# SONY







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- Screen displays and effects used to illustrate some functions are simulated.

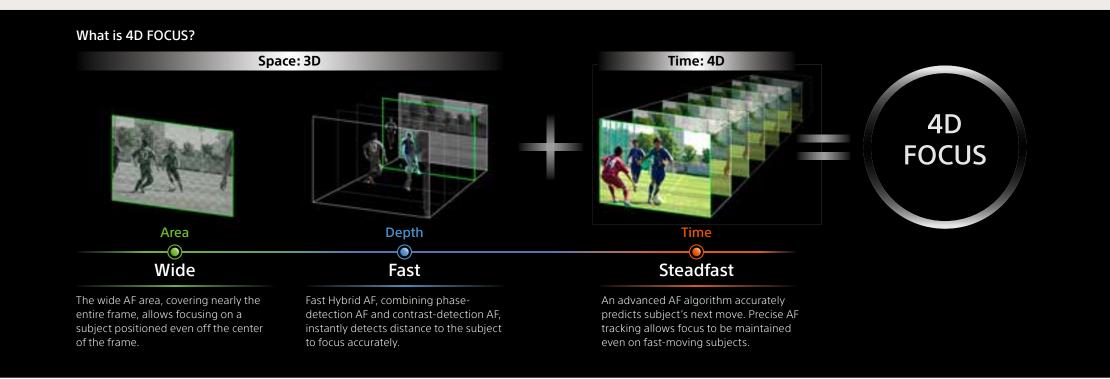


Conventional autofocus has until now dealt with space alone.

Sony goes one step further — a big step, with an innovative image sensor that picks up both space and time to capture moving subjects with new clarity.

4D FOCUS allows you to take crisper photos than ever. Plain old autofocus is a thing of the past. The future of photography is in motion.

Sony spells the beginning of a new autofocus era.



# Meeting your focusing demands Basic AF performance of C 5000

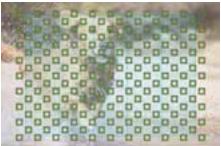


# Wide

#### Focusing over wide area

The **α**6000 employs a focal plane phasedetection AF sensor with 179 AF points spread to cover nearly the entire frame. The wide AF area allows instant AF response to a subject positioned even off the center of the frame.





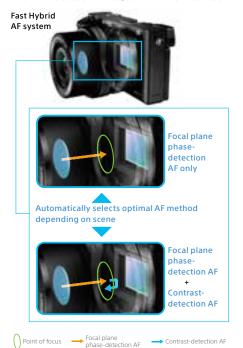
Phase-detection AF (179 points)
Contrast-detection AF (25 points)

# Fast

# Instant focusing!

Advanced Fast Hybrid AF combines phasedetection AF and contrast-detection AF to achieve incredibly fast 0.06 sec.\* AF performance.

\* Measured using CIPA internal measurement method with E PZ 16-50mm F3.5-5.6 OSS lens mounted. Pre-AF off and viewfinder in use.



# Steadfast

# Once it's focused, it never lets go

With Focus Mode set to AF-C, the camera displays one or more small green frames over the area of focus when (and maintains focus on that subject as long as) the shutter button is pressed halfway down. Such steadfast tracking sticks to a subject like glue.



Maximum 11fps (approx.) high-speed continuous shooting with AF/AE tracking never misses a decisive moment





# Fast Hybrid AF is great for movies, too

High-speed, highly accurate Fast Hybrid AF works as well for shooting movies as it does for shooting still photos. Depending on the scene, phase-detection AF or contrast-detection AF may be used for very precise focusing.



# There are 4 points to check.

# Basic settings for shooting a moving subject

# **Focus Mode**

See P.33 for setting steps

Select AF-C that continuously maintains focus on a moving subject while the shutter button is held halfway down.





#### Focus Area

See P.33 for setting steps

Select Wide that automatically focuses on a subject, wherever it is positioned within the frame.





# **Drive Mode**

See P.35 for setting steps

When shooting a moving subject, select Continuous Shooting that takes continuous shots while the shutter button is held all the way down.



# **Shutter Speed**

See P.23 for setting steps

Try to select a fast shutter speed, so that the subject doesn't become blurred.

