



**BU-3028-IVS**

## e-Fence Guide

Version 1.0

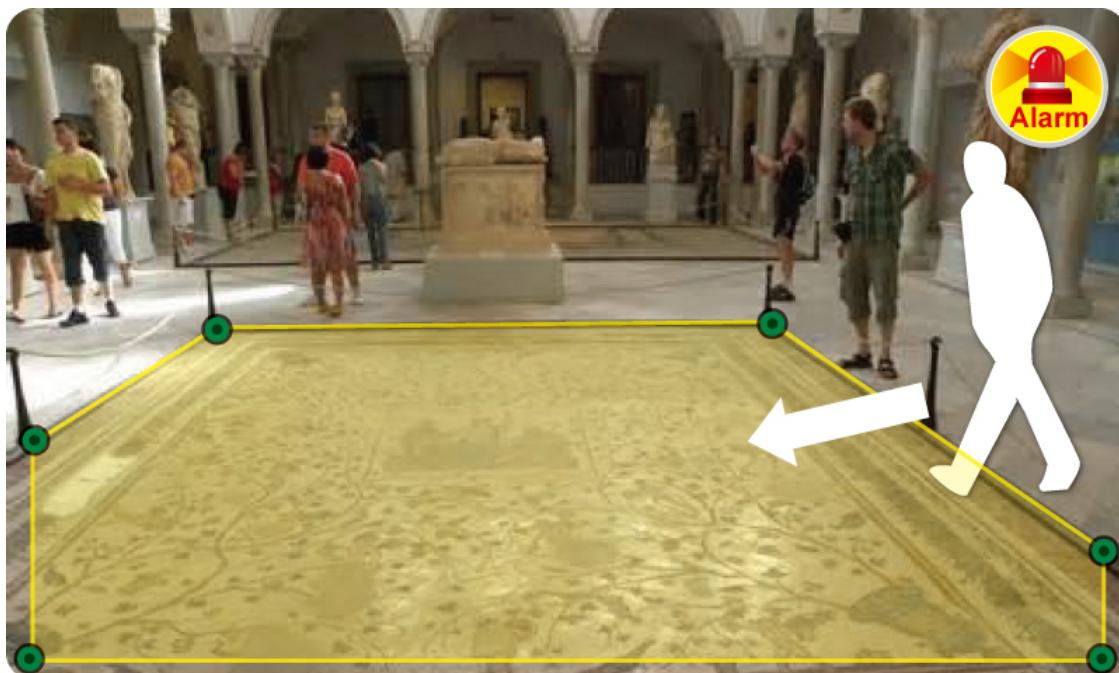


# BU-3028-IVS e-Fence Guide

## 1. Overview

The BU-3028-IVS has built-in video analytic function for e-Fence detection. It is a standalone function built into the camera's firmware without the need for external software or device. The e-Fence function can be used to detect any objects when it crosses border of detection areas. This guide will focus on using BU-3028-IVS's "e-Fence" function to do intruder detection in places like museum, residential area, warehouse, military structure, or jail.

The e-Fence works by defining 1~4 zones on the video image. When a person or object crosses the border or moves in/out the zone, the camera will detect the object immediately.



The important factors for successful e-Fence installations are:

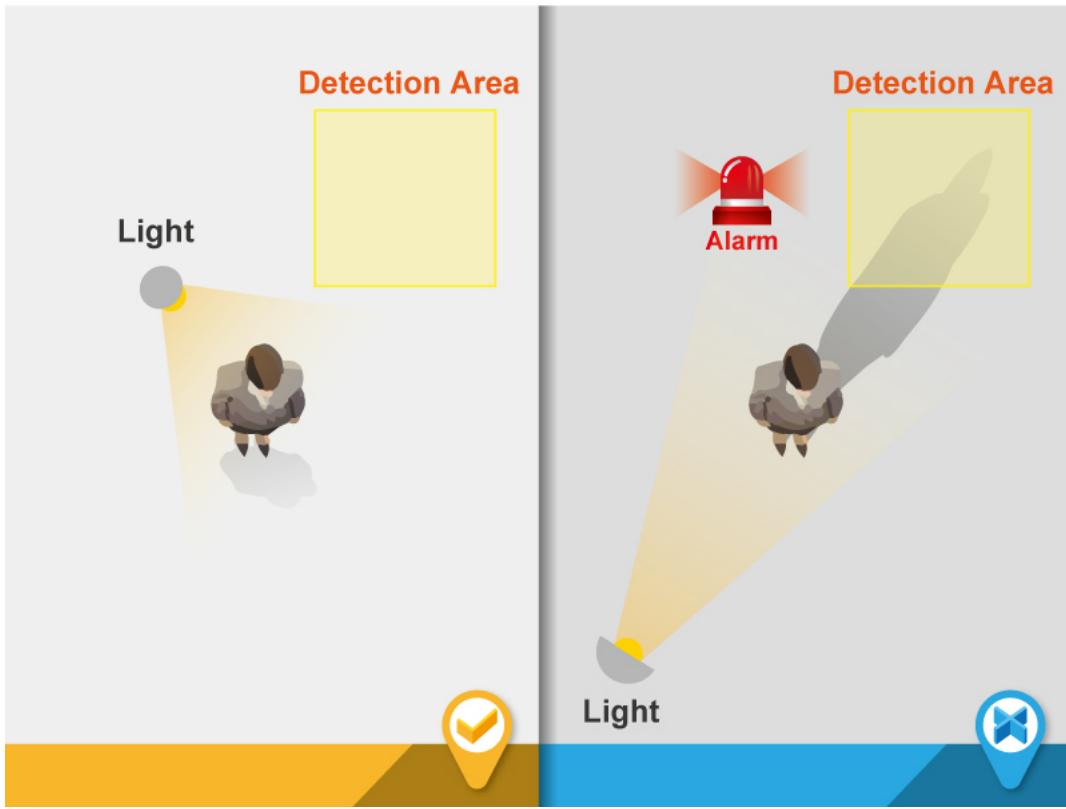
- Choose the appropriate installation location and avoid any shadow get into or pass through the detecting area.
- Choose the appropriate camera height (distance).

We will guide you through the procedure in the following articles.

## 2. Hardware Installation Guidelines

- The followings are basic installation guidelines for best e-Fence results. However, the e-Fence function can still work in less than ideal conditions.

**1. Prevent from any shadow comes into the detection area.**



**2. Make sure there is enough illumination. (Noise will cause the false alarm.)**



### 3. Make sure the appropriate camera distance.

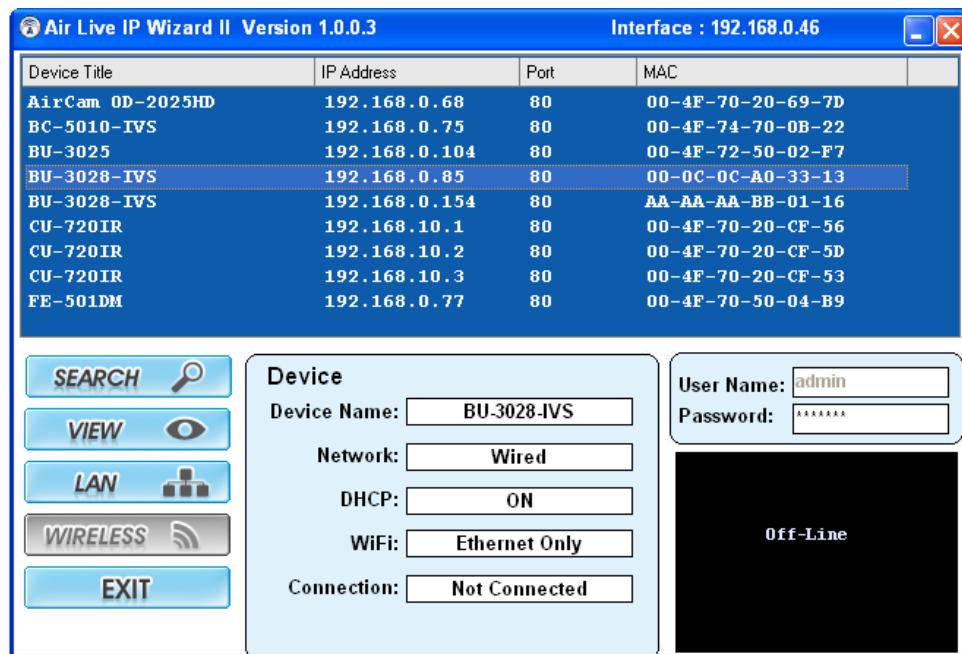
1080P		720P	
Viewing Angle	Distance (Max.)	Viewing Angle	Distance (Max.)
Wide Angle	8M	Wide Angle	6M
Telephoto	17M	Telephoto	14M

## 3. Camera Configuration

### 3.1 Finding camera using AirLive IP Wizard

The IPCAM's default IP address is 192.168.1.100 , but this address can change when there is DHCP server(router) in your network. Therefore, please install AirLive IP wizard to find your camera.

