



BC-5010-IVS

**iMotion Detection
Guide**

Version 1.0



BC-5010-IVS iMotion Detection Guide

1. Overview

The BC-5010-IVS has built-in video analytic function for intelligent motion detection. It is a standalone function built into the camera's firmware without the need for external software or device. The iMotion detection function can be used to detect specific or any moving objects. This guide will focus on using BC-5010-IVS's "iMotion Detection" function to do moving object detection in places like warehouse, school, store or super market.

There are 3 specific enhancements in iMotion Detection compared with Motion Detection.

- Ability to distinguish motion from people, vehicle, or user defined object size.
- Define the detection areas with polygons.
- Ability to define event interval.

The iMotion Detection works by defining 1~4 zones on the video image. When a person or object crosses the border or moves into the zone, the camera will detect the object immediately.



The important factors for successful iMotion Detection installations are:

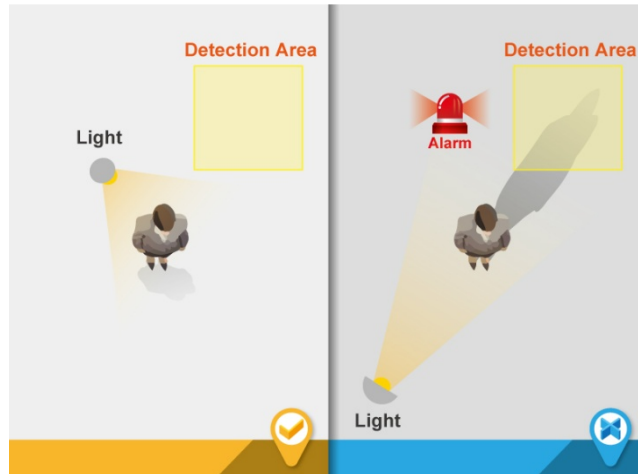
- Choose the appropriate installation location and avoid any obstacle like shadow of tree or building showing in the detecting area.
- Choose the appropriate resolution and frame rate.

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

2. Hardware Installation Guidelines

- It is recommended to have at least 2.6 meter of vertical clearance (from floor to ceiling) for best performance. However, if your environment cannot meet the recommended conditions, it can still work with reasonable accuracy.
- The followings are basic installation guidelines for best iMotion Detection.

1. Prevent from any shadow comes into detection area.



2. Avoid any moving merchandise, decoration or flash lights in the detection area.



3. Make sure there is enough illumination.



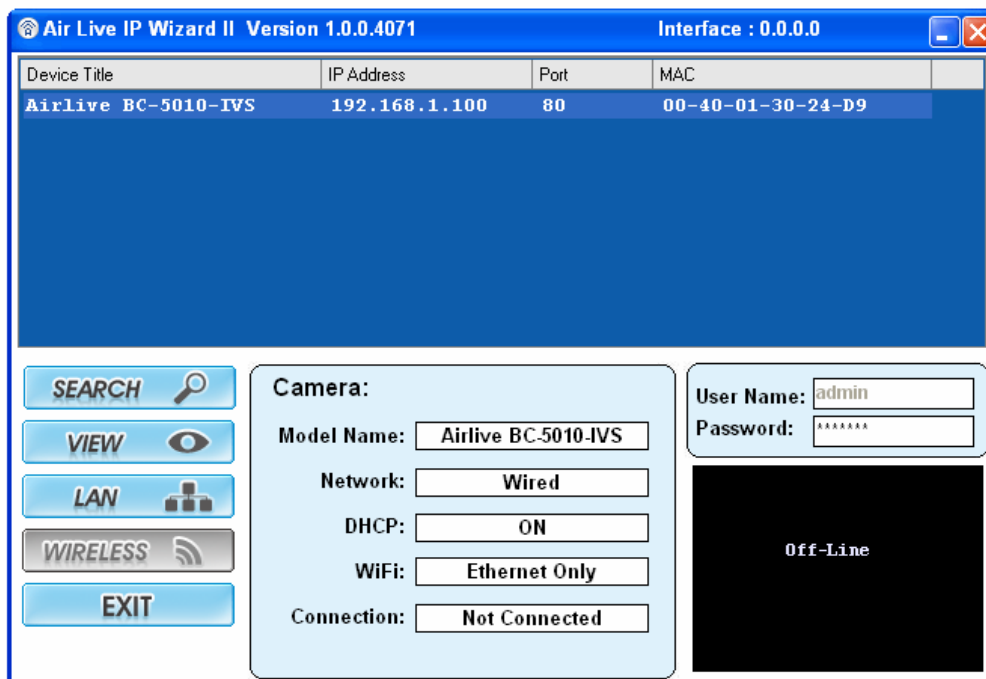
Note: The minimum distance is for reference only. This number is tested base on ACC-MPL-2812 v2 with 2.8mm Focal Length. Difference Focal Lens may have difference appropriate camera height.

