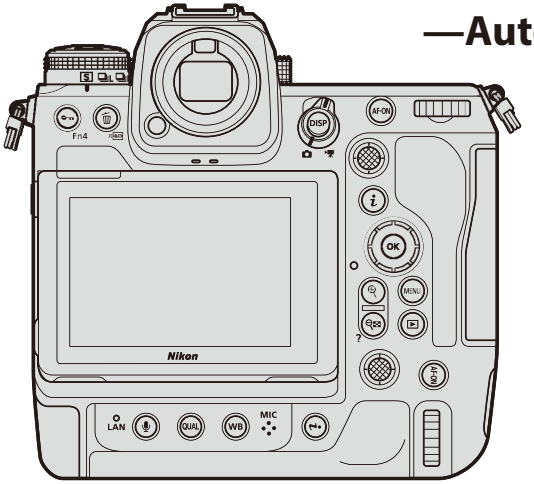
Nikon

Z 9 Professional

Setting Guide

—Auto Capture Edition—



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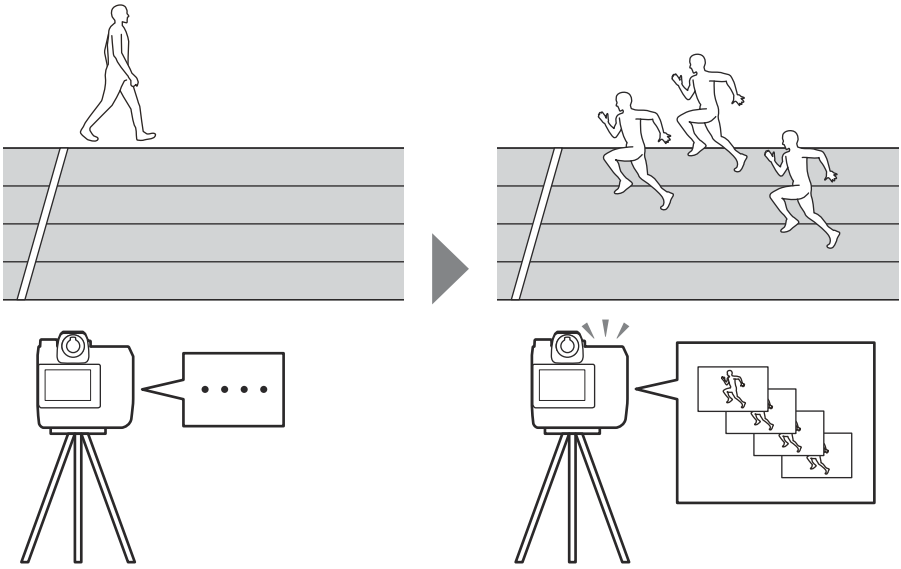
Auto Capture: An Overview

What Is “Auto Capture”?

The [**Auto capture**] feature introduced with Z 9 camera “C” firmware version 4.00 lets the camera take photos or record videos automatically on detecting a subject. By choosing the trigger criteria for auto capture, photographers create what is effectively an unmanned camera that can take photos or film videos automatically without further action on their part.



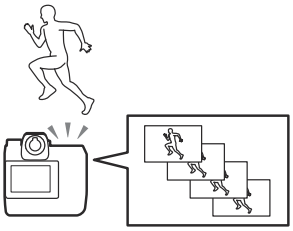
The camera shoots only when a subject that meets the selected criteria is detected.

This guide focuses on how to take photos using auto capture and on suggested settings for different subjects and situations.

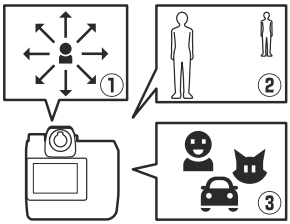
Features

[**Auto capture**] supports the following features:

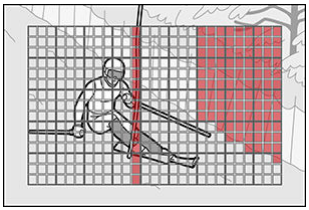
- **Shooting continues while the trigger criteria are met**, and the frame advance rate can be chosen from [**Continuous high-speed**], [**Continuous low-speed**], [**C30**], or [**C120**]. Choose a frame advance rate according to your subject.



- **You can specify multiple trigger criteria**, including direction of motion (①), distance (②), and subject type (③). The trigger criteria can be tailored to avoid wasted shots. The effects of the chosen criteria can be previewed in live view.

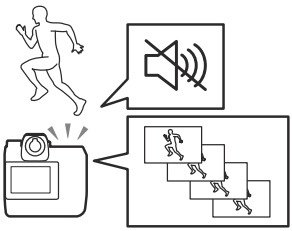


- **You can choose the focus points used for subject detection** by enabling or disabling specific focus points for use when [**Auto-area AF**] is selected for AF-area mode. Auto capture will only be triggered if a subject is detected in at least one of the selected focus points. Target-area selection can be used to disable focus points in areas of the frame that are blocked by obstacles or can otherwise be ignored for purposes of subject detection, ensuring that the desired subject can be detected more reliably.

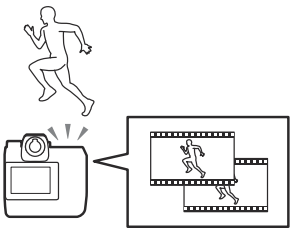


- **You can use autofocus** for automatic focus on subjects that meet the trigger conditions before shooting. This lets you take advantage of the *bokeh* offered by wide-aperture lenses.

- **You can take pictures in silent mode**, letting you mute the sound of the shutter. Doing so avoids disrupting sporting events. It also lets you photograph animals unnoticed.



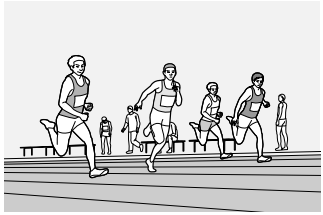
- **You can record videos** using the [**Auto capture**] option in the video recording menu when the photo/video selector is rotated to . Auto capture settings for videos are the same as those for photos.



Suggested Uses

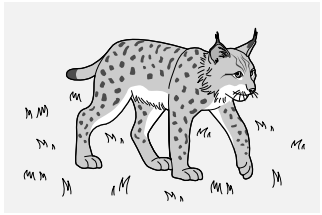
Examples of situations in which [**Auto capture**] can come in handy include:

- **Photographing known subjects from a fixed location**: For example, if the camera is positioned in front of the finish line for sprints or similar events and set to shoot when subjects approach, finish-line photos for all heats can be taken automatically. Meanwhile, the photographer is free to concentrate on taking shots with a second, hand-held camera.



- **Taking pictures from hard-to-access locations**: Auto capture lets you position the camera in tight spaces or other locations not normally capable of accommodating photographers.

- **Photographing subjects whose arrival cannot be predicted**: Auto capture lets you leave the camera in charge of photographing wild animals or other subjects that cannot be relied on to appear on demand.

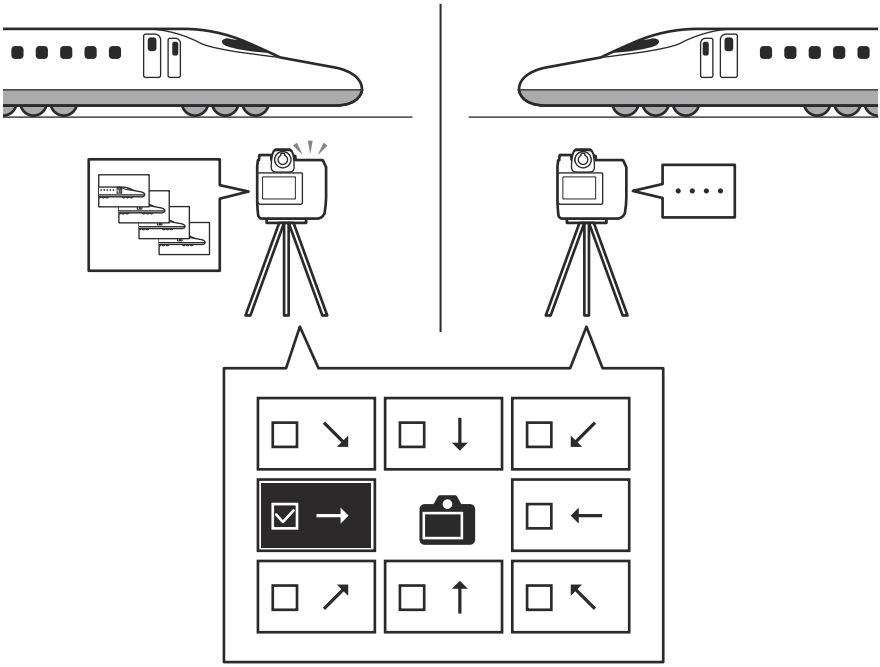


Auto Capture Criteria

Auto capture criteria can be divided into three general categories.

