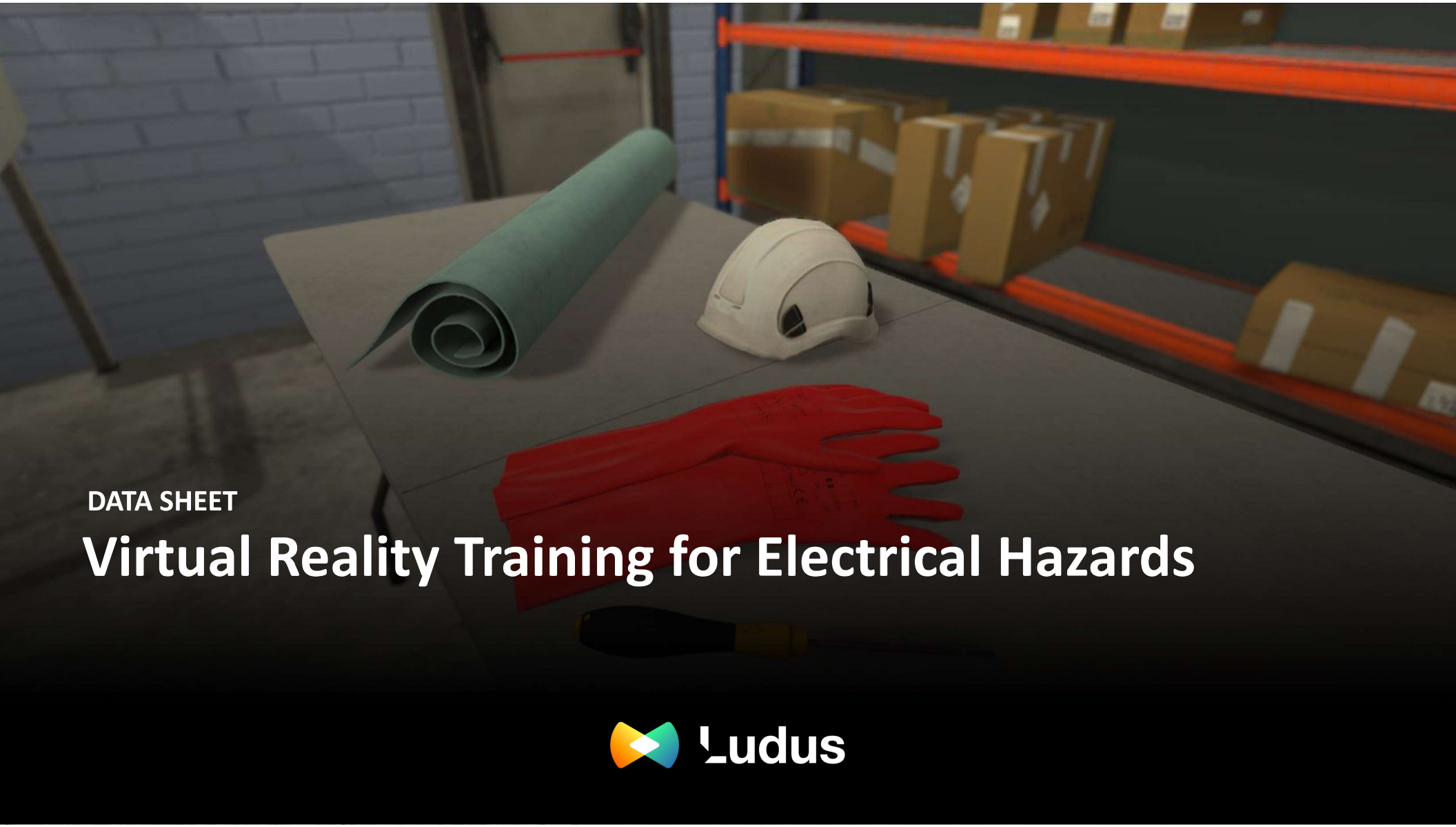


DATA SHEET

Virtual Reality Training for Electrical Hazards

Ludus

Electrical Risks is a LUDUS product geared towards awareness and training in decision-making about electrical risks in industrial environments.

The user's goal is to know different electrical risk situations and practice decision-making safely.

