

AI Perimeter Protection Solution

Based on Video Surveillance

Galaxy[®]



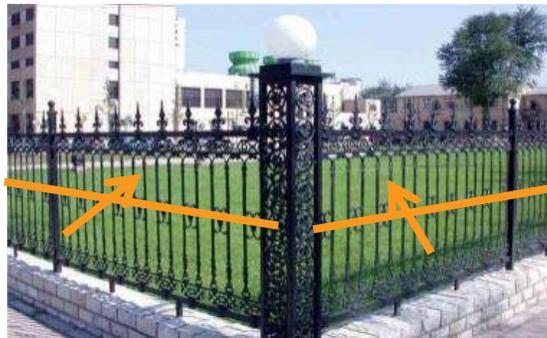
www.galaxysecurityinc.com

Perimeter Protection Solution

Perimeter protection system refers to the fortifications built to either keep intruders out or to keep captives contained within the area the boundary surrounds.

Monitoring Area

Plant perimeter, fence...



Limited Access Area

No parking area, military base



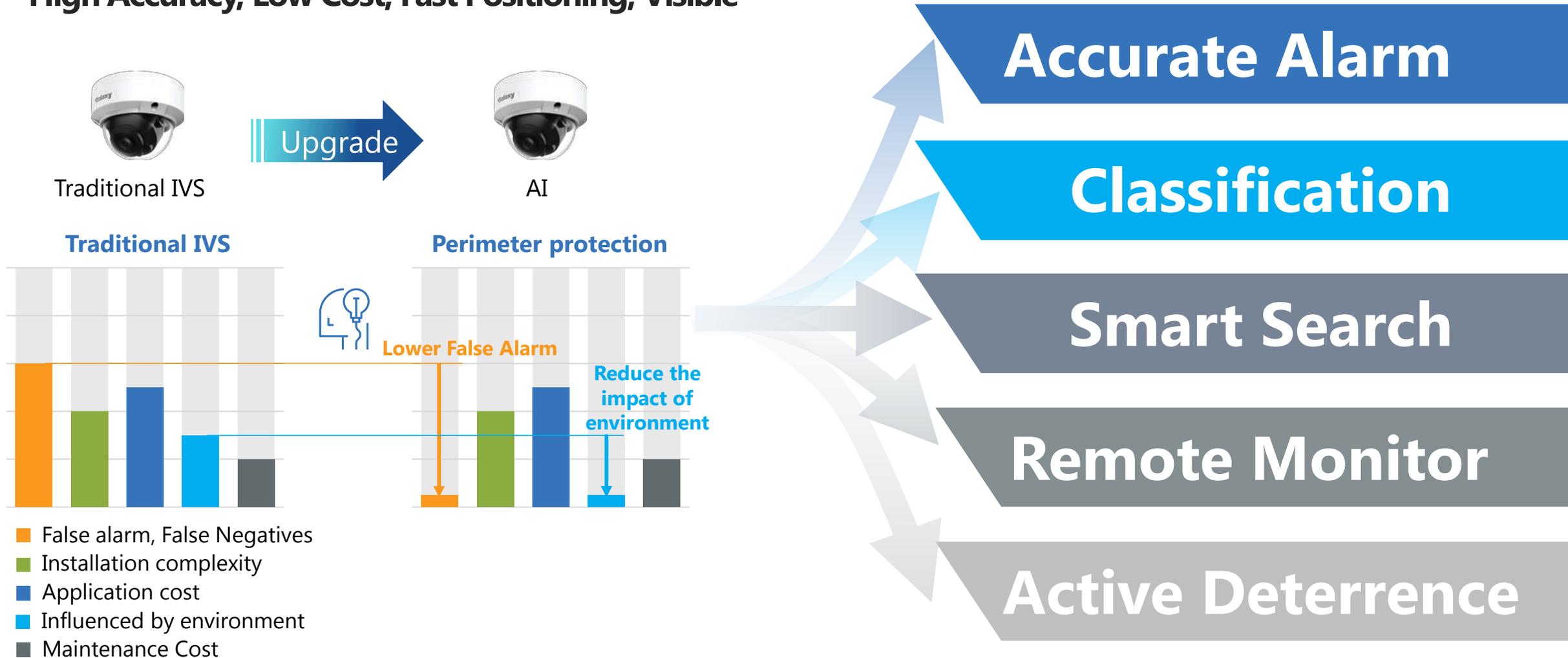
Danger Area

Construction site, river bank



AI creates value for Perimeter Protection System

High Accuracy, Low Cost, Fast Positioning, Visible



Lower False Alarm & Negatives Rate

Accurate Alarm

<2% False Alarm Rate

Thanks to its advanced AI algorithms, the rate of false alarms triggered by small animals, tree movement, shadows, and bright lights to <2%. Significantly lower than traditional IVS solutions.

False Alarm Rate in Testing Environment

Testing Environment	Test Results
Daytime, Night Testing distance: 40M~80M Installation height: 5.8M 	False alarm rate: <2%

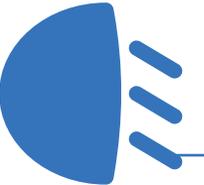
Detection Accuracy Rate in Testing Environment

Testing Environment	Test Results
Daytime, Testing Distance: 25M~70M Installation Height: 4M 	Detection accuracy rate of human and vehicle: 95%~99%

