



# SAFETY CATALOGUE

Solutions designed for high-performance environments, where heavy equipment and machinery operate alongside pedestrians.

[laserglow.com](https://laserglow.com)



# A few reasons why it is so important to invest in safety:



5% of all warehouse workers will experience an injury on the job each year.



The transportation and shipping industry is behind only service members (firefighters and police) in terms of how many accidents it experiences as an industry.



According to the National Safety Council, preventable workplace deaths have increased nearly 18% since 2009.



Serious, non-fatal injuries cost \$84.04 million a week in the transportation and warehousing industry.



There were 2.8 million nonfatal workplace injuries and illnesses reported by private industry employers in 2017.



The number of "days away from work" cases in warehousing and storage rose by nearly 3,000 cases to 17,390 total cases in 2017.



The American Supply Association reports that 25% of all industrial accidents occur at the loading dock, many of which are associated with the use of forklift trucks.



OSHA reports 36% of the nearly 100,000 forklift accidents at the workplace in 2015 caused either serious injury or death.



Nearly 100 employees are killed and 95,000 are injured every year while operating forklifts in all industries.



According to the National Safety Council, a worker injury costs companies an average of \$38,000 in direct costs, which includes things like medical bills and rehabilitation.




It's the indirect costs, however, that tend to add up, and the Council estimates that companies pay about \$150,000 per accident. These indirect costs cover everything from damage to equipment or vehicles to loss of productive time due to lowered worker morale and training costs for a replacement worker.

# Industrial Safety Solutions

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# Virtual Lines

Laserglow's VirtuaLine™ Projectors are a patented LED light fixture that simulates painted or taped lines on the floor.

In high-performance environments, where heavy equipment and machinery operate, it is essential for pedestrian safety that clearly visible walkways, aisles, or lanes be defined to permit safe movement of people within the facility.

The VirtuaLine Series of Line Projectors offer a unique way of creating indestructible floor lines that eliminates the need for maintenance that is required by floor tape and painted lines. The VirtuaLine series projectors uses the latest LED and line shaping technologies to offer a plug and play line striping projection systems with broad application within an Industrial environment.



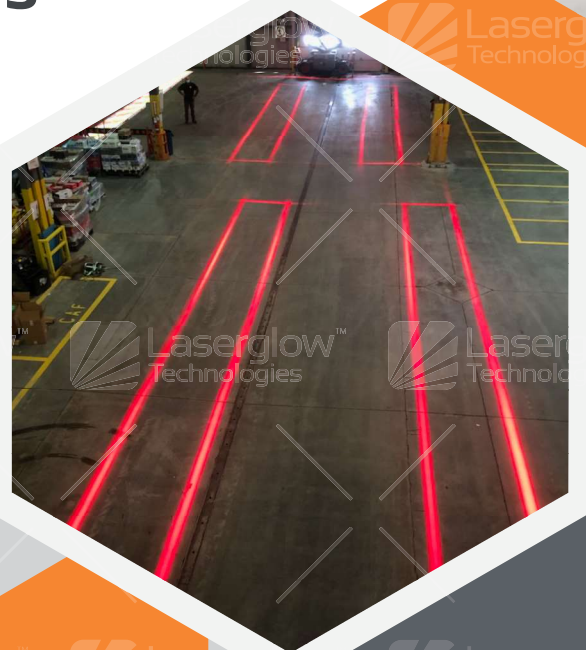
## Most common uses for Virtual Lines

### By Segments

- Warehouses
- Automotive
- Food and Beverage Processing
- Metallurgical
- Manufacturing
- Aerospace

### By Applications

- Walkways
- Pedestrian Lanes
- Pallet Staging Area
- Dock Lines
- Demarcation Zones



# VirtuaLine™ Line Projectors



**Line thickness: 4" - 8"**  
Colors



**Adjustable line thickness: 1" - 4"**  
Colors



**Adjustable line thickness: 1" - 4"**  
Changeable Colors

## Key Features



### High-Visible Projection

Same or better visibility when compared to taped/painted lines



### Long Operating Life

30,000+ hrs of continuous use\*



### Easy To Install

Plugs into standard AC outlet, Low cost of labor, no additional upkeep



### Adjustable Line Length

Ability to control the length of the line with optional line limiter accessory



### No Surface Preparation

No Loss In Productivity for surface preparation, or time for drying and sealing



### Smart Triggered Projection

Automate projection based on activity detected using sensors

## Specs

- VirtuaLine™ Line Projector
- Type of Light Source: High Performance LED
  - Rated Power: 80 W
  - \*Light Source Life (MTTF): 30,000 hours at 25°C/77°F
  - Projection Distance: Up to 51 ft (17 m)
  - Standard Angle Lens : Line Length = approximately 1.0 x mounting height / Wide Angle Lens: Line Length = approximately 1.5 x mounting height
  - Temperature Range: -20°C to 50°C (-4 to 120 °F)
  - IP Rating: IP65
  - 100-240 VAC nominal, 50/60 Hz, 0.67A, 80W

