

Immersive Photonics Lab

A virtual reality application for photonics training



ALPhA NOV

Optics & Lasers Technology Center

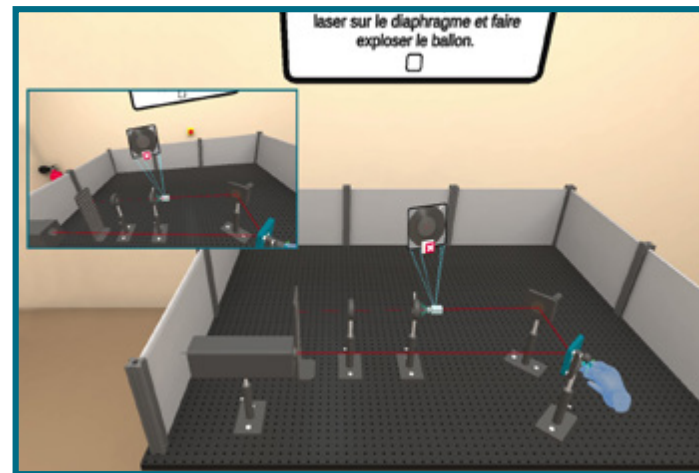
Immersive Photonics Lab

A virtual reality application for photonics training

The Immersive Photonics Lab is an innovative training tool that places the learner in a virtual reality photonics lab. This immersive learning environment enables mastery of your company's professional technical actions.



Virtual reality headset



Optical laboratory in a virtual environment.

The use of virtual reality makes it possible to effectively develop procedural skills in the industrial environment.

Advantages:

- Train technical procedures and actions.
- Enable distance learning.
- Ability to guide learners at various abilities.
- Limit the downtime of equipment for training.
- Reduce professional risks for operators.
- Preserve optical and mechanical components.
- Facilitate training implementation.

Usage scenarios:

- Training of a new employee.
- Training on new equipment.
- Refresher training.
- Customer training to support equipment usage
- After sales service.
- Commercial presentations.

Technical characteristics



Supervision via tablet.



Remote assistance and supervision with "multiplayer" mode

Reproduced physical phenomena

- Throwing beams.
- Gaussian beams.
- Interference.
- Laser cavity.
- Disruption linked to the presence of faults.
- Feedback by visualizing physical phenomena on the actions of the operator

Educational scenarios

- "Tutorial" mode: mode with a high level of guidance for accompanied learning.
- « Exploration » mode: exploratory mode to develop learner autonomy.
- « Sandbox » mode: constructive mode for setup development.

Assistance - Supervision

- Spectating possible on smartphone/tablet
- Multi-player mode to support learners within the same virtual environment

3D Environment

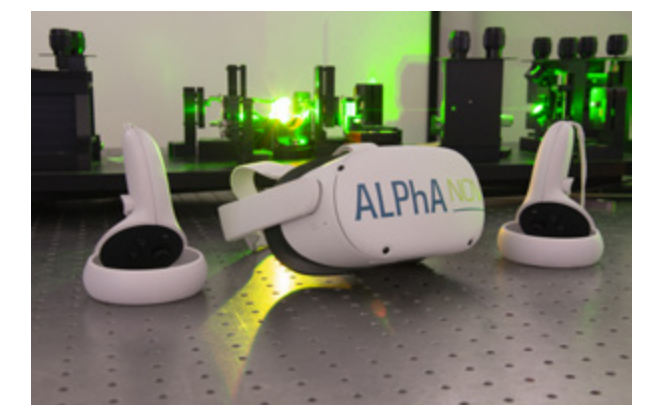
Customizable, representing your work environment

Equipment

- Virtual reality headset for general release.
- Weight: 500 g.
- Wireless.
- No extra equipment.



Custom built photonic system.



Autonomous virtual reality headset.



oculus
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