Lower False Alarm Rate

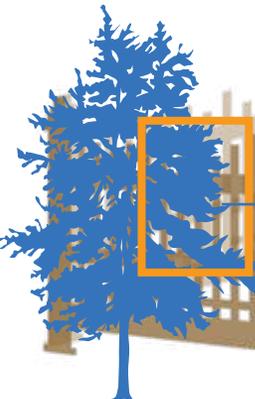
Accurate Alarm

Traditional IVS **Perimeter protection**



Bright light

Traditional IVS **Perimeter protection**



Leaf movement

Traditional IVS **Perimeter protection**

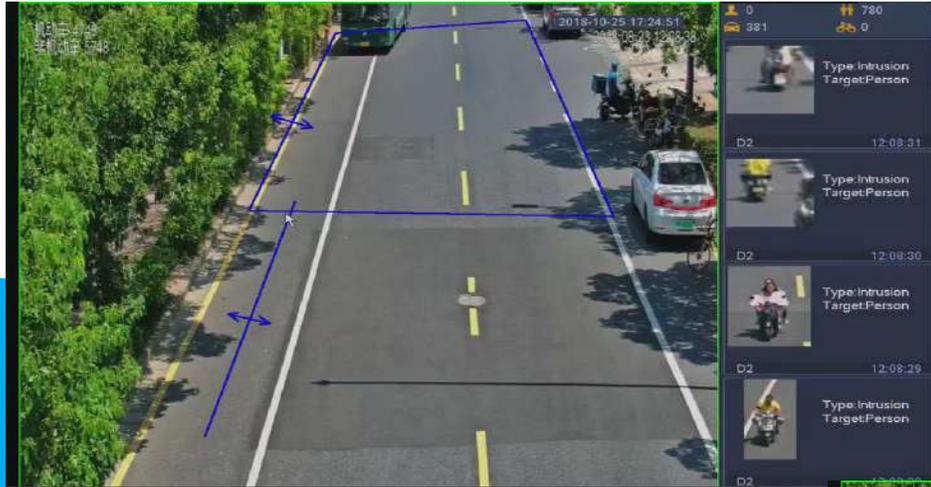


Animals



Custom Perimeters based on Object Type

Classification



Human intrusion: triggered only by human



Vehicle intrusion: triggered only by vehicle

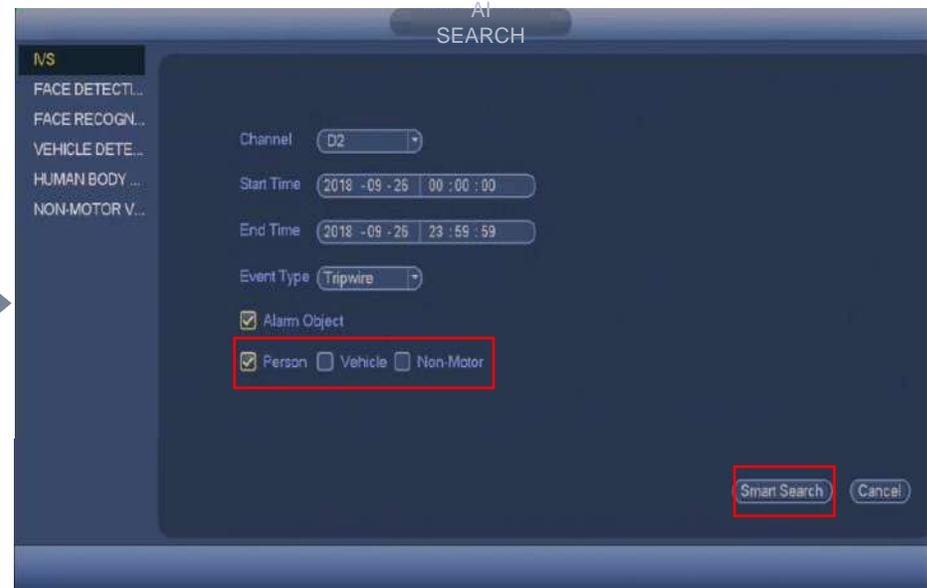