## Smart Control using sensors

Laserglow's Smart Trigger Control Kits offer a new way to automate visual hazard management within a facility. Using various types of sensors, you can illicit a response to turn ON/OFF/FLASH projections based on activity detected. This helps overcome complacency and enhance the overall safety for a site.

### Optional Accessories



Magnetic Mounting Bracket



Line Limiter

# Virtual Signs

The ideal way to display bright floor and wall safety signs in locations where there is high traffic, potential for a hazard, or uneven floors.

Industrial production floors and warehouses often use tape, paint, and adhesive safety labels for safety signage. However, these static signs can easily be obscured by machinery or wear over time. This poses the potential for serious injury to workers, if safety signage is not prominently displayed.

The SafetyCast Virtual Sign Projector uses an image lens and a high-output LED light source to project a clear sign at distances of up to 15 m (45'). The SafetyCast Virtual Projectors work well in almost all indoor lighting conditions and are easy to mount and adjust. Once installed, there is virtually no maintenance, and you won't need to worry about replacing damaged signs on your floors or walls.



## Most common uses for Virtual Signs

### By Segments

- Warehouses
- Automotive
- Food and Beverage Processing
- Metallurgical
- Manufacturing
- Aerospace

### By Applications

- Safety Signage
- Emergency Signage
- Pallet Staging Area
- Dock Signage
- 5S/6S Signage
- Exclusion Zone Demarcation
- Walkways



# SafetyCast™ Sign Projectors

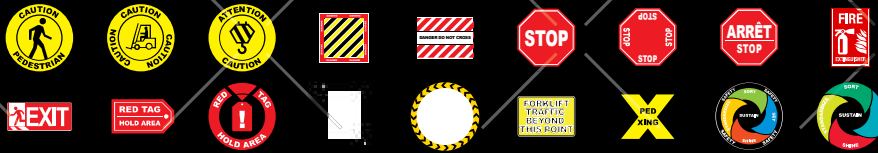


Up to 25 feet (8 meters)



Up to 45 feet (15 meters)

A few examples of our large variety of Safety Signs



Speak with us regarding creating Custom Sign Projections

## Key Features



### Ultra Visible

Overcomes complacency by attracting more attention because of dynamic projection



### Cost Effective

Eliminates the need for repainting or purchasing new safety labels



### Modular

Easily reconfigure spaces within your facility without stripping paint or tape



### Custom Projections

Create your own signs to attend all your needs



### Highly Durable

No wear and tear from foot traffic



### Smart Triggered Projection

Automate projection based on activity detected using sensors

## Specs

- SafetyCast™ Sign Projector
- Type of Light Source: High Performance LED
  - Light Source Life (MTTF): 30,000 hours at 25°C/77°F
  - Projection Distance: Up to 165 ft (50 m) in dark ambient lighting
  - Temperature Range: -20°C to 50°C (-4 to 120 °F)
  - IP Rating: IP65
  - Projector Power: 80W/300W
  - 100-240 VAC nominal, 50/60 Hz, 0.67A, 80W

## Smart Control using sensors

Laserglow's Smart Trigger Control Kits offer a new way to automate visual hazard management within a facility. Using various types of sensors, you can illicit a response to turn ON/OFF/FLASH projections based on activity detected. This helps overcome complacency and enhance the overall safety for a site.