Simulation serves both to raise awareness of risks through accident experimentation, and to test the user in relation to avoiding such risky situations

Ludus

01 Simulation content

Ludus

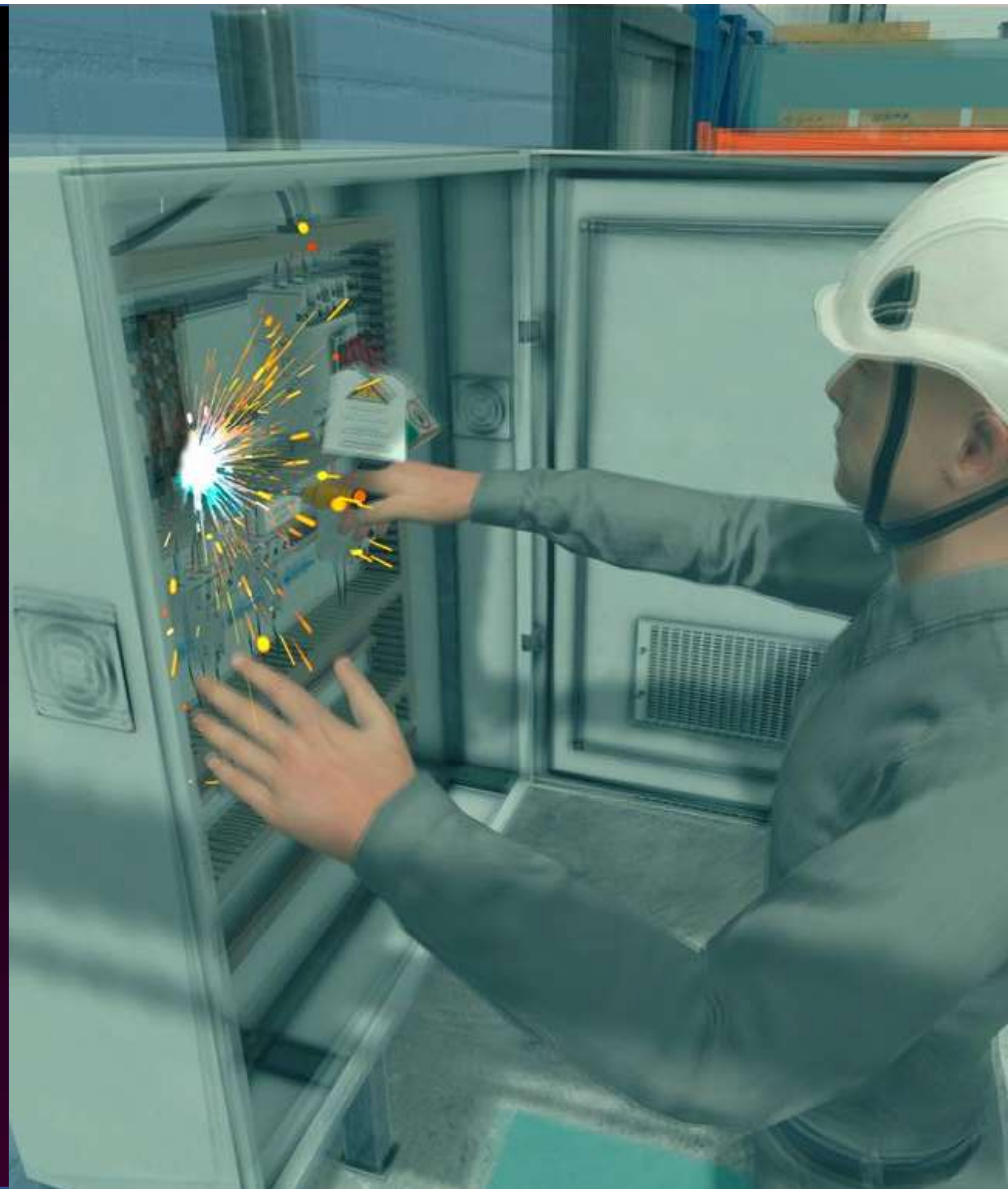
Exercise:
Risk of direct contact

The evaluator must handle a low voltage switchgear that has been previously disconnected and consigned by another person. However, that person has not waited for the capacitors to be discharged so there is still tension in the same.

Estimated exercise duration: 10 minutes

PPEs availables

- Electrical insulated gloves and insulation blanket
- The trainer can show or hide them to show the example of an accident or test the user.



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Exercise:
Risk of direct contact

Accidents

- When having direct contact inside the switchgear the user suffers an electric shock. If he or she is carry enough PPEs, he or she wouldn't be harmed.
- At the end of the accident, the simulation explains to the user the cause and evaluates the decision he or she has made, informing him or her in addition to the damage he or she has suffered.

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Statistics system

Basis statistics shown to the user at the end of the simulation.