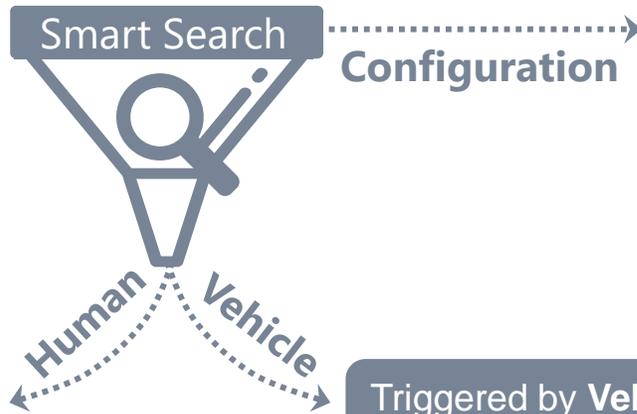
Demo

Perimeter protection

Application Scenario:
Intrusion

Search the video by Object Type

Smart Search



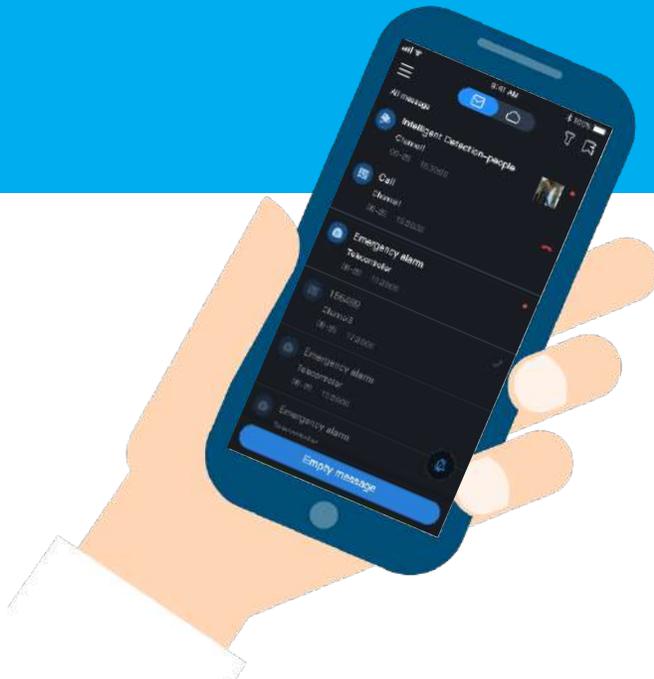
Alarm Via VMS & Mobile App

Remote Monitor



Galaxy9000

- Real-time alarm push with target type
- Remote call to drive the intruders away



DSS Express

- Real-time alarm push with target type
- Search alarm information by alarm type
- Alarm footages recording



