps

An accessory set for training in tourniquet application and hemorrhage control techniques.

✓ Battery-Powered Pump

A system that supports artificial blood flow, simulating various levels of bleeding intensity.

✓ Gravity Blood Container

An alternative to the electric pump – enables blood flow simulation using gravity-based pressure.

✓ Artificial Blood Concentrate

1 liter of concentrate produces up to 5 liters of realistic simulation fluid.

SECTORS & COLLABORATIONS

- **Fire Departments & Volunteer Brigades** – Ideal for first responders who require mobility and durability. [cite_start]The system supports intensive training in rapid hemorrhage control and wound packing, essential for accident scenes and mass casualty events where every second counts.
- **Military Units** – Developed in collaboration with military professionals to meet the rigorous demands of the battlefield. The XR simulation recreates high-stress combat environments, allowing soldiers to practice Tactical Combat Casualty Care (TCCC) under pressure and chaos.
- **Medical Universities** – Trusted by top academic institutions to bridge the gap between theory and clinical practice. [cite_start]The "Safe Error Testing" capability allows students to refine clinical reasoning and procedure execution without risk to real patients.
- **Professional Training Companies** – Empowers commercial training centers and certified instructors with a standardized, repeatable tool. PhantomHip 2.0 ensures consistent training quality and high-fidelity realism for B2B clients and "STOP THE BLEED" courses.



COMPETITIVE ADVANTAGE



STANDARD TASK TRAINERS

The Standard: Rugged, static silicone models focusing solely on mechanical muscle memory.

The PhantomHip Advantage: Cognitive Immersion. While standard trainers offer tactile feedback, they lack the psychological stress of a real battlefield. PhantomHip 2.0 uses XR to simulate chaos, noise, and visual distractions, training not just the hands, but the mind.



KEY DIFFERENTIATOR: THE XR FEEDBACK LOOP

Competitors rely on instructor observation for correction. PhantomHip 2.0 provides automated, real-time visual feedback inside the goggles (holographic overlay), allowing for immediate self-correction of tourniquet pressure and wound packing technique.



HIGH-FIDELITY SYSTEMS

The Standard: Complex, full-body patient simulators designed for clinical/hospital settings.

The PhantomHip Advantage: Agility & Focus. Unlike expensive, immobile hospital systems, PhantomHip 2.0 is a portable, specialized solution. It delivers high-end biofeedback (blood flow, vital signs) via XR headsets without the logistical burden and prohibitive cost of full-body animatronics.



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