1. Install the “AirLive IP Wizard” from the installation CD or download it from [this link](#).
2. Run the “setup.exe” and open the AirLive IP Wizard.
3. The IP Wizard will auto search and list out the camera found. Double click on the camera that you want to configure.



4. The IPCAM's web configuration will open automatically after double click. Please enter the “admin” for username and “airlive” for password.

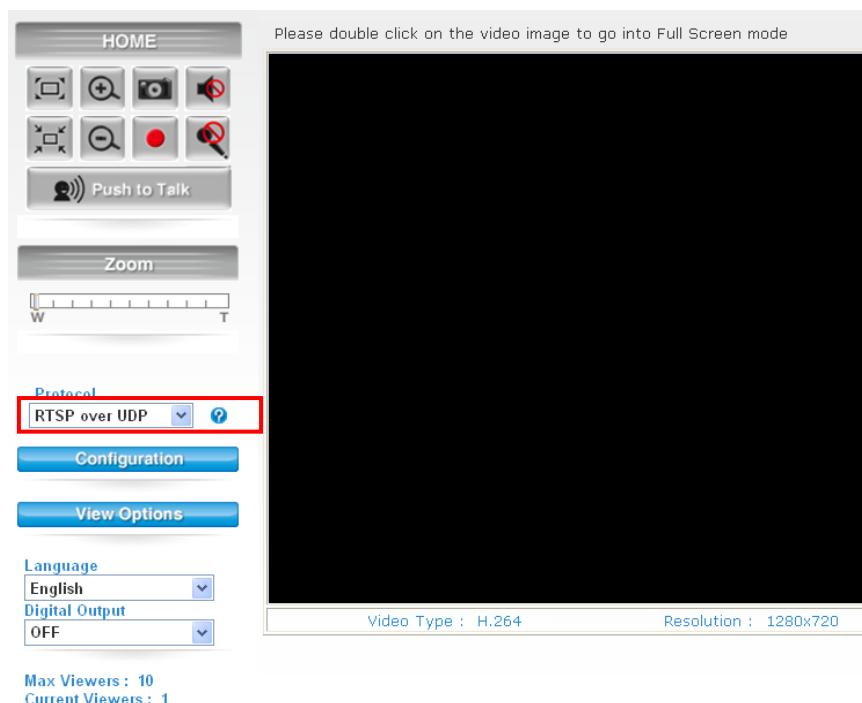
5. After entering the correct username and password. You will enter the camera's web configuration page. When prompted to install "Media Control" from "OvisLink Corp", please select "Yes" to install.

### 3.2 Enable Camera's Video Analytic function

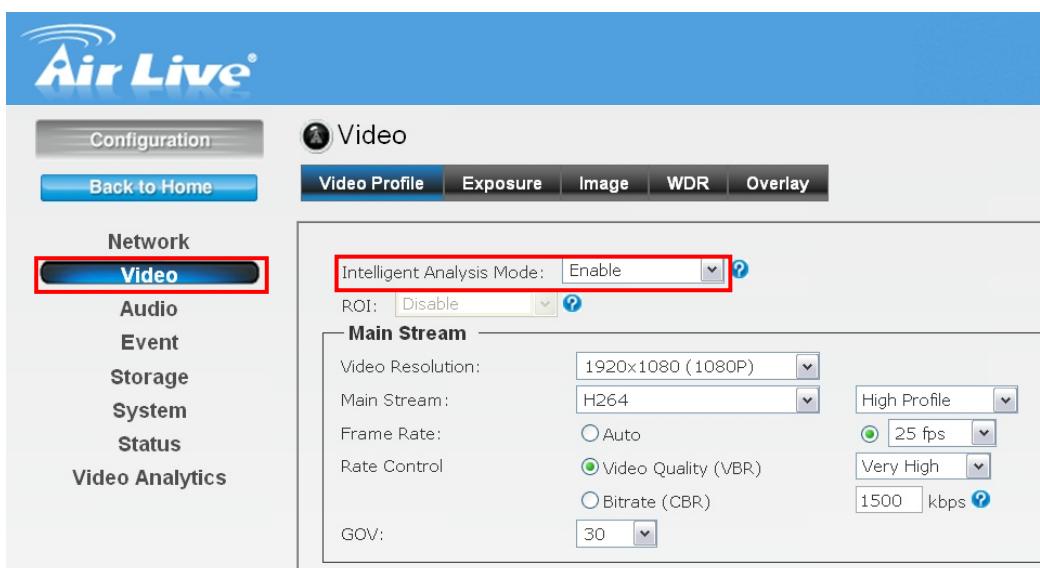
Please use Internet Explorer as the default browser. If you are using IE 11, please go to "Setup->Compatibility View Settings" and add the camera's IP address to the list.