Active Deterrence

Active Deterrence



Lakes



Remind pedestrians to leave the danger area as soon as possible

Lawn



Remind people not to trample the lawn

Entrance



Remind the thief that there is camera monitoring, let him leave

Perimeter



Remind the intruder that there is camera monitoring, let him leave

Products & Solutions

AI by Camera

- ➔ Flexible and scalable
- ➔ Active Deterrence
- ➔ Full-color, Starlight+ products



Galaxy IPC Hunter AI Series

AI by Recorder

- ➔ The most convenient way for upgrading old system
- ➔ Supports face recognition, can be compatible to access control system
- ➔ Compatible for third-party cameras



Galaxy Hunter AI Series DVRs

Galaxy Hunter AI 4K Series DVRs

AI by Camera Solution

DSS Express



Galaxy9000



Galaxy IPC Hunter AI series

Application Scenes



House/Villa



Warehouse



Construction Site



Retail Store



Carport



Farm

...

Product Selection

Cameras



4MP Starlight+ AI IPC
GX-HT724A-AI-28/36
GX-HT724AB-AI-28



4MP Starlight+ AI IPC
GX-HT744A-AI-28/36
GX-HT744AB-AI-28
GX-HT7154A-AI-28



4MP Motorized AI IPC
GX-HT784A-AI-Z
GX-HT844A-AI-Z



Color247 AI IPC
GX-HT724-AI-LED-28CF
GX-HT744A-AI-36C

Storage

GX-HT-NVR 8000 Series

VMS

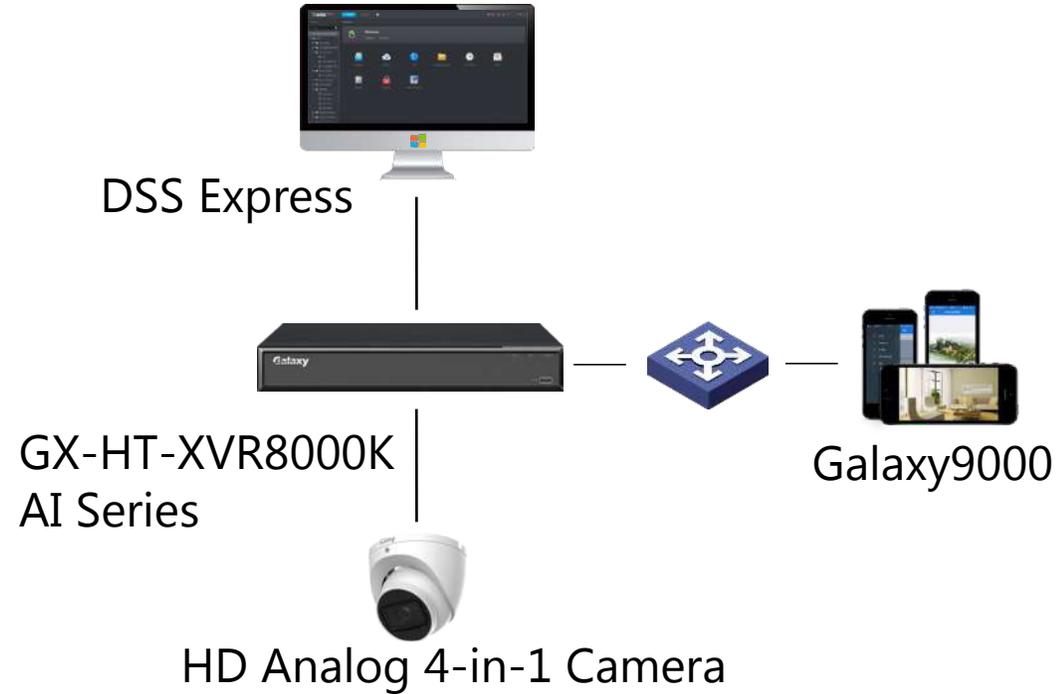
DSS Express

Mobile App

ios: **Galaxy9000** 

Android: **Galaxy9000** 

AI by Recorder Solution



Product Selection

5MP

GX-HT-XVR8504K-AI
GX-HT-XVR8508K-AI
GX-HT-XVR8516K-AI

4K

GX-HT-XVR8504K-ST-AI
GX-HT-XVR8508K-ST-AI
GX-HT-XVR8516K-ST-AI

Application Scenes

