

FLINT
s y s t e m s



SIMULATORS / VIDEO



ABOUT US



is a producer of

VR TRAINING SIMULATORS

for

PORTS, OFFSHORE, MILITARY, LOGISTICS, EDUCATION

and many other industries

How have we got where we are now?

We have been a VR company since 2014, from the very beginnings of VR industry, and since start we were working on VR projects aimed for training.

In 2020, after 2 years of production, we have finished first VR simulators (for training port machines operators) and it proved to us that there is a business with a great potential and little competition (back then).

That's how we decided to focus solely on simulators, merge hardware design and building with creating software. We have also pivoted from project-per-project business to a model of selling products with an customization.



WORLDWIDE PROBLEM (WHY?)

Industries struggle with a problem of **efficient training** of machine operators. Training on a real machines is costly and dangerous, and not always accessible.

COST

I.e. the cost of training on reach stacker - **\$ 104 /h (\$17 000 /m)**
(leasing vehicle + gas + maintenance + other)

VR SIMULATOR: cost of training (leasing + power consumption) - **\$27 /h (\$4 500 /m)**

SAFETY

Training is often performed on a working machine and involves substantial risk to people and equipment.

VR SIMULATOR: removes this risk completely. Additionally allows to create dangerous situations and practice according procedures safely.

ACCESIBILITY

Real machines are not always accessible due to bad weather conditions, malfunctions, or being used.

VR SIMULATOR: Can be used **24/7**

LEARNING EFFICIENCY

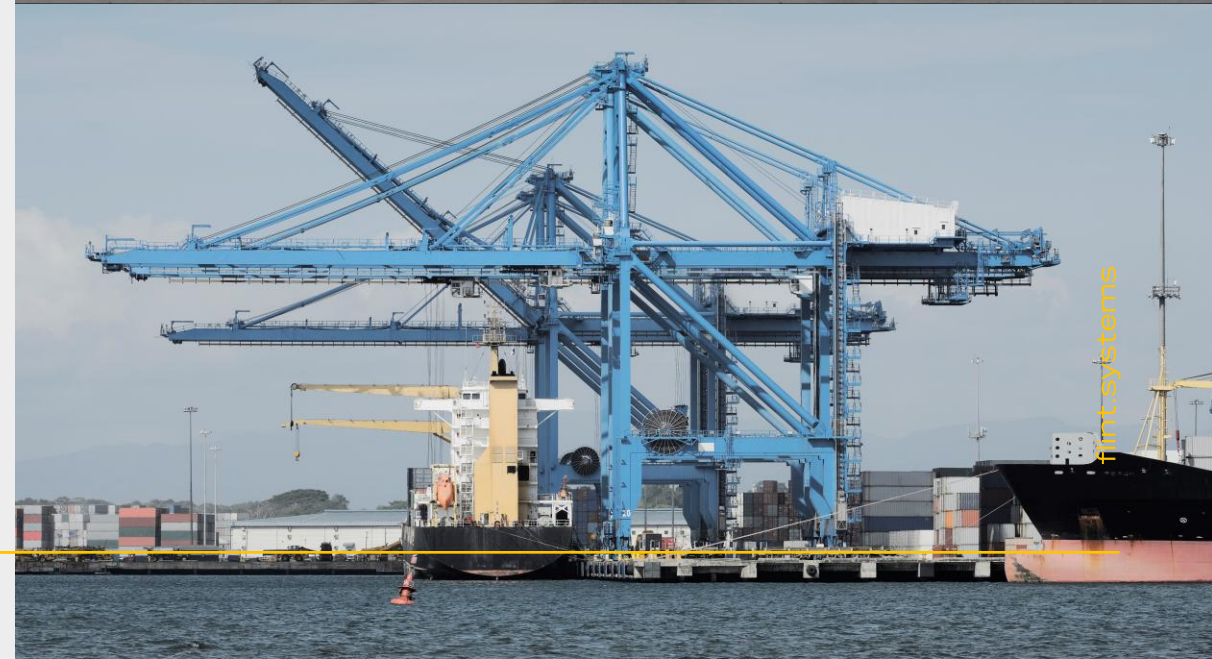
Traditional learning can be boring, long and inefficient. Therefore, it costs a lot and becomes unattractive for students.