- Exercise time
- List of mistakes made
- Errors in PPEs selection
- In case of an accident, additional information on damage received and avoided

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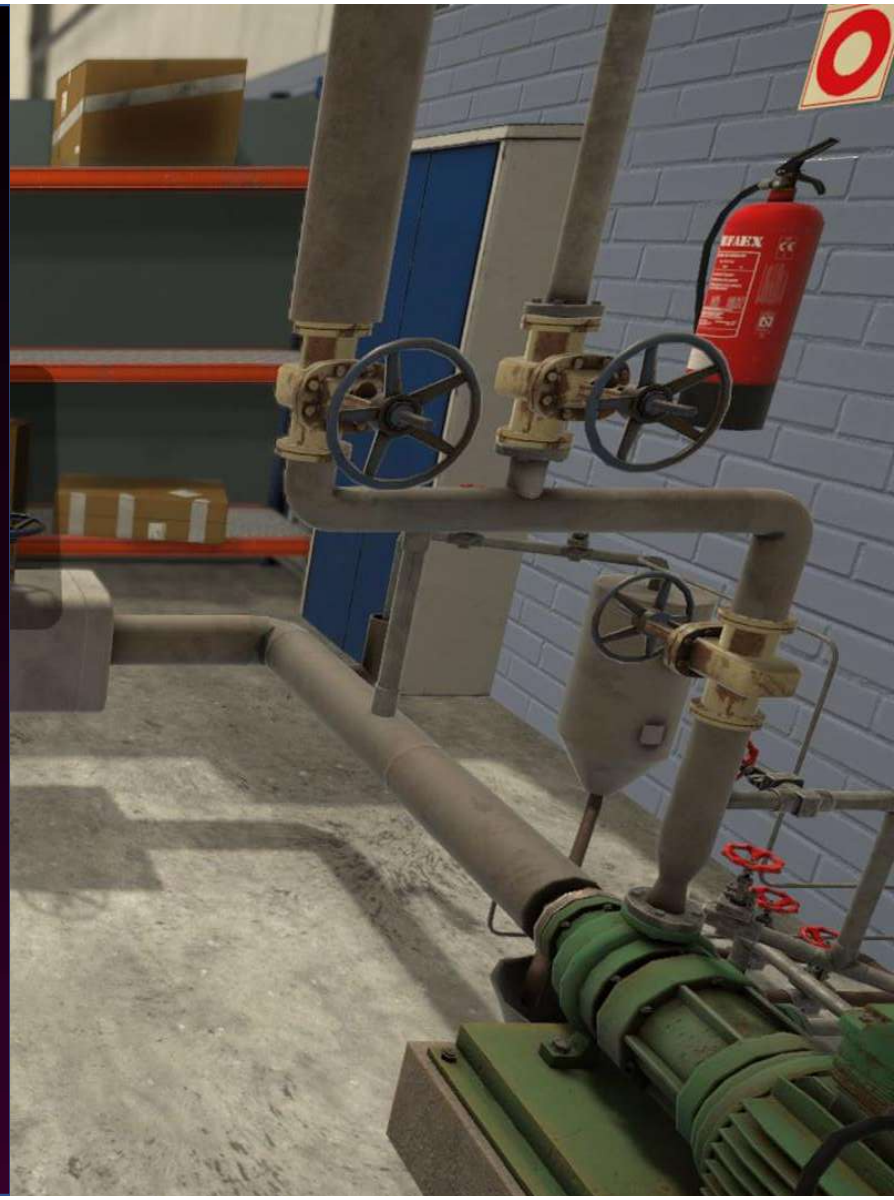
Exercise:
Risk of indirect contact

The learner must remove a part of a machine using a screwdriver. The work the user must perform is mechanical, however, an installation error is causing to pass tension through such machinery. In addition, the machine differentials are faulty.

Estimated exercise duration: 10 minutes

PPEs availables

- Electrical insulated gloves.
- In addition, there will be a screwdriver with insulated handle and one without insulating properties.
- Optionally, the trainer can show or hide the objects.



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Exercise:
Risk of indirect contact

Accidents

- If the student is not properly insulated, will suffer an electric shock by indirect contact. Before touching on the machinery, the evaluator can check the differentials of the machine and decide not to do such handling.At the end of the accident, the user is explained that the crash was due to an error in the installation that has caused tension to deviate to the element that he or she has touched.

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Exercise:
Arc flash risk

The user must replace a thermal-magnetic breaker in a low voltage switchgear. When he or she approaches to the switchgear and goes to cut one of the wires using scissors, he o she inadvertently makes contact between the dough and one of the wires, causing a short circuit that generates arc flash.

Estimated exercise duration: 10 minutes

PPEs available

- Electrical insulated gloves, fireproof gloves and dielectric face shield.
- Possibility that the user may also wear a metal necklace that has to be removed before doing the operation.

Accidents

- Burns in several parts of the body
- Impact from flung materials
- Depending on the level of protection the user have decided to have, the user may be damaged or other.

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02 Upcoming updates

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Future updates

New electrical risk prevention systems

- Updating exercises with new insulation systems, hot stick, PPEs, signaling types, new accident cases…

Measurement and testing operations on low voltage installations

- The user must make several measurements in a low voltage switchgear following safety standards.

Rescue of an injured person

- The user must help a person who is suffering from an electric shock. Before setting the person away, the user must disconnect the power from the circuit to avoid damage.