Villa/House Perimeter

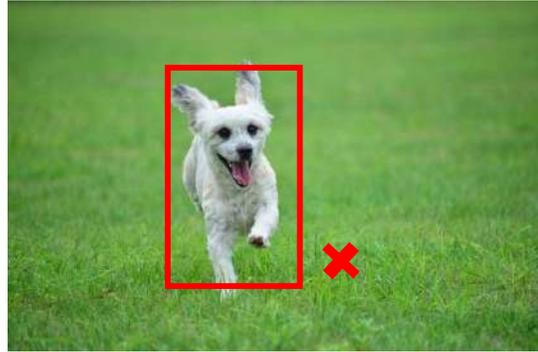
Requirements & Challenges

Vegetable plot and garden protection



Prevent theft of personal assets such as vegetables

Filter animals' false alarms



Prevent frequent alarms caused by animals such as pets, birds, etc.

Remote call



Active deterrence, alarm with voice and light to drive pedestrian away

Private Parking Space Protection



When an alien vehicle stops in the private parking

Advantages

Active deterrence: alarm with voice and light to drive intruders away

Lower False Alarm Rate: filter alarms triggered by animals

Alarm messages push

Recommended Product



5MP Active Deterrence AI Camera
GX-HT725A-AI-LED-28AD
GX-HT845A-AI-LED-36AD *Coming Soon!*



GX-HT-NVR8000 Series

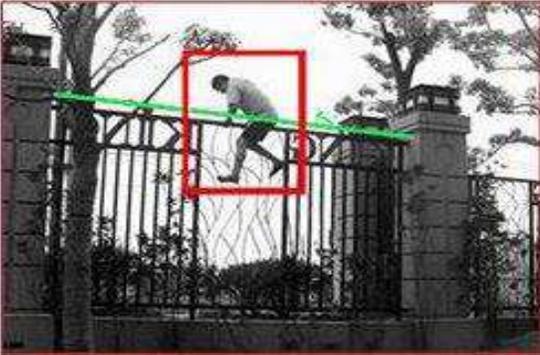


Galaxy9000

Community/Park Perimeter

Requirements & Challenges

Crossing Fence Detection



The cameras are deployed on the periphery of the fence with a spacing of about 50M, to detect the crossing fence behavior

Lower False Alarm



Filter the false alarm caused by moving leaves, pedestrians, light changes, etc.

Advantages

Accurate alarm: report the intrusion and theft events timely

Lower False Alarm Rate: filter alarms triggered by animals

Alarm messages push

Recommended Product

New Project :



5MP Starlight+
AI Camera
GX-HT845A-AI-Z

Coming Soon !



GX-HT-NVR8000 Series



Galaxy9000



DSS Express

Installation Guide

Please refer to the perimeter camera construction guide for detailed installation instructions