VR SIMULATOR: training is **4-times** faster knowledge acquisition (by research of PWC). Gives a possibility to show errors or correct reactions to other trainees.

ECOLOGY

Real machines (i.e. big cranes) burn a lot of gas and leave huge carbon footprint.

VR SIMULATOR: reduce it to nearly **0**.



HOW WE DO IT? (SOLUTION)

VR TRAINING SIMULATORS for MACHINES OPERATORS

A solution that changed the face of training

Our simulators combine

SOFTWARE VR TECHNOLOGY + CUSTOM HARDWARE

motion platform

joysticks and control panels

steering wheel and pedals

other custom-made components



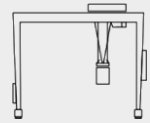
OUR PRODUCTS

LOGISTICS

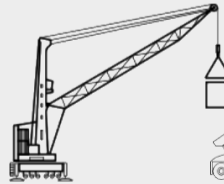
electric/gas forklift



PORT MACHINERY



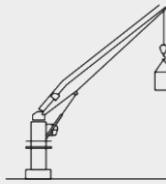
RTG



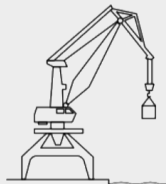
mobile crane



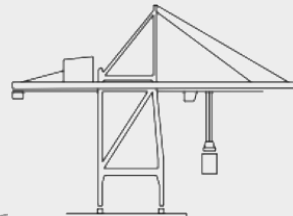
reach stacker



deck crane



rail crane



STS

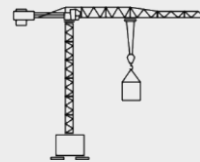
OFFSHORE

crew transfer vessel
work at heights safety



CONSTRUCTION

tower crane



AIRPORTS

pushback



ENERGY

electrical switchgear training

EDUCATION

solar system education voyage



CREW TRANSFER VESSEL (CTV) SIMULATOR

The first simulator was delivered to New Competence Center/LKK

- The tool is used to train captains of CTV units that operate in offshore wind farms.
- Besides New Competence Center/LKK, the CTV simulator was also sold to Japan (Tokyo Kisen).
- Flint Systems created also another CTV simulator, specifically for the needs of Vilnius Gediminas Technical University. One of the biggest challenge in this project was replicating the port of Klaipeda with its 20-km long port channel.
- The two projects were ambitious and ended in a complete success. We consulted ten captains of CTVs from across Europe as part of the project.



