Hanwha Vision

Quick zoom & Focus
User Guide

CONTENTS

1 Functions

1.1 Quick zoom

The Quick zoom function enables the camera to move quickly to a specific focus or zoom position.
Previously, a zoom tracking method was used which slowly moves the zoom area while trying to stay in focus. Quick zoom quickly zooms the camera to an area, then performs an auto focus function.
Because the zoom or focus moves quickly to a specific position, the screen may become blurry during the Quick zoom (less than a second).

☑ **Quick zoom only operates under the following conditions:**

- When the user saves the focus position to [**Preset**] or [**Focus scan**]

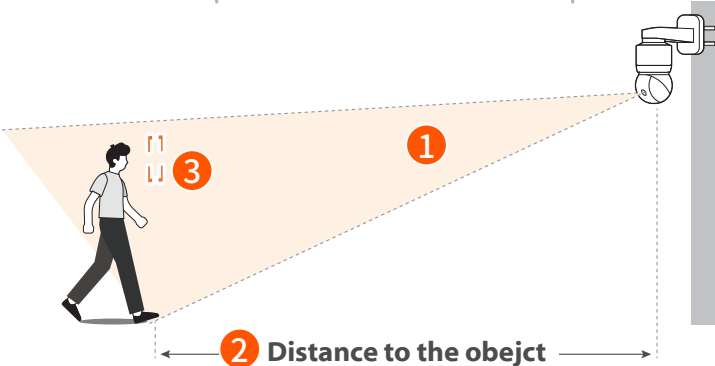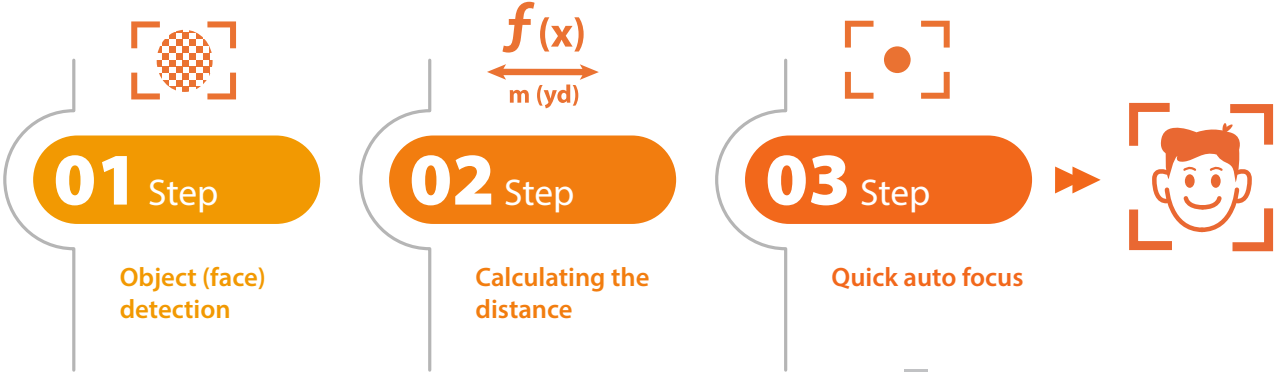- When the [**Wise auto focus**] function is available

1.2 Preset

Presets store not only Pan/Tilt/Zoom positions, but also focus settings.
In addition to Presets, you can also run Swing/Group/Tour and other preset-based functions to quickly auto-focus after a quick zoom with stored focus settings.

1.3 Wise auto focus

Wise auto focus performs a fast focus using an AI engine that calculates information based on human faces.

That is, auto-focus works based on the human faces detected in the camera's field of view.

$$f(x)$$

m (yd)

01 Step

02 Step

03 Step

Object (face)
detection

Calculating the
distance

Quick auto focus

① ③

② **Distance to the obejct**

1.4 Focus scan

Focus scan is a function that allows a user to partition a selected area within the camera's field of view into split zones then automatically scans and stores the focus for each split zone.

Later, when the camera moves to that area, it will quickly auto-focus based on the stored information.

[Step 1. Focus scanning]

- Focus scan moves to a specified area, divided according to the number of split zones you set, performs auto-focus, and stores the information.
- It takes up to 12 seconds to store the focus of one split zone.

