

LILIN NVR with LILIN AI Camera Prohibited Zone Detection Guide

Human Detection in a Prohibited Zone Detection

To add your AI camera to your LILIN NVR to detect and log AI events in Prohibited Zones, follow the steps below.

AI Camera

Log in to your AI camera and select the AI module icon. This will ask you to login to the camera's AI module. Enter the camera's administrator username and password.

Select 'Alarm' from the top bar.

This screen is where you will configure the desired AI behaviour and AI classifications that will trigger an event to an NVR.

In the example below the camera is set to trigger when a person enters the designated zone.

Alarm Settings	Behavior object size filter (FOV%) for each zone Behavior detection Prohibit zone Ocne with dwell / Parking violation Tripwire / Traffic flow Density detection All objects detection (NAND) Lack of any object detection (NAND) Detection zone output Camera virtual 1 Camera virtual 3 Camera virtual 4 WNR HTTP digital alarm output Now classified object only Codd zone Stew classified cone y	
Counter Settings	Apply	
Counter triggering >= 1 Linked to dwell time	Counter N • Operand N • Reset value Reset every None • Reset Link to post event None • Counter01 · 0, Counter02 · 0, Counter03 · 0, Counter04 · 0, Counter05 · 0, Counter05 · 0, Counter05 · 0, Counter06 · 0, Counter08 · 0,	
	Analy	

Selected classifications (such as person) will appear green when the AI detects them, they will turn red once the behaviour has been activated (such as entering the prohibited zone), this is when the alarm trigger will happen

You can set up to 4 different AI zones with different behaviours and classifications.



Next select 'Settings' from the top menu bar.

Within this menu, you have the option of:

Same ID Object in same location trigger only once

	SETTING	? Adout	
General		Language Synchronize camera settings Port # Enable low CPU usage Same ID Object in same location trigger only once Tracking ID dwell Enable metadata base64 JPEG (snapshot, FTP, email) Metadata encoder # ONVIF Profile M (1) (1)	English Syme 8552 3 Please set encoder [Output Frame Rate] to 15 or less and set [Image Quality] to 20 or less. If the upload speed is low and [enable metadata base64] is enabled, please lower the JPEG resolution.
	 		Apply

Same ID Object in same location trigger only once ON:

If this option is ticked the AI engine will trigger the first time a classification enters an area of your behaviour detection zone. If the same classification re-enters the scene in the same location the AI engine will ignore and not trigger alarm. This is for 400 seconds. If the classification enters before the 400 seconds is finished the clock resets to zero (so another 400 seconds) without an alarm trigger

Note: If the camera is a V1W warm light series, the Warm light LED will activate at the start of the classification entering the detection zone, it will only stay on for time that has been set in the camera menu. It will not reactivate until the AI engine send another alarm trigger (400 seconds).

Same ID Object in same location trigger only once OFF:

If this option is off, the alarm will continue to trigger whilst the classification is moving within the detection zone. The NVR will usually log this as one event whilst the target classification is moving. If the classification is still, then resumes moving this will trigger another event.

Note: If the camera is a V1W warm light series, the Warm light LED will activate at the start of the classification entering the detection zone, it will stay on for the time set in the camera menu once the target classification stops moving.

For a basic configuration, these should be the only options to change on this menu.



NVR

Next log in to the NVR (this guide assumes the camera has already been added to the NVR).

Once logged in to the NVR, select 'Meta Data' and select the channel your AI camera has been added to.

Once selected click the 'Camera Detection' button. This will talk to the camera and automatically match the AI engine licence to what has been enabled on the camera.

9LILIN	C GENERAL	EVENT					admin 🌣
STREAM	1. CAM01	Serial Input	Channel 🗸	Camera Detection	Event #1 (Restricted Area	a Detection) 🚽	Select/Clear All
CAMERA		Metadata Service	On -		Person	Bicycle	Car
		Serial Device Server	192.168.127.254		Motorbike	Bus	Train
NECORD NEC		Server Data Port	(Max. length 31) 950		Truck	Fire Engine	Van
ALARM		Server Command Port	(1~65535) 966		Tuk Tuk	Truck Trailer	Pickup Truck
DISPLAY		Emulated Mode	(1~65535) AI CAMERA ~		Bulldozer	Stacker	Excavator
🗞 network		Encoding Mode	ASCII -		Tanker		
COS SYSTEM		Baud Rate	9600				
		Data Size					
D PTZ		Parity	None -				
Gin Meta Data		Stop Bit					
		Flow Control	None -				
		OSD Font Color	FFFFFF				
		Display Time	(HEX: RRGGBB)				
		Display Position	(5~180 seconds, 999 always) Lower Right +				
		Display Object Box	Detection Zone -				
		Display Text	On 🚽				
						Apply	Undo

Next select the classifications/objects that you have enabled on the camera.





There are some options at the bottom of the page that will change how AI objects are displayed on the NVR.

