

Hikvision

High-Rise Littering

Detection Solution



Why We Need Detection

Hard to See

1. In case of an accident, the property cannot be found and **rescued in time**
2. A large number of high rise liters were not found

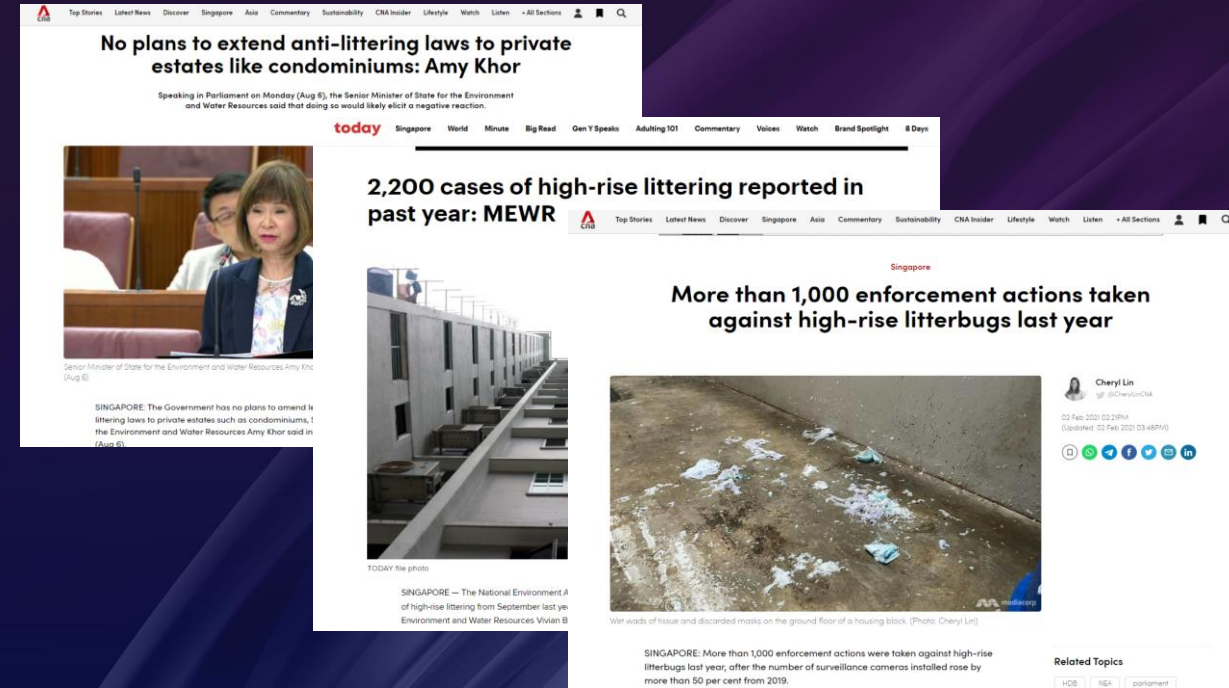
Hard to Find

1. Unable to find the event and know the dangerous area
2. Unable to **track down relevant personnel**, remind them in advance to prevent accidents

Aussie man jailed 5.5 years in S'pore for throwing wine bottle that killed 73-year-old grandfather at Outram condo

The victim's wife was also severely wounded from the wine bottle that ricocheted off the man's head.