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.



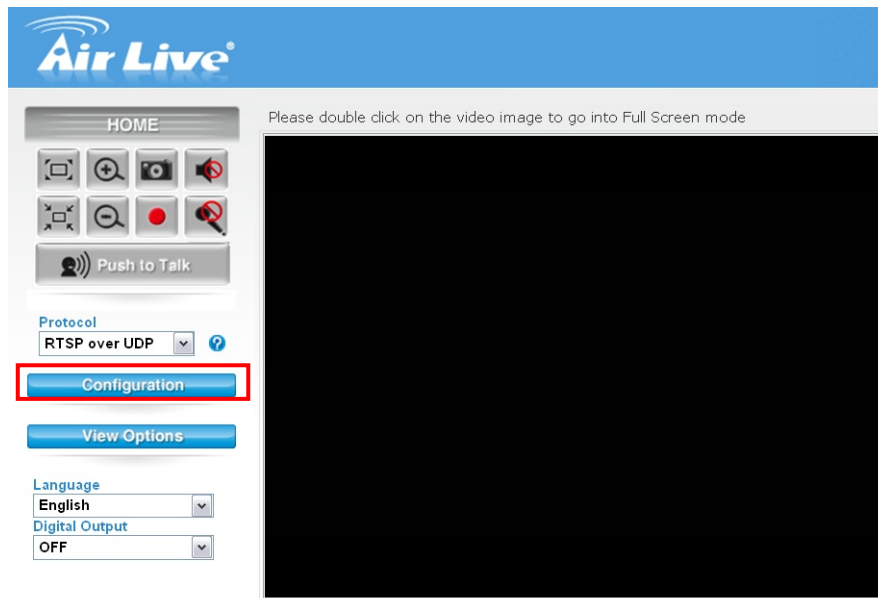
4. The IPCAM's web configuration will open automatically after double click. Please enter the “admin” for username and “airlive” for password.
5. After entering the correct username and password. You will enter the camera's web configuration page. When prompted to install “Media Control” from “OvisLink Corp”, please select “Yes” to install.

3.2 Enable Camera's Video Analytic function

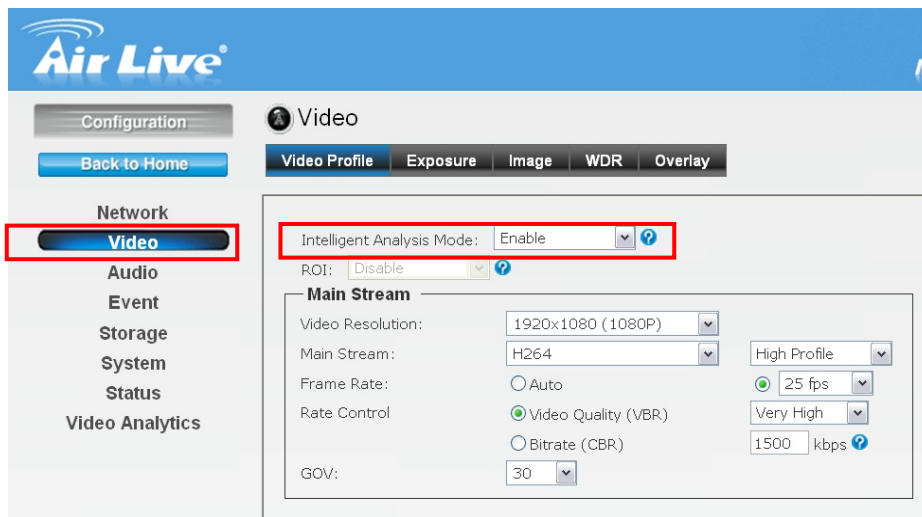
Please use Internet Explorer as the default browser. If you are using IE 11, please go to "Setup->Compatibility View Settings" and add the camera's IP address to the list.