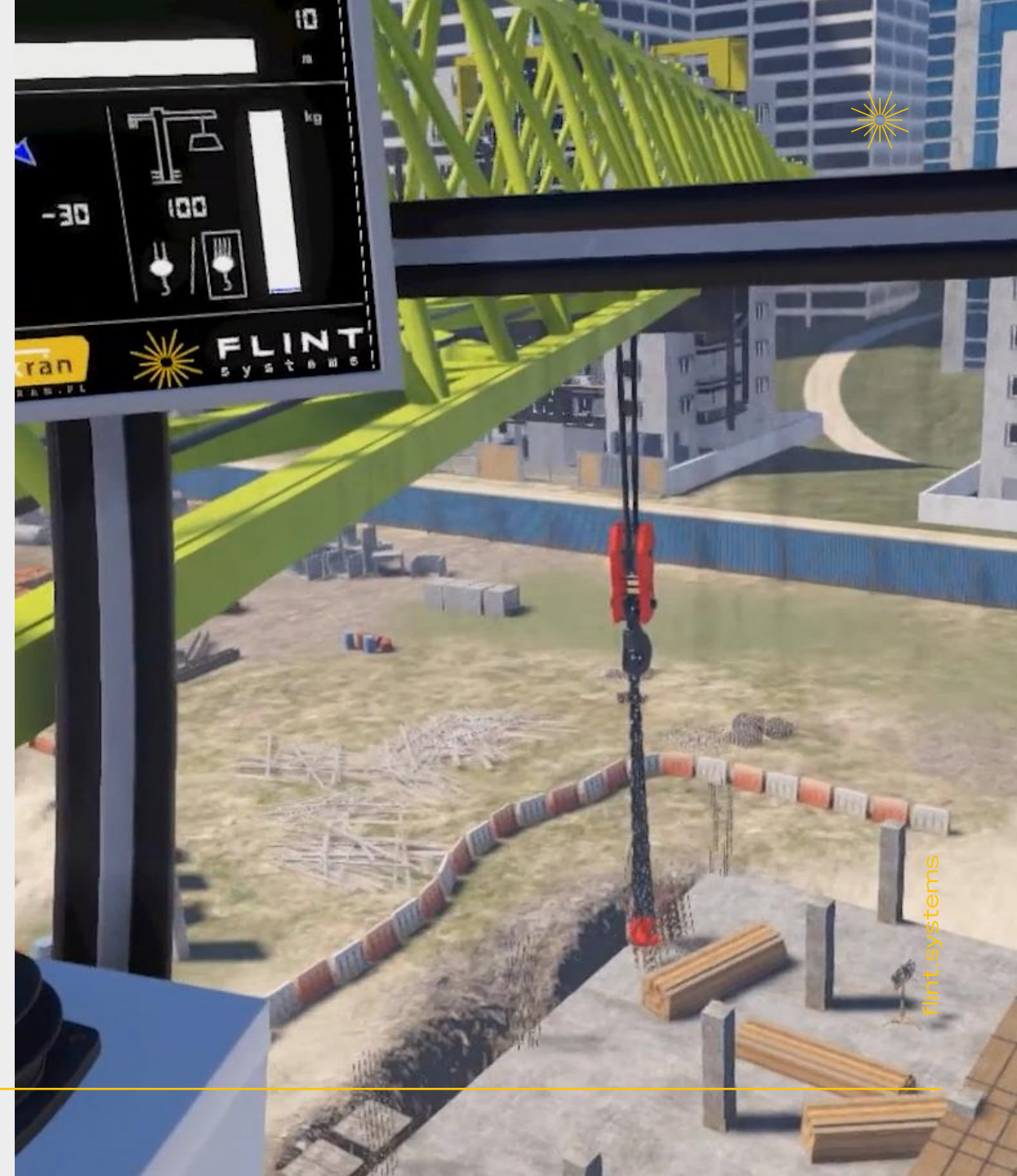
CONSTRUCTION CRANE VR TRAINING SIMULATOR

Flint Systems has provided

CONSTRUCTION CRANE VR TRAINING SIMULATOR

to the company of crane operators in Poland - Maukran.

