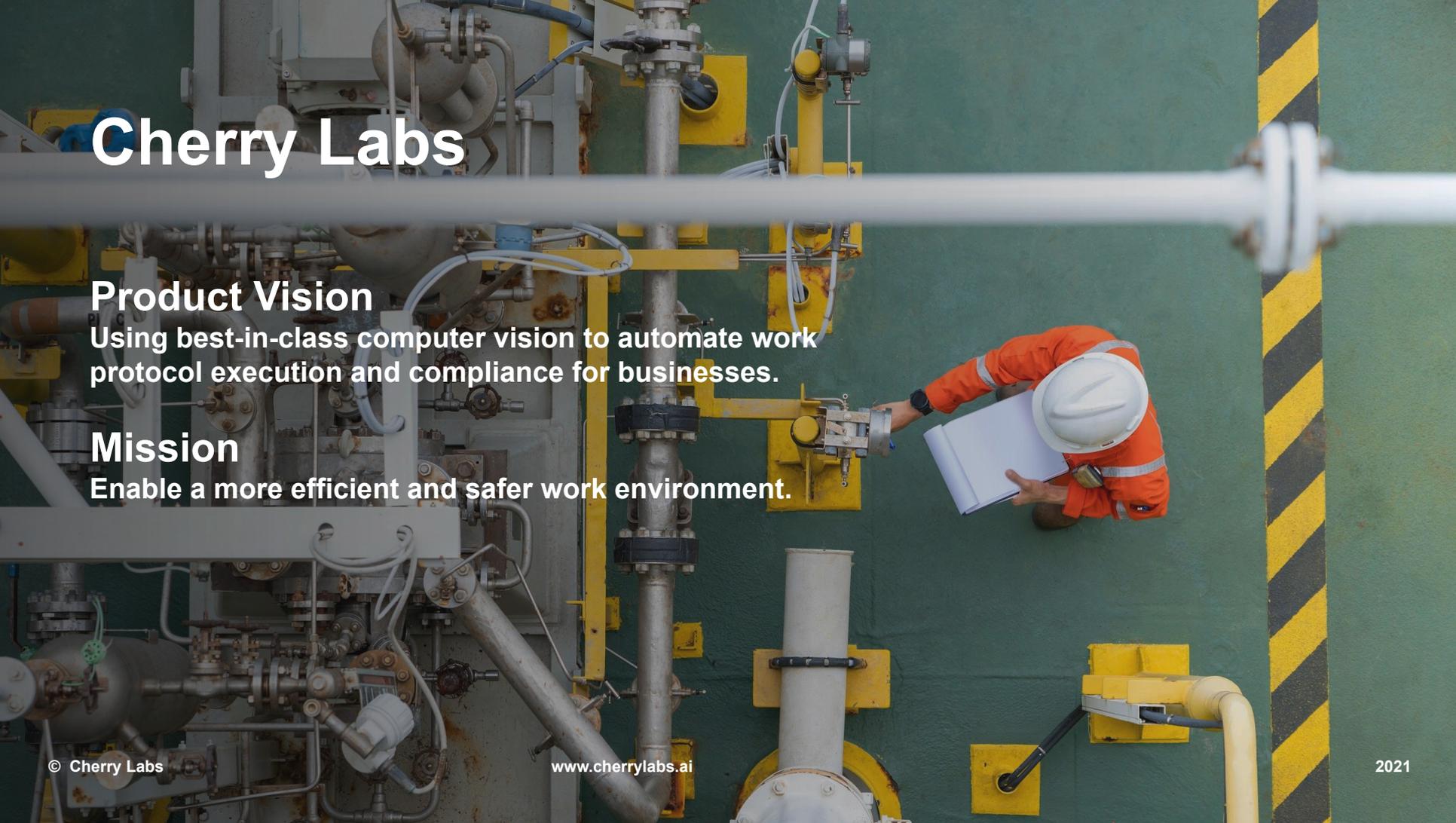


# Cherry Labs



## Product Vision

Using best-in-class computer vision to automate work protocol execution and compliance for businesses.

## Mission

Enable a more efficient and safer work environment.