### Optional Accessories



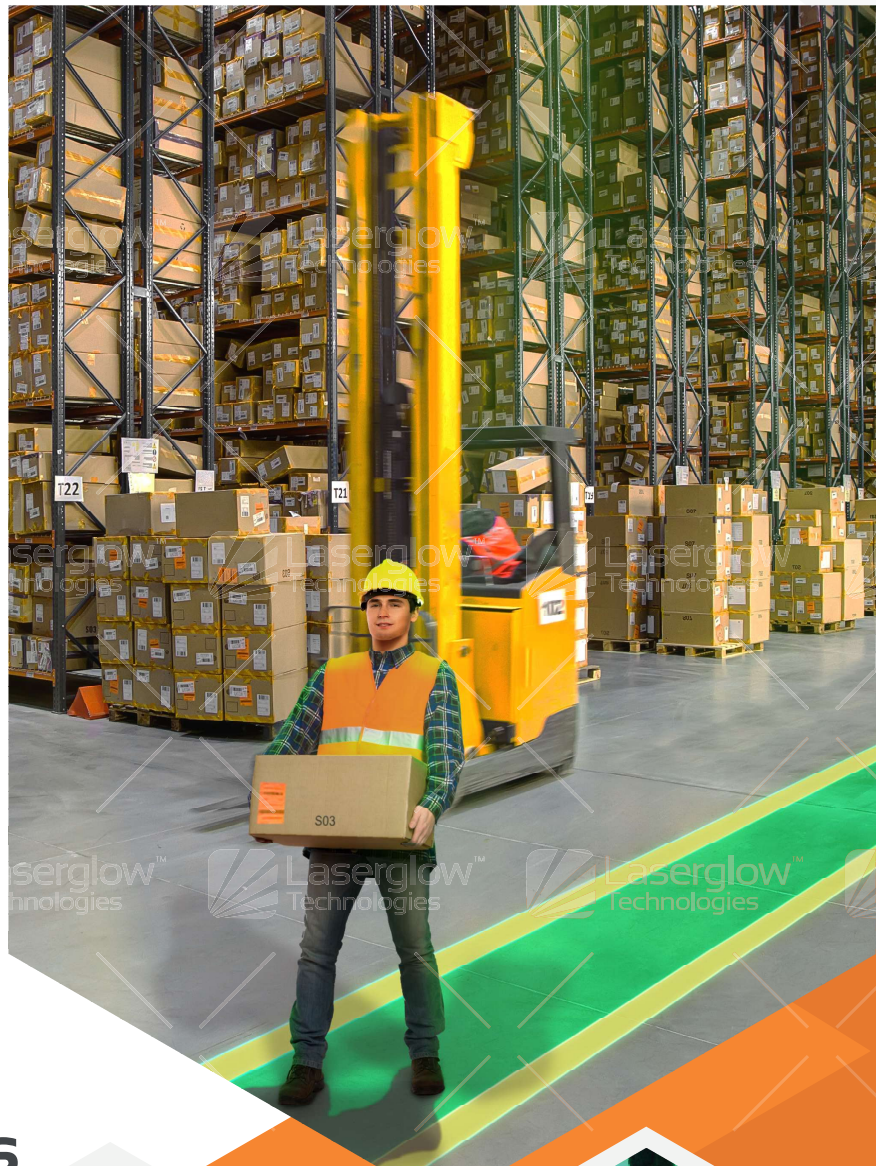
Magnetic Mounting Bracket

# Virtual Walkways

Laserglow's Virtual Walkways offer a unique way of creating indestructible walkways on the floor that eliminates the need for maintenance that is required by painted walkways.

It is crucial to establish clearly visible walkways in high-performance environments where heavy machinery and equipment are operated to ensure pedestrian safety and allow for safe movement of people within the facility.

No amount of forklift traffic on the floor will ever diminish these projected walkways. The Virtual walkway projectors use the latest LED technologies to offer a plug and play projection systems with broad application within an Industrial environment.



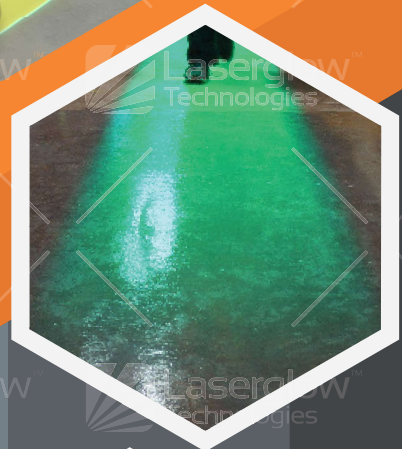
## Most common uses for Virtual Walkways

### By Segments

- Warehouses
- Automotive
- Food and Beverage Processing
- Metallurgical
- Manufacturing
- Aerospace

### By Applications

- Walkways
- Demarcation Zones
- Exclusion Zone
- Pedestrian Lanes
- Pallet Staging Area