Please follow the steps below to enable camera's video analytics function.

1. Click on "Configurations" on left menu bar.



2. Click on "Video" on the left menu bar and select "enable" Intelligent Video Analytics.



### 3.3 Setting Resolution and Frame Rate

On the video page, it is important to set the appropriate resolution and frame rate.

**!** Please remember to click on “Apply” button after finish settings.

Main Stream Resolution	Main Stream Frame Rate	Second Stream Frame Rate
1080P	25FPS	15FPS
720P	25FPS	15FPS

- Network
- Video**
- Audio
- Event
- Storage
- System
- Status
- Video Analytics

Intelligent Analysis Mode:

Enable

?

ROI:

Disable

?

**Main Stream**

Video Resolution:	1920x1080 (1080P)	
Main Stream:	H264	High Profile
Frame Rate:	<input type="radio"/> Auto <input checked="" type="radio"/> 25 fps	25 fps <span>?</span>
Rate Control	<input checked="" type="radio"/> Video Quality (VBR) <input type="radio"/> Bitrate (CBR)	Very High <span>?</span>
GOV:	1500 kbps	

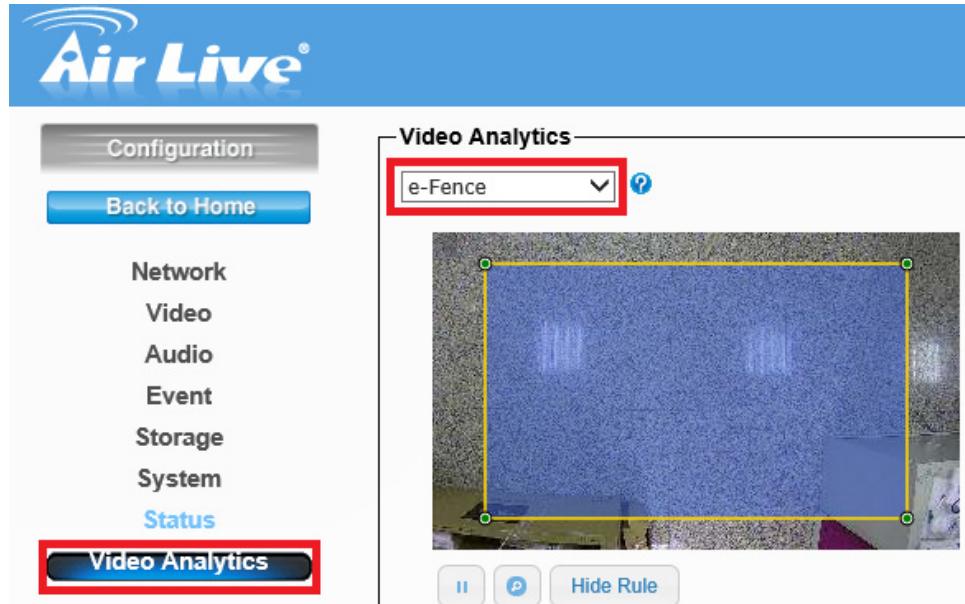
**Second Stream**

<input checked="" type="checkbox"/> Enable Second Stream		
Video Resolution:	320x192 (QVGA)	
Second Stream:	MJPEG	
Video Quality:	Very High <span>?</span>	
Frame Rate:	<input type="radio"/> Auto <input checked="" type="radio"/> 15 fps	15 fps <span>?</span>