Please follow the step 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 resolution and frame rate correctly.

ⓘ Please remember to click on "Apply" button after finish settings.

Main Stream Resolution	Main Stream Frame Rate	Second Stream Frame Rate
1920x1080	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: Auto 25 fps ?

Rate Control Video Quality (VBR) Very High ?
 Bitrate (CBR) 1500 kbps ?

GOV: 30 ?

Second Stream

Enable Second Stream

Video Resolution: 320x192 (QVGA) ?

Second Stream: MJPEG ?

Video Quality: Very High ?

Frame Rate: Auto 15 fps ?

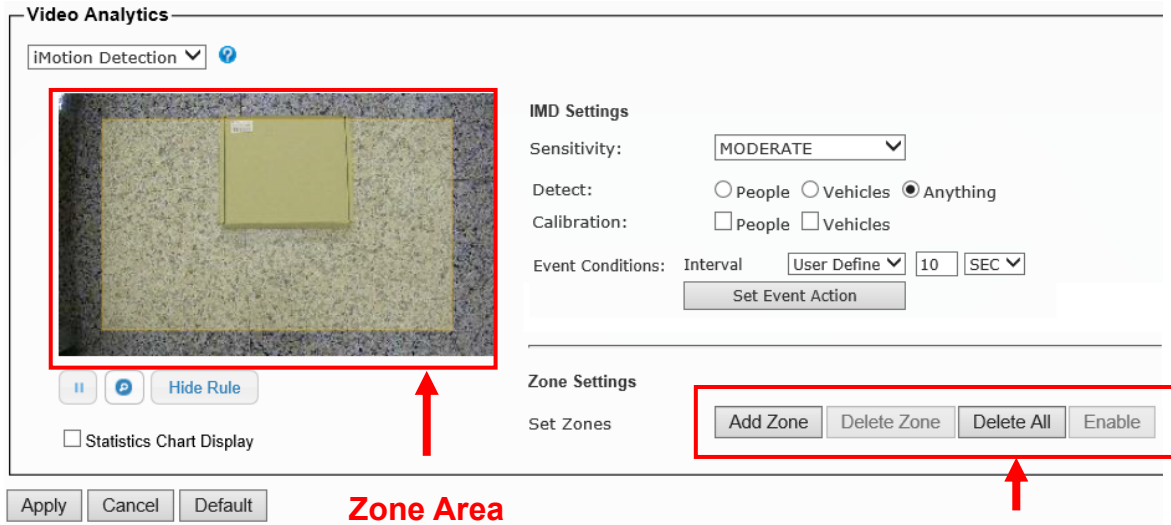
Apply Cancel

3.4 Configure iMotion Detection Function

Please go to “Video Analytics” menu and select “iMotion Detection”

The screenshot shows the Air Live web interface. On the left, there is a navigation menu with options: Configuration, Back to Home, Network, Video, Audio, Event, Storage, System, Status, and Video Analytics. The 'Video Analytics' option is highlighted with a red box. On the right, the 'Video Analytics' section is active, showing a dropdown menu with 'iMotion Detection' selected, also highlighted with a red box. Below the dropdown is a video preview window showing a textured surface with a yellow detection zone. To the right of the video preview, there are labels: IMD, Sen, Det, Cali, and Set. At the bottom of the video preview, there are buttons for 'Hide Rule' and a play/pause icon.

Below is the main page of iMotion Detection.