You have the option Display Object Box:

- Object Box
- Detection Zone
- Object Box / Detection Zone
- Off

Enabling object box means that an object box (coloured square) is displayed around the classified object once they enter the detection zone.



Enabling Detection Zone means the camera will display the detection zone set from within the camera over the video displayed on the NVR. (None of these options are shown when a video backup is taken.)



Enabling Object Box / Detection Zone simply means both are enabled and visible.

Click Apply.

Please note that enabling Object Box or Detection Zone will cause the NVR to use more resources and may impact performance. The object box and detection zone are not visible on backups.



Next, select the 'Alarm' menu and select the channel your Al camera has been added to.

9LILIN.	© GENERAL	Samotion area (о))оитрит				admin	\$
STREAM	1. CAM01			1				
CAMERA	2. CAM02	Alarm Input Type	IP Camera 🚽		Motion Popup	01	(5 ~ 100 Seconds	5)
		Motion Enable	0 11		Specity Alarm Text	0 11	(Max. length 32	2)
QO RECORD	4. CAM04	Motion Sensitivity	Standard		Display View	0#		
À alarm		Save Event Snapshot	Off ~		Display Type	Camera		
		Apply To All Channels			Display Content	CAM01 ~		
مع المعالية (المعالية المعالية محل المعالية (Alarm Popup	Off -	5 🗸	
of NETWORK					Specify Alarm Text	Off	(5 ~ 100 Seconds	
SYSTEM					Display View	Off	(Max. length 32	
DTZ					Display Type	Camera 🚽		
💬 META DATA					Display Content	CAM01 🚽		
						07		-
					Metadata Popup	.	(5 ~ 100 Seconds	1)
					Specify Alarm Text	Off	(Max. length 32	2)
					Display View	Off		
					Display Type	Camera 🚽		
					Display Content	CAM01 -		
						Apply	Undo	

Next turn 'Alarm Input Type' to 'IP Camera' and click Apply.

Your camera is now logging AI events to the NVR.



When watching the NVR via browser red meta data text will appear every time an AI alarm/trigger is activated

The NVR has many ways to search and filter AI alarm events. Below is just one example.





Alarm Outputs

Some of the outputs include Email, Buzzer and Push Notifications alerts (In this guide we will cover push notification configurations)

To enable push notifications for detected AI events, select 'Alarm' from the NVR menu.

Select the 'Output' tab from the top menu bar.

Next select 'Notification' from the sub menu bar.

Turn 'Enable' to On and click the 'Channel Events' button.



From the Events dropdown select 'Event 3 (AI Restricted Area) and tick 'Person' (we select person because this is the classification set on the AI camera module)

Then click Apply.

🇱 NOTIFICATION - Channel Events					
Channel #1 -	Event #3 (AI Restricted A	Select/Clear All			
1. CAM01	Person	Bicycle	Car	Motorbike	
2. CAM02	Person	Bicycle	Car	Motorbike	
3. CAM03	Person	Bicycle	🗌 Car	Motorbike	
4. CAM04	Person	Bicycle	Car	Motorbike	
			1	Apply	Cancel



Push Notifications can also be added to a schedule (so you can specify time of the day they would be active)

Alarm Send Interval can be set between 5 to 100 seconds and means even if another alarm on the same camera is triggered and logged by the NVR it won't send another push notification until the set time has expired.

9LILIN.	C GENERAL	MOTION AREA	(©)OUTPUT					admin 4
STREAM		Enable	On					
CAMERA		Trigger Conditions	Channel Events	Syste	m Events	Schedule		
QO RECORD		Alarm Send Interval	10 7	-				
M ALARM		Al Snapshot Included	8 9					
	NOTIFICATION		10 11					
			12					
🇞 NETWORK			13 14					
SYSTEM								
] *								
D PTZ								
META DATA								
E OTHER								
P2P QR code								
然在 线								
CEM8I44EF2HF4R61EH8LEU8L Version: 13.0.34.9639							Apply	Undo

If a mobile app already has the NVR configured within it and the app is set to receive 'Alarm Events' you will start to receive push notifications when an AI event is triggered.

Enabling push notifications will also enable the 'Events' option on the LILINPro app. This is a list of historical alarm events on the NVR.

10:45		
$\leftarrow \textcircled{2}$	Events	III 📅
Image	Details	
er er	05/14/2024 Home CAM01 Human Detection	08:42:50 #01
eff.	05/14/2024 Home CAM01 Human Detection	08:24:20 #01
er er	05/14/2024 Home CAM01 Human Detection	08:21:54 #01
eft,	05/14/2024 Home CAM02 Human Detection	08:21:30 #02
ŝ	05/14/2024 Home CAM01 Human Detection	05:09:56 #01
ŝ	05/14/2024 Home CAM01 Human Detection	05:02:34 #01
: [2] *>	05/13/2024 <u>Q</u> []	20:23:09