[Step 2. After scan completed]

- Focus scan focuses using the stored value when the specified area includes a split zone with the stored focus information.
- If there are two or more split zones in the specified area, it focuses with the information of the split zone that currently occupies the largest area in the video.
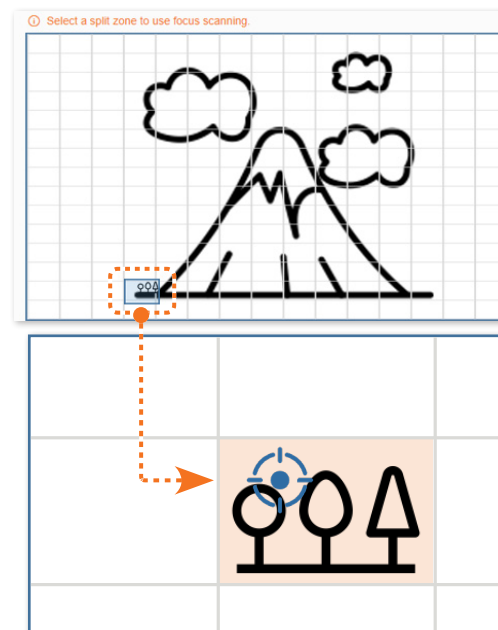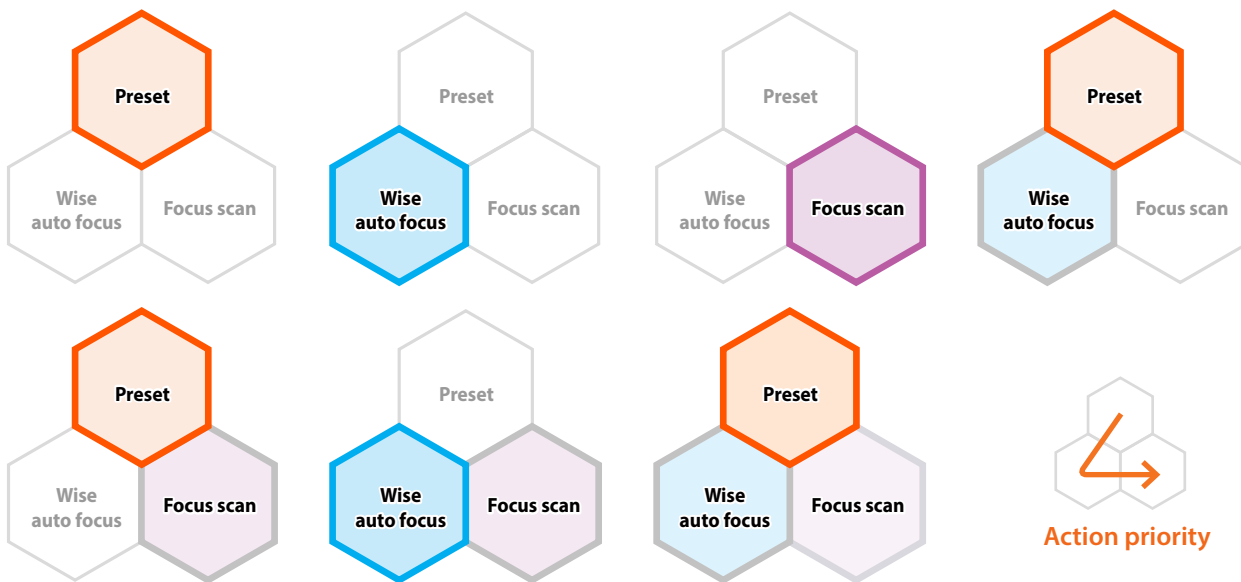
1.5 Function priority and conditions

❖ Auto-focus priority for multiple conditions

Preset > Wise auto focus > Focus scan

❖ Quick zoom conditions

One or more of Preset, Wise auto focus, and Focus scan can be run

Action priority

2 Setup and Run

2.1 Quick Zoom Settings

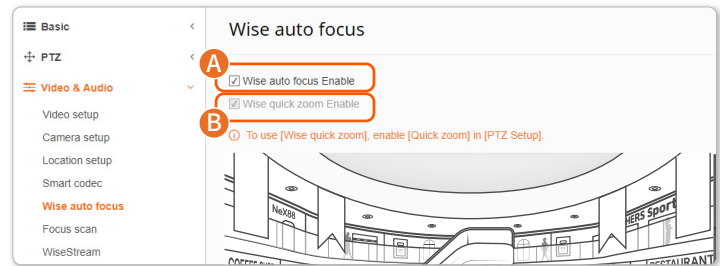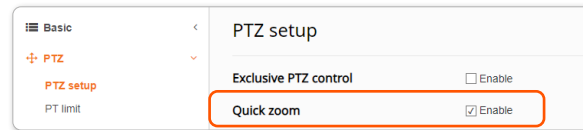## 2.2 Wise auto focus