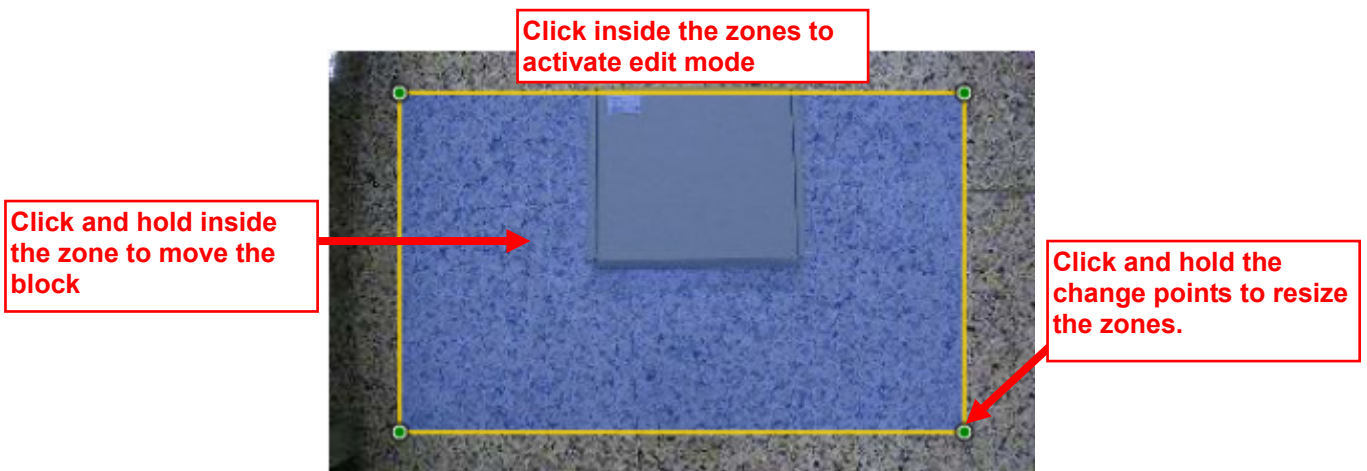


Please remember to press "Apply" after change settings, otherwise the settings won't take effect.

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

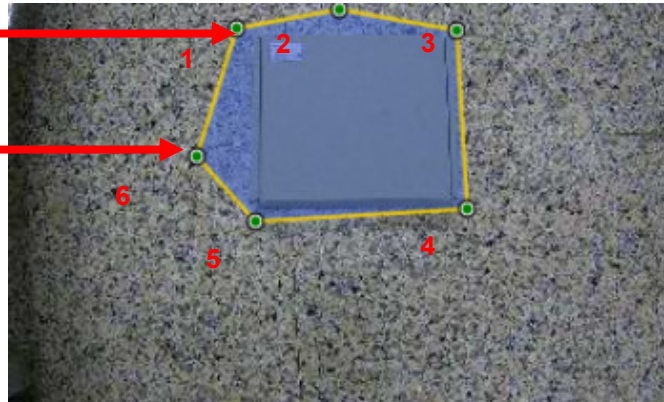
- This is the default zone setting. When you click inside the "Zone Area", you can move and resize the zone by holding the "inside zone" and the "change points".



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

Click left mouse button to set each position

Click right mouse button to complete a zone when you finish a last position setting.



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.

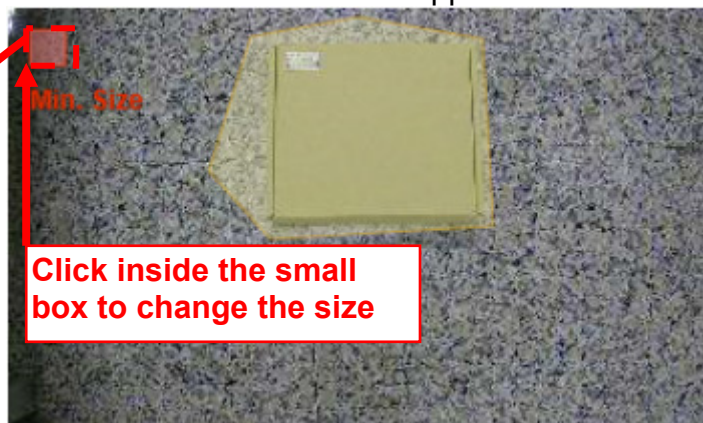
You can perform calibration by checking the “people” in the calibration field.

The screenshot shows the software interface. On the left, a camera view displays a yellow polygonal zone on a textured surface. A small red square in the top-left corner of the zone is labeled "Min. Size". Below the camera view are buttons for "||", a refresh icon, and "Hide Rule". On the right, the "IMD Settings" panel is visible. It includes a "Sensitivity" dropdown set to "MODERATE", a "Detect" section with radio buttons for "People" (selected), "Vehicles", and "Anything", and a "Calibration" section with checkboxes for "People" (checked) and "Vehicles". Below these are "Event Conditions" for "Interval" set to "User Define", a value of "10", and a unit of "SEC". A "Set Event Action" button is at the bottom of the settings panel. Below the settings is the "Zone Settings" section with buttons for "Add Zone", "Delete Zone", "Delete All", and "Enable".