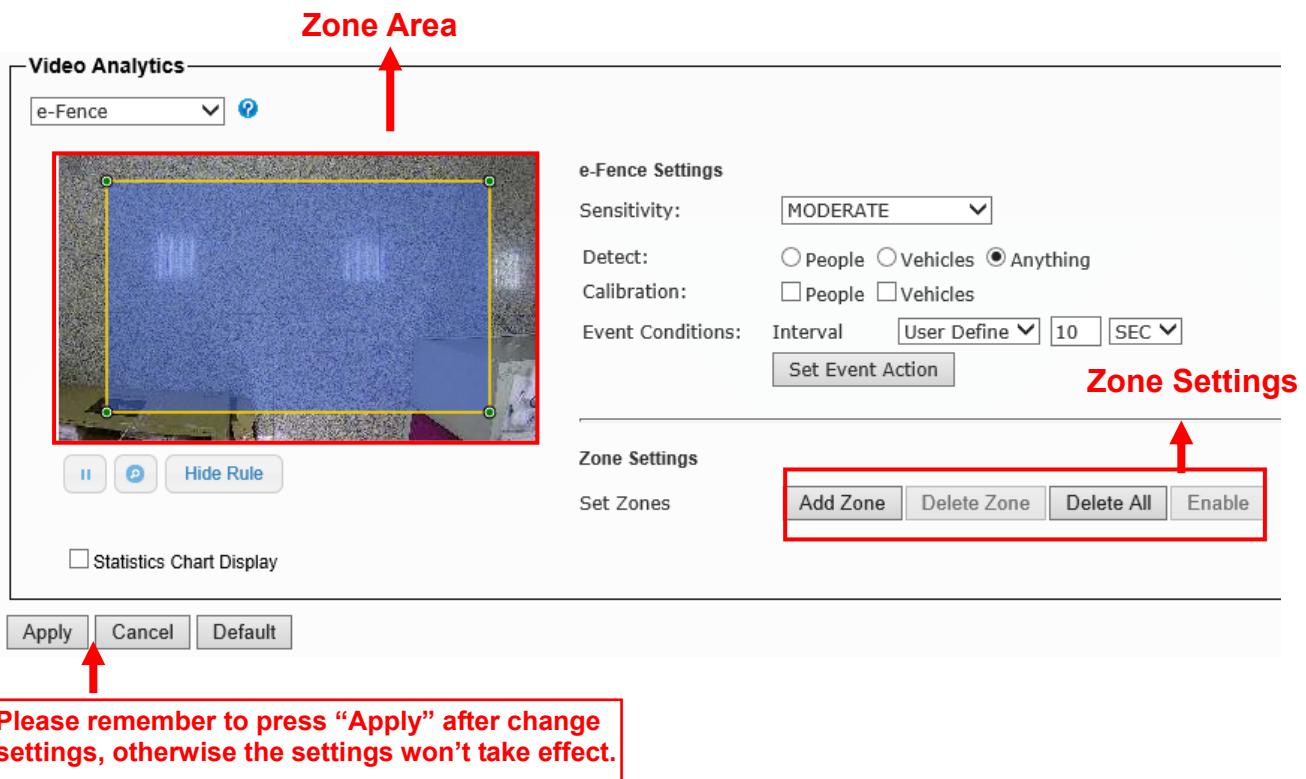
Apply
Cancel

### 3.4 Configure e-Fence Function

Please go to “Video Analytics” menu and select “e-Fence”



Below is the main page of e-Fence.



