

A wide-angle photograph of a large industrial facility, likely a paper mill or textile factory. The space is filled with complex machinery, including large rollers and processing units. A yellow forklift is visible on the right side of the frame. The ceiling is high with exposed ductwork and industrial lighting. The floor is polished and reflects the overhead lights. The overall atmosphere is one of a busy, modern industrial environment.

DATA SHEET

# Plant risk detection



Plant Risk Detection is a LUDUS product geared towards training risk detection capability in industrial environments.

The objective is to provide the trainer with a virtual scenario in which the student can practice his or her ability to observe and knowledge about the risks and safety standards in industrial work.

This product serve a wide range of risks related to PPEs, general safety standards and signaling. The student must identify each risk situation, if he or she do not correctly identify any, it will be shown to him or her at the end of the exercise.

# 01 Simulation content

## Description of the exercise    Part 1- Placing PPES

The student starts in a locker room where he or she will have several PPEs that can be observed and placed.

It will have around it several posters indicating the PPEs that are mandatory in that plant.

### PPES available in the first version

- Hearing protector
- Reflective vest
- Safety boots
- Safety harness for working at heights
- Safety helmet
- Safety glasses



## Description of the exercise    Part 2- Walk around the plant

Once properly equipped, the student goes out to the work floor and must follow the indicated crosswalk.

At the plant there will be other people carrying out various types of industrial work. If the student observes any unsafe behavior around him or her, he or she should report it by pointing it out with his or her hand.

### Exercise resolution

Once properly equipped, the student goes out to the work floor and must follow the crosswalk indicated.





## Exercise time

The average time to perform an exercise is 15 minutes.

If the trainer wishes, if the student has made mistakes, he or she has the option to repeat the exercise until he or she deems it necessary.

In case an exercise is taking too long, the trainer can also force the end of the exercise at any time and go straight to resolution to see the mistakes made up to that point.

Future updates will include other scenarios of different sizes and variety of risks that may offer shorter or longer times per exercise.



# Own risks included

## Use of PPEs

Before starting, the user must be equipped with the mandatory PPEs in the plant.

## Follow the crosswalk

During his/her entire stay at the industrial plant, the user must travel along the crosswalk route. If he or she doesn't, the exercise will stop.

## Crosswalks

There will be several crosswalks that he or she will need to cross carefully to avoid being hit by vehicles.

Some zebra crossings will have a traffic light where he or she must ask for a stop before crossing.

## Access to restricted areas

The industrial plant has areas where passage is prohibited. If the student tries to access one of these areas, he or she will make a mistake in the exercise.



# Risks of others included

## *Jobs without corresponding PPEs*

People performing work on steam machinery without wearing thermal protection gloves.

People handling chemicals without wearing safety glasses.

People handling dies without wearing mechanical protective gloves.





# Risks of others included

## Work done unsafely

People shipping chemicals to an un-approved or labeled container.

People working at heights without being tied up or having a preventive resource

Worker performing electrical work without permission

Handling and lifting manual loads without taking the right posture



# Risks of others included

## General safety standards

Dirt on the ground

Worker talking on mobile and walking around the plant

## Unmarked risk situations

Lifting platform doing work without signaling the area

Open electric switchgear



# Statistics system estadísticas

## Basic statistics

Shown to the user at the end of the simulation

- Exercise time
- List of mistakes made