“Motion”: Direction and Speed of Motion and Apparent Size

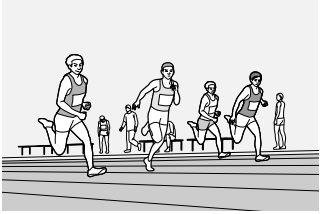
You have eight choices for direction of motion: two vertical (up and down), two horizontal (left and right), and four diagonal. You can also choose the size and speed of subjects that will trigger auto capture.



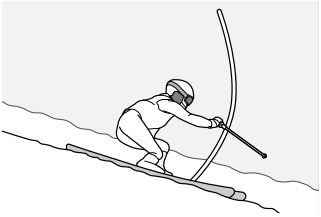
Subjects and Scenes Suited to “Motion” Triggers

Use motion triggers for subjects crossing the frame. They are particularly well-adapted to subjects moving in predictable directions.

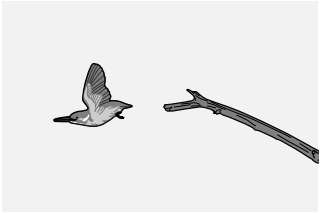
- **Track-side track-and-field finish-line photos**



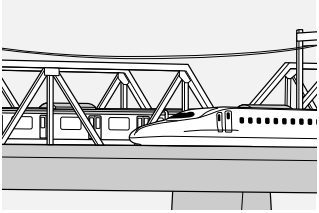
- **Course-side ski photos**



- **Bird photos**

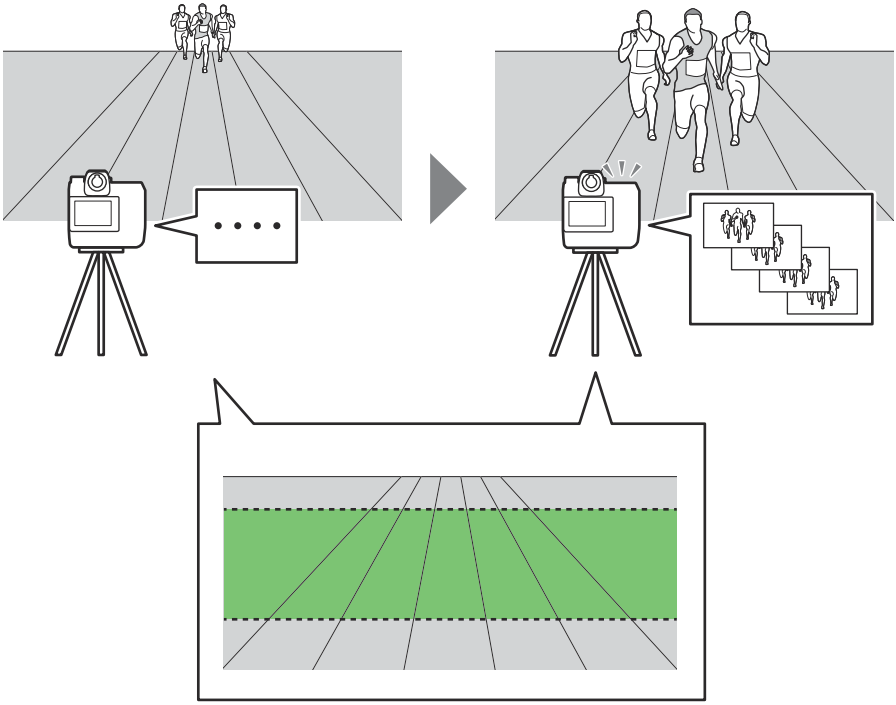


- **Track-side train photos**



“Distance”: Subject Distance

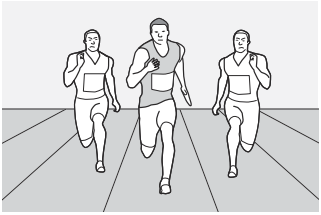
The camera takes photos while the subject is within a specified range of distances. You can choose the minimum and maximum distances at which the presence of a subject will trigger auto capture.



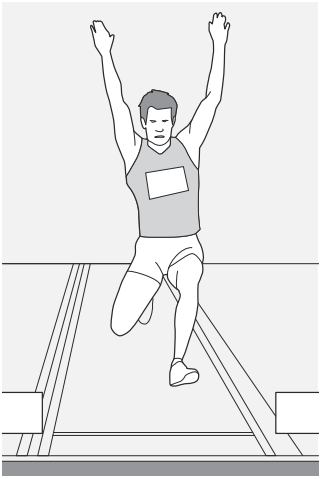
Subjects and Scenes Suited to “Distance” Triggers

Use distance triggers for subjects moving toward or away from the camera.

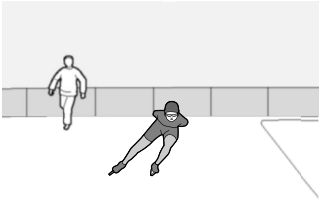
- **Head-on finish-line photos**



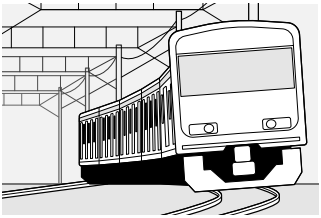
- **Head-on long-jump photos**



- **Down-track speed-skating photos**

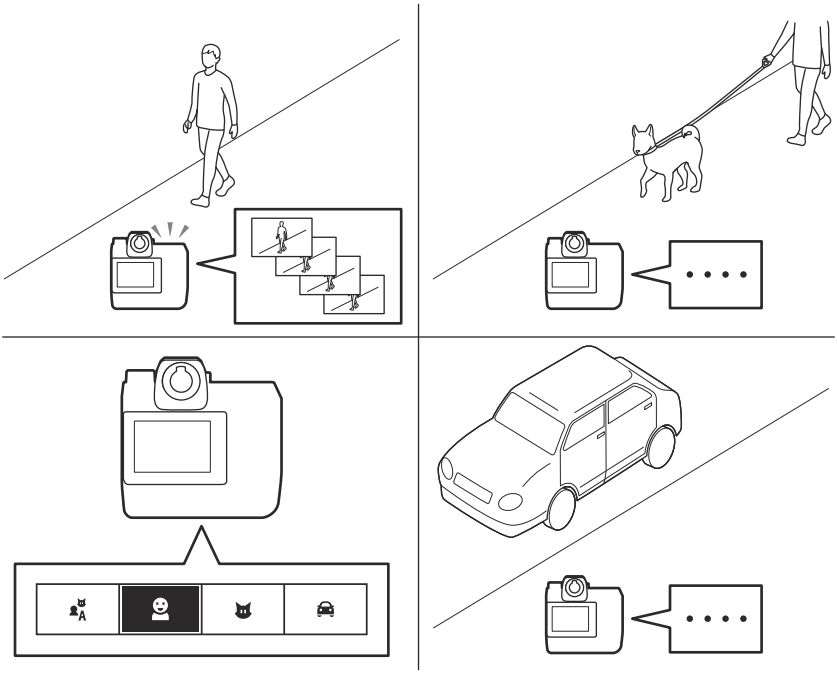


- **Head-on train photos**



“Subject Detection”: Subject Type and Apparent Size

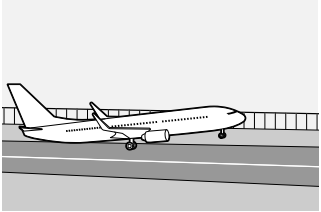
The camera shoots while subjects of a selected type are detected. You can also choose the proportion of the frame the subject must occupy in order to trigger auto capture.



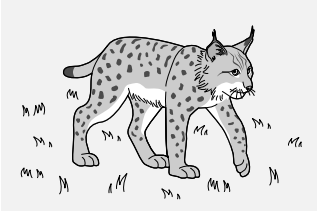
Subjects and Scenes Suited to “Subject Detection” Triggers

Use subject-detection triggers when you know the type of subject you want to photograph but cannot predict its movements.