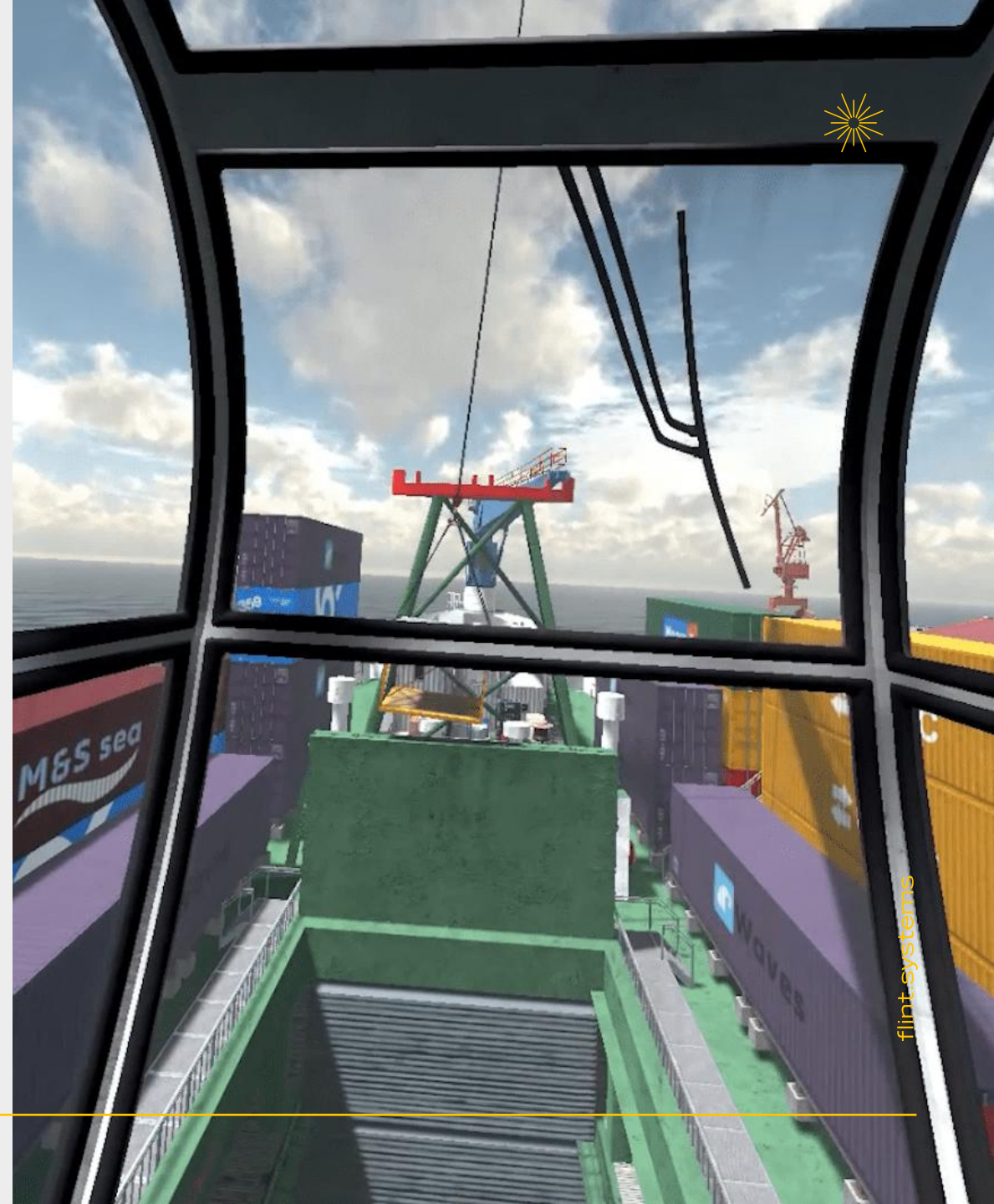
- The simulator lowered the costs and increased the training safety.
- The use of a moving platform allows all the movements of the tower crane to be reflected in VR.
- The trainee can choose from many scenarios and training sceneries (day or night, weather, season, etc.).



DECK CRANE SIMULATOR

Flint Systems created DECK CRANE SIMULATOR for Port Rezerwa.

- This simulator is a valuable tool in teaching operators of deck cranes.
- It is capable of loading to/from ship's hatch, loading from/to trucks.
- Trainees can practice loading cargo on pallets, containers using spreader or bulk cargo (scrap).



FORKLIFT VR SIMULATOR

for the Office of Technical Inspection (UDT).

- Flint Systems delivered the simulator in January 2022.
- The simulator is used to improve the qualifications of instructors who train in difficult, unexpected situations, such as: sudden appearance of an obstacle (a person, another truck, a falling load), changing weather conditions, a sliding load on a lift, starting with turned wheels, etc.
- Since delivering the project to UDT, Flint Systems has developed a new version of the simulator - the electric forklift. Both diesel and electric version of the simulator has become our best-seller, with deliveries to vocational schools, a university, and private companies, including Michelin.



PUSHBACK VR SIMULATOR AND PROCEDURE TRAINING

The simulator was built for Welcome Airport Services, one of the biggest airport handling agent in Poland.