1/500<sub>sec.</sub> or faster





Lens: E 55-210mm F4.5-6.3 OSS Focal length (35mm equivalent): 315mm Shutter speed: 1/800 sec. Aperture value: F6.3 ISO sensitivity: 400

It is easy to shoot moving subjects with the **α**6000, since it employs 4D FOCUS system. Simply select AF-C for Focus Mode and Wide for Focus Area. Also, select Continuous Shooting for Drive Mode, and choose

a fast shutter speed. These convenient settings can basically be used for shooting moving subjects in general. Other practical camera settings are introduced starting on P.10.

# Contents

# P.10 **Sports**







Shooting swimmers splashing water

P.14 **People** 



from a dance scene



Capturing a moment Shooting lively expressions with background



Shooting portraits with beautiful balances of bokeh and focus

# P.20 **Animals**



Shooting photos of animals at a zoo



Shooting the peak of a sudden jump

# P.24 Vehicles



Taking a panning shot to capture a sense of speed



Making the scene come alive from a cloud of dust

P.28 Scenery



Capturing familiar scenery dramatically at sunset

P.30 Flowers



Expressing a closeup shot softly

P.31 **Food** 



Focusing on a specific point to make a dish more appealing

P.32 **Easy setting guide** 



Capture more opportunity. Take the lead with 4D FOCUS from Sony.



# **Sports**

# Shooting dynamic sports scenes



Lens: E 55-210mm F4.5-6.3 OSS Focal length (35mm equivalent): 300mm Shutter speed: 1/800 sec. Aperture value: F6.3 ISO sensitivity: 400



# Setting tips



Set Focus Mode to AF-C so the camera maintains focus on the subject. Select Wide for Focus Area so the camera can focus on the subject, wherever it is within the frame. These settings are very convenient. When shooting a sports scene, whereby several faces may enter the frame, set Face Detection to Off to avoid losing focus on the intended subject.

# Shooting tips

Use of Lock-on AF (P.34) is recommended when shooting with potential obstacles around your subject. Once focus is locked on the intended subject, this function maintains steadfast focus so you won't miss a good chance to take a clear shot. A frame with double green lines appears to indicate Lock-on AF target.



# For optimal use!

Lock-on AF function is always ready to use at your convenience. Select a mode, and Lock-on AF will be activated when you press the shutter button halfway down; press the MENU button; go to Lock-on AF and set to On (Start w/ shutter).

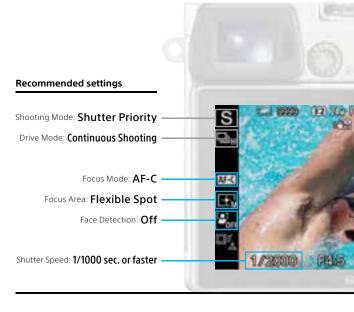


# **Sports**

# Shooting swimmers splashing water



Lens: FE 70-200mm F4 G OSS Focal length (35mm equivalent): 300mm Shutter speed: 1/2000 sec. Aperture value: F4.5 ISO sensitivity: 200



# Setting tips

When using the camera to track the movement of a moving subject, Focus Mode should theoretically be set to AF-C. To prevent splashing water from interfering with focusing, select Flexible Spot for Focus Area (see steps below) to narrow the focusing area. When shooting swimmers who are wearing goggles, Face Detection can be set to Off.

# Shooting tips

With a selection of a shutter speed that is as fast as possible, such as 1/1000 sec. or faster, each drop of splashing water can be depicted. In a split second, you can capture a world that naked eyes cannot see, and experience more of photography's wonderful appeal.



Closeups are fun, too!

# How to select Flexible Spot









1 Press the Fn button.

Choose Focus Area in the menu.

3 Choose Flexible Spot.

frame to the area that you want to focus on.

# People

# Capturing a moment from a dance scene

# Shooting tips

Once you master autofocus, try to be meticulous with choice of background. For example, a simple, slightly dark background brings out the subject and enhances the artistic mood of the resulting photo.



Lens: FE 70-200mm F4 G OSS Focal length (35mm equivalent): Shutter speed: 1/500 sec. Aperture value: F4.0 ISO sensitivity: 800



# Recommended settings

Shooting Mode: **Shutter Priority** 

Drive Mode: Continuous Shooting

Focus Mode: **AF-C** 

Focus Area: **Zone** 

Face Detection: **On** 

Shutter Speed: 1/500 to 1/1000 sec.