# Laserglow Walkway Projectors



**Up to 30 feet (10 meter)**  
Solid Colors



**Up to 45 feet (15 meter)**

Speak with us regarding creating Custom Walkway Projections

## Key Features



### Ultra Visible

Overcomes complacency by attracting more attention because of dynamic projection



### Cost Effective

Eliminates the need for repainting or purchasing new safety labels



### Modular

Easily reconfigure spaces within your facility without stripping paint or tape



### Custom Projections

Create your own signs to attend all your needs



### Highly Durable

No wear and tear from foot traffic



### Smart Triggered Projection

Automate projection based on activity detected using sensors

## Specs

**VirtuaLine™ Line Projector**

- Type of Light Source: High Performance LED
- Rated Power: 80 W
- Light Source Life (MTTF): 30,000 hours at 25°C/77°F
- Projection Distance: Up to 30 ft (100 m)
- Path Length: 0.5x mounting height
- Temperature Range: -20°C to 50°C (-4 to 120 °F)
- IP Rating: IP65
- 100-240 VAC nominal, 50/60 Hz, 0.67A, 80W

**SafetyCast™ Sign Projector**

- Type of Light Source: High Performance LED
- Light Source Life (MTTF): 30,000 hours at 25°C/77°F
- Projection Distance: Up to 165 ft (50 m) in dark ambient lighting
- Temperature Range: -20°C to 50°C (-4 to 120 °F)
- IP Rating: IP65
- Projector Power: 80W/300W
- 100-240 VAC nominal, 50/60 Hz, 0.67A, 80W

## Smart Control using sensors

Laserglow's Smart Trigger Control Kits offer a new way to automate visual hazard management within a facility. Using various types of sensors, you can illicit a response to turn ON/OFF/FLASH projections based on activity detected. This helps overcome complacency and enhance the overall safety for a site.

### Optional Accessories



Magnetic Mounting Bracket

Line Limiter

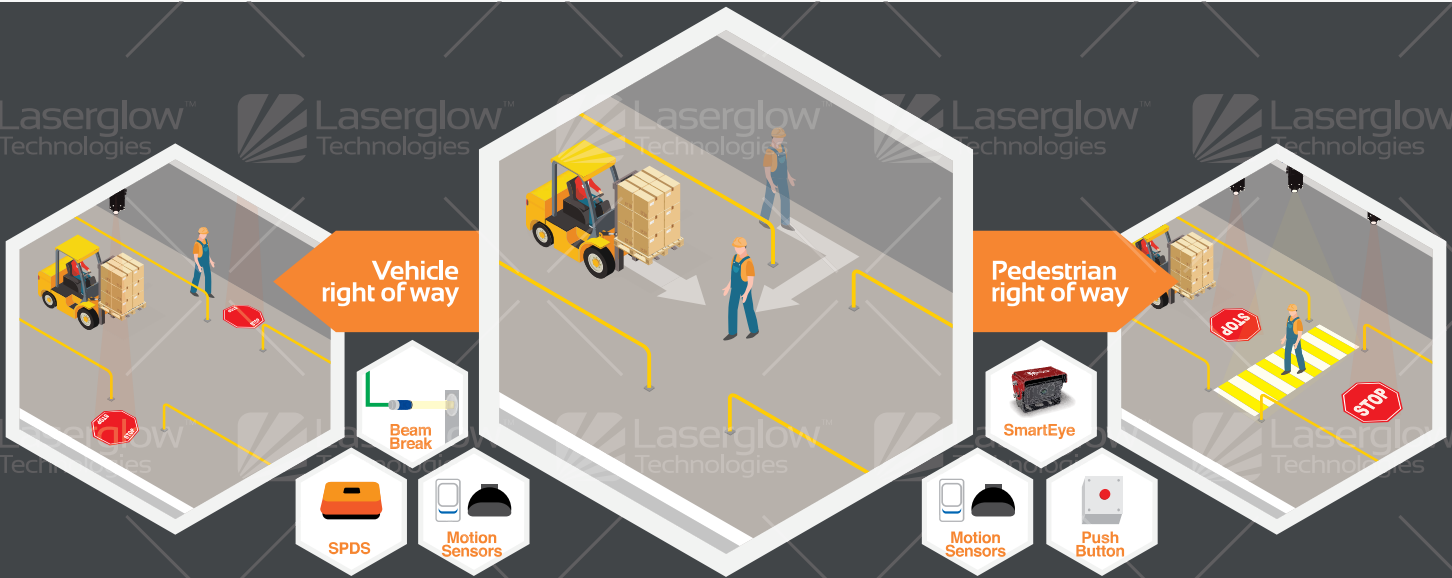


# Improve safety through automation in high traffic areas

Laserglow's Smart Trigger Control Kits offer a new way to automate visual hazard management within a facility. Using various types of sensors, you can illicit a response to turn ON/OFF/FLASH projections based on activity detected. This helps overcome complacency and enhance the overall safety for a site.

## Intersections

While using intersections, both pedestrian and forklift operators are subjected to risks when crossing paths.