Low Jia Ying | April 08, 2022, 01:47 PM



Hard to Search

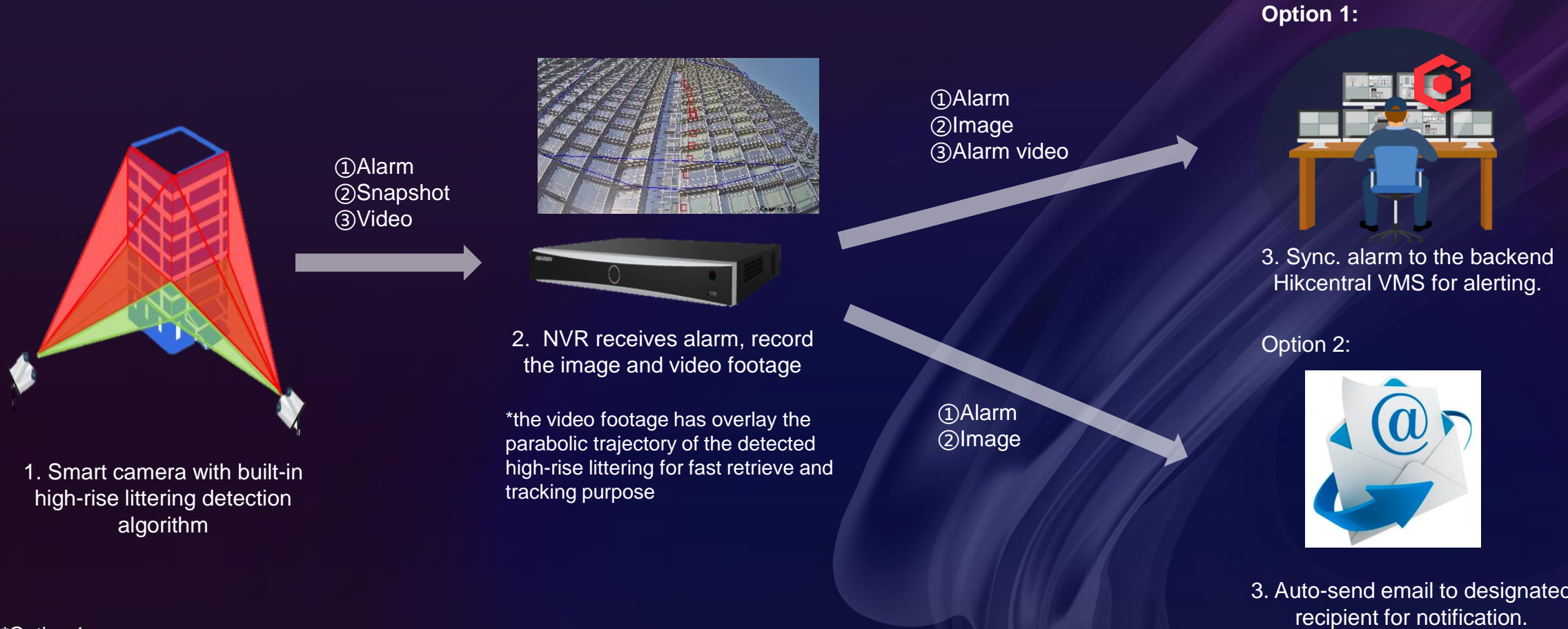
1. The time of parabolic behavior **cannot be accurately known**
2. The video needs to be queried repeatedly, which is **difficult to be found manually**

Hard to Sure

1. The source and **responsible person** cannot be traced accurately
2. It is impossible for the owner to confirm **which floor** the joint responsibility comes from

What We Offer

- End-to-end solution for 20m to 100m away high-rise littering detection.
- Smart camera with built-in deep-learning based high-rise littering detection algorithm for automatic detection.
- Complete image, video and alarm evidence in the network video recorder (NVR) for retrieval purposes.



*Option 1: Hikcentral VMS is the central management platform for the high-rise littering events. You can enable the real-time alarm pop-up, check alarm details and export the report and video.

*Option 2: Enable the “Alarm linkage email notification” function at the NVR, then once the alarm is triggered, the NVR would send email to designated recipient.

