

## ROBOTIC CELLS Safety Al

Introducing Robotic Cells Safety AI, a game-changing solution that redefines industrial safety. Addressing structural complexities and reset vulnerabilities, this advanced AI system sets new standards in safeguarding human workers and robotic environments. Robotic Cells Safety AI marks a paradigm shift in industrial safety measures.

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### RISK **ASSESSMENT**

#### Structural issues in cells

Whether it's the positioning of fixtures or the installation of substantial material intakes, certain cell placements present a challenge in achieving complete enclosure of their surroundings. In such instances, ensuring the cell's safety demands an uninterrupted monitoring solution capable of distinguishing humans from other moving objects.

#### Resetting with a person in the cell

Irrespective of the level of security in place, a cell that can be reset from the outside while occupied by individuals remains inherently unsafe. Unlike conventional motion-sensitive systems that deactivate during a reset, our artificial intelligence retains its functionality. Our AI possesses the capability to identify human presence and operates continuously even when the robot is in motion, ensuring constant monitoring and safety of the cell.

# SYSTEM **FEATURES**



#### **DL Model optimized for robots**

In environments where industrial robots operate, a notable issue arises with open source object recognition models, as they frequently misidentify robots as humans. Event Gates Robotic Cells Safety AI tackles this challenge through the implementation of a meticulously trained deep learning model. This model is tailored specifically with an extensive dataset of industrial robots, effectively mitigating the problem of misclassification.



#### **Always-On**

With the proficiency to differentiate between individuals and other objects through artificial intelligence, Event Gates Safety Al eliminates the necessity for pre-motion deactivation, as seen in traditional systems. This advanced system sustains uninterrupted monitoring and remains unaffected by the movements of items like robot arms and fixtures.