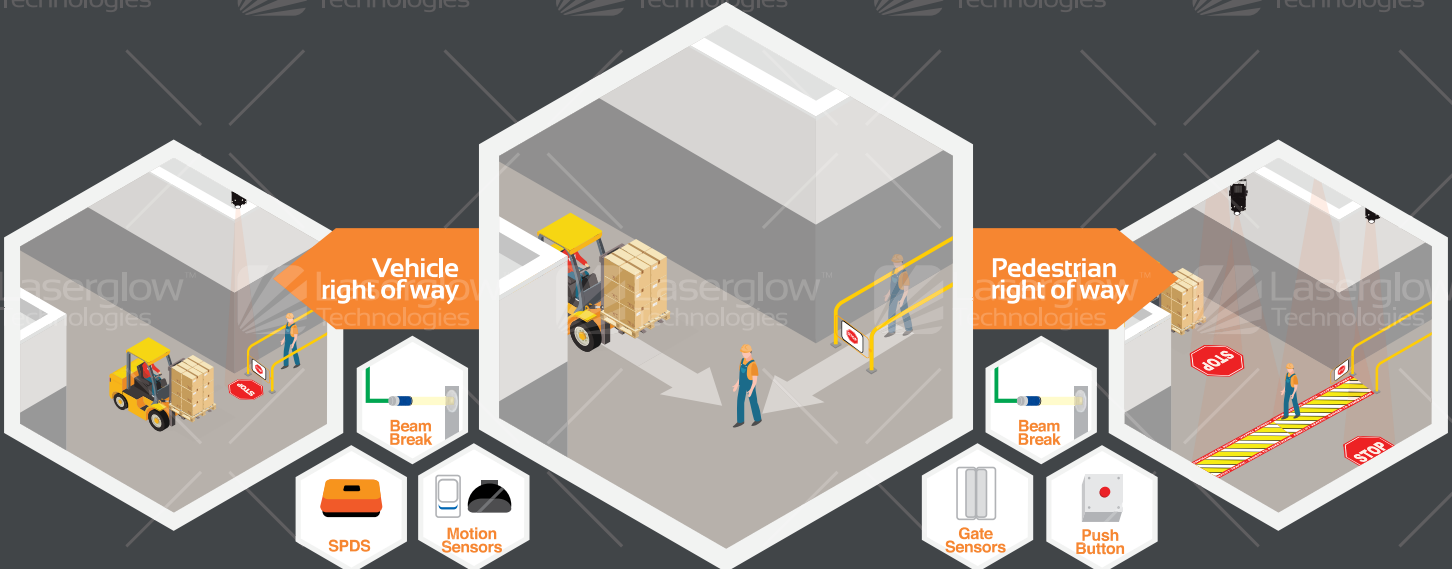


Stop signs indicate to the pedestrian to stop and wait, while the operator is safe to proceed on the lane.

Stop signs appear in both vehicle ways, while a crosswalk is projected indicating to the pedestrian that is safe to cross.

## Blind Spots

Can be very hazardous for pedestrians and operators, since both can be very close to each other without being noticed.



When a vehicle is detected, a stop sign is projected at the end of the pathway.

When a pedestrian is detected, a virtual walkway is projected among stop signs for forklift lanes.