Camera Installation

Product model	Focal length/mm	Camera installation height/m	Vertical distance to the building/m	Elevation angle	Covered floor	Covered building width/m
iDS-2CD8A47F/PW-RW	6 mm	2.5-3m	15m~20m	30°~10°	2-9	25~50
				50°~35°	8-20	35~85
				60°~50°	16-34	35~85
iDS-2CD7A45G0-IZS	4.7-118 mm	2.5-3m	20m~150m	30°~10°	2-9	25~40
				45°~25°	8-18	35~70
				60°~50°	14-34	35~70

*This table shows the camera FOV coverage of the floor under the tested environment (e.g. for iDS-2CD8A47F/PW-RW, 2.5 meter, 20 meter vertical distance).

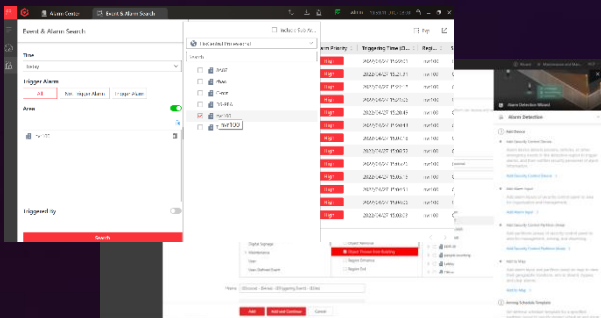
*Since different project might have different installation or camera coverage requirement, we recommend the SI partner to test based on your real scenario to define the camera installation height, vertical distance to the building, camera elevation angle, covered floor., etc.

Setting

High-rise littering detection trigger the object littering from building



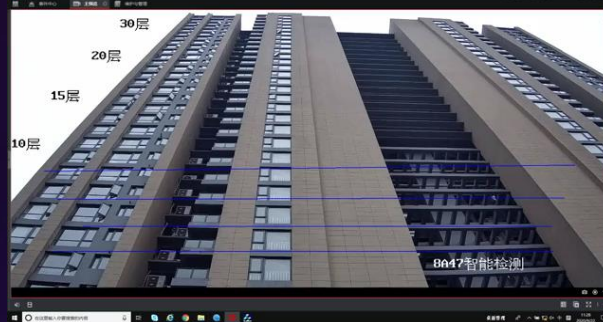
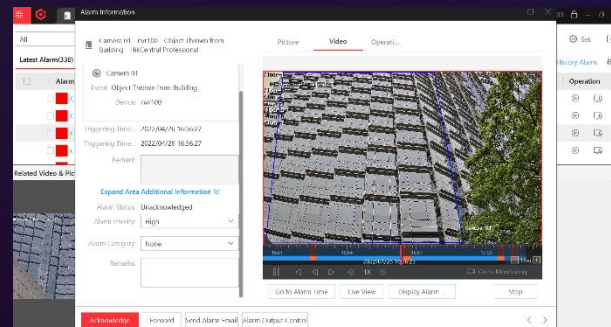
How to Add Cam and Open Function



How to Install Cam

Live view

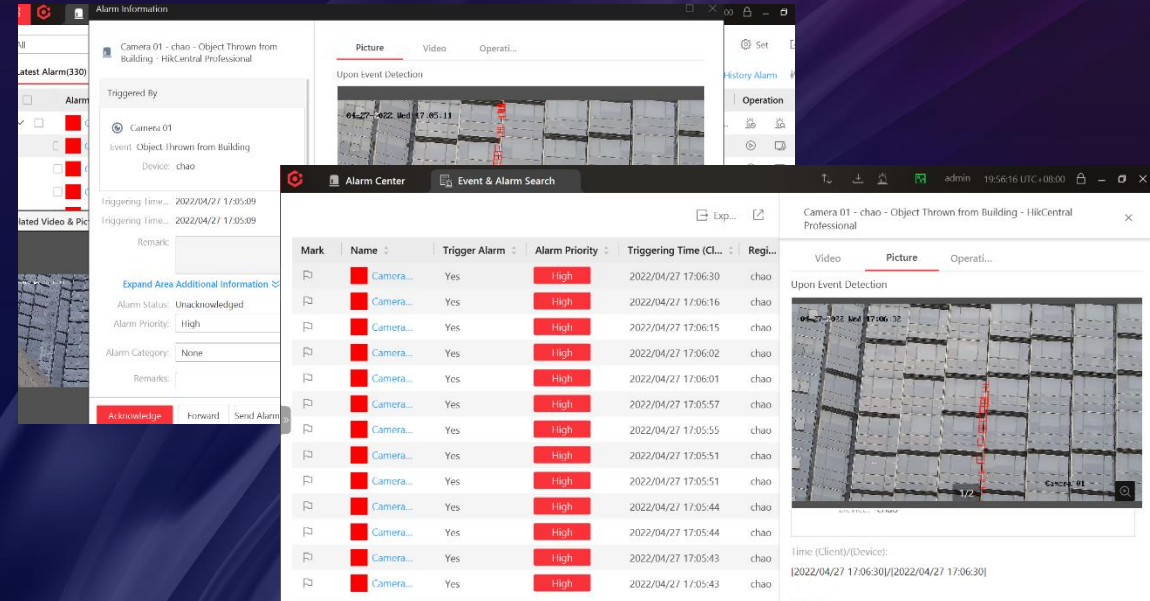
Notification when events happened, alert the security center and warn trespassers