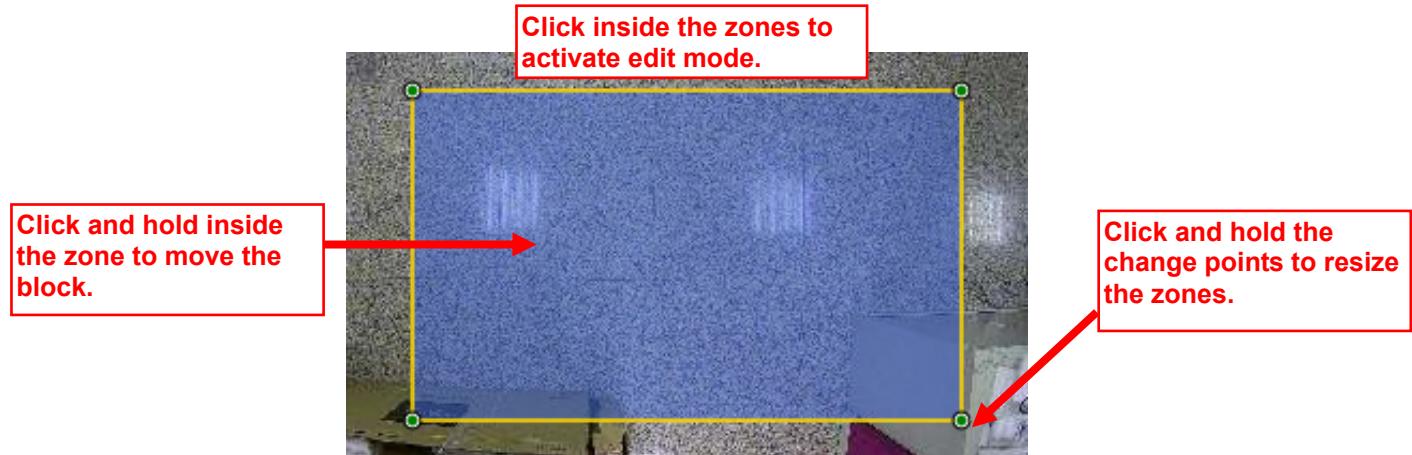
This screenshot shows the detailed configuration page for the e-Fence. It includes:

- Zone Area:** A red box highlights the video feed area where a blue rectangle represents the e-Fence zone. An arrow points from the text "Zone Area" to this box.
- e-Fence Settings:** A red box highlights the settings for sensitivity, detection, calibration, and event conditions. An arrow points from the text "Zone Settings" to this box.
- Zone Settings:** A red box highlights the "Set Zones" button and the "Add Zone", "Delete Zone", "Delete All", and "Enable" buttons. An arrow points from the text "Zone Settings" to this box.
- Buttons:** At the bottom left, there are "Apply", "Cancel", and "Default" buttons. An arrow points from the text "Please remember to press "Apply" after change settings, otherwise the settings won't take effect." to the "Apply" button.
- Text Box:** A red box contains the instruction: "Please remember to press "Apply" after change settings, otherwise the settings won't take effect."

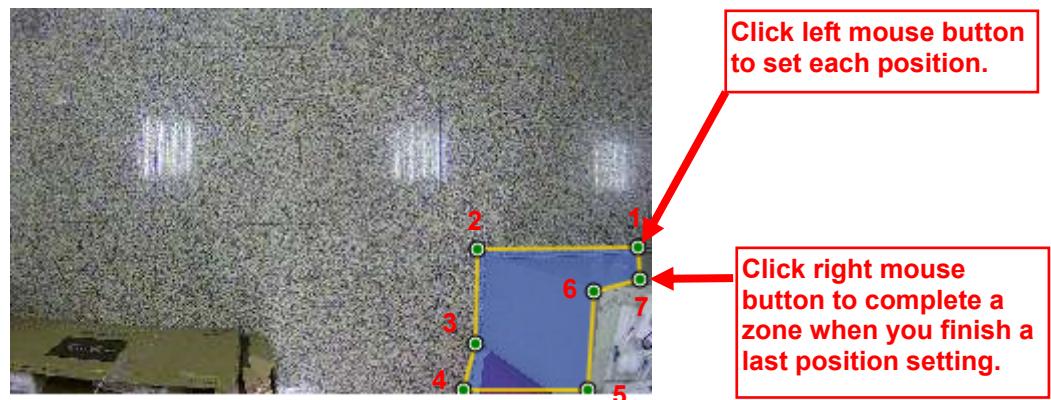
The first step is to set the zones according to your environment. The controls are separated in Zone Area and Zone Settings as indicated above.

## Zone Settings

- This is the default zone setting. When you click inside the “Zone Area”, you can move and resize the zone by holding the “inside zone” and the “change points”.



- Create another zone: When you press “Add Zone” button, you can create up to 4 zones to fit your need.



After you set the zone area correctly, the next step is to calibrate the object size according to your installation.

