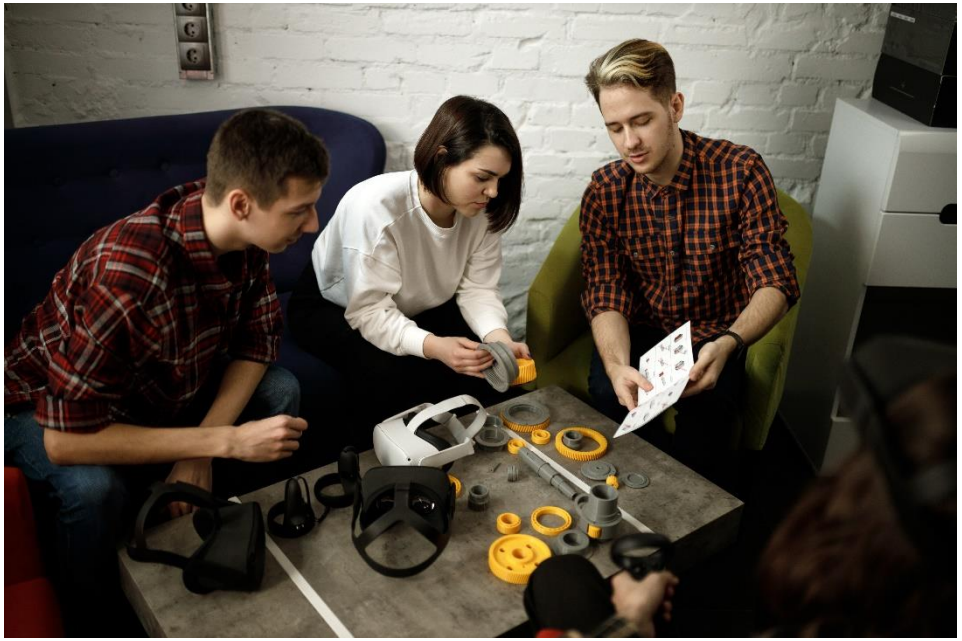
KAMPOV
TECHNOLOGY
...new reality is real

VR. Kampov Technology

(VR, virtual reality)

Full version 18.04.22

ABOUT US



Entertainment, educational and training programs remain key promising areas for VR.

We create products that make life easier for people.

Today, one of the company's key areas of activity is the development of augmented and virtual reality applications in industrial companies. The technology is applied based on glasses of mixed, augmented and virtual reality.

Our team includes both the best programmers in the field of developing applications for augmented and virtual reality, as well as experts from industrial enterprises involved in each new project, experts from various universities in the field of metallurgy, mining, energy and other areas.

And we want to create…create the future…

Our country is at war right now. I believe that man was born to create. And we believe in the future. Because without our faith, humanity has no future.

Yuriy Kampov, CEO and founder Kampov Technology
Ukraine, April 2022

MISSION / VISION

OUR MISSION

Change the world for the better by implementing high-tech solutions

OUR VISION

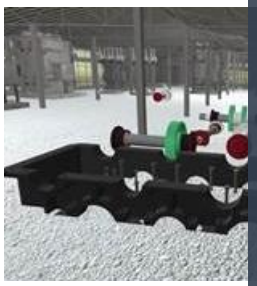
Develop and implement high-tech solutions that empower people and businesses to **push their boundaries**

VR in Learning

Key benefits of VR for Projects in Learning:

- Any environment;
- Any emergency situation;
- Group remote training;
- Reducing costs due to the absence of downtime for machinery and equipment;
- Incomparably high immersion in learning;
- The introduction of imitation of negative effects on a person (imitation of an electric shock or a fall);
- Objective assessment of knowledge;
- Replication possibility;
- The best safe way to acquire practical skills.