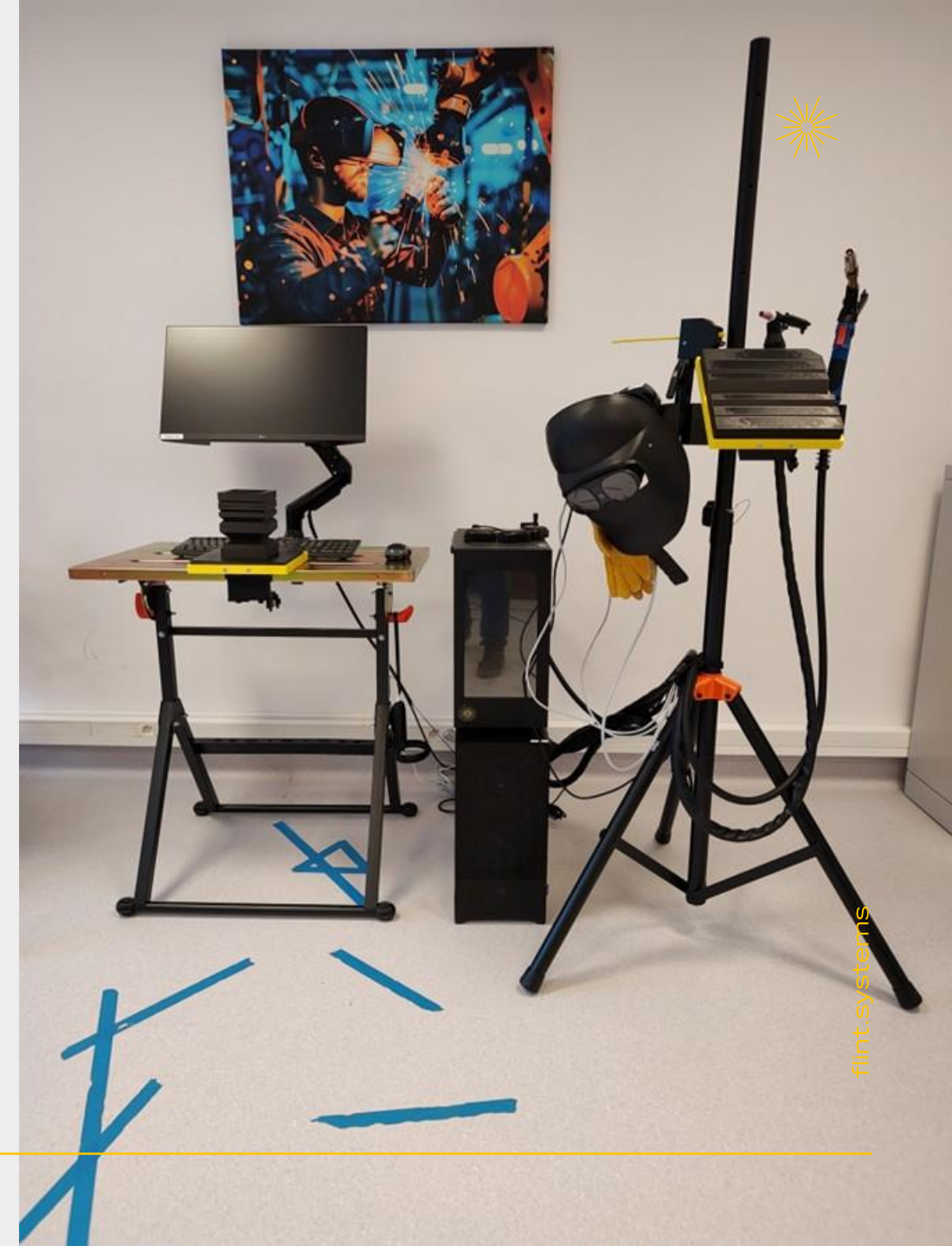
- Flint Systems delivered two training stations: stationary/fixed for learning theory and mobile for learning practice, i.e. moving the vehicle on the apron. Both stations will be supplied with both software and hardware of our own production.
- Training on the VR simulator will allow simulating the process of pushing planes out of airport gates without risking the safety of people and equipment.
- The training scenarios comprise e.g. vehicle inspection, operation of 10 drawbar models, connecting the drawbar to the aircraft and many more.



WELDING VR SIMULATOR „WELES”

The simulator was built for the Pomeranian Special Economic Zone (PSSE)