- **Airplanes**

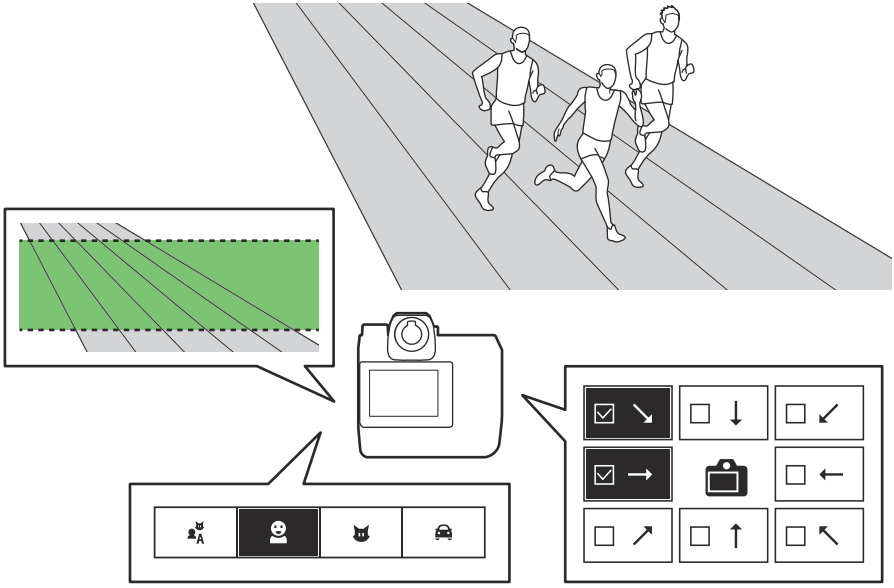


- **Wild animals**



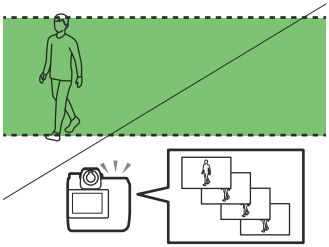
Using Multiple Triggers

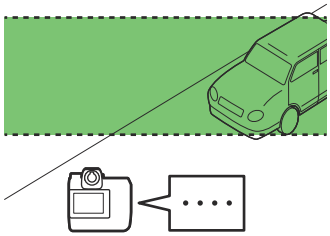
You can combine [**Motion**], [**Distance**], and [**Subject detection**] triggers. Auto capture will be triggered only if all the selected criteria are satisfied.



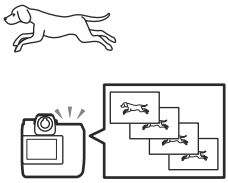
Sample Trigger Combinations

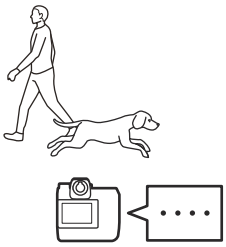
- [**Distance**] + [**Subject detection**]: To photograph people approaching within a certain range, use [**Distance**] to choose the distance and select [**People**] for [**Subject detection**]. Auto capture will not be triggered by cars or animals in the selected range nor by people outside the selected range.



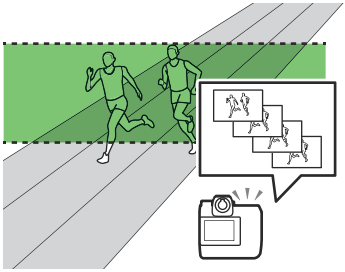


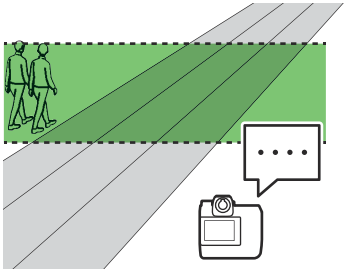
- [**Motion**] + [**Subject detection**]: To photograph only animals moving from right to left, select the "right-to-left" direction for [**Motion**] and [**Animals**] for [**Subject detection**]. Auto capture will not be triggered by people moving from right to left nor by dogs or cats moving from left to right.





- [**Motion**] + [**Distance**]: To photograph only subjects approaching from the top right corner of the frame, select the "top-right-to-bottom-left" direction for [**Motion**] and choose the desired range of distances for [**Distance**]. You could choose these criteria on a camera placed behind and to one side of the finish line, for example, to photograph runners nearing the end of the race.





Using Auto Capture

Using Auto Capture: Workflow

The chief steps in the auto capture workflow are described below.

1 **Ready the camera (🕮 19).**
Ready a power source, memory card, and tripod and otherwise prepare the camera for use.

2 **Position the camera and adjust settings (🕮 20).**
Position the camera, frame the shot, choose a release mode, and adjust focus, exposure, and other settings.

3 **Select [Auto capture] in the photo shooting menu (🕮 22).**

4 **Choose options for [Capture criteria] (🕮 25).**
Choose auto capture trigger criteria from among [**Motion**], [**Distance**], and [**Subject detection**]. You can combine any two trigger criteria, or use all three if you so desire.

- [**Motion**] (🕮 26)
- [**Distance**] (🕮 30)
- [**Subject detection**] (🕮 32)

5 **Choose target areas (🕮 35).**
Choose the focus points used for subject detection. Target-area selection can be used to disable focus points in areas of the frame that are blocked by obstacles or can otherwise be ignored for purposes of subject detection, ensuring that the desired subject can be detected more reliably.

6 **Adjust timing options (📖 36).**

Choose how long the camera continues to shoot after detecting a subject and the minimum length of time it will wait before beginning shooting again.

7 **Check whether the camera can detect subjects as desired using the selected criteria (📖 37).**

8 **Initiate auto capture (📖 38).**

Getting Ready

Take the steps below to prepare for auto-capture photography.

Ready a Power Source

- Ready a fully-charged battery.
- A fully-charged EN-EL18d battery provides enough power for about four and a half hours of shooting. Note, however, that this can vary widely with auto capture settings and shooting conditions.
- If you have access to an AC power supply, we recommend that you use the camera's supplied EH-7P charging AC adapter or an optional EP-6a power connector and EH-6d AC adapter.

Ready Memory Cards

After adjusting image size and quality (JPEG, RAW, or JPEG + RAW), choosing shooting and minimum wait times, and taking a test shot to estimate the file size, ready memory cards with enough capacity to hold all the shots that may be taken.

Fix the Camera in Place

We recommend fixing the camera to a tripod or other mount when using it for auto capture. Be sure the camera is secure and won't fall off or blow over.

Theft Prevention

If the camera will be out of sight, check to make sure the location is safe. We recommend attaching a Kensington-compatible cable lock to the camera's security slot even in locations that seem secure.

Take Steps to Prevent Condensation

We recommend using a third-party lens heater in environments prone to condensation.

Adjusting Camera Settings

Before adjusting auto capture settings, frame the shot, choose release and AF-area modes, and adjust exposure.

- You should also adjust white balance, metering, and other settings as required.

Frame the Shot

Frame the shot and fix the camera in place. If it's hard to predict exactly where your subject will make its appearance, we recommend that you frame the shot wide and crop as necessary after shooting.

Image Area

Image-area selection is fixed at [**FX (36×24)**]. Auto capture cannot be used when a DX lens is attached.

Choose a Release Mode

Select a continuous release mode: [**Continuous high-speed**], [**Continuous low-speed**], [**C30**], or [**C120**].

- If single-frame or self-timer mode is selected, the camera will temporarily switch to continuous high-speed mode when auto capture begins.
- If [**C60**] is selected, the release mode will temporarily switch to [**C120**] when auto capture begins.
- If you selected continuous low-speed or continuous high-speed mode, choose the frame advance rate before proceeding.

Tip: Pre-Release Capture

The settings selected for Custom Setting d4 [**Pre-Release Capture options**] apply when [**C30**] or [**C120**] is selected for release mode.

Choose an AF-Area Mode

During auto capture, the camera will detect subjects in the vicinity of the focus points for the selected AF-area mode.

- Choose an AF-area mode to eliminate unwanted areas of the frame and then position the focus point in the area in which you anticipate the subject will appear.
- Choosing [**Auto-area AF**] for AF-area mode gives you access to the auto capture settings [**Target area**] item (📖 35).

Focus Mode

- If autofocus is enabled, the camera will temporarily switch to focus mode **AF-C** during auto capture.
- If [**Auto-area AF**] is selected for AF-area mode, the actual frame rate drops to 15 fps when a frame advance rate of 20 fps is selected in continuous high-speed mode.
- When using manual focus, slide the lens focus-mode switch to [**M**] and adjust focus manually. Manual focus is available only with lenses equipped with a focus-mode switch.