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

Minimum Object Size

Click inside the small box to change the size

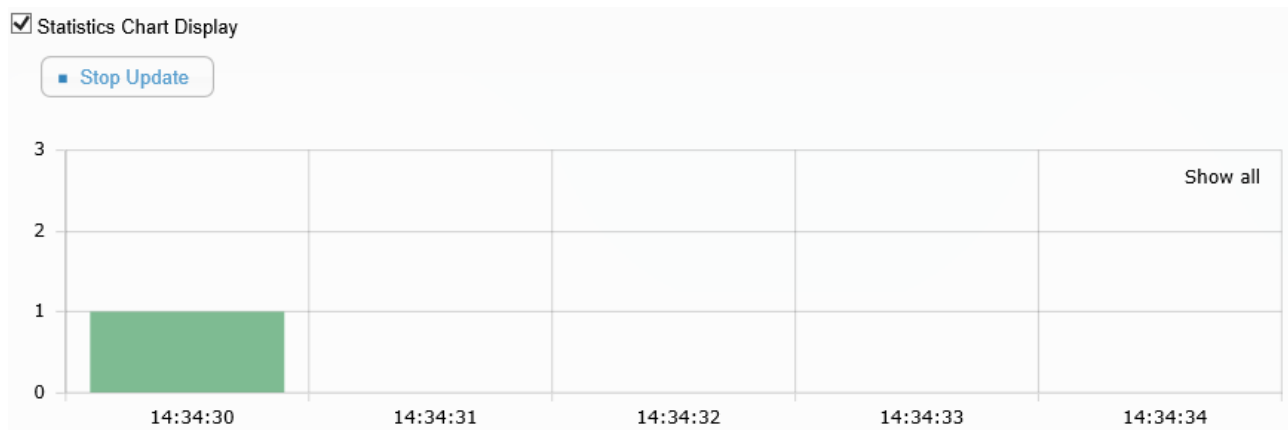


Click on “Min. Size” window to change the size of the minimum object.

- 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” 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.