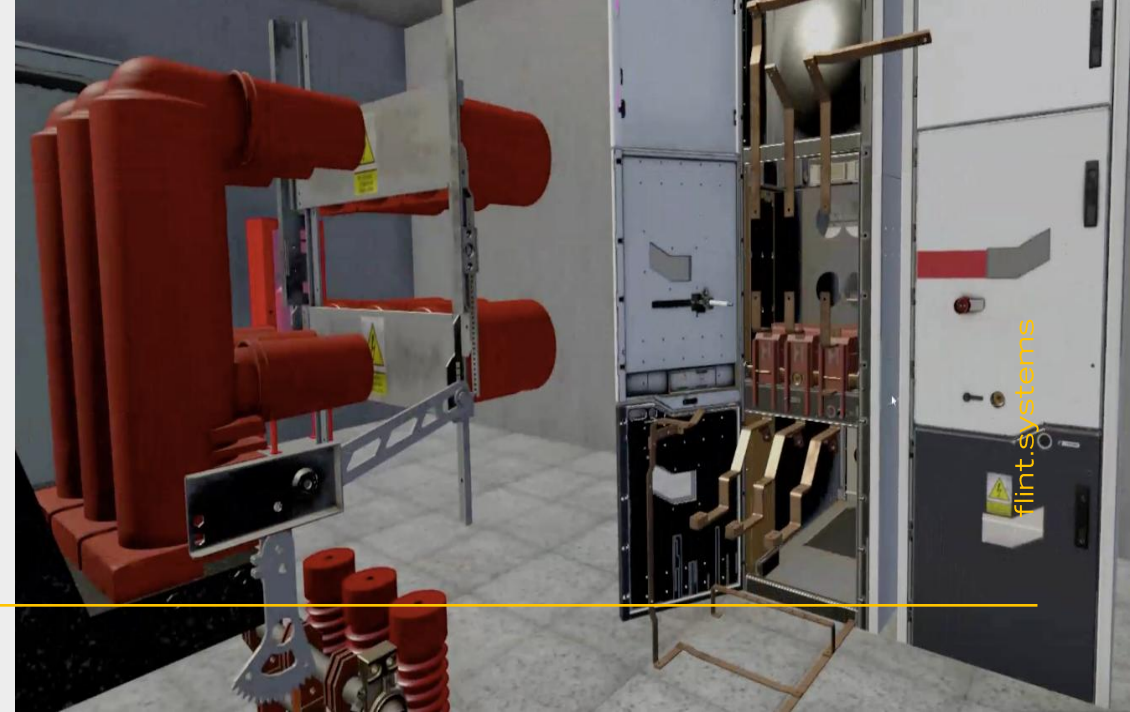
- The types of materials that are welded include flat bars, pipes, tees and plates, and welder candidates can learn four welding methods - GMAW (MIG/MAG), SMAW (MMA), GTAW (TIG) and FCAW in five positions - flat, horizontal, vertical, overhead and at an angle.
- The simulator takes into account groove, fillet and butt welds and combines different types of welds.
- It is possible to select WPS settings and welding parameters. Compared to other VR simulators available on the market, ours contains many realistic elements simulating various shapes.



ELECTRICAL SWITCHGEAR VR TRAINING

The simulator is being built for Pragma and the Warsaw University of Technology

- The simulator will teach Warsaw University of Technology students how to build medium and low voltage switchboards.
- By entering a virtual room with switchboards, students will learn how to construct them. They can open them and remove individual components, which are properly labeled.
- In the next stage, the students must properly connect the switchboard to start it in the assigned scheme, the last stage is finding a fault.
- Thanks to this solution, students will learn how to build many types of switchboards without the need to build an appropriate room and without the any risks.



HEALTH and SAFETY CLIMBING VR TRAINING

- This is more of a training than a simulator, which is used to learn safe work at heights.
- The task is to climb a tall object such as a GSM tower, antenna, chimney, or wind turbine with appropriate safety equipment, so that in the event of an unforeseen situation, you do not fall to the ground.
- The training begins at a certain height, which is perfectly felt thanks to VR (especially for people who have a fear of heights).
- Then, you need to put on the appropriate gear and climb the ladder.
- At some point, the instructor triggers the effect of the ladder breaking away, and the participant either hangs on the harness or falls to the ground.



SPACESHIP EDUCATIONAL SIMULATOR

Purchased by the University of Wrocław

- Flint Systems delivered a simulator in January 2023.
- The simulator is not for training purposes, but for educational purposes.
- The simulator stations are located in the astronomical observatory in Białków, which belongs to the University.
- In total, we delivered 4 simulation stations where you can travel through the Solar System while learning about the structure of planets and other astronomical objects.
- The journey takes about 10 minutes.





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