Adjust Exposure

Adjust shutter speed, aperture, and other exposure settings to suit your subject.

Auto Capture: Restrictions

Auto capture cannot be combined with some camera features, including:

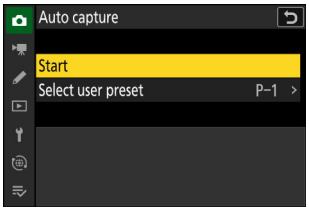
- long time-exposures (“Bulb” or “Time”),
- the self-timer,
- bracketing,
- multiple exposures,
- HDR overlay,
- interval-timer photography,
- time-lapse video recording,
- focus shift, and
- electronic vibration reduction.

Tip: Silent Mode

Silent mode can be enabled by selecting [**ON**] for [**Silent mode**] in the setup menu.

The Photo Shooting Menu “Auto Capture” Item

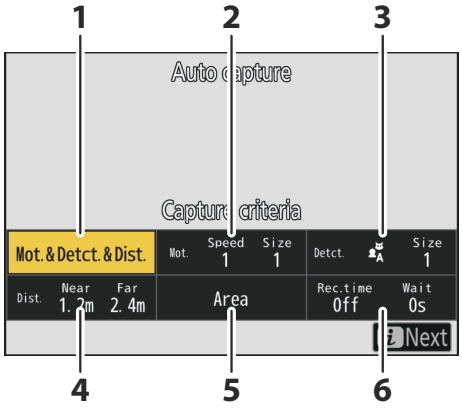
Under [**Auto capture**] in the photo shooting menu you will find two options: [**Start**] and [**Select user preset**].



Option	Description
[**Start**]	Display auto capture settings and adjust auto capture criteria. Changes to settings are automatically saved to a user preset.
[**Select user preset**]	View, rename, or copy an existing user preset (🕮 40).

The Auto Capture Settings Display

Selecting [**Start**] displays auto capture settings. Highlight items and press ⓚ to display options for the selected item.



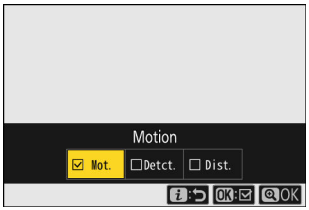
1 [**Capture criteria**]
2 [**Advanced: Motion**]
3 [**Advanced: Subject detection**]
4 [**Advanced: Distance**]
5 [**Target area**]
6 [**Timing options**]

Option	Description
[**Capture criteria**] (🕮 25)	• Choose auto capture trigger criteria from among [**Motion**], [**Subject detection**], and [**Distance**]. You can combine any two trigger criteria, or use all three if you so desire. • Auto capture will be triggered only if all the selected criteria are satisfied.
[**Advanced: Motion**] (🕮 26)	This option will take effect only if [**Motion**] is selected (☑) for [**Capture criteria**]. This option is used to choose the direction of motion, size, and speed of subjects that will trigger auto capture.
[**Advanced: Subject detection**] (🕮 32)	This option will take effect only if [**Subject detection**] is selected (☑) for [**Capture criteria**]. It is used to choose the types and sizes of subject that trigger auto capture.

Option	Description
[**Advanced: Distance**] (🕮 30)	This option will take effect only if [**Distance**] is selected (☑) for [**Capture criteria**]. It is used to choose the range of distances at which the presence of a subject will trigger auto capture. Shooting will continue while the subject is within the specified range of distances.
[**Target area**] (🕮 35).	Choose the focus points used for subject detection when [**Auto-area AF**] is selected for AF-area mode. Auto capture will be triggered if a subject that meets the trigger conditions is detected in any of the selected focus points.
[**Timing options**] (🕮 36)	Choose values for [**Recording time selection**] and [**Wait after shooting**].

“Capture Criteria”

Use [**Capture criteria**] to choose the trigger criteria for auto capture. There are three types of trigger criteria: [**Motion**], [**Subject detection**], and [**Distance**]. Highlight criteria and press ⓚ to select (☑) or deselect (☐). You can combine any two trigger criteria, or use all three if you so desire. Auto capture will be triggered only if all the selected criteria are satisfied.



Option	Description
[**Motion**]	Select (☑) this option to include the direction the subject is moving as one of the criteria that must be satisfied to trigger the start of auto capture shooting (🕮 26).
[**Subject detection**]	Select (☑) this option to include detection of a subject as one of the criteria that must be satisfied to trigger the start of auto capture shooting (🕮 32).
[**Distance**]	If this option is selected (☑), shooting will continue while the subject is within the specified range of distances (🕮 30).

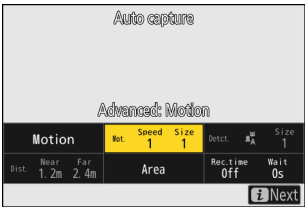
- Press 🔍 to save changes and return to the auto capture settings display.
- To exit to the auto capture settings display without saving changes, press ***i***.

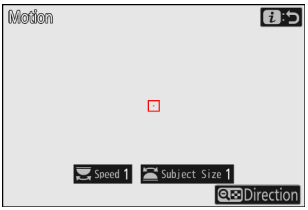
☑ Caution: Capture Criteria

Each additional criterion makes the trigger conditions more restrictive and may prevent shooting proceeding as intended. When using auto capture for the first time in a given location, we suggest that you enable (☑) criteria one-by-one, taking a test shot each time and changing criteria if they do not function as expected.

“Capture Criteria” > “Motion”

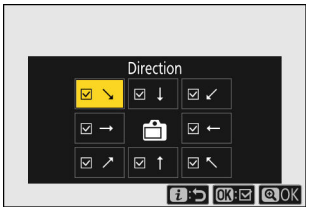
To view the motion settings display, highlight [**Advanced: Motion**] in the auto capture settings display and press ⓚ. This is where you’ll choose the direction of motion, speed, and apparent size of subjects that will trigger auto capture.





Choosing the Direction of Motion

Choose one or more directions; a subject moving in any of the selected directions will trigger auto capture. Press ? (**?**) to display options. Highlight directions and press ⓚ to select (☑) or deselect (☐). Subjects moving in directions that are disabled (☐) will be ignored.

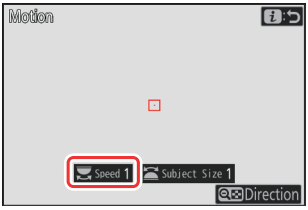


- Press ? to save changes and return to the motion settings display.
- To exit to the motion settings display without saving changes, press ***i***.

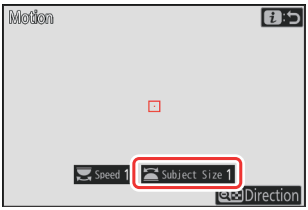
Choosing the Subject Speed and Size

Choose the speed and apparent size of subjects that will trigger auto capture.

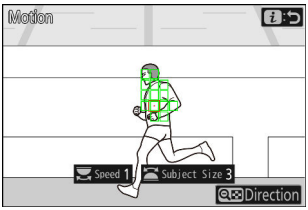
- Rotate the main command dial to choose a [**Speed**] of [**1**] to [**5**]. Choose lower values to include subjects moving at slower speeds, higher values to restrict subject detection to faster-moving subjects.



  - Speed is measured as the time taken for the subject to cross the frame horizontally. The approximate time for each value is listed below.
    - [**1**]: Approximately 5 s or less
    - [**2**]: Approximately 4 s or less
    - [**3**]: Approximately 3 s or less
    - [**4**]: Approximately 2 s or less
    - [**5**]: Approximately 1 s or less
- Rotate the sub-command dial to choose a [**Subject Size**] of [**1**] to [**5**]. Choose lower values to include smaller subjects, higher values to restrict subject detection to larger subjects.



  - The apparent subject size (approximate size in focus points) for each setting is listed below.
    - [**1**]: 4 focus points or larger
    - [**2**]: 8 focus points or larger
    - [**3**]: 14 focus points or larger
    - [**4**]: 24 focus points or larger
    - [**5**]: 34 focus points or larger



Subject detected in 14 focus points

- Press ***i*** to save changes and return to the auto capture settings display.

