



# TRASSIR Hard Hat Detector

Smart video analytics module to monitor the use of hard hats by personnel, to alert on non-compliance with safety procedures, thereby significantly reducing the risk of accidents

# It is designed to allow the organization managers to:

- monitor the wearing of hard hats;
- automate the monitoring of safety performance;
- reduce the risk of workplace injuries and prevent accidents from occurring;
- respond in a timely manner to violations of safety norms.





# How does it work?

The nature of work in some industries, such as mining, construction, metallurgy, logging, energy, and the like is such that the most effective way to level out the risk of workplace injuries is to use personal protective equipment, the most important of which will always be a hard hat.

• The module is powered by a neural object detector, which effectively detects the presence of hard hats on personnel and visitors in areas of interest.

 The use of progressive algorithms makes it possible to avoid false positives and to detect hard hats only if they are worn on the head.





# **TRASSIR Hard Hat Detector** usage scenarios

### **Monitoring of safety** regulations compliance

In the event of the appearance of a person without a hard hat, on-site operator is automatically sent an alarm notification and/or an audible alert

### Accident investigation

Recording to the archive and subsequent quick search of incidents help provide an evidentiary basis in the part of occupational injuries investigation

### **Eliminating accidents** in hazardous industries

Timely control over the wearing of hard hats can reduce the likelihood of injuries in the workplace

### **Statistics** generation

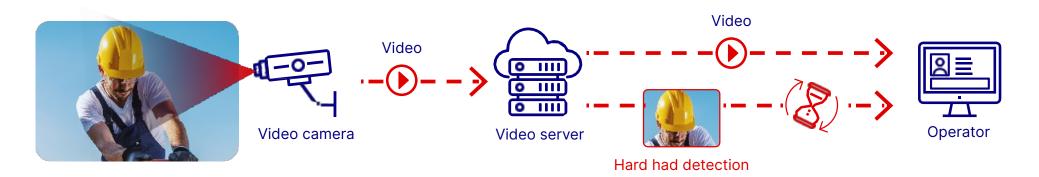
The use of reporting allows to analyze the statistics of violations in terms of employees and areas of interest. The data can be used to further optimize the business process

### Reducing supervisory staff

Automation of control functions allows to reduce the number of employees involved in the control of safety



# Solution architecture. How does it work?



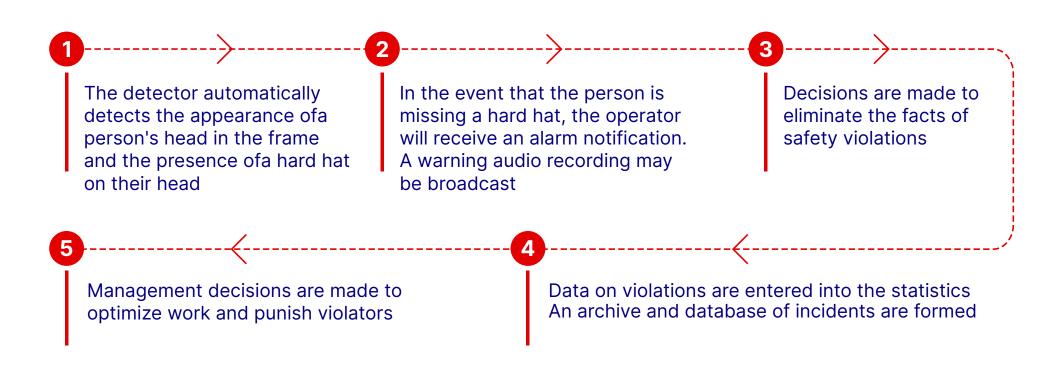
### **Reaction scenarios:**

- Notifications in the Trassir interface
- **2** Generatingand exporting reports:
  - Number of incidents
  - Areas with the highest rate of violations

- Notifications:
  - SMS-notifications
  - Email-notifications
  - Telegram
  - data export to CSV and XLSX



# Solution functionality. How does it work?





# **Areas of application**



















### **Solution benefits**

# Cost effectiveness and efficiency

Option to automatically monitor safety compliance reduces the number of personnel required and provides a complete monitoring cycle

### Trassir CMS management system

A corporate solution for managing tens of thousands of servers and hundreds of thousands of cameras within a single system. System health monitoring. Access restrictions. Consolidated video analytics data collection

### **Trassir VMS management system**

A local system for easy management of cameras and servers. It allows monitoring the health of the servers, and ensures the reliability of the archive record

# Prevention of accidents and fines

An effective automated system can prevent most accidents, which greatly reduces the pressure on the company from regulatory agencies

### **Operator interface**

Real-time monitoring, prompt notification of critical situations and informative reporting.

### Modification

Option to expand functionality and create customized solutions

# Safety control

Production safety for employees and visitors as an important reputational component

### Integration

The necessary set of mechanisms for integration with hardware

### Independence

Option to use the module with most third-party equipment



# You may also be interested in:

- Wear detector a neural network module for determining if a person is wearing workwear or a uniform (color analytics)
- Active Dome a module for tracking the movement of people with (and without) hard hats and uniform with a high degree of accuracy
- Neuro Left Object Detector neuroanalytic module for detecting abandoned objects
- Work Place Detector a module that allows you to monitor the presence of employees in the workplace
- Face Mask Detector a module for monitoring compliance with face mask requirements in public places

- Pose Detector human pose analysis module
- Face Recognition a TRASSIR software add-on for recognizing and searching people using a preconfigured face database, as well as for counting unique faces and demographic analysis
- Neuro Counter a module for monitoring compliance with face mask requirements in public places





Hardware catalog



VMS Catalogue



Success stories