## About Us

*At Cherry Labs, we are focused on using artificial intelligence and advanced computer vision to understand complex human behaviors. This allows us to statistically measure interactions between humans and machines, giving you insights into work processes that were historically impossible to analyze.*

- Founded in 2017. Cupertino, California.
- Working with F500 companies in manufacturing and renewable energy.
- Current team of 20+ computer vision, machine learning and full stack engineers with multiple PhDs and numerous international publications.

# Automated Protocol Compliance

- **Define protocols and rules**  
Assemble protocol definition with out-of-the box or custom regulations, measure complex man-machine procedures and processes, create rules of behaviour and state of equipment
- **Get protocol abnormal notifications**  
Real-time information on process step anomalies and variations for further investigation
- **Protocol analytics**  
include pre-built reports detailing compliance with pre-defined processes, variability, trending over time, and anomalies for further research

Zone #2

Zone #3

Zone #4

Operator,  
Has been fixing the problem for about an hour now in zone #3.

Supervisor,  
Just arrived in zone #2.

truck

## Protocols examples

- **Safe Work Protocols**

- LOTO, PPE monitoring (>6 types), risk/danger zone monitoring, working with moving equipment
- Sanitizing, cleaning protocols, COVID safety, Man down alerting

- **Inspections**

- Assembly order, time spent on each activity, productive vs. idle
- Preventive maintenance, leaks, spills checks, lubrication, grounding checks
- Material handling, jobs produced

Contractor

HardHat: yes  
Uniform: Black



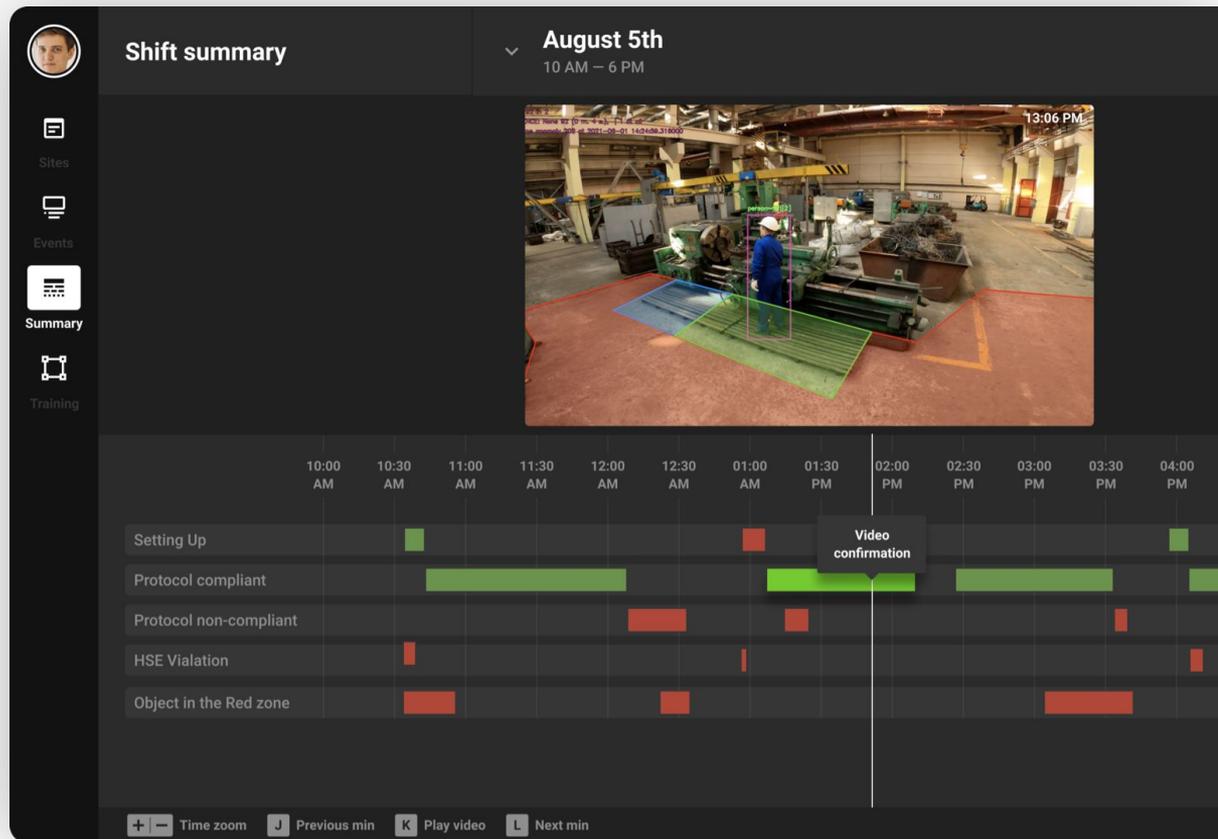
Employee

HardHat: NO  
Uniform: Blue



# Dashboard

Automated compliance tracking with video confirmations.