# Key Features



**Reduce Accidents**



**Increase Projector Life Time**



**Easy To Install**



**Reduce Property Damage**



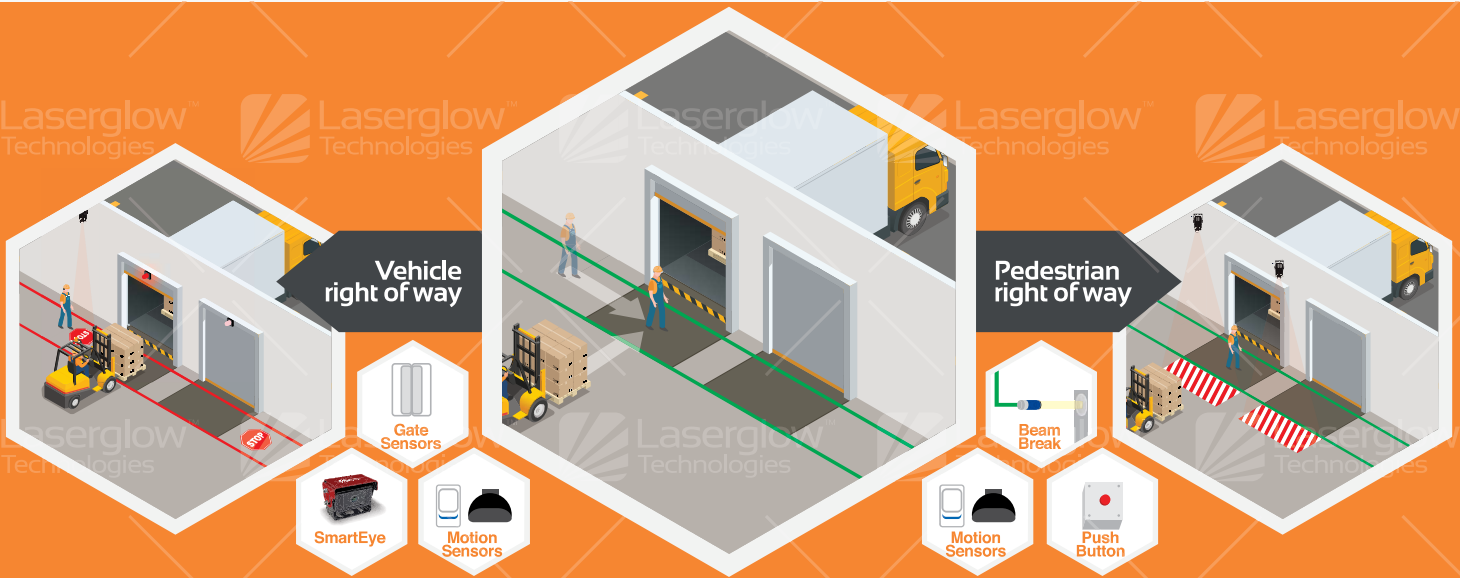
**Increase Safety Efficiency**



**Options For All Situations**

## Dock doors

A pedestrian, even using the pathway correctly, may be in the way during a truck loading operation.



VirtualLine SWITCH will be triggered and the line switch colors to red. Stop signs will be projected and the beacon lights will blink.

The green line is kept and red signs indicate the way is blocked for forklifts momentarily.

## Overhead Cranes

Handling material overhead may cause injuries to pedestrians and operators below or in the way of the cargo.



When the load is approaching, signs will be display indicating the upcoming hazard above.

**Speak with us**  
regarding creating  
**Custom Automated**  
**Solutions for your site**



# Proximity Detection Systems

Our technology-driven solutions enhance overall safety and wellbeing through bringing awareness to hazard within the workplace.

According to the National Institute for Occupational Safety and Health, there are approximately 100 fatalities and 90,000 serious injuries each year in the United States as a result of forklift accidents. Almost 80% of these accidents involve a pedestrian.

At Laserglow, we strive to reduce accidents in the workplace that result from heavy machinery and workers working in close proximity to each other through the use of latest technologies.

## Most common uses for Proximity Detection Systems

### By Segments

- Warehouses
- Construction
- Mining
- Manufacturing
- Aerospace

### By Applications

- Pedestrian Detection
- Collision Avoidance
- Blind Spot Monitoring
- Entry/Exit Control
- Signage Activation

## Key Features

### High Accuracy

Technology-based highly accurate distance measurement



### OEM-Independent

Ideal for mixed fleets. Can be fitted on new forklift trucks or retrofitted on existing fleet



### Easy Installation

Out-of-the-box with no-registration and no-calibration



### Easy Operation

Simple and customizable configuration and operation



### Configurable Warning / Detection Zones

Different alert zones for hazard and danger notification

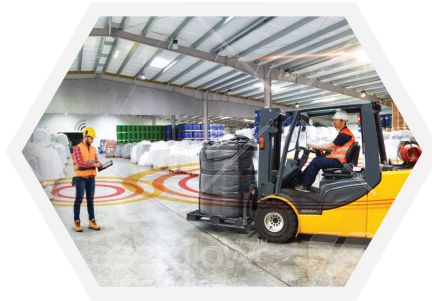


# Sensor-Based Technology

Laserglow's SPDS is a Smart Proximity Detection Safety System that prevents collisions by alerting the operator of danger using 2 way communication to both drivers and pedestrians.



**Collision Warning**



**Pedestrian Detection**



**Blind Spot Warning**



**Intersection Management**



**Bilateral Alarm**

*Both audio and visual alerts provided to maximize awareness of potential hazard.*

# Camera-Based AI Technology



The SmartEye™ Detect utilises cutting edge AI technology to prioritize pedestrian safety around material handling equipment. The advanced Ai algorithm detects moving and static pedestrians, in real time, and alerts the material handling equipment operator of the presence of such hazards. This ability makes the SmartEye™ Detect one of the most advanced pedestrian detection systems available. The system is usually installed with one rear facing camera however it can also be integrated to accommodate side and front facing cameras to give complete 360° coverage around the vehicle.