Live view Notification

Alarm

Evidence Recording auto-tracks objects and records to easily find evidence



Alarm Record

Product Showcase



iDS-2CD7A45G0-IZS (4.7-118mm)

Selling points:

- 1) 4MP high-resolution with 4.7-118 mm
 - 2) Built-in high-rise littering detection algorithm for automatic detection
 - 3) Support up to 100 meter high-rise littering detection
 - 4) POE
 - 5) No need PTZ camera which is expensive or consume higher power;
 - 6) No need backend algorithm for the high-rise littering detection
- 4 MP @ 60fps high frame rate
 - 25X optical zoom, capture details up to 150 meter
 - GIS function guarantees image stability even under large zoom condition
 - PoE: 802.3at, Type 2
 - Built-in high-rise littering detection algorithm (to be released in end of June)
 - IP67, IK10

Product Showcase



iDS-2CD8A87G0/PW-RW (6mm)

- **8 MP @ 60fps** high frame rate
- 6mm, 6 mm @F1.0, horizontal FOV: 54.1°, vertical FOV: 29.8°, diagonal FOV: 62.9°
- Support semiconductor refrigeration water collection and spraying to realize self-cleaning
- **PoE: 802.3at, Type 2**
- **Built-in high-rise littering detection algorithm**
- IP67

High-rise littering detection algorithm requirement

- The object size must be at least 5 pixel * 5 pixel in the camera filed of view
- The object must be free-falling in the camera filed of view
- The object dropping speed must be at least 2 meter/second
- If the object is light and swing in the sky, then the algorithm can not detect it

Successful Cases

Outdoor



Scenario: Living Area

Area : Ulan Bator
Name : Ma Wang High-Rise Housing Estate
Product quantity: 52 Units

Protect the residence away from the object throw from building

Basic Info:

- Industry: Building
- End user: Ma Wang High-Rise Housing Estate

Outdoor



Scenario: Industrial park

Area: China Mainland
Name: XinAn New Tec Industrial park
Product quantity: 137 Units

Solve the problem when people work in the High area, don't let them throw the objects

Basic Info:

- Industry: Industry
- End user: Jiangsu JianZhong Energy INN

Outdoor



Scenario: Construction site

Area: Hong Kong
Name: Housing Estates Corporation
Product quantity: 20 Units

Detected the object fall off & can be easily reused in feature buildings

Basic Info:

- Industry: Building
- End user: Road King Real Estate Company

Outdoor



Scenario: City high-rise building

Area: Singapore
Name: Housing Estates Corporation
Product quantity: 100 Units

Protect personal security & individual space.

Basic Info:

- Industry: Building
- End user: Housing Estates Corporation

PS: The Chinese mainland market ships **more than 70,000 units** a year, helping the community to solve the problem of high-altitude parabola