Installation Requirements

Applicable Scenes



Monitor the targeted person to intrude the obvious perimeters



Monitor people falling into water and entering rooftop and lawn

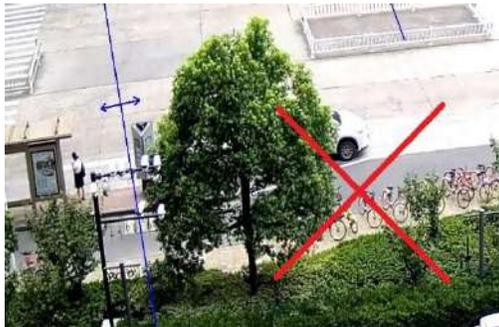


Monitor the completely split flow of people and vehicles



Monitor the intruder of small retail store in night

Not Applicable Scenes



Trees around the tripwire interrupt the moving trail of targets

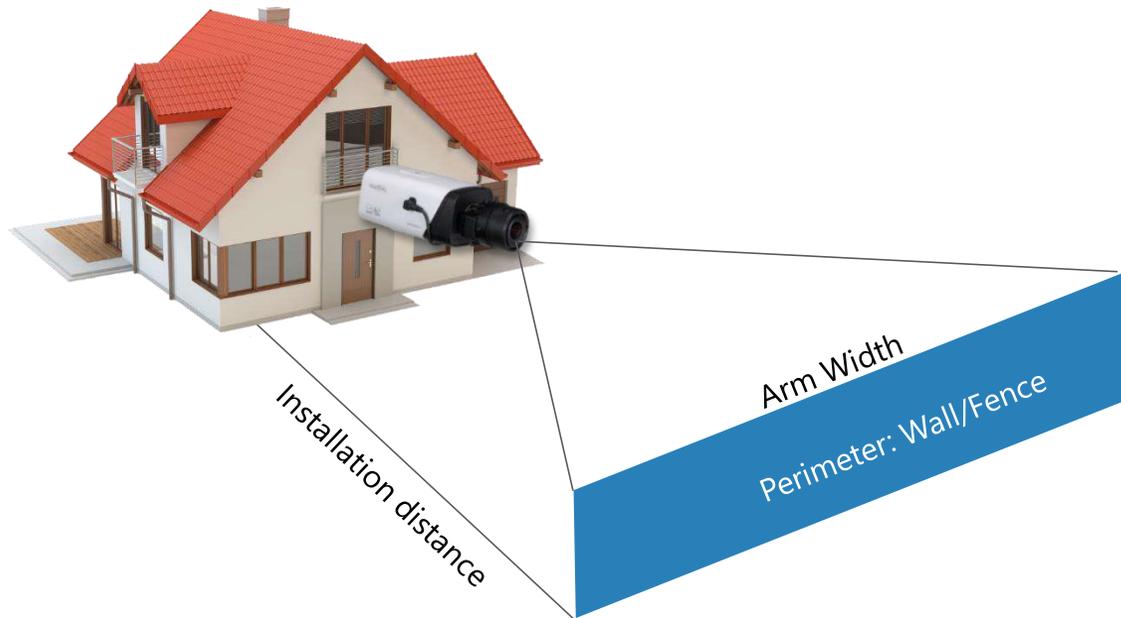


The brightness flickering influences the detecting results



In the dark, the detecting rate of color mode is low. You need to switch it to black-and-white mode

Installing Camera at the Position Vertical to Perimeter



Recommended arm width for people: Around 16 m (max)

- If the installation distance is 5~22M: recommend 2.7~13.5mm lens
- If the installation distance is 28~90M: recommend 7~35mm lens

Recommended installation height: $h > 3$ m, and the upper limit depends on the lens

Suitable for Scenarios with short perimeter:

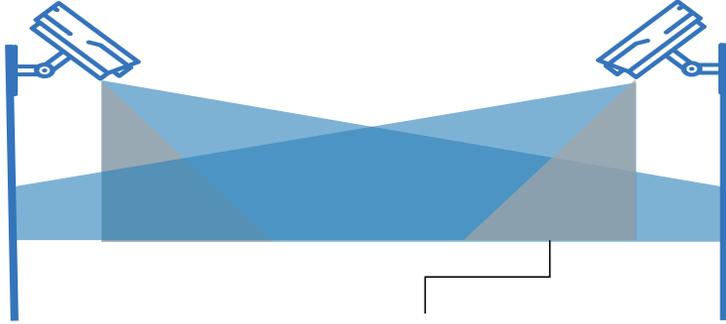
- > House/Villa
- > Warehouse
- > Retail store
- > Restaurant
- > Parking lot

...