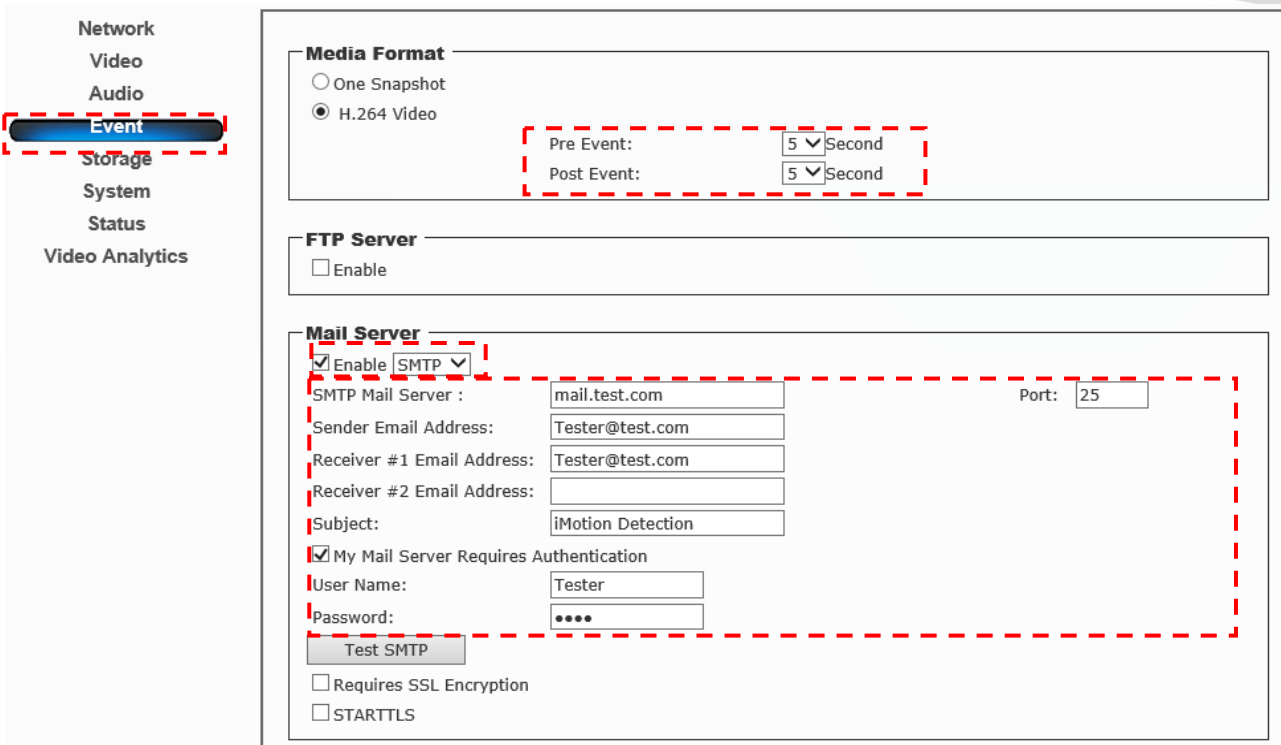
Event Action

The camera’s iMotion Detection 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.)



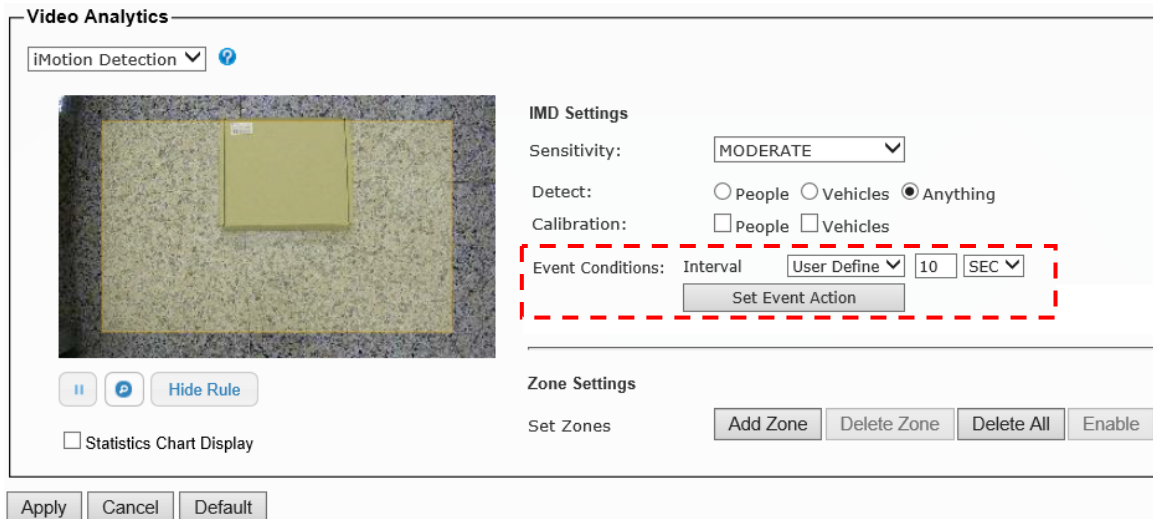
Network
Video
Audio
Event
 Storage
 System
 Status
 Video Analytics

Media Format
 One Snapshot
 H.264 Video
 Pre Event: 5 Second
 Post Event: 5 Second

FTP Server
 Enable

Mail Server
 Enable SMTP
 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:
 Subject: iMotion Detection
 My Mail Server Requires Authentication
 User Name: Tester
 Password: ●●●●
 Test SMTP
 Requires SSL Encryption
 STARTTLS

- Go to “Video Analytics” and “iMotion Detection”. You can change the “Interval” to have the time interval between events.



Video Analytics
 iMotion Detection

IMD Settings
 Sensitivity: MODERATE
 Detect: People Vehicles Anything
 Calibration: People Vehicles
 Event Conditions: Interval User Define 10 SEC
 Set Event Action

Zone Settings
 Set Zones Add Zone Delete Zone Delete All Enable

Apply Cancel Default

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

Event Settings

Event Name: Enable

Schedule

Always

From : To : hh:mm

Sun Mon Tue Wed Thu Fri Sat

Trigger ?

Motion Detection Digital Input 1 Digital Input 2 Tamper Detection

Video Analytics Periodically time seconds

Action

Enable FTP Enable SD CARD Trigger digital output for seconds

Enable EMAIL Enable TCP Audio File Playback

Enable Samba(Net Storage) Enable HTTP