## Calibration

“Anything” is our recommendation and you don’t need to do the calibration. However, you could also choose “People” or “Vehicles” to set “Calibration” when the camera cannot detect objects accurately.

You can perform calibration by checking the “people” in the calibration field.



**e-Fence Settings**

Sensitivity: **MODERATE**

Detect: **People**  Vehicles  Anything  
 People  Vehicles

Calibration:  People  Vehicles

Event Conditions: Interval **User Define** **10** SEC **1**

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**Zone Settings**

**Buttons:**

On the Zone Area, a window label “Min Size” will appear.

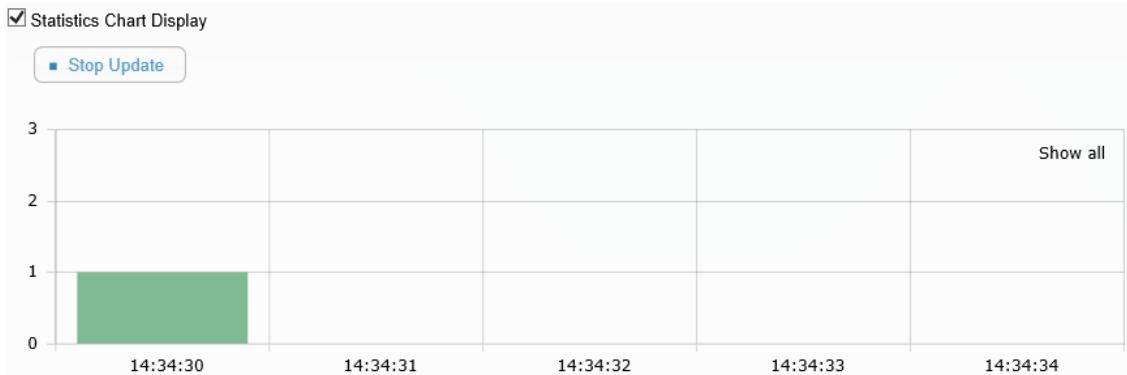


Click on “Min. Size” window to change the size of the minimum object.

- Min Size: Object smaller than this size will not be detected.

## Other Important Settings

- Detect: Please keep on “Anything” for an accurate detection.
- Sensitivity: “Moderate to High” is the recommended settings
- Statistic Chart Display: When enabled, it will show the result in a statistic graph. It is not recommended to turn on this function as it might use a lot of CPU resource which can influence the performance. If you use this function, please remember to **turn it off** after finish using it.



