sightlogix
making outdoor video…*smarter*

Why SightLogix?

Most security professionals agree: When you need to detect intruders in the outdoors with the highest detection reliability, thermal is the best choice.

But not all thermal cameras are the same.

SightLogix has a long and successful history solving outdoor detection problems for sites where security **really matters**. Where missing intruders is unacceptable.

Our company was founded on a single premise: To create the most reliable outdoor intruder detection system available, while being easy to use and affordable for all businesses – whether preventing sabotage at airports, refineries or substations or stopping theft at car lots, construction sites or small businesses.

That's why we've taken a different approach from other thermal camera manufacturers when designing our SightSensor.

Unmatched Video Processing

SightLogix has long determined that the only way to provide accurate intruder detection outdoors is to provide a very high degree of video processing inside the camera in advance of the video analytics, a critical step for making detection repeatable, accurate, and cost effective.

This solves the fundamental detection problem with thermal cameras that employ video analytics outside of the camera, or which lack the appropriate processing, and is the reason SightSensors have earned their reputation for not missing intruders.

By using a large degree of processing inside the camera, SightSensors can use the full dynamic range of the thermal video as it leaves the imager, analyzing over 16,000 shades of gray. So they can detect very small temperature differences and recognize potential threats over very large areas and perimeters, even under restricted visibility due to rain.

Extended Range Lowers Cost

The same processing used for accurate detection also gives SightLogix cameras extended range and coverage, automatically detecting human-sized targets at ranges that can exceed hundreds of meters.

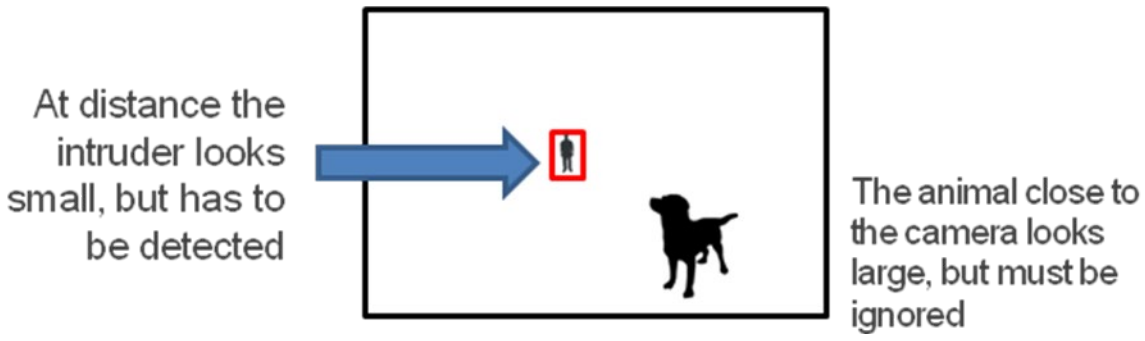
Longer-range SightSensors (at right) Lower Costs

As a result, SightLogix systems reduce the number of cameras typically required for large areas, often eliminating camera poles and their supporting infrastructure (trenching, networking, power, etc.), which lowers overall project costs significantly.

Geo-Registration for Detection Accuracy

SightSensors are "geo-registered" devices, which provides the actual location and true size of all pixels in its field of view. From this information, accurate video analytic size rules can be used to ignore movement which does not represent a security concern – like small animals or blowing debris – while detecting human-sized intruders.

For example, a small animal near the camera will look much larger than a man at 300 meters away, as you can see in the figure below.



Using geo-registration, SightSensors ignore the animal at right while alerting on the distant person, even though the animal will cover more of the camera's field of view. The same approach applies to blowing trash, clouds, and other moving things which are present the outdoor. Geo-registration provides accurate target sizes and locations, an important feature for reliable detection.

Point-and-Click Calibration

SightLogix has designed a very easy "point and click" calibration process that reduces the time and complexity needed for setup.

While some thermal cameras claim to support geo-registration, they require a complicated and manual calibration process using GPS readers and multiple individuals walking around the camera's field of view taking measurements. When you consider that this process must be done for each camera along a perimeter, and that some assets can stretch kilometers, such a cumbersome calibration process can take up unnecessary resources and time.

Stabilization Reduces Nuisance Alerts

Thermal cameras are often deployed along open areas that are naturally impacted by high winds or vibrations. It is difficult for smart cameras to detect movement in a scene when the whole field of view is also moving from camera shake. Without image stabilization, these applications can be overwhelmed by nuisance alarms or worse, outright missed intrusions.

For this reason, all SightSensors automatically stabilize the video before analytic rules are applied, greatly reducing nuisance alerts caused by camera motion.

Thermal Detection and Color Assessment Combined

SightLogix smart cameras use the best outdoor detection sensor – thermal video – to detect intruders with high accuracy. Our thermal cameras offer a stunningly clear video image, much more like a black and white image than the blurry thermal picture most people think of.

But there are some security applications that need color assessment as well as thermal detection. SightLogix solves this need in two ways:

- The **SightLogix SightTracker** automatically positions a third-party PTZ camera onto the GPS location of an alarm detected by the SightSensor, making the target large enough to reliably identify for your assessment and response requirements.
- The **SightSensor HD** is an affordable dual-stream smart camera that uses a thermal sensor for detection, and a high-definition color imager for alarm verification. Both streams are available for viewing.

SightSensor HD detects with thermal…. *…and sends thermal and color video for assessment.*

In Summary: What Makes the SightSensor different from other Thermal Video Analytic Cameras?

- SightSensors use a high amount of on-board video processing. This gives them accurate detection, manageable nuisance alarms and near-zero missed intruders compared to alternatives.
- SightSensors detect over greater distances compared to others.
    - This means fewer cameras and infrastructure, reducing costs.
- SightSensor video analytics are embedded in the camera and analyze the raw video right off the imager.
- They're geo-registered to ignroe small objects like animals, trash, etc.
- They stabilize the image before video analytic rules are applied, overcoming movement from wind and vibrations from causing nuisance alerts.
- They combine thermal for detection and HD color visible for assessment.

Information and Resources

- To perform an online perimeter security design of your facility in minutes, visit: http://www.sightlogix.com/sightsurvey-tool/.
- To read more about SightLogix SightSensor technology, visit: www.sightlogix.com. To request a meeting with a solution specialist, email info@sightlogix.com or call +1 609.951.0008.