# Setting tips

To clearly capture facial expressions of a dancer, setting Face Detection to On is recommended. When using vertically oriented framing, a dancer's face is likely to be positioned in the upper area of the frame, so select upper zone in the Zone setting (a Focus Area selection). A shutter speed of 1/500 sec. was used in the photo example to capture a moment of movement of the dress.





Press the Fn





Move the AF range frames to the area that you want to focus on.

# People

# Shooting lively expressions with background



Lens: E PZ 16-50mm F3.5-5.6 OSS Focal length (35mm equivalent): 42mm Shutter speed: 1/800 sec.

Aperture value: F8.0 ISO sensitivity: 200



# Setting tips



Predicting movements of several children for a single photo can be difficult, so you may want to set Focus Area to Wide in such cases. Select AF-C for Focus Mode and Off for Face Detection. If you want to capture a wide shot including the scenery surrounding the subjects, a shutter speed of 1/500 sec. or faster is sufficient for blur-free results.

# Shooting tips

The key to avoid missing a decisive moment is to take many shots using continuous shooting mode. The lpha6000 offers plenty of opportunities for you to capture such striking moments with liberal use of high-speed continuous shooting at 11fps in Hi mode – just keep the shutter button fully pressed down.



# **How to select Continuous Shooting**



Press the left side of the control wheel.



Select Continuous Shooting: Hi.

# People

# Shooting portraits with beautiful balances of *bokeh* and focus



Lens: E 50mm F1.8 OSS Focal length (35mm equivalent): 75mm Shutter speed: 1/800 sec. Aperture value: F1.8 ISO sensitivity: 100

Shooting Mode: Aperture Priority
Drive Mode: Single Shooting

Focus Mode: AF-S
Focus Area: Wide + Eye AF
Face Detection: On

Aperture Value: As small a value as possible
Shutter Speed: 1/100 to 1/1000 sec.



#### Setting tips

When shooting a stationary person, set Focus Mode to AF-S, which emits two short beeps (when Audio signals is set to On) to notify you when the subject is in focus. Basically, the face (the eyes, if possible) should be in focus when you shoot a portrait, so select Wide for Focus Area and On for Face Detection. Eye AF function (P.34) also comes in handy.

# Shooting tips

When shooting a threequarter-view portrait with different distances between the camera and each of the subject's eyes, use Eye AF function that automatically focuses on the closer eye.

#### Secrets for more beautiful results

To capture a portrait with defocused background for a soft mood, shoot using a telephoto lens and an aperture value that is as small as possible. Setting the mode dial to A (Aperture Priority) allows you to freely adjust the aperture value (P.32).



Aperture F1.8

Aperture F11



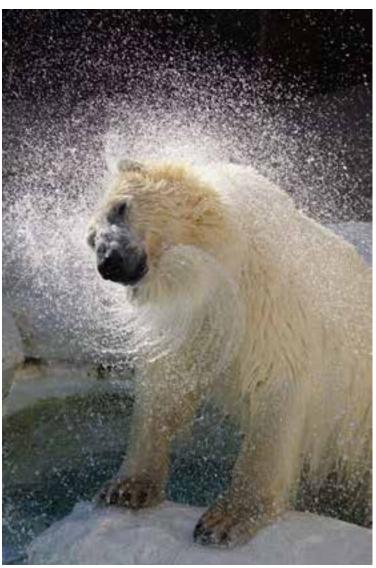
# **Animals**

# Shooting photos of animals at a zoo

# Shooting tips

For a great shot of agile movement, aim to capture a peak moment of an animal yawning, playing, or, like the bear at right, shaking himself dry. There are three secrets for capturing the splash of water to create an impressive photo.

- 1. Focus accurately on the animal's face by pressing the shutter button halfway down before the anticipated action.
- 2. Use a fast shutter speed to "freeze" clearly the water in motion. The photo at right was taken with a shutter speed of 1/1250 sec.
- 3. Make effective use of light. Shooting with slight backlight adds sparkle to the splashing.