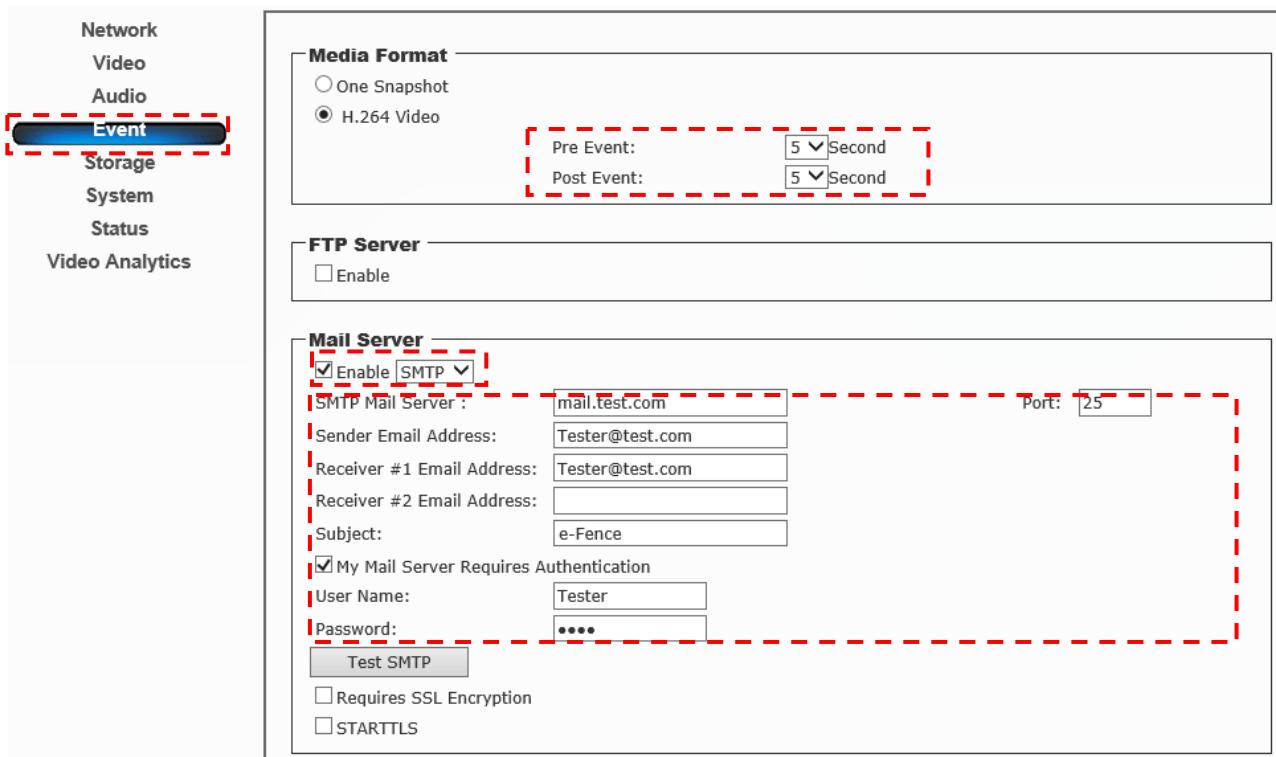
## Event Action

The camera's e-Fence function can perform certain action when an event is met. For example, it can be set if any object is moving into the detection areas, it will start to record a video and send alarm email to user.

### Example:

Setting if the object is moving into the detection areas between 7am to 9pm, the camera will record an event video and send an email to user.

1. Go to the camera's UI, select “Event->Media Format”, and choose recording period.
2. Check “Enable SMTP”, select SMTP or Gmail, and fill in all the relation data. (Please press “Test SMTP” button to make sure your setting is correct or not.)



The screenshot shows the camera's UI with the following interface elements:

- Left Sidebar:** Network, Video, Audio, **Event** (selected), Storage, System, Status, Video Analytics.
- Media Format:** Options: One Snapshot (radio button), H.264 Video (radio button). Settings: Pre Event: 5 Second, Post Event: 5 Second.
- FTP Server:** Enable checkbox.
- Mail Server:** Enable SMTP checkbox checked. Fields: SMTP Mail Server: mail.test.com, Port: 25. Sender Email Address: Tester@test.com. Receiver #1 Email Address: Tester@test.com. Receiver #2 Email Address: (empty). Subject: e-Fence. My Mail Server Requires Authentication checkbox checked. User Name: Tester, Password: (redacted). Buttons: Test SMTP, Requires SSL Encryption, STARTTLS.

3. Go to “Video Analytics” and “e-Fence”. You can change the “Interval” to have the time interval between events.

**Video Analytics**

e-Fence

**e-Fence Settings**

Sensitivity: **MODERATE**

Detect:  People  Vehicles  Anything

Calibration:  People  Vehicles

Event Conditions: Interval **User Define** **10** SEC

**Zone Settings**

Set Zones

Statistics Chart Display

4. Now, please click on “Set Event Action”. Click on “Add”. Then the following screen will appear. Please enter the data as shown below. Please remember to click on “Save” after finish settings.

**!** Note: The Event Name does not allow spaces in between words. Please enter the event name as one single word.

**Event List**

	Event Name	Status

Please remember to save settings after you add or edit event.

**Event Settings**

Event Name: **e-Fence** Enable

**Schedule**

Always  
 From **09** : **00** To **21** : **00** **hh:mm**  
 Sun  Mon  Tue  Wed  Thu  Fri  Sat

**Trigger**

Motion Detection  Digital Input 1 **Low**  Digital Input 2 **Low**  Tamper Detection  
 Video Analytics **eFence**  Periodically time **001** seconds

**Action**

<input type="checkbox"/> Enable FTP	<input checked="" type="checkbox"/> Enable SD CARD	<input type="checkbox"/> Trigger digital output for <b>01</b> seconds
<input checked="" type="checkbox"/> Enable EMAIL	<input type="checkbox"/> Enable TCP	<input type="checkbox"/> Audio File Playback
<input type="checkbox"/> Enable Samba( Net Storage )	<input type="checkbox"/> Enable HTTP	