## Specs

- One 1080P SmartEye™ Detect AI Pedestrian Detection Camera with 140° view angle
- 10.1" Quad-Screen HD Colour Monitors
- Connectorized Cables for easy installation
- Magnetic mounting base for camera and monitor for no-drill installation

# Forklift Visual Hazard Management

Nearly half of all forklift related accidents involve pedestrians.

ForkCast Hazard Illumination lights provide visual warnings to pedestrians and vehicles in accident prone areas, or areas with mobile machinery sharing floor space with pedestrians. These lights can help reduce or eliminate pedestrian related accidents in the workplace by projecting a highly visible warning projection/ exclusion zone around moving material handling equipment. This is extremely effective in high-noise areas – where audible alarms can be drowned out, or where multiple alarms may confuse the pedestrian. The products are weatherproof, thus ideal for indoor and outdoor use.

## Key Features

### Easy Installation

Out-of-the-box usable by connecting to 12/24V battery



### Adjustable Mounting Bracket

Allows for easy positioning of the projection on the floor



### Visual Cue

Audible alarms do not provide pedestrians with a sense of proximity



### OEM Independent

Ideal for mixed fleets. Can be fitted on new forklift trucks or retrofitted on existing fleet



### Reduce Incidents Of Human Error Injury

Increases pedestrian and operator awareness of moving equipment or temporary machinery installations



## Most common uses for Forklift Visual Hazard Management

### By Segments

- Warehouses
- Construction
- Manufacturing

### By Applications

- Visual Hazard Warning
- Exclusion Zone Demarcation
- Moving Hazard Warning
- Directional Movement Indication

# ForkCast™ Hazard Lights

Designed to be mounted on forklifts or other types of mobile machinery to help improve safety in the workplace, independently of the model or manufacturer of your fleet.



**ForkCast™ Arc**  
Colors ■ ■



**ForkCast™ Arrow**  
Color ■



**ForkCast™ Line**  
Colors ■ ■



**ForkCast™ Spot**  
Colors ■ ■



**ForkCast™ Stop**  
Color ■



**ForkCast™ Beacon**  
Color ■

# ForkLine™ Tine Guide System



The ForkLine™ Tine Guide is a laser guided tool that provides forklift operators a visual reference allowing them to line up the forks/tines with pallets. It emits an ultra-bright, 520-nm green laser line (which is 5x brighter to the human eye than red laser lines) so the operators know exactly where the fork tips will touch the pallet or materials. When the laser line hits the opening of the pallet, it disappears, indicating that the forks are correctly aligned with the pallets. The laser is mounted horizontally and can be adjusted vertically, giving the operator a visual guide for placement of the tines. It is designed to operate on all types of forklifts.

## Specs

- Laser Module**
- Class: 3R
  - Colour: Green
  - Wavelength: 520 nm
  - Input Voltage: 6-30 VDC
  - Mounting Style: Magnetic
  - Operating Temperature: -20 to +70 °C
  - Ingress Protection: IP67

- Battery Pack (optional)**
- Voltage: 11.1 VDC
  - Current Rating: 2.0A
  - Capacity: 4000mAh/44.4Wh
  - Battery Type: Lithium Ion
  - Mounting Style: Magnetic
  - Operating Temperature: -20 to +70 °C
  - Ingress Protection: IP67
  - Battery Life: 80 hours on/400 hours standby



# Crane Visual Hazard Management

Plug and play visual hazard demarcation lights that can create exclusion areas or boxes around the load which is visible at the floor level

Cranes move loads that routinely cross over pedestrian pathways. These overhead loads create an inherent hazard as pedestrians on the floor may not be aware that a load is above them.

Laserglow's CraneCast Systems are the ideal solution for adding bright, visual warnings to indoor overhead crane loads in areas where conventional wall and floor markings are easily missed or obstructed. When the load moves, the system moves with it providing a visual cue to pedestrians at the ground level where the crane is situated at any given time.