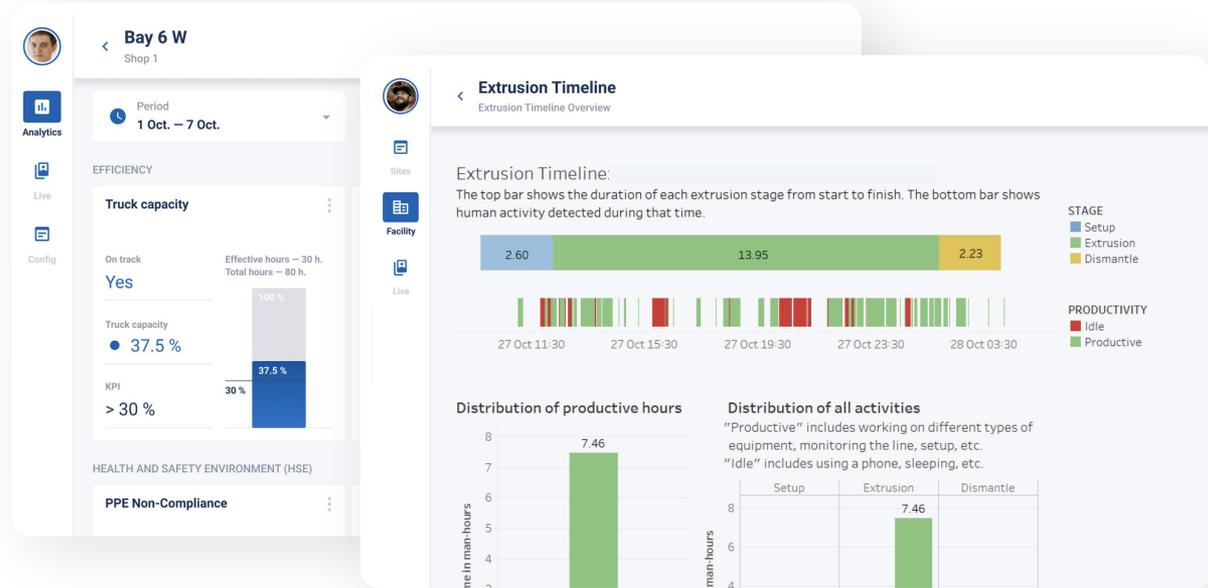
# PPE Monitoring Analytics

- Automated compliance tracking;
- Real time alerting with **Facility Alarm Systems Integration**  
Enable real-time worker alerting of dangerous hazards or situations to prevent accidents and reduce near misses.



# Data Visualization For Management

- Customized analytics dashboard;
- Turn your video stream into reports, notifications and analytical outputs.



## How Customers Get Value With Our Solution

**20-x** cost saving on supervising

Coffee roaster and retailer in CA, US:  
**COVID-19 measurement checks  
compliance**

Steel manufacturer in EU:  
**improve the efficiency of managing  
contractors, PPE tracking**

**>7%** throughput increase

Oil & Gas in TX, US:  
**monitoring workers processes, maximizing  
productive time at the repair station, post  
factum and real-time analysis**

Electric car manufacturer in CA, US:  
**order of operations protocol at the roof  
construction site**

# Cherry AI Video Analytics Technology



## Video Intake

Both live and recorded



## Detection and Recognition

Objects – People –  
Activities  
AI algorithms



## Video Interpretation

Define behaviors and interactions  
Classify using business logic



## Human-in-the-Loop

Review, validate, and correct data  
Make the model more accurate  
Build trust between system and user



## Analytics

Real-time alerting  
Trending over time

# Turnkey integration options

We can provide:



OR



## Software and monitoring service

On existing CCTV/camera infrastructure.