Tip: Size and Speed

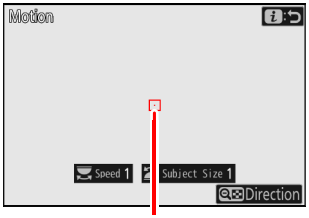
- Subjects that meet the criteria for [**Subject Size**] and [**Speed**] are shown by green boxes in the motion settings display.
- Selecting [**1**] for both [**Subject Size**] and [**Speed**] makes it easier for the camera to detect subjects of a variety of sizes moving at a variety of speeds. We recommend that you begin from low values and then gradually raise them while checking the display of green boxes in the motion settings display or taking test pictures until subject detection functions as desired.

Tip: "Subject Size"

If both [**Motion**] and [**Subject detection**] are chosen for [**Capture criteria**], the [**Subject Size**] chosen for the former will have no effect on the [**Subject Size**] chosen for the latter. Changing the [**Subject Size**] selected in the subject detection display has no effect on the [**Subject Size**] selected in the motion settings display. The two conditions will be assessed separately, but only subjects that meet the criteria for both will trigger auto capture.

Focusing

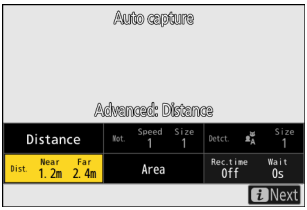
Before initiating auto capture, we recommend that you focus at the distance you anticipate the subject will be. The focus distance can be set by positioning the focus-point target over your subject and pressing the **AF-ON** button or pressing the shutter-release button halfway. Once auto capture is initiated, the camera will stay focused at this distance while standing by, helping it focus quickly when the subject is detected.

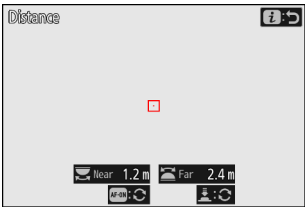


Focus-point target

“Capture Criteria” > “Distance”

To view the distance criteria display, highlight [**Advanced: Distance**] in the auto capture settings display and press ⓚ.

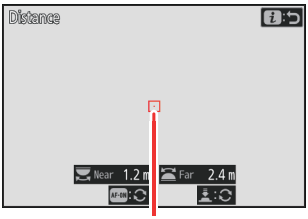




“Advanced: Distance”

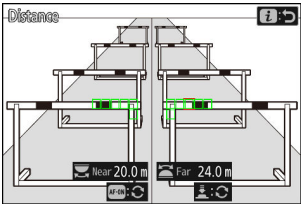
The [**Advanced: Distance**] feature can be used when a NIKKOR Z lens is attached. It may not function with other lenses.

- A focus-point target will appear in the distance criteria display.

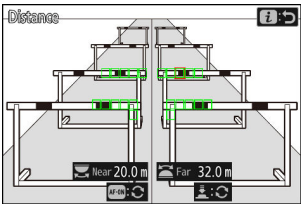


Focus-point target

- In the distance criteria display, choose the maximum and minimum distances at which the camera will detect subjects for auto capture. Auto capture shooting will continue while the subject is within the specified range of distances.
  - Choose the closest distance at which the camera will detect subjects for auto capture. Place the target over a subject at the closest distance for auto capture subject detection and press the **AF-ON** button to set the minimum distance, which will appear in the display as [**Near**]. The minimum distance can be fine-tuned by rotating the main command dial.



- Choose the farthest distance at which the camera will detect subjects for auto capture. Place the target over a subject at the farthest distance for auto capture subject detection and press the shutter-release button halfway to set the maximum distance, which will appear in the display as [**Far**]. The maximum distance can be fine-tuned by rotating the sub-command dial.



• Press ***i*** to save changes and return to the auto capture settings display.

Tip: Fine-Tuning the Distances for “Near” and “Far”

Fine-tuning is available exclusively with Nikon Z mount lenses, but not with the NIKKOR Z 58 mm f/0.95 S Noct.

Tip: Supported Distances for “Near” and “Far”

The range of distances that can be chosen for [**Near**] and [**Far**] vary with the lens. If you are unable to select the desired range, consider choosing a different lens or focal length or using capture criteria other than [**Distance**].

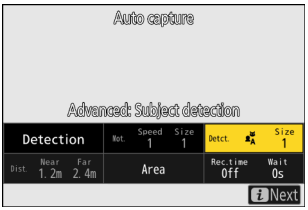
- Minimum distance for [**Near**]: 20 × lens focal length
- Maximum distance for [**Far**]:
  - Lenses with focal lengths of 35 mm or less: 150 × lens focal length
  - Lenses with focal lengths over 35 mm: 200 × lens focal length

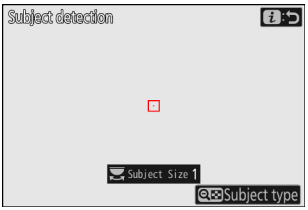
Tip: The “Near” and “Far” Displays

The distances for [**Near**] and [**Far**] are displayed in meters only. They will not be displayed in feet even when [**Feet (ft)**] is selected for [**Distance units**] in the setup menu.

“Capture Criteria” > “Subject Detection”

To view the subject detection display, highlight [**Advanced: Subject detection**] in the auto capture settings display and press ⓚ. This is where you’ll choose the types and sizes of subject that trigger auto capture.





Choosing a Subject Type

Press ⓘ (**?**) to display options. Choose a subject type from “auto” (automatic subject selection), people, animals, and vehicles.

- Press ⓚ or **i** to save changes and return to the subject detection display.

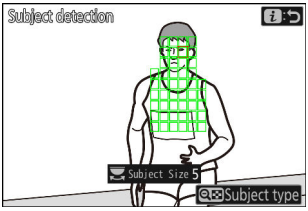
Caution: Subject Detection

If “auto” or “people” is selected, auto capture will begin when human portrait subjects are detected, whether or not they are facing the camera.

Choosing the Subject Size

Rotate the main command dial to choose a [**Subject Size**] of [**1**] to [**5**]. Choose lower values to include smaller subjects, higher values to restrict subject detection to larger subjects.

- The apparent subject size (approximate percentage of the angle of view) for each setting is listed below.
  - [**1**]: 2.5% or more
  - [**2**]: 5% or more
  - [**3**]: 10% or more
  - [**4**]: 15% or more
  - [**5**]: 20% or more



Subject detected at size of 20%

- Press **i** to save changes and return to the auto capture settings display.

Tip: Size

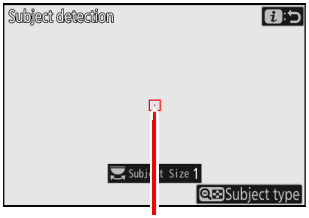
- Subjects that meet the criterion for [**Subject Size**] are shown by green boxes in the subject detection display.
- A [**Subject Size**] of [**1**] makes it easier for the camera to detect subjects of a variety of sizes. We recommend that you begin from a low value and then gradually raise it while checking the display of green boxes in the subject detection display or taking test pictures until subject detection functions as desired.

Tip: "Subject Size"

If both [**Motion**] and [**Subject detection**] are chosen for [**Capture criteria**], the [**Subject Size**] chosen for the former will have no effect on the [**Subject Size**] chosen for latter. Changing the [**Subject Size**] selected in the motion settings display has no effect on the [**Subject Size**] selected in the subject detection display. The two conditions will be assessed separately, but only subjects that meet the criteria for both will trigger auto capture.

Focusing

Before initiating auto capture, we recommend that you focus at the distance you anticipate the subject will be. The focus distance can be set by positioning the focus-point target over your subject and pressing the **AF-ON** button or pressing the shutter-release button halfway. Once auto capture is initiated, the camera will stay focused at this distance while standing by, helping it focus quickly when the subject is detected.

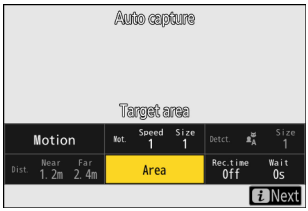


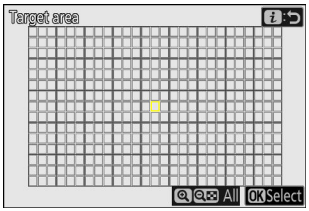
Focus-point target

“Target Area”

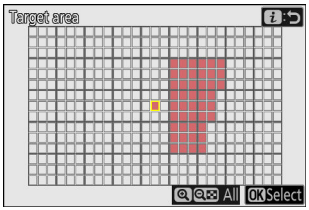
Choose the focus points used for subject detection when [**Auto-area AF**] is selected for AF-area mode. Target-area selection is not available in other AF-area modes.

