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# CUSTOMER SUCCESS STORY

## OSID-DE PROTECTED THEME PARK THRILL RIDE

### About End User

In 2012, a popular East Coast theme park announced the debut of their latest indoor/outdoor themed roller coaster. The 3-1/2-minute ride travels along a 2,800 ft long track twisting and turning at 53 mph. The ride features an indoor portion (referred to as the "Event" or "Show building") and features one of three alternating special effects driven story lines.

The inside of the event building is decorated with painted drops and set pieces and features unique sound systems and lighting effects.

### The Challenge

During show time, the event house is a dark showroom that offers no ambient light and contains/features effects such as strobe lights These indoor special effects created a challenge for effective smoke detection. The originally specified system called for video smoke detection, which performed as needed under house light , however, that is not the normal operating condition. When the park tested the detection system in its normal operating conditions, with the lighting effects in darkness, the system failed and did not perform as required.



**PROJECT:**
380+ Acre Theme Park

**END USER/LOCATION:**
Roller Coaster Ride - USA

**INDUSTRY:**
Leisure/Entertainment Park

**SOLUTION:**
OSID-DE

**Benefits:**
- Works reliably in any environment
- Simple installation and commissioning - up to 70% time saving compared to traditional beams
- High tolerance to vibrations and building movement due to the ride

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*No matter how good other life safety systems worked, they couldn't perform how we needed them to perform for this ride".*

**Project Manager for Engineering and Creative Development**

## The Solution

With the debut of this massive roller coaster project just over a week away, the team was forced to find an alternative solution, quickly. OSID-DE (Open-area Smoke Imaging Detection) by Xtralis was proposed as a viable alternative by a member of the team that had utilized the technology in previous installations.

OSID-DE utilizes a revolutionary technology designed for open spaces where fire detection presents unique challenges. OSID-DE was deemed the viable solution and seven sets of Imagers and Emitters were used to replace the originally installed system. OSID-DE delivers verified results, including unsurpassed resistance to reflections, dust, steam, fog, condensation and other obstructions as well as high tolerance to vibrations and building movement.

## The Outcome

A significant benefit of OSID-DE is its ability to provide volumetric coverage. As many as seven Emitters can be placed within the field of view of a single Imager, each placed at different heights. The Imager's large viewing angles, both horizontal and vertical, enable three-dimensional area coverage for design flexibility and additional deployment savings. OSID-DE overcomes the weaknesses of traditional detection solutions used in large, open spaces where standard sensitivity detection is required. In its simplest configuration, OSID-DE resembles a beam detector but is an entirely new technology. Unlike video smoke detection, OSID-DE works reliably in any environment which is precisely what the event building required.

Time constraints required a system to be installed within the structure that already had the ride effects mounted; this meant that installation technicians would need to install a system around existing lighting fixtures, audio speakers, draping and the coaster tracks. In lieu of installing 100+ traditional spot detectors that may not have been effective at the ceiling height level, OSID-DE was easy to install in a single day and because it saved considerable labor and future inspection time, the Total Cost of Ownership was considerably less.

The installation and commissioning of OSID-DE is intuitive because exact alignment between the imager and emitter is not required. An imager can locate and lock in an emitter that is only roughly aligned due to the imager's wide field of view. And because OSID-DE uses a wide-angle imaging sensor, its sophisticated algorithms can compensate for vibrations and building movement. Upon commissioning of OSID-DE, the system worked instantly and proved itself through the summer season for the ride, its busiest time of the year. The park is happy to report that OSID-DE performed flawlessly since the start and they are grateful the ride debut went off without a hitch.



## About OSID-DE

- Simple installation and commissioning, and low maintenance
- Superior dual wavelength (UV and IR) particle detection
- Dramatically reduces false alarms
- High tolerance to vibration and structural movement
- High resistance to dust, fogging, steam, reflections, sunlight, and object intrusion
- Long range — up to 150 m (492 ft)
- Proven reliability across a wide variety of applications and environments worldwide



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