## Full infrastructure

- Full HD + 140 DFOV + dual way audio cameras (wired or wireless) + mobile stands.
- IP Video infrastructure and AI processing servers.
- Software and full monitoring as a service.

# Deployment options



OR



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## AWS Cloud

- Leverage fast deployment on existing Cherry infrastructure
- Uncompromising security
- SOC2 compliant

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## On-premise or private cloud

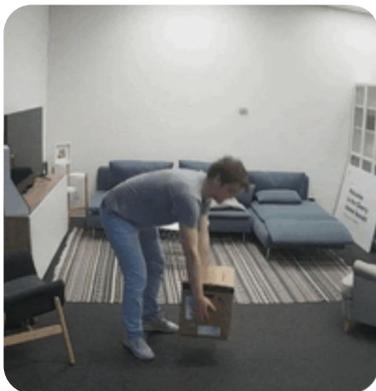
- Data and videos stay within internal network
- General-purpose Linux-compliant processing unit
- Full deployment guidance

# Activity Recognition: Fast Training; Small Data Sets

Correct  
Lifting



Incorrect  
Lifting



This example created in 8 mins,  
using 3 action examples.



Fast customization using  
small datasets:

- Build out an inventory of new activities;
- As few as three inputs;
- No coding skills required.

# Standard project flow

- |                      |  |
|----------------------|--|
| NDA                  | <b>1. PoC and demo:</b> 2-3 weeks.                     |
| LOI                  | <b>2. Evaluating, planning and design:</b> 3-7 weeks.  |
| Validation Agreement | <b>3. Validation:</b> 4-12 weeks.                      |
| Contract/WO          | <b>4. Design and integration details:</b> 4-12 weeks.  |
| SLA                  | <b>5. Implementation, QA and training.</b> 8-12 weeks. |
|                      | <b>6. Maintenance, support and operation.</b>          |

# Why Cherry

- Flexible platform with a wide range of recognition modules suitable to all your business needs.
- Ability to expand platform for specific cases from one to few weeks.
- Agile: from first analysis to the first result.
- Accuracy out of the box plus having human-in-the-loop improves corner cases faster.

# Case study: work order protocols for roof construction

**Project:** solar roof manufacturer, CA, US

**Protocols:** correct order of activities, supply management, compliance with the work plan, hard hats

**Results:**

- Decreased supervisory cost 9x from \$50k to \$5k/year per a team, scaled to 30+ teams
- Identification of 25 different actions and events
- Increased productivity by 14% by identifying best practices and scaling them to other crews



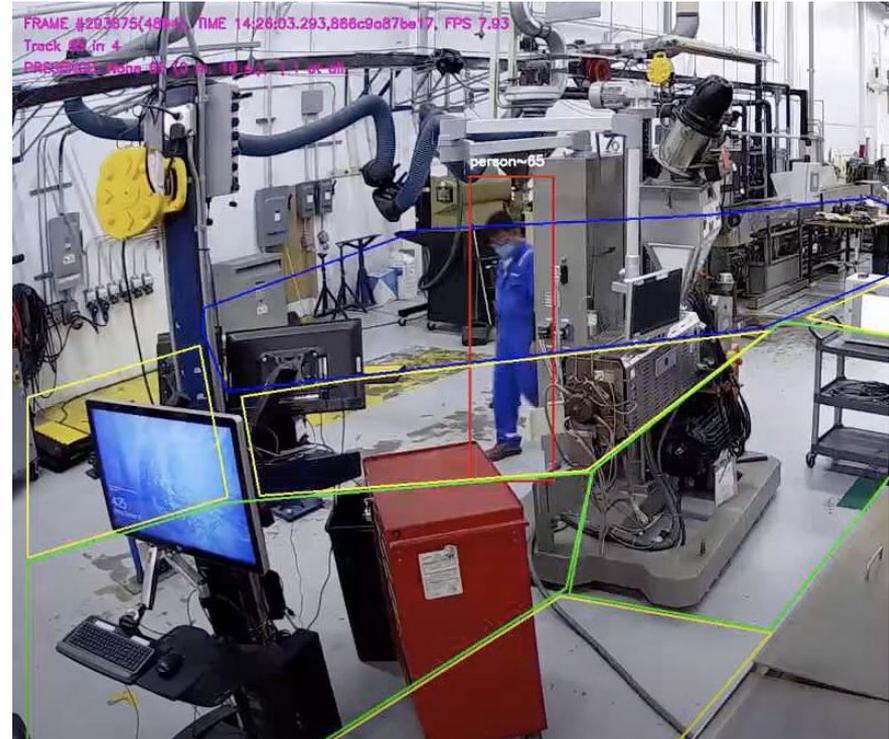
# Case study: operations order and efficiency for extrusion line