- To view the target area display, highlight [**Target area**] in the auto capture settings display and press ⓚ.

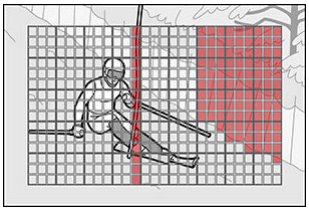




- Press ⓚ to prevent focus points being used for subject detection (disabled focus points are displayed in red). Press ⓚ again to clear (re-enable) the focus point.



- Target-area selection can be used to disable focus points in areas of the frame that are blocked by obstacles or can otherwise be ignored for purposes of subject detection, ensuring that the desired subject can be detected more reliably.



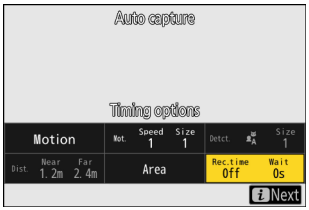
- Press Q to enable all focus points.
- Press W (**?**) to disable all focus points.
- Focus points can be enabled and disabled nine at a time (in 3 × 3 grids) by tapping the monitor.
- Press **i** to save changes and return to the auto capture settings display.

Disabled Focus Points

Subjects meeting the [**Capture criteria**] will be detected only in the vicinity of the chosen focus points. For example, the camera will ignore motion in disabled focus points even when [**Motion**] is enabled (☑).

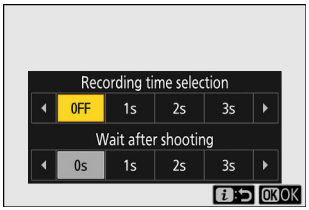
“Timing Options”

Use the [**Timing options**] item to choose how long the camera continues to shoot after auto capture is triggered and the minimum length of time it will wait before beginning shooting again.



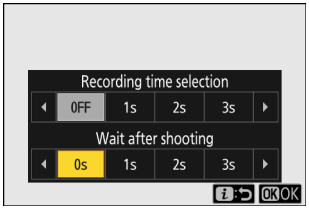
Recording Time Selection

The length of each individual burst can be chosen from [**OFF**] (no limit) and values of from 1 second to 30 minutes. When an option other than [**OFF**] is selected, shooting will continue for the selected time even if the trigger conditions are no longer met. Depending on camera settings, shooting may end before the expiration of the selected time.



Wait After Shooting

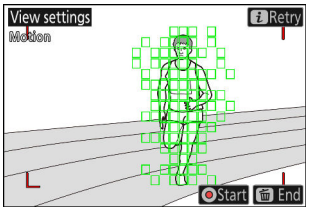
The minimum length of time the camera will wait before beginning shooting again can be chosen from values of from 0 seconds to 30 minutes. Once a burst is completed, shooting will pause for the selected time even if the trigger conditions are met.



The “View Settings” Dialog

The view settings (settings confirmation) dialog can be used before auto capture is initiated to check whether the selected criteria perform as desired.

- Subjects detected by the camera are shown by green boxes in the settings confirmation dialog.



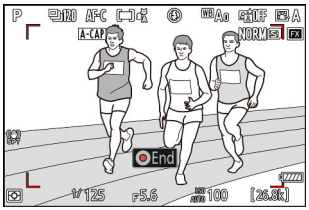
- If an option other than [**Auto-area AF**] is selected for AF-area mode, you can choose the focus point.
- If [**Wide-area AF (C1)**] or [**Wide-area AF (C2)**] is selected for AF-area mode, you can choose the size of the focus area by holding the focus mode button and pressing ◀, ▶, ▲, or ▼.
- The AF-area mode can be selected from the settings confirmation dialog by pressing the focus mode button and rotating the sub-command dial.
- If green boxes are not displayed as expected, press the **i** button to return to the auto capture settings display and choose new trigger criteria.

Tip: The “View Settings” Standby Timer

The [**View settings**] display will turn off automatically when the time selected for Custom Setting c3 [**Power off delay**] > [**Standby timer**] expires. Choose a longer standby timer if required.

Initiating Auto Capture

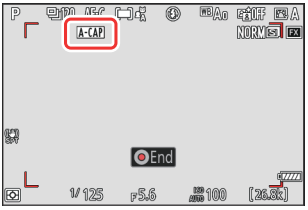
To initiate auto capture, press the video-record button in the settings confirmation dialog.



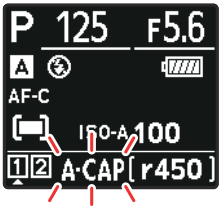
- Shooting will begin when a subject that meets the selected criteria is detected and continue while the criteria are met.
- Auto capture will be triggered only if all the options selected for [**Capture criteria**] are satisfied.
- The shooting display will turn off to save power if no operations are performed for about three minutes, but auto capture will remain active. The display can be reactivated by pressing the **DISP** button or pressing the shutter-release button halfway.

The Auto Capture Standby Display

An A-CAP icon will flash in the shooting display and "**A-CAP**" will be displayed in the control panel.



Shooting display



Control panel

Cautions: Auto Capture

- During auto-capture standby, the camera focuses as described below.
  - [**Capture criteria**] > [**Distance**] enabled (☑): The camera focuses at the distance selected for [**Far**].
  - [**Capture criteria**] > [**Distance**] disabled (☐): The camera focuses at the distance in effect when auto capture began.
- The camera may fail to detect subjects in the [**Target area**] when there are multiple subjects in the frame.
- Falling rain and snow may interfere with subject detection. Auto capture may be triggered by falling snow, heat haze, or other weather phenomena.

During Auto Capture

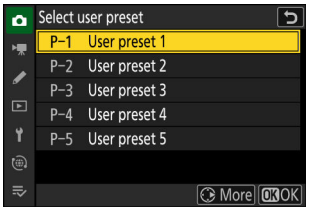
All controls other than shutter-release button half-presses and the **DISP**, video-record, and 🗑 (FORMAT) buttons are disabled while auto capture shooting is in progress. End auto capture before attempting to adjust camera settings.

Pausing and Ending Auto Capture

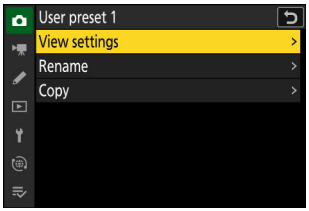
- To pause auto capture and return to the settings confirmation dialog, press the video-record button. Auto capture can be resumed by pressing the button again.
- To end auto capture and exit to the shooting display, press the 🗑 (FORMAT) button.

User Presets

Changes to settings in the auto capture settings display are automatically saved to the preset currently selected for [**Select user preset**] (which offers a choice of Presets P-1 through P-5). Selecting another preset for [**Select user preset**] automatically recalls the settings it stores.

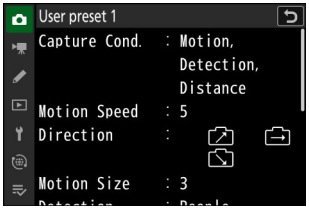


- Highlighting a preset and pressing ▶ displays a menu where you can rename the preset and view settings or copy them to another preset.
  - [**View settings**]: View the settings in the selected preset.
  - [**Rename**]: Rename the preset. Preset names can be up to 19 characters long.
  - [**Copy**]: Highlight the destination and press ⓚ to copy settings to the selected preset.



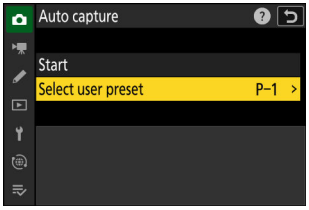
Viewing the Settings for a Selected Preset

Selecting [**View settings**] displays a dialog like that shown in the illustration, where you can view the settings in the selected preset.



Caution: "Select User Preset"

Changes to auto capture settings are automatically saved to the current preset. Before selecting [**Start**] for [**Auto capture**] in the photo shooting menu, be sure to check under [**Select user preset**] to ensure that the desired settings have been chosen for the current preset.

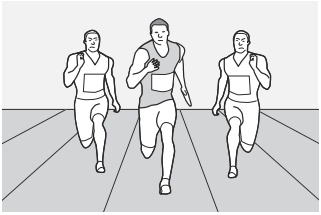


Recommended Trigger Criteria

Athletics

100 Metres (Head On)

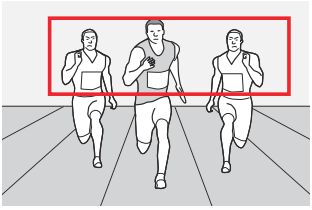
Take finish-line photos with the camera positioned behind the finish line.