## Key Features

### High Visibility Projections

Provides Visual Cues. Audible alarms do not provide pedestrians with a sense of proximity



### Reduce Incidents Of Human Error Injury

Increases pedestrian and operator awareness of moving equipment or temporary machinery installations



### OEM-Independent

Can be used on any crane (new/retrofit)



### Easy Installation

Out-of-the-box usable by connecting to 12/24V battery



### Long Operating Life

30,000+ hrs of continuous use



## Most common uses for Crane Visual Hazard Management

### By Segments

- Warehouses
- Automotive
- Food and Beverage Processing
- Metallurgical
- Manufacturing
- Aerospace

### By Applications

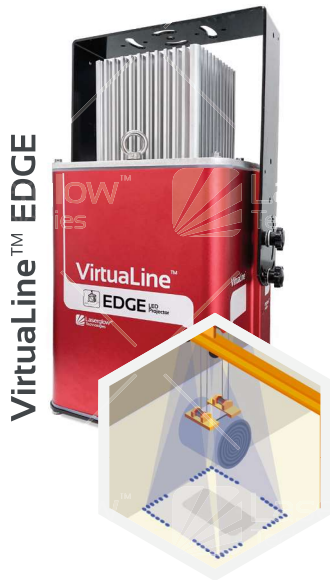
- Crane Load Marking
- Leading and Trailing End Indication
- Directional Movement
- Exclusion Zones
- Pallet Staging Area



# VirtuaLine™ LED Projector



Laserglow's VirtuaLine™ LED Projector is a patented LED light fixture that projects a pattern on the floor to provide a bright, visual indication of a load on overhead crane. Using 4 of these lights, the exclusion area around the load can be defined. When the load moves, this zone moves with it providing a visual cue to pedestrians at the ground level where the crane is situated at any given time. Designed to be visible up to 100 feet (30m) in door settings, this is the first projector of its kind.



**Up to 100 feet (30 meter)**  
Solid Colors ■■■



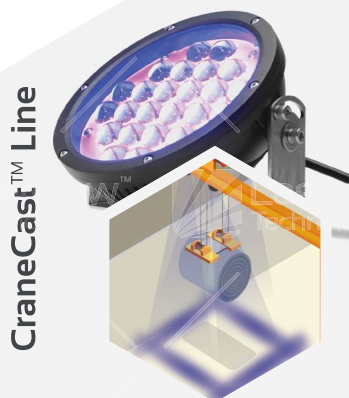
**Up to 100 feet (30 meter)**  
Solid Colors ■■■

## Specs

- VirtuaLine™ Projector
- Type of Light Source: High Performance LED
  - Rated Power: 80 W
  - Light Source Life (MTTF): 30,000 hours at 25°C/77°F
  - Projection Distance: Up to 51 ft (17 m)
  - Temperature Range: -20°C to 50°C (-4 to 120 °F)
  - IP Rating: IP65
  - 100-240 VAC nominal, 50/60 Hz, 0.67A, 80W

# CraneCast™ Hazard Lights

Crane Hazard Systems are the ideal solution for adding bright, visual warnings to overhead crane in areas where conventional wall and floor markings are easily missed or obstructed.



**Up to 50 feet (15meter)**  
Solid Colors ■■■



**Up to 50 feet (15 meter)**  
Solid Colors ■■■

## Specs

- IP rating: 65
- Storage Temperature Range (°C): -20 to 40
- Total Power Consumption: 72W (red) 120W (blue)
- Cooling Method: Passive
- Standard Warranty (months): 12
- MTTF (operational hours): 50000
- Weight of Product: 5.4 kg
- Dimensions of Product(mm): 228 (l) x 100 (w) x 234 (h)
- Power Supply: 12-48 VDC Input (optional 100-240 VAC power supply available)



# Truck Docking Laser System

There is no need to re-paint, or replace tape, have one continues line in all weather conditions, bringing more efficiency while loading & unloading of trailers.

Dockline Laser System centers trailers to your dock when backing up, separating the trailers to help avoid risk of accidents.

The DockLine System is the perfect truck and trailer docking assistant for dawn, dusk and night-time operations when visibility of painted lines low. These lasers provide the driver with clear, visible indicators to assist in the dock approach – thereby reducing docking time, cargo damage, and possible injury to dock handlers.

## Specs

- Projection: Line
- Available Colours: Red/Green
- Power: 40 mW
- Dimensions: 165x60x60mm
- Input Voltage: 100-240V AC
- Operating Temperature: 0° to 120°F (-20° to 50°C)
- Material: Machined Aluminum
- Waterproof Rating: IP67
- Working Lifetime: +8,000 Hours



## Key Features

### On-Demand Smart Projection

Using motion sensors to detect trucks and turn on lanes



### Ambient Light Sensing

Activates system based on ambient light (dusk through dawn)



### Reduce Accidents

By increasing visibility of dock bay lines in low lights/ winter conditions



### Reduce Property Damage

By providing virtual truck guidance lanes for seamless docking



### Reduce Insurance Claims

By mitigating accidents during operation and handling