**Project:** manufacturing facility of oil & gas company, TX, US

**Protocols:** timely execution, correct order of operations, hard hats and coveralls

**Results:**

- reduced cycle time by 20%
- cut down on supervising \$140k per week
- reduced unproductive hours by 120 man-hours per month



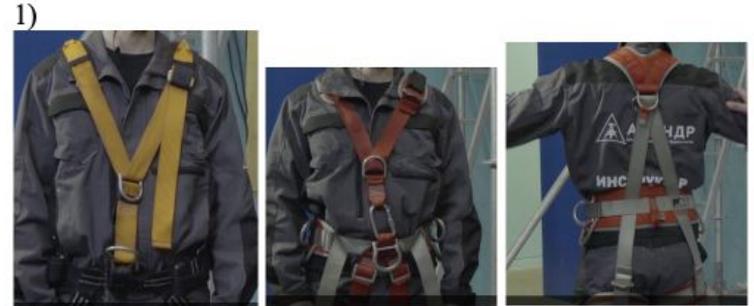
# Case study: PPE protocols for oil & gas

**Project:** gas distribution facility, EU

**Protocols:** hard hats, safety harnesses, danger zones, precautions while working at the height

**Results:**

- detecting 40+ violations monthly
- cut down on supervising \$10k per week



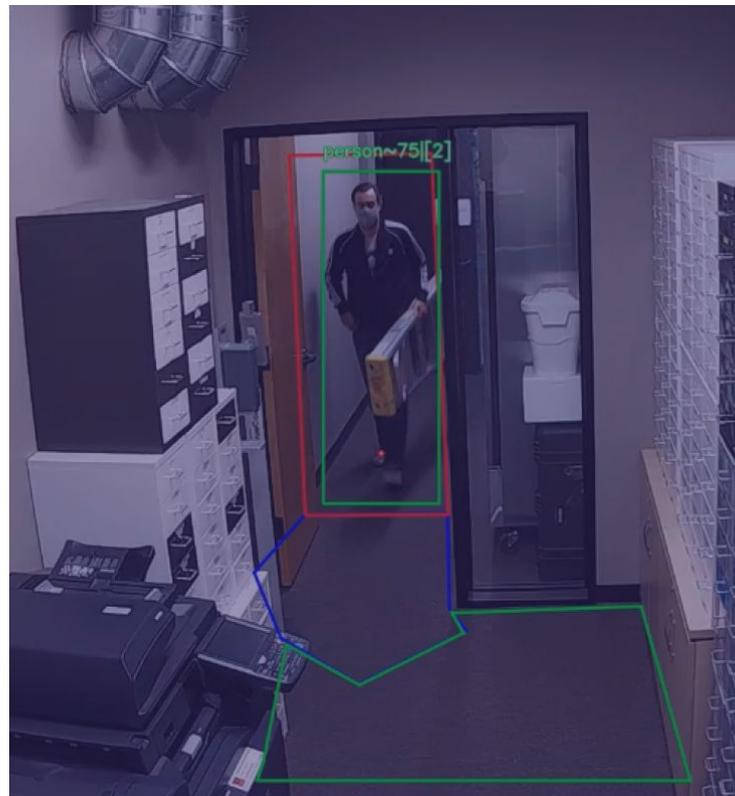
## Case study: anti-COVID protocols

**Project:** coffee roaster, CA, US

**Protocols:** temperature measurement before entering the building, sanitizing, social distance rules

**Results:**

- detecting 200 violations monthly with less than 100 employees
- cut down on supervising \$50k per week
- lowered risks of outbreak



# Contacts

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