Camera settings	
Focus mode	AF-C
AF-area mode	[**Wide-area AF (C1)**]
Auto capture settings	
[**Capture criteria**]	[**Distance**]
[**Advanced: Distance**]	• [**Near**]: (Varies with location of camera) • [**Far**]: (Varies with location of camera)

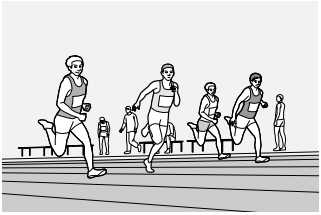
- Target a camera bag or other object positioned in the anticipated subject location to choose the approximate focus distances for [**Near**] and [**Far**], and then fine-tune the focus distances using the command dials.

- Size the AF area so that it crosses the track. Positioning it slightly above the track surface helps prevent shooting accidentally being triggered by the ground.



100 Metres (from Behind and to One Side of the Finish Line)

Take finish-line photos with the camera positioned behind and to one side of the finish line. Your subjects will be moving through the frame, meaning that you'll want to use a [**Motion**] trigger.

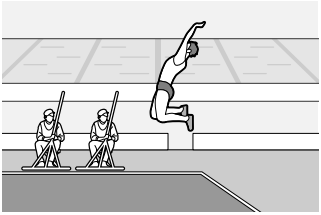


Camera settings	
Focus mode	AF-C
AF-area mode	[**Auto-area AF**]
Auto capture settings	
[**Capture criteria**]	[**Motion**]
[**Advanced: Motion**]	• [**Direction**]: Upper left to lower right, left to right, and lower left to upper right • [**Speed**]: [**3**] • [**Subject Size**]: [**3**]

- The options listed for [**Direction**] assume that the subjects will be crossing the frame from left to right. Specifying the direction prevents shooting being triggered by people moving in the opposite direction in the background.
- Taking [**3**] as your reference point, adjust [**Speed**] and [**Subject Size**] according to subject speed and size relative to the frame. Users of wide-angle lenses, in particular, will need to choose smaller sizes to reflect the subjects' smaller apparent size.
- If you are using a wide-angle lens, we recommend that you choose manual focus and shoot at a fixed focus distance.

Long Jump (Side Shot)

Place the camera beside the sand pit to capture athletes in mid-jump.



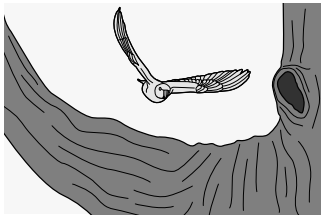
Camera settings	
Focus mode	AF-C
AF-area mode	[**Auto-area AF**]
Auto capture settings	
[**Capture criteria**]	[**Motion**]
[**Advanced: Motion**]	• [**Direction**]: Upper right to lower left, right to left, and lower right to upper left • [**Speed**]: [**3**] • [**Subject Size**]: [**2**]

- The options listed for [**Direction**] assume that the subjects will be crossing the frame from right to left. Specifying the direction prevents shooting being triggered by people in the frame moving in the opposite direction.
- Taking [**3**] as your reference point, adjust [**Speed**] and [**Subject Size**] according to subject speed and size relative to the frame. Users of wide-angle lenses, in particular, will need to choose smaller sizes to reflect the subjects' smaller apparent size.
- The camera may detect that the subject has stopped moving and end shooting at the top of the jump or at the landing. This can be prevented by choosing a shooting time using [**Timing options**] > [**Recording time selection**].

Birds

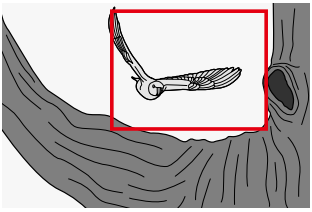
At Feeders or Nesting

Configure the camera to shoot when motion is detected, then aim it at the nest or feeder and wait for the birds to make their appearance.



Camera settings	
Focus mode	AF-C
Release mode	[**C120**]
AF-area mode	[**Wide-area AF (C1)**]
Auto capture settings	
[**Capture criteria**]	[**Motion**]
[**Advanced: Motion**]	• [**Direction**]: All • [**Speed**]: [**2**] • [**Subject Size**]: [**1**]

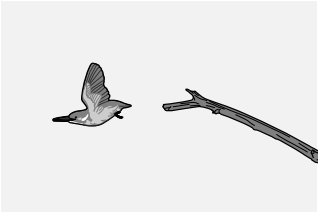
- The [**Subject detection**] trigger is not used, as there is no way of knowing which way the birds will be facing.
- Focus on a point near a hollow in the tree that the birds prefer.



- If you find that shooting is triggered by branches or leaves moving in the wind, adjust [**Speed**] or [**Subject Size**], or choose [**Auto-area AF**] for AF-area mode and use [**Target area**] to disable all target areas except those in the vicinity of the feeder or nest.

Perching

Photograph birds with a high-speed burst of [**C120**]. Pre-Release Capture is also supported, preventing missed shots.



Camera settings	
Focus mode	MF
Release mode	[**C120**]
Custom Setting d4 [**Pre-Release Capture options**]	• [**Pre-release burst**]: [**1.0 s**] • [**Post-release burst**]: [**Max.**]
Auto capture settings	
[**Capture criteria**]	[**Motion**]
[**Advanced: Motion**]	• [**Direction**]: All • [**Speed**]: [**1**] • [**Subject Size**]: [**1**]

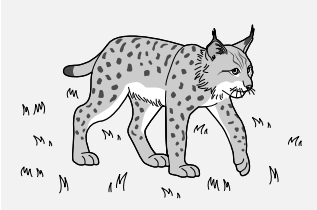
- Use Pre-Release Capture to record photos in the moments before the subject is detected. Because Pre-Release Capture can make it difficult for the camera to focus using autofocus, use manual focus to fix focus at a point where you think the bird will land.
- Try changing [**Speed**] and [**Subject Size**] if you find that the camera responds to motion in the background.

Caution: Photographing Birds

Do all you can not to disturb the environment when photographing birds.

Wild Animals

Photograph wild animals similar to dogs and cats.



Camera settings	
Focus mode	AF-C
AF-area mode	[**Auto-area AF**]
[**Silent mode**]	[**ON**]
Auto capture settings	
[**Capture criteria**]	[**Subject detection**]
[**Advanced: Subject detection**]	• [**Subject type**]: Animals • [**Subject Size**]: [**1**]
[**Timing options**]	[**Recording time selection**]: [**10 s**]

- These settings are good for photographing wild animals on trails or at watering holes or feeding sites.
- Disabling [**Motion**] prevents auto capture being triggered by the wind or swaying branches.
- Setting the camera to record ten-second bursts on detecting the subject ensures that shooting will continue for a fair amount of time even if the camera subsequently loses track of the subject's location.
- Shoot in silent mode to avoid startling your subjects.

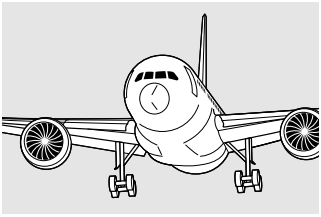
Caution: Photographing Wild Animals

Do all you can not to disturb the environment when photographing wild animals.

Airplanes

Landing and Take-off (Head On)

Photograph airplanes head on.



Camera settings	
Focus mode	AF-C
AF-area mode	[**Auto-area AF**]
Auto capture settings	
[**Capture criteria**]	[**Motion**]
[**Advanced: Motion**]	• [**Direction**]: Upper right to lower left, right to left, and lower right to upper left • [**Speed**]: [**3**] • [**Subject Size**]: [**3**]

- The options listed for [**Direction**] assume that the subjects will be crossing the frame from right to left. Specifying the direction prevents shooting being triggered by planes moving in the opposite direction.
- Taking [**3**] as your reference point, adjust [**Speed**] and [**Subject Size**] according to subject speed and size relative to the frame. Users of wide-angle lenses, in particular, will need to choose smaller sizes to reflect the subjects' smaller apparent size.

Take-off (from Below)

Photograph airplanes from below during take-off.