2.2.1 Wise auto focus Settings

❖ Possible combinations with Wise auto focus

Quick zoom	Wise auto focus	Wise quick zoom
On	On	On
On	Off	On
On		Off
Off	On	Off
Off	Off	Off

NOTE:

In situations where Auto-focus malfunctions due to the false detection of objects, you can enable only Wise quick zoom for your convenience.

Ⓐ Auto-focus based on recognized face

Ⓑ Quick zoom based on recognized face

### 2.2.1 Wise auto focus Settings (continued)

❖ Precise compensation

Precise compensation can be used to compensate for errors caused by variations in the size of human faces, so you can adjust the value to be larger if the human face is larger than the typical size seen where the camera is installed, and vice versa.

• Default: 18

❖ Object size adjustment

The face detection rate and size used for Wise auto focus can be changed by adjusting the sensitivity of object detection and the minimum/maximum object size to suit your environment.

> ❗ *Increasing the sensitivity or decreasing the minimum size allows for more distant faces to be detected, but may result in a higher rate of false detection.*
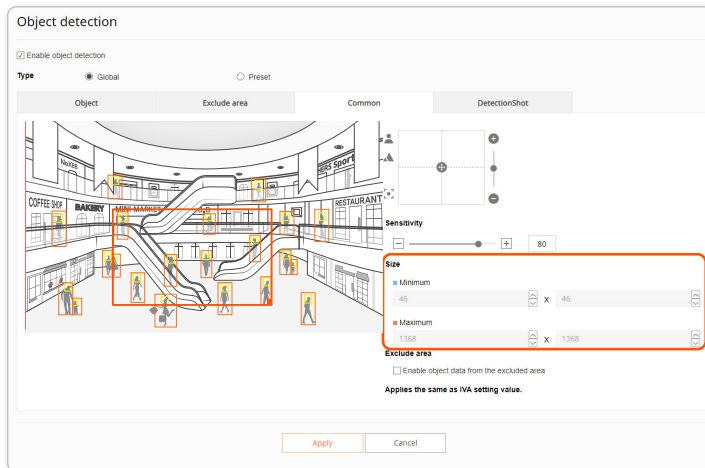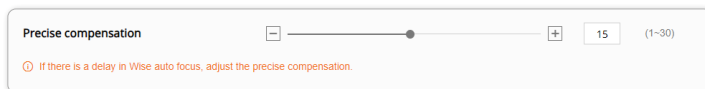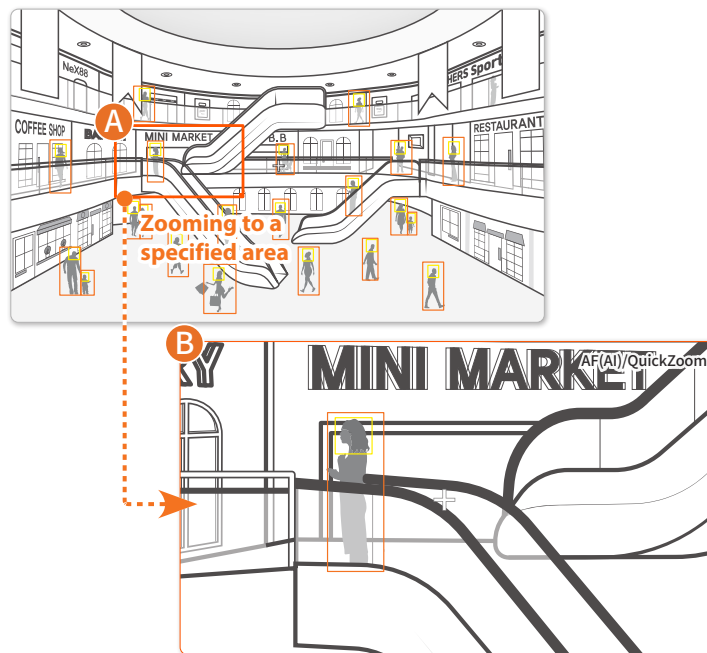
2.2.2 Using Wise auto focus

❖ Using Wise quick zoom & Wise auto focus

If you **Ⓐ** specify an area for Area zoom where a face is detected, (Wise) Quick zoom & Wise focus are triggered to quickly **Ⓑ** move to that area.