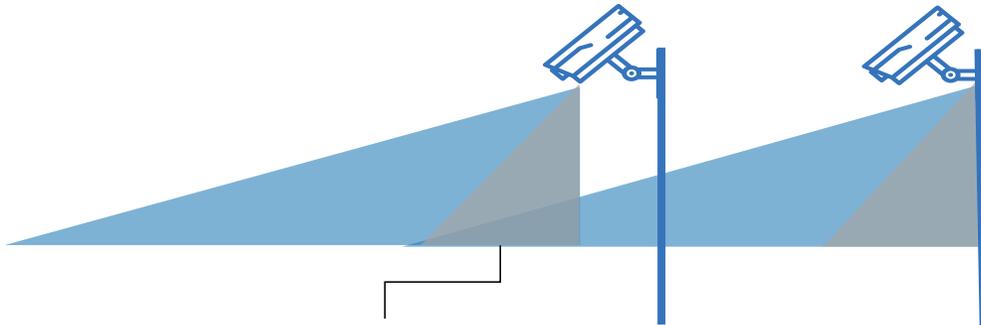
Installing Camera above Perimeter

Camera Placement - Correlation



The blind area is covered by the opposite camera.

Camera Placement - Loop



The blind area is covered by the camera behind it.

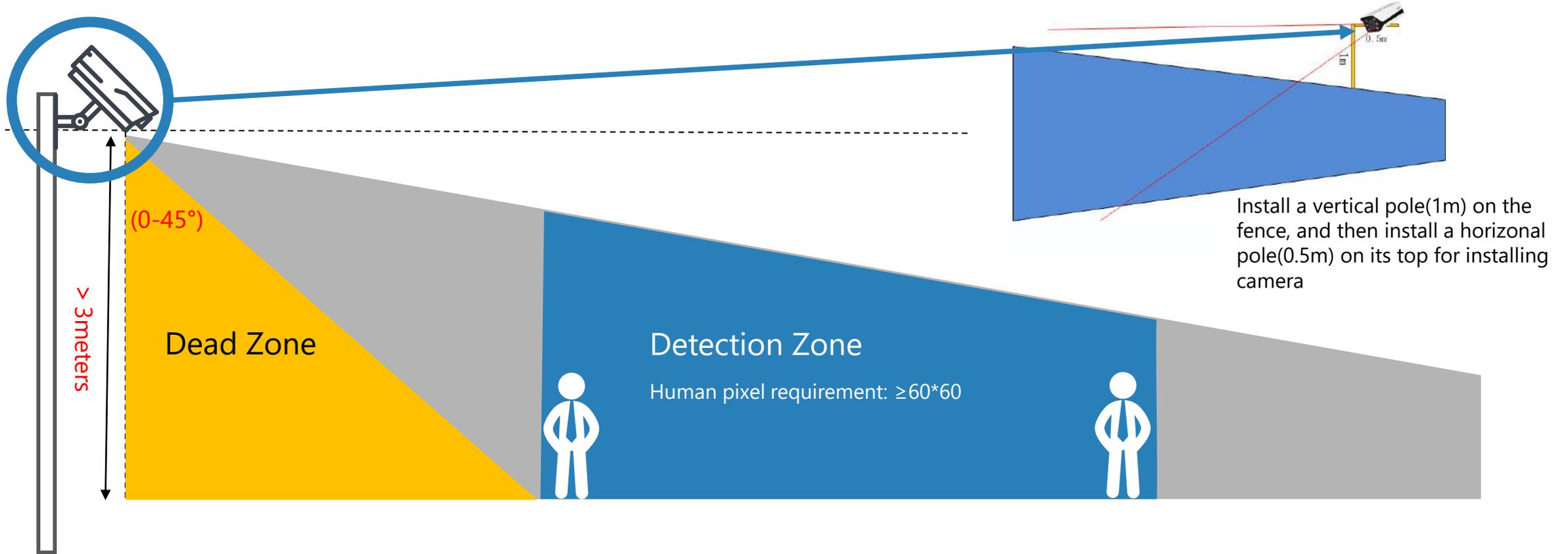
Suitable for Scenarios with long perimeter:

- > Substation
- > Factory
- > School
- > Border
- > Prison

...



Installing Camera above Perimeter



Recommended				
Focal Length	2.8mm	12mm	8mm	30mm
Arm Distance	1-6M	4-25M	3-17M	12-60M



Enabling a Safer Society and Smarter Living

— World Leading Video- Centric Smart IoT Solution & Service Provider