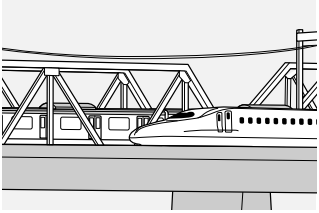
Camera settings	
Focus mode	AF-C
AF-area mode	[**Auto-area AF**]
Auto capture settings	
[**Capture criteria**]	[**Motion**]
[**Advanced: Motion**]	• [**Direction**]: All • [**Speed**]: [**2**] • [**Subject Size**]: [**2**]

The chance of the auto capture being triggered by objects other than the intended subject is reduced when the camera is pointed at the sky. This is why the recommended trigger criteria for [**Motion**] are easy to meet, with [**Subject Size**] intentionally set to a low value to reduce the number of missed shots.

Trains

Track-side/Side Shots

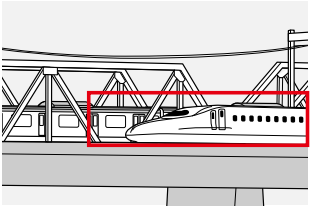
Photograph trains as they pass across the frame.



Camera settings	
Focus mode	AF-C
AF-area mode	[**Wide-area AF (C1)**]
Auto capture settings	
[**Capture criteria**]	[**Motion**]
[**Advanced: Motion**]	• [**Direction**]: Upper right to lower left, right to left, and lower right to upper left • [**Speed**]: [**3**] • [**Subject Size**]: [**2**]
[**Timing options**]	• [**Recording time selection**]: [**2 s**] • [**Wait after shooting**]: [**10 s**]

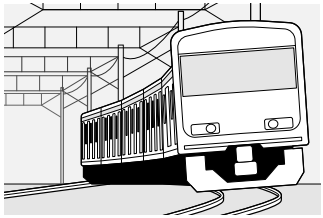
- The options listed for [**Direction**] assume that the subjects will be crossing the frame from right to left. Specifying the direction prevents shooting being triggered by trains moving in the opposite direction.
- Taking [**3**] as your reference point, adjust [**Speed**] and [**Subject Size**] according to subject speed and size relative to the frame. Users of wide-angle lenses, in particular, will need to choose smaller sizes to reflect the subjects' smaller apparent size.
- We recommend short recording times for long trains to prevent shooting continuing after the lead cars have passed.

- To prevent unwanted shots, match the height of the AF area to the height of the train. In this example, the right edge of the focus area is positioned at the extreme right so that shooting will start when the train enters the frame. Even if the camera is slow to detect the train, shooting will have started by the time it reaches the center of the frame.



Head On

Photograph trains head on.



Camera settings	
Focus mode	AF-C
AF-area mode	[**Auto-area AF**]
Auto capture settings	
[**Capture criteria**]	[**Distance**]
[**Advanced: Distance**]	• [**Near**]: (Varies with location of camera) • [**Far**]: (Varies with location of camera)

- Target a telephone pole, pylon, or other object near the track to choose the approximate focus distances for [**Near**] and [**Far**], and then fine-tune focus using the command dials.
- Using [**Target area**] to restrict your target to the area over the track helps reduce the number of unintended shots.

Troubleshooting

Using Auto Capture: Tips

Focus Mode

- The camera will focus in mode **AF-C** when autofocus is enabled. **AF-S** and **AF-F** cannot be used.
- Selecting [**Wide-area AF (C1)**] or [**Wide-area AF (C2)**] for AF-area mode lets you choose the size of the focus area, helping you tailor it to match your subject's apparent size and position in the frame.
- If [**3D-tracking**] is selected for AF-area mode, tracking will start when a subject is detected in the focus area, and shooting will continue until tracking ends. This can be effective with subjects that enter the shot in a specific location but afterwards roam freely through the frame.
- Selecting [**Auto-area AF**] for AF-area mode lets shooting be triggered by subjects anywhere in the frame. This comes in handy when your subject could enter the frame from any direction. If desired, subject detection can be disabled in selected areas using [**Target area**].

"Capture Criteria"

Each additional criterion makes the trigger conditions more restrictive and may prevent shooting proceeding as intended. When using auto capture for the first time in a given location, we suggest that you enable (☑) criteria one-by-one, taking a test shot each time and changing criteria if they do not function as expected.

Tips for Using "Motion"

- A momentary pause as, for example, the subject reaches the top of a jump can cause auto capture to halt. To ensure that shooting does not end when the subject pauses, choose a recording time using [**Timing options**] > [**Recording time selection**].
- Before initiating auto capture, we recommend that you focus at the distance you anticipate the subject will be. This reduces the amount of time needed for the camera to focus.
- Green boxes may appear in empty areas of the frame in response to sensor "noise". This effect can be mitigated by choosing a higher value for [**Speed**] or reducing ISO sensitivity.

Tips for Using “Distance”

Having placing objects or having people stand at the desired distances helps when choosing the maximum and minimum ranges at which the camera will detect subjects for auto capture. If this would not be practical, use capture criteria other than [**Distance**].

Tips for Using “Subject Detection”

- We recommend that you frame the shot wide for subjects that are moving erratically.
- Shooting may stop unexpectedly if the camera can no longer recognize a subject such as an animal or vehicle due to it having changed direction after being detected.
- Before initiating auto capture, we recommend that you focus at the distance you anticipate the subject will be. This reduces the amount of time needed for the camera to focus.

Problems and Solutions

There is no guarantee that the camera will perform perfectly according to the trigger criteria selected. We recommend that you take a number of test shots beforehand to confirm that trigger criteria function as expected. This section lists some problems you may encounter and their solutions.

More Photos Than Expected

- [**Motion**] selected for [**Capture criteria**]:
  - Try selecting higher values for [**Speed**] and [**Subject Size**].
  - Lighting changes during long outdoor sessions may result in auto capture being triggered by shadows. This can be addressed by moving the camera as the lighting changes or by adding [**Distance**] and [**Subject detection**] to [**Capture criteria**].
  - Shake caused by the wind or other factors may trigger auto capture. This can be mitigated by choosing higher values for [**Speed**]. It may also help to select [**Normal**] or [**Sport**] for [**Vibration reduction**] in the photo shooting menu.
- If you have [**Subject detection**] selected for [**Capture criteria**], try choosing a higher value for [**Subject Size**]. If you chose the "auto" subject type, try a more specific option that matches your subject instead.
- Use [**Target area**] to restrict the target area.
- If you know your subject will not appear again for a certain length of time after a burst ends, adjust the wait between shots using [**Timing options**] > [**Wait after shooting**].

No Photos, or Fewer Photos Than Expected

- [**Motion**] selected for [**Capture criteria**]:
  - Try selecting lower values for [**Speed**] and [**Subject Size**].
  - Subjects that are moving too quickly may not be detected. This effect can be mitigated by choosing a wider angle.
  - If [**Auto-area AF**] is selected for AF-area mode, confirm that the target areas where the subject appears have not been disabled using [**Target area**] (disabled target areas are displayed in red).
- If you have [**Subject detection**] selected for [**Capture criteria**], try choosing a lower value for [**Subject Size**].
- If you have selected multiple [**Capture criteria**] conditions, try disabling all but one.

Photos Not in Focus

- The camera may have trouble focusing at some angles. Focus can be improved by photographing subjects head-on.
- Choosing a larger focus area so that the camera has more time to detect the subject before shooting starts may also help improve focus.
- If [**Motion**] or [**Subject detection**] is selected for [**Capture criteria**], focus the lens at the distance at which the subject is likely to appear before initiating auto capture.
- Focus can also be improved by enabling (M) [**Distance**] for [**Capture criteria**] to ensure that the camera only responds to subjects within the specified range of distances.
- Check that the lens focus-mode switch is in the correct position. Be sure to slide the switch to [**M**] when using manual focus. If you select [**A**], pictures will be taken using **AF-C** even when **MF** is selected on the camera.

Missed or Delayed Shots

- Using the release mode [**C30**] or [**C120**] with Pre-Release Capture enabled via Custom Setting d4 [**Pre-Release Capture options**] allows you to configure your camera to start shooting moments before it detects the subject.
- To prevent shooting ending abruptly when the camera loses track of the subject, choose a higher value for [**Timing options**] > [**Recording time selection**].
- Check to be sure the AF area is not too small. Choosing a larger focus area so that the camera has more time to detect the subject before shooting starts may also help improve focus.

Frame-Advance Rate Too High

If you don't need to take a lot of photos in quick succession, choose continuous low-speed release mode and adjust the frame advance rate. You can reduce the number of photos taken by choosing a frame advance rate of 1 fps, selecting [**1 s**] for [**Timing options**] > [**Recording time selection**], and specifying a wait time using [**Wait after shooting**].