NOTE:
Wise quick zoom works the same as Quick zoom works, but under different conditions; that is, the only difference is in the conditions.
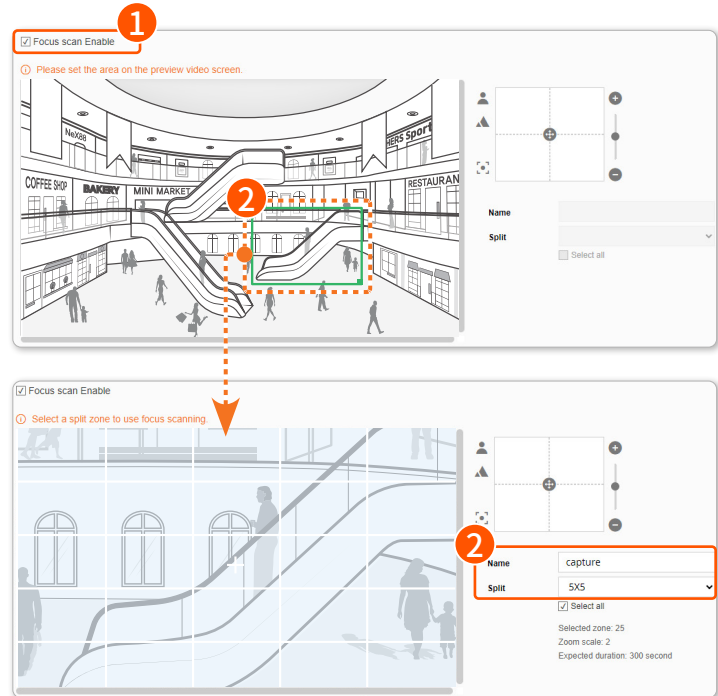
2.3 Focus scan

2.3.1 Focus scan Settings

[Setup] ➜ [Video & Audio] ➜ [Focus scan]

❶ Select the Enable focus scan checkbox.

❷ Drag to specify the zone you want for Focus scan. Enter a name for the zone and set the split value. The number of split zones into which an area can be divided depends on the zoom value applied to the specified area. The more split zones that are stored, the more accurate auto-focus you can expect.

Zoom magnification (X)	Minimum	Maximum	Zoom magnification (X)	Minimum	Maximum
1	15x15	15x15	6 - 7	2x2	4x4
2	7x7	12x12	8 - 9	2x2	3x3
3	5x5	8x8	10	1x1	3x3
4	4x4	6x6	11 - 17	1x1	2x2
5	3x3	5x5	18 - 31	1x1	1x1

※ *The possible number of split zones based on the Zoom magnification*

2.3.1 Focus scan Settings (continued)

3 You can deselect zones you don't want to scan by clicking the mouse to speed up the scan time. (By default, all zones are selected.)

4 If you choose Select all, it will select all zones. (The selected zones will be shown in blue)

5 Click the button to start scanning. If you want to stop scanning, click the [**Cancel**] button.

6 In the pop-up window that opens when you click [**Cancel**], clicking [**OK**] will stop scanning after saving the zones scanned so far, and clicking [**Cancel**] will reset the zone settings.

7 "Focus scanning" is displayed while the scan is in progress as an on-screen display at the top left of the video, and "Focus scanning Complete" is displayed when the scan is complete.
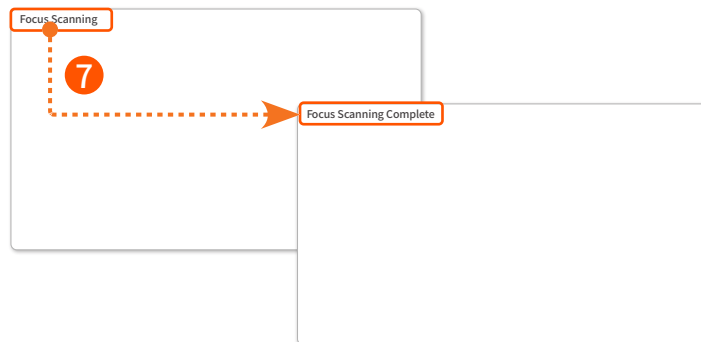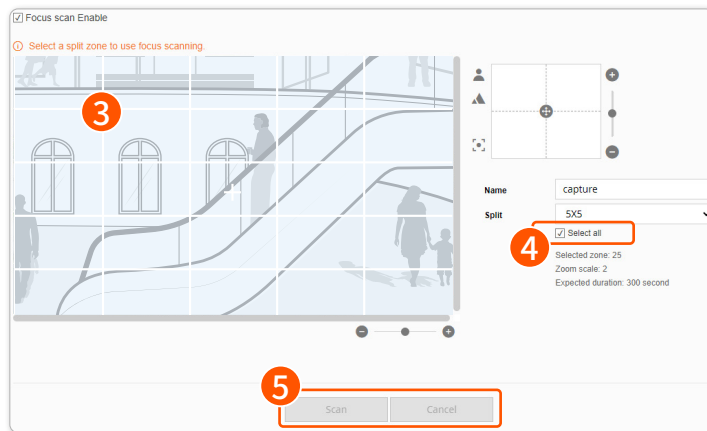
2.3.1 Focus scan Settings (continued)

❖ Editing the focus-scanned zone

Select the zone you want to edit. The selected zone is displayed in a green box in the preview screen with 1x zoom applied.

• [**Auto scan**]: Scans the enabled split zones of the selected zone again.

• [**Delete**]: Deletes the selected zone.

• [**Edit**]: Allows you to edit the detailed split zones of the selected zone manually.

❖ Editing the detailed split zones manually

Ⓐ You can enable/disable the split zone selected from the right pane.

Ⓑ You can manually adjust the focus of the split zone selected from the right pane.

Ⓒ You can apply the One-shot auto-focus to the split zone selected from the right pane and save the focus settings.

Ⓓ Click the button to exit the edit page.
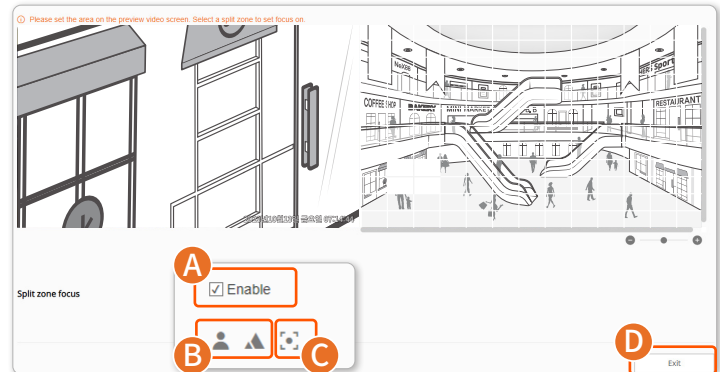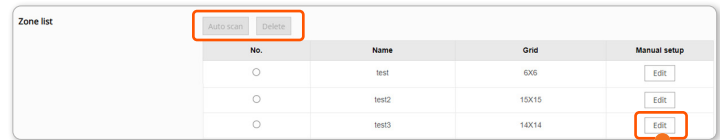
2.3.2 Using Focus scan

Quick zoom works quickly when you move the Area
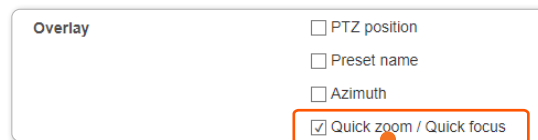zoom to the zone where the Focus scan is stored.
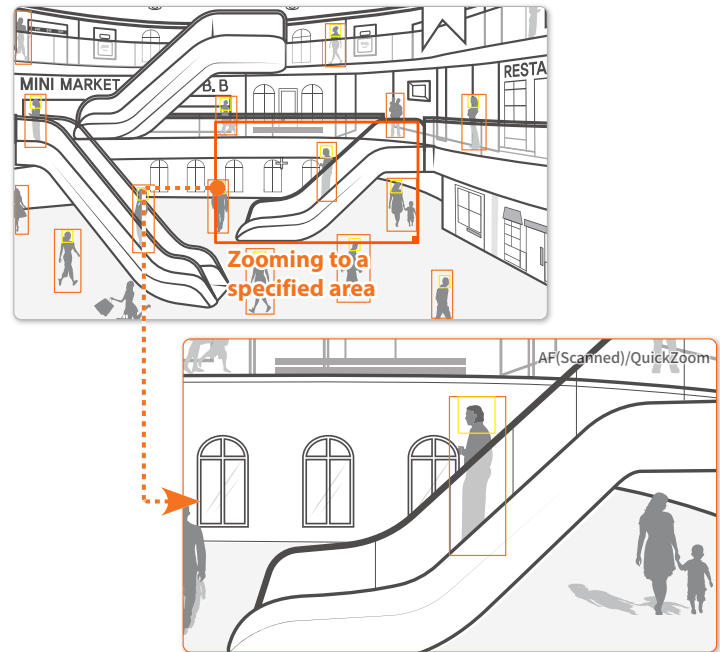
2.4 Checking Quick zoom & focus

[Video & Audio] ➞ [Camera setup] ➞ [OSD] tab ➞
[Overlay] ➞ Enable [Quick zoom / Quick focus]

[Operation status display as an OSD]

- Auto-focus information
    - ⋯➞ [**AF (Preset)**]: Preset-based
    - ⋯➞ [**AF (AI)**]: Wise auto focus-based
    - ⋯➞ [**AF (Scanned)**]: Focus scan-based
- [**Quick Zoom**]: Displayed when running quick zoom

3

# Performance limitations of Quick zoom & Focus

3.1 Performance limitations of Wise auto focus

It may be out of focus or auto-focus may take longer in the following cases.

☑ **Object detection results are inconsistent in size**

☑ **Children's faces, small faces, or large faces**

☑ **Falsely recognizing an object which is smaller or larger than an actual person as a person**

☑ **Falsely detecting something that is not a person as a person**

☑ **The object is moving at a high speed**

☑ **The object is wearing a hat, or has longer or shorter hair than a normal person**

3.2 Performance limitations of Wise quick zoom

Since the face must be within 72% of the area drawn with the Area zoom, Wise quick zoom may not work if you specify an area for Area zoom with no margin on the top or bottom of the face, as shown in the malfunctioning examples below.

5% of the height

Face detectable area

10% of the width

The area for Area zoom
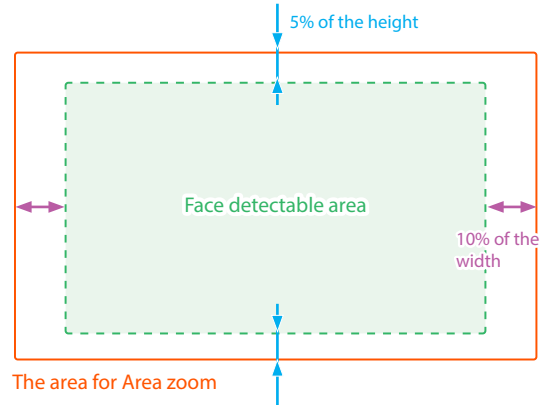
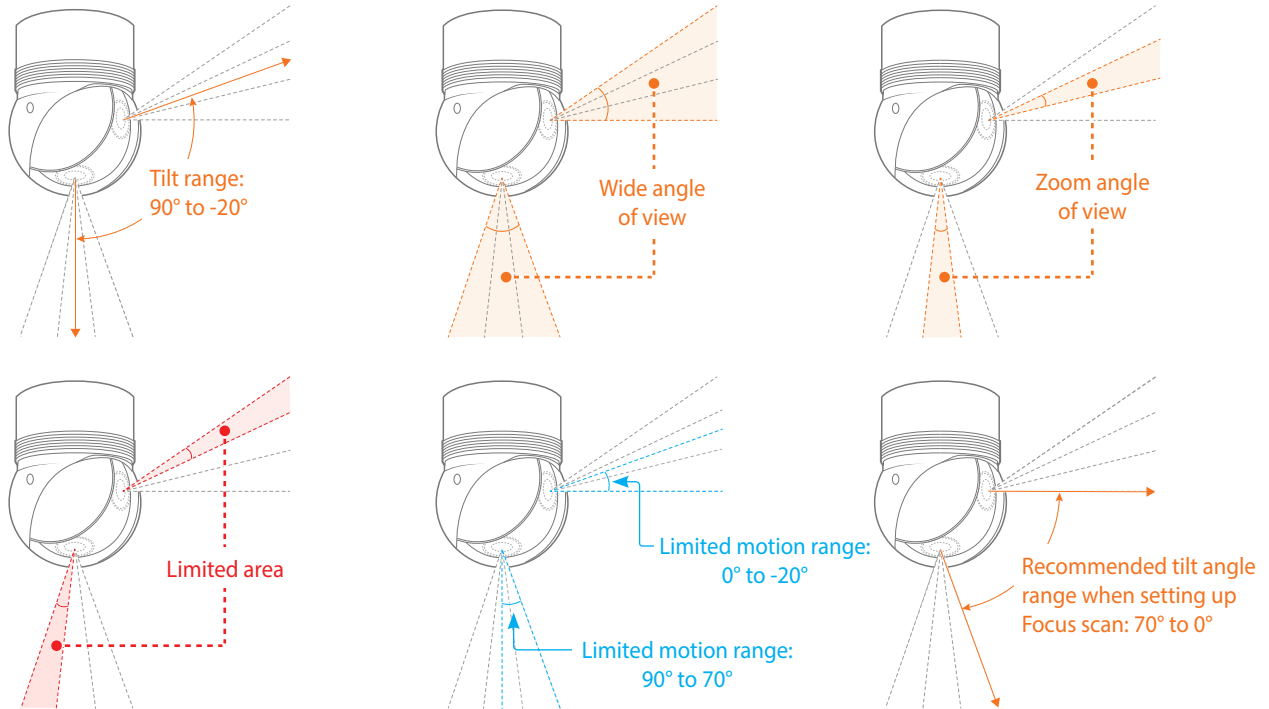❖ Correct Example(O)

❖ Incorrect Example 1 (X)

❖ Incorrect Example 2 (X)

3.3 Limitations when setting up Focus scan

If you set the focus-scanned zone when the camera is at a certain tilt angle (90° to 70°, 0° to -20°), Auto-focus may not work because the split zone displayed on the screen does not match the actual split zone where the focus information will be stored.

※ Recommended tilt angle range when setting up Focus scan: 70° to 0°

Tilt range:
90° to -20°

Wide angle
of view

Zoom angle
of view

Limited area

Limited motion range:
0° to -20°

Limited motion range:
90° to 70°

Recommended tilt angle
range when setting up
Focus scan: 70° to 0°

3.4 Limitations when using Focus scan

If the area ratio of the split zone where the focus is stored in the specified area is smaller than the recommended threshold (25% or less based on Tele), Focus scan may not work.

> **!** *If the area ratio of one split zone within an area is not large enough, you may not be able to utilize the focus settings for that split zone.*

Split zone
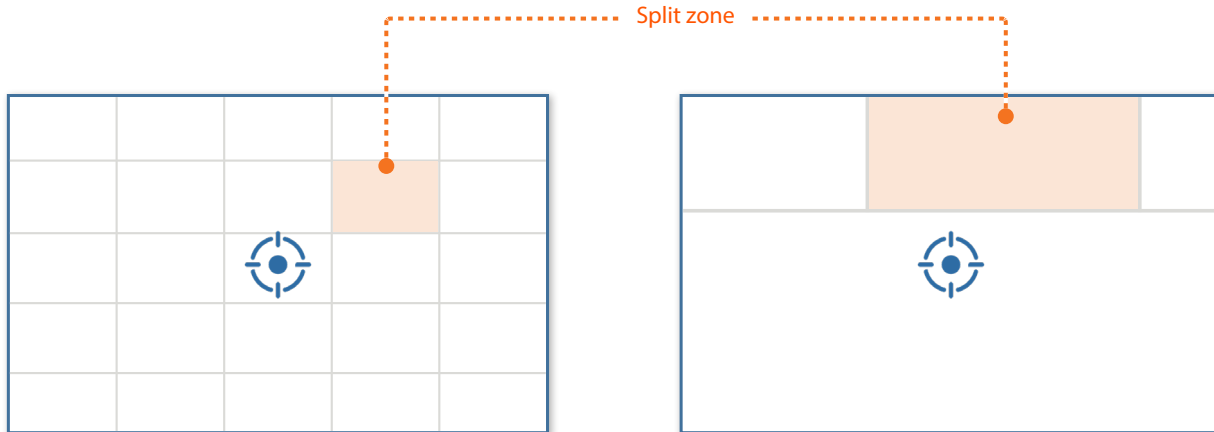
For more information, visit us at

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