



APPLICATION STORY



London eye

Thermal imaging finds its way to The London Eye Major visitor attraction becomes even safer than before

Paris has the Eiffel Tower, New York the Empire State, Sydney its Opera House, Rome the Coliseum and London has the London Eye. An extraordinary symbol for an extraordinary city. The world's largest cantilevered observation wheel offers a spectacular way to take in over 55 of London's most famous landmarks in just 30 minutes!

The London Eye stands on the south bank of the Thames near Westminster Bridge. During a 30-minute flight, up to 800 visitors at a time experience unrivalled views of London on a 135 meter high revolving observation wheel.

Since its opening in 2000, an average of 3.75 million visitors have experienced London's favorite attraction each year, proving it more popular than renowned historical landmarks such as St Paul's Cathedral (2 million per year) and even more popular than some internationally renowned tourist attractions. The London Eye receives more visitors annually than the Taj Mahal in India (2.4 million per year), Stonehenge in the UK (850,000 per year) and even the Great Pyramids of Giza in Egypt (3 million per year).

As popular as some of the seven wonders of the world

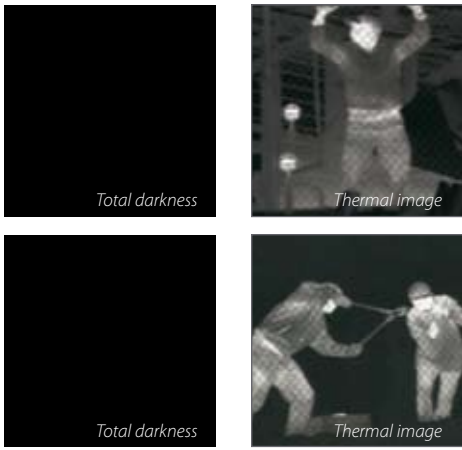
The London Eye welcomed the 30 millionth visitor on board, on Thursday 5th June 2008. This milestone in visitor numbers now ranks the Thames-side observation wheel alongside some of the world's most famous attractions proving it is as popular as some of the seven wonders of the world. The attraction has won 75 major awards for design, engineering, customer care and services to tourism.

Security is a priority

Since the opening, and even during construction, security measures have been extremely tight at the London Eye. Also today, the Merlin Entertainments Group, sole owner of the London Eye, owning 51 attractions in 12 countries, takes security extremely serious.



The FLIR Systems Photon™



Thermal imaging produces crisp images in total darkness. It needs light to operate.



It is of the utmost importance that visitors of the London Eye are safe and secure. Not only during their flight but while waiting as well. On New Year's Eve 2008, 700,000 people headed to traditional firework locations including The London Eye, for displays organized by the Mayor of London. Therefore a complete and extremely tight security network is in place.

Just like at an airport, all passengers that want to go in one of the 32 capsules are thoroughly screened. Security staff keep an eye on all visitors waiting in line to board the capsule. In a control room security staff monitors the images coming in from CCTV cameras installed at multiple locations around the London Eye. Numerous other security measures, not all visible to visitors, are in place.

Since safety and security is the biggest priority for this high-profile attraction, the Merlin Entertainments Group wanted to even further increase security for visitors to a maximum.

A safe site, night and day

"Our job is to make sure that the London Eye is an extremely safe place day and night," comments Mr. Eric Dench, Security Manager The London Eye. "If something unusual happens, we want to know this immediately. Security staff guard the site continuously and people in a control room look at the images produced by numerous cameras around the perimeter. We have also installed a Video Analytics System."

"The London Eye is a technically challenging environment in which to operate an effective security system. It is a revolving structure, located over a tidal river with large amounts of reflective glass. The requirement to be able to monitor security sensitive areas continuously while keeping the London Eye open for business compounds these issues."

"If you are underneath the wheel, the likelihood is that you are a tourist or legitimate operative. But if anyone attempts to access the structure without authorization, the security staff needs to be alerted straightaway," Mr. Dench continues.

Thermal imaging tightens the security network

"Although not always visible to the public, security measures have always been extremely tight. We are however constantly looking at new and better ways to make our security network even tighter than it is," explains Mr. Dench. "A new tool for us at the London Eye is thermal imaging cameras."

Thermal imaging cameras create a clear image in the darkest of nights. They need no light whatsoever to operate. They not only operate during the night but they are also well suited for daytime use. Since they can see through light fog and rain, smoke and many other obscurants they allow us to continuously monitor the site, regardless of changing environmental conditions.

The core of the thermal imaging cameras that are installed at the London Eye are FLIR Systems Photons. Equipped with a 320 x 240 pixels Vanadium Oxide detector, they produce a crisp thermal image on which the smallest of details can be seen. Furthermore, since they contain an uncooled detector they are maintenance free which is a main advantage when they are installed in hard to reach areas.

Thermal imaging and video analytics working closely together

The images produced by the thermal imaging cameras are not only being watched by security staff. In order to eliminate human errors, they are also combined by with Video Analytics. Reliable intrusion detection is based on the ability of a system to discriminate between background activity and unusual events that require investigation by guards. The software installed by Ipsotec, combined with the thermal images delivered by the FLIR Systems do this job.

"Thanks to thermal imaging, the London Eye became even safer than before. Visitors of this major attraction can be assured that everything is in place to guarantee them a first class, and safe, experience," concludes Mr. Dench.

Thanks to thermal imaging the safety of the visitors on board of one of the 32 capsules is assured.



Being next to a tidal river makes security at the London Eye even more challenging.

For more information about thermal imaging cameras or about this application, please contact:

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