Lens: FE 70-200mm F4 G OSS Focal length (35mm equivalent): 132mm Shutter speed: 1/1250 sec. Aperture value: F4.0 ISO sensitivity: 160



# Recommended settings Shooting Mode: Shutter Priority Drive Mode: Continuous Shooting Focus Mode: AF-C Focus Area: Wide or Zone Face Detection: Off Shutter Speed: 1/500 sec. or faster

# Setting tips

To shoot animals that move unpredictably, setting Focus Mode to AF-C and Focus Area to Wide is recommended. This way, the camera can take care of focusing, so you can concentrate on your opportunity to take a clear shot.

# Check the shutter speed, too

Even when the focus is right on the subject, inappropriate shutter speed setting may ruin the resulting photo. Try to shoot in bright light or at a high ISO sensitivity setting (P.27) so that you can use a relatively fast shutter speed to capture your subject clearly.





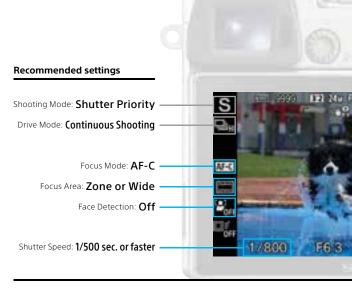
Straip at 17800 sec

# **Animals**

# Shooting the peak of a sudden jump



Lens: E 55-210mm F4.5-6.3 OSS Focal length (35mm equivalent): 225mm Shutter speed: 1/800 sec. Aperture value: F6.3 ISO sensitivity: 400



# Setting tips



To take pictures of a dog running around, use of AF-C is recommended to maintain focus on the subject while the shutter button is held halfway down. It is better to set Focus Area to Wide, since the movement of the subject will likely be unpredictable. A dog running around moves faster than most people might imagine, so use a shutter speed of 1/500 sec. or faster and set Drive Mode to Continuous Shooting in order to take as many clear shots as possible.

# Shooting tips

Shooting at the eye level of your subject or from a low angle aiming slightly upward is recommended. This can provide a perspective that enhances a photo's impact and make it easy to focus on the dog. When shooting with the camera at a low position, the screen tilts conveniently, allowing you to maintain comfortable posture.



# Shooting with a shutter speed of your choice

To control the shutter speed freely, shooting in S (Shutter Priority) mode is recommended. With the  $\alpha$ 6000, turn the mode dial to S and choose a shutter speed value using the control wheel.







# **Vehicles**

# Taking a panning shot to capture a sense of speed



Lens: E 10-18mm F4 OSS Focal length (35mm equivalent): 19.5mm Shutter speed: 1/10 sec. Aperture value: F7.1 ISO sensitivity: 400



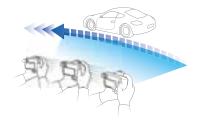
# Setting tips



Set Focus Mode to AF-C in order to continuously maintain focus on a car. Select Wide for Focus Area. When you are able to anticipate a particular composition in advance, Center may also work, depending on the composition. Choose as slow a shutter speed as possible, such as 1/30 sec., and take a panning shot for a blurred background effect.

# Shooting tips

Swing the camera right and left in synchronization with the car's movement. The key to a successful shot is to track the movement with the camera starting before and continuing even after the shot is taken.



#### Secrets for more beautiful results

Once you basically become accustomed to shooting for background blur, try doing it using slower shutter speeds. As the challenge rises accordingly, so does your opportunity to achieve more artistic-looking photos! So take advantage of chances to shoot cars, people and pets in such ways.

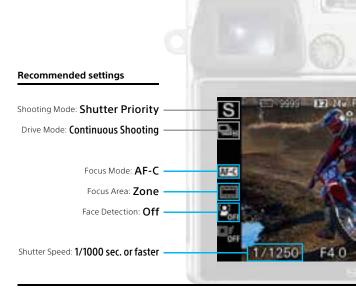


# **Vehicles**

# Making the scene come alive from a cloud of dust



Lens: FE 70-200mm F4 G OSS Focal length (35mm equivalent): 111mm Shutter speed: 1/1250 sec. Aperture value: F4.0 ISO sensitivity: 200



# Setting tips



Select AF-C for Focus Mode. When you can anticipate a composition and where in the frame to focus, set Focus Area to Zone. Also, choose a shutter speed of 1/1000 sec. or faster in order to capture the subject clearly. If you are initially unable to do so, select a higher ISO sensitivity (see steps below), then select such a fast shutter speed.

# Shooting tips

The impact of clarity can make an image of movement come alive. As seen in this photo, creative composition, such as inclusion of a cloud of dust from spinning wheels or use of a tilted frame, makes the action look more dynamic.



# How to set ISO sensitivity





Press the right side of the control wheel, then choose an ISO value using the control wheel.

# Scenery

# Capturing familiar scenery dramatically at sunset

# Shooting tips

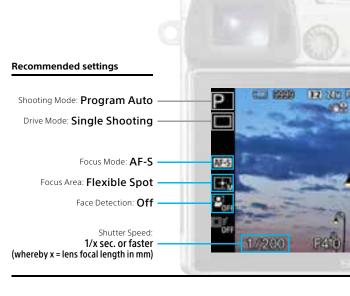
If image quality is the top priority for a scenic photo, it's a good idea to set the ISO sensitivity as low as possible. But when shooting in the gentle, dramatic-looking light of morning or evening, the shutter speed in use may be too slow for handheld shooting. Or, you may want to frame the shot steadily before precisely choosing a point of focus. In such cases, having a tripod and remote commander for the camera provides greater assurance that you can clearly capture the shot that you want.

# Optional accessories





Lens: Vario-Tessar T\* E 16-70mm F4 ZA OSS Focal length (35mm equivalent): 70mm Shutter speed: 1/200 sec. Aperture value: F4.0 ISO sensitivity: 200



# F-17

# Setting tips

Select AF-S for Focus Mode when shooting a stationary subject. When autofocus focuses against your will on the background such as the sky, select Flexible Spot, which enables accurate focusing on a specific point that you choose. For handheld shooting, it is convenient to know the rough shutter speeds (1/x sec. or faster, whereby x = lens focal length in mm) that deliver photos without blur from camera shake. It means the shutter speed is 1/50 sec. or faster when using a 50mm lens.

#### How to select AF-S







1 Press the Fn button.

2 Choose Focus Mode in the menu.

3 Choose AF-S.

# **Flowers**

# Expressing a closeup shot softly



Lens: E 30mm F3.5 Macro Focal length (35mm equivalent): 45mm Shutter speed: 1/13 sec. Aperture value: F4.5 ISO sensitivity: 100

#### Setting tips

Set Focus Mode to AF-S. For Focus Area, choose Flexible Spot that allows you to choose a specific point of focus within the frame. A small aperture value (wide aperture opening) defocuses the foreground and background to give the resulting picture a soft look.



# Shooting tips

Shooting using a macro lens depicts a world, as seen in the photo above, that naked eyes cannot see. However, focusing is difficult when shooting with a macro lens, so it is important to steady the camera by supporting it with arms fixed, or by using a tripod.



# Food

# Focusing on a specific point to make a dish more appealing

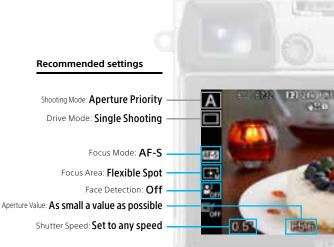


Lens: E 18-200mm F3.5-6.3 OSS Focal length (35mm equivalent): 79mm Shutter speed: 0.5 sec. Aperture value: F5.6 ISO sensitivity: 100



# **Shooting tips**

A location by a window is a perfect shooting spot. The bright light coming through the window enhances the visual appeal of the dish. For a photo of a soft mood with delicately defocused background, use a macro lens or telephoto lens.

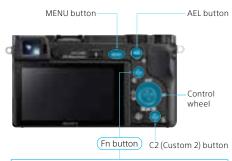


# 

**@** 4D FOCUS

Dials and buttons frequently used for AF shooting





# Command the camera with button customization function

According to preferences and conditions of use, you can freely assign a function of your choice to each of seven customizable buttons: the C1 (Custom 1) button and C2 (Custom 2) button, AEL button, center button, and left/right/down sides of the control wheel. There are 48 assignable functions, and you can instantly call up frequently used functions.

Press the MENU button and select Custom Key Settings. Then choose a button and a function for assignment.



# Handy Fn button for quick, easy resetting

Pressing the Fn (Function) button displays a set of 12 functions that you have assigned, any of which you can quickly access and set. It is not necessary to call up the function through the MENU button, so changing settings is very user-friendly