it's better to see once than hear 10 times

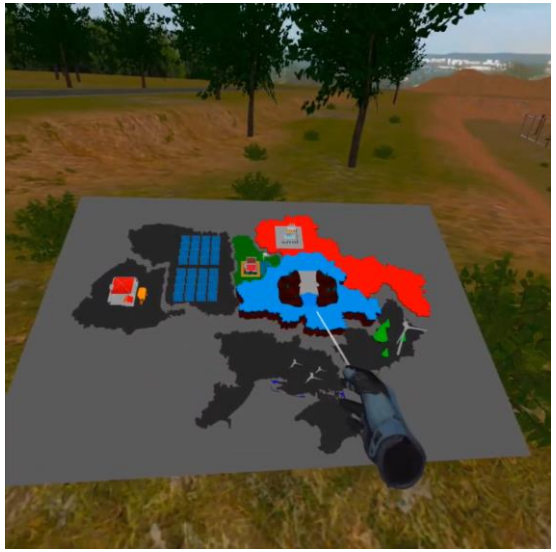


VR

Development of VR simulators

- Simulation of complex technological operations in virtual reality, for example:
  - Disassembly assembling a piece of equipment
  - Maintenance of complex technological equipment
  - Working out non-standard situations
  - Practicing the sequence of actions in emergency situations
- Inclusion of test elements in simulators with the preparation of reporting on the results

EDUCATION



1.Energy independence of Ukraine: characteristics and ways to increase

This simulator allows you to research the main types of sources used to generate electricity in Ukraine. Depending on many factors, different types of power plants are more common in different regions of Ukraine. In the simulator in front of the user on the stand is a map of Ukraine, which is conventionally divided into 7 regions by type of power plant. The simulator allows you to get acquainted with the presented types: terrestrial wind power plants, offshore wind power plants, hydroelectric power plants, thermal power plants, solar power plants, diesel power plants, urban architecture using energy efficient technologies.

Play on YouTube

2.Diversification of energy sources: offshore wind farms as a promising technology to achieve

This simulator is designed to study the structure of offshore wind turbines, allows you to view the structure of the generator from the inside. The simulator allows you to be on the platform of a wind turbine located in the sea area. The user examines the wind turbine outside and inside, examines in detail all the main components and elements of the wind turbine. This model of wind turbine uses a specially designed electric generator, which has a nominal speed of 6-11 rpm. The diameter of the generator is 6.5 meters. The wind generator has 2 power converters that work in parallel, each with a capacity of 3 MW. Nominal power of the installed transformer is 7 MVA.

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EDUCATION

3. Autonomous power supply systems: use of a diesel generator as an emergency source of electricity

This simulator is designed to you with the principles of starting a diesel generator and restoring electrical power in a single-family home. The simulator simulates a situation where a power outage occurs in a house located in a remote area due to bad weather conditions. The simulator teaches the user to properly ensure the absence of supply voltage and connect a diesel generator to restore power to the house.

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4.Energy storage: the main forms of energy storage and the variety of types

This simulator allows you to get acquainted with the main portable batteries, their types and scope. Therefore, the user will be able to explore the design and properties of the gel battery, lead-acid battery, NiCd battery, Li-Pol battery and lithium-ion battery, different types of batteries. First, the user get information about each battery, and displays information about its properties over the battery. Then the user is given a task to place all the elements in their places.

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EDUCATION

5. VR simulator - a simulator for training a ship's electrician

This simulator is designed for the Oculus Quest 2.0. It`s designed for training at the ship's electrician training center to perform emergency start operations of a diesel generator on a cargo ship in automatic and manual mode. The simulator also teaches the inclusion of generators on the load side in parallel operation. The stage for interactive training on the simulator is a fully realistic engine room of the tanker, showing the main engine, generator control cells, auxiliary engines, pumps and other devices that propel the ship.

Play on YouTube

6. Nowadays energy efficient technologies: from incandescent to offshore wind turbines

This simulator is designed to studying main features and design of energy efficient devices: single-crystal photovoltaic cells, polycrystalline and thin-film solar panels, solar collectors of various types, modern light sources, wind turbines and boiler systems. After completing the information on all stands of the simulator, the user must pass a test to verify the assimilation of the material.

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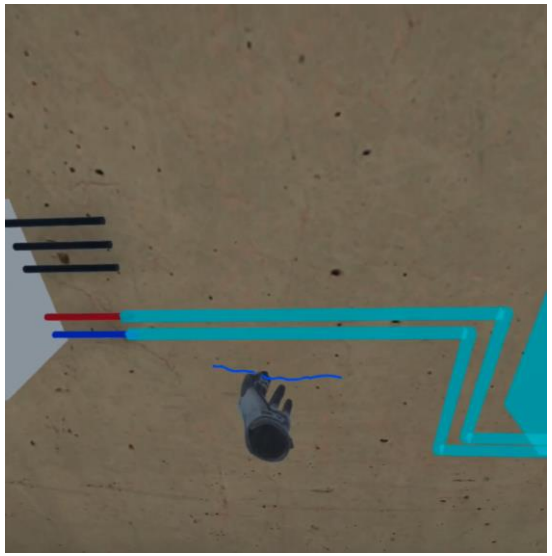
EDUCATION



7. Energy security of a private house: power supply schemes from alternative sources of electricity

This simulator allows you to get acquainted with the schemes of connection of alternative sources of electricity to the network stand-alone system and the general grid. The simulator demonstrates that there are differences in the schemes when using different alternative electrical power sources. The case of using two types of sources is considered: a wind generator and a solar station. To do this, the user must perform the task of connecting the necessary equipment to the network.

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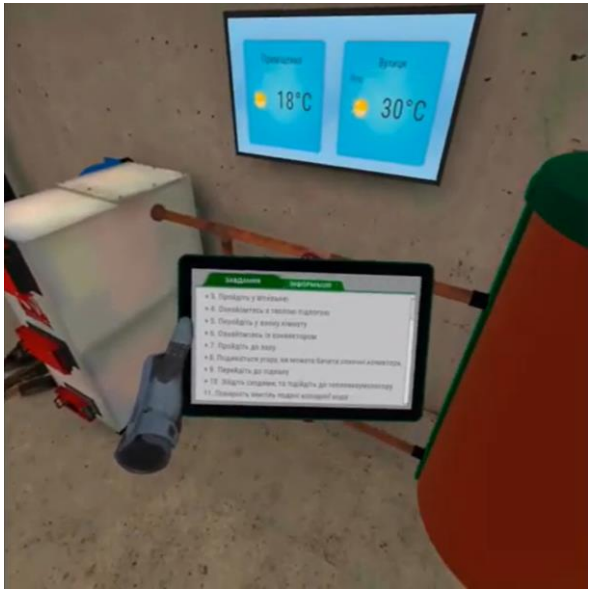

8. Energy efficient heating: operation of a hybrid autonomous home heating system

This simulator allows you to studying the main components of an autonomous hybrid home heating system, to switch the heating power supply in the off-season. In modern single-family homes, not only traditional but also alternative heat generators are increasingly used to save on heating, especially if it is not possible to supply mains gas. Depending on the heating area, appropriate energy sources and devices are required for their use. The user of the simulator gets acquainted with the design of the system and connects the system of solar collectors to the heating system of a residential building.

Play on YouTube

EDUCATION

9. Energy efficient lighting: comparison of the main types of light sources

This simulator allows you to get acquainted with the main types of lighting fixtures, which can be divided into industrial and household, electrical and chemical. Running of the simulator, the user can explore that lighting fixtures differ in design and nature of the phenomenon of light emission, and therefore differ in their glow characteristics. In addition, the user's task is to analyze the economic side of using different types of lamps.

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ENTERPRISE

1. Fair VR - a park with marketplaces

Implemented a creative simulator (Metaverse) of the holiday fair of agricultural products, which includes multilingualism, the ability to communicate with visitors to the fair, choosing products from different manufacturers, ordering products, studying product information and various entertainment tasks.

Play on YouTube

2. Personal protective equipment for safe work at the electric substation

This VR simulator for Oculus Quest is designed to train electrical personnel in preparatory work before performing switches with live equipment. The simulator implements the procedure for obtaining an order / order-admission to perform work, collection and verification of the integrity of personal protective equipment, verification of the serviceability of the tool required to perform work in accordance with the requirements of Electrical Installation Code and Electrical Safety Rules and High Voltage Directive.

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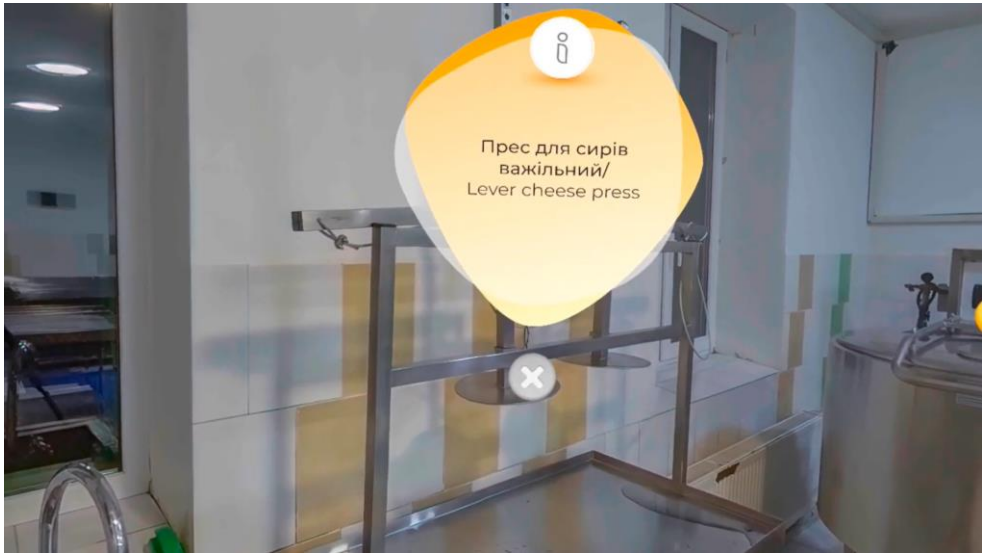
ENTERPRISE



3. Virtual 3-D tour "Cheese Factory"

The virtual 3-D tour "Cheese Factory" is designed for get acquainted with the equipment and operation of a modern Ukrainian cheese factory. During the tour you can see modern equipment for making cheese and research the documentation on opening and running such a business

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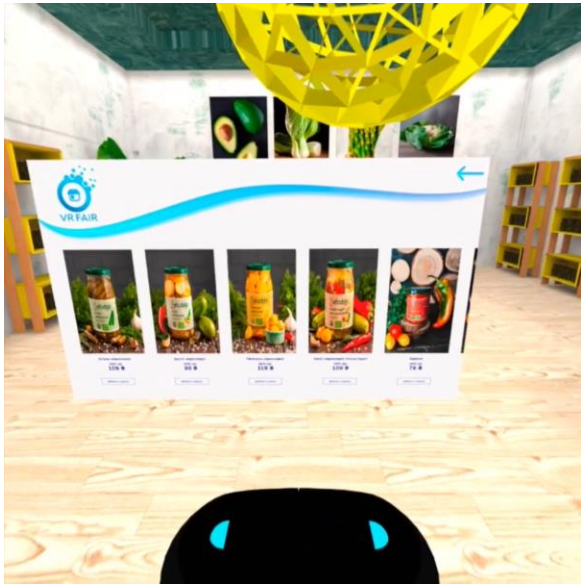

4. Marketplace VR - visualization and interactivity

This project is designed to create online orders for agricultural products in virtual reality. The simulator presents thematic marketplaces by type of product, with a unique design inside. Virtual tools have also been developed that can be used by the consumer, which encourages him to buy visualized products from manufacturers.

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ENTERPRISE

4. Marketplace VR - visualization and interactivity

ENTERPRISE

5. Exhibition VR

This project allows using virtual reality helmets to interact with visualized manufacturers' products as 3D models with detailed images. Each manufacturer presented the main products of its company, information on manufacturing, quality certificates

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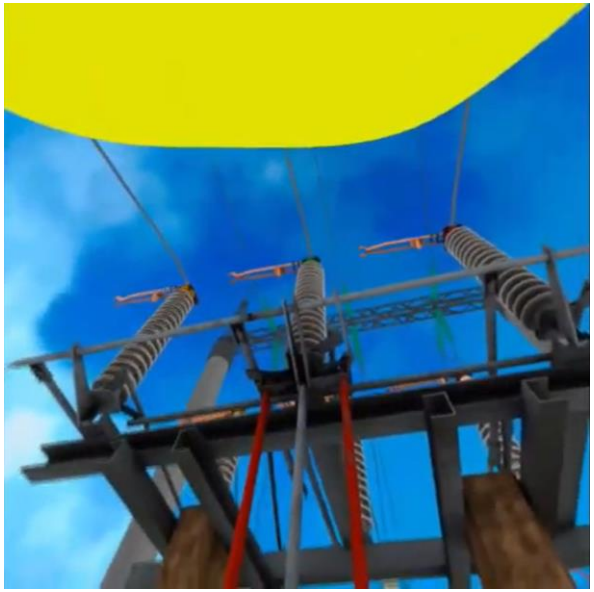

6. Disconnection and switching on of the disconnector and earthing knives of the 110 kV disconnector

This VR simulator for Oculus Quest allows you to learn how to properly and safely perform operations with a high-voltage disconnector 110 kV on the example of the disconnector RNDz 2-110B/ 1000-PR-U1. The location of the simulator is a 110 \ 35 \ 10 kV distribution substation with a realistic environment, on which the power equipment is located, according to the real substation. There are implemented 2 modes of passing: "training" and "testing" in simulator.

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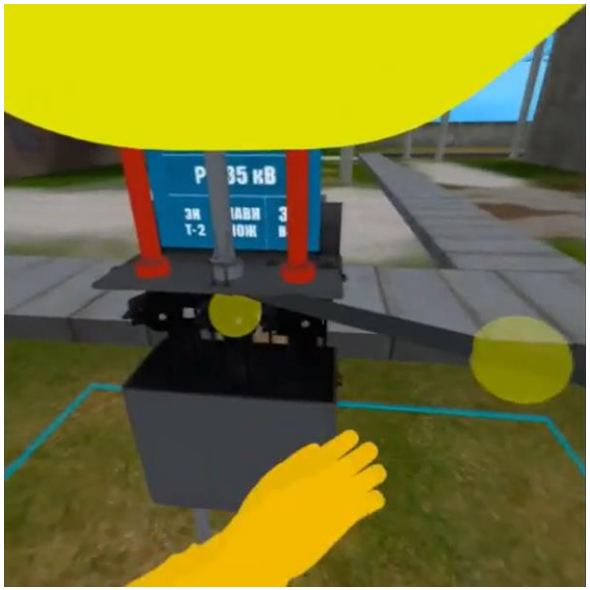
ENTERPRISE



7. Disconnection and activation of the disconnector and earthing blades of the 35 kV disconnector

This VR simulator for Oculus Quest allows you to learn how to properly and safely perform operations with a high-voltage 35 kV disconnector. Implemented 2 modes of passing: "training" and "testing".

Play on YouTube

8. Power transformer neutral short circuit on/off

This simulator allows you to learn how to properly and safely perform operations with a high-voltage neutral short circuit at a 110 \ 35 \ 10 kV distribution substation with a realistic environment, where the power equipment is located, according to the real substation.

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ENTERPRISE

9. Installation and removal of earthing of the switch of 10 kV

This simulator allows you to learn how to properly and safely perform operations on a 10 kV cell when working with the switch VK-10. The location of the simulator is a integrated switchgear of an outdoor installation of 10 kV.

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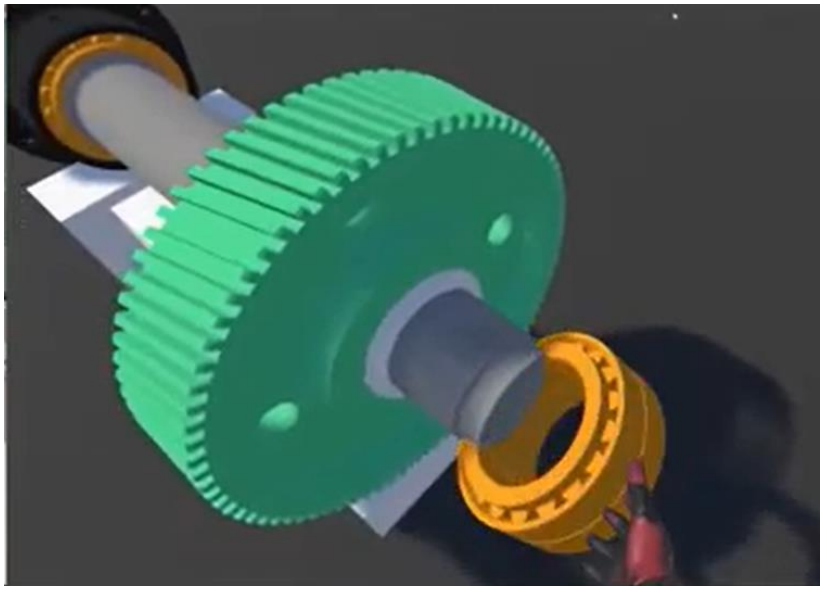

10. Effectuation of works with the speed-reducing set of the correct-training condition and the metallurgical enterprise

This simulator is designed to teach fast and safe work with the speed-reducing set of the leveling machine, which is part of the unit of continuous galvanizing in the cold-rolled shop at the metallurgical enterprise. The user learns how to do installation and dismantling the components of the gearbox - planetary differentials and shafts. The simulator provides an opportunity to study not only the design of the speed-reducing set, but also to see the visualization of the gearbox and its components

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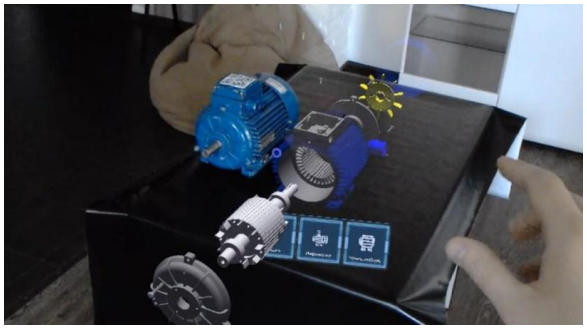
WE ALSO HAVE EXPERIENCE

AR

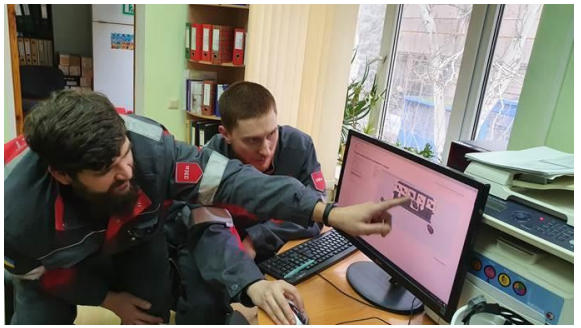


Development of modules for equipment maintenance in AR (augmented reality) using **MS HoloLens**

Development of modules for performing technological operations in AR using **Epson Smart Glasses**

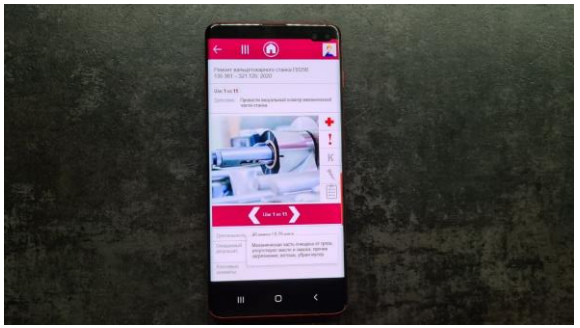
Development of modules for performing technological operations in AR using mobile devices

E-learning



Development of interactive training modules for maintenance personnel

Mobile applications



Development of applications for the maintenance of equipment for mobile devices (phones, tablets)

Industrial FAN

Making copies of industrial equipment, both for informational purposes with the structure and mechanics of the units, and as an additional option to projects for the customer

WHY KAMPOV TECHNOLOGY ?

- EXPERIENCE IN THE INDUSTRY. Experience in working with enterprises of the mining and metallurgical complex in the implementation of projects related to augmented and virtual reality in the areas of equipment maintenance and personnel training.
- KNOWLEDGE OF NATIONAL SPECIFICATIONS. Knowledge of the specifics of the work of industrial enterprises in the CIS countries and adaptation of software to the real needs of each partner. The company employs specialists with experience in mining and metallurgical enterprises.
- TECHNICAL SUPPORT 24/7. Technical support 24/7 - 24 hours / 7 days a week, technical support of the partners' personnel is carried out within the framework of completed projects. The company has the opportunity to attract additional development staff up to 50 people per project.
- PRODUCTION EXPERTISE. The presence in the state and the attraction on an ongoing basis of candidates and doctors of technical sciences in mechanics, energy and metallurgy, which can significantly improve the quality of developed software and content, depending on the specialization.
- CONFIDENCE. Absolute confidentiality of all projects.

Company capabilities
KAMPOV TECHNOLOGY

- Design and development of AR / VR applications for enterprises
- Creation of educational content based on AR / VR
- Implementation and launch of AR / VR solutions
- Enterprise support of AR / VR applications
- Digitalization of processes

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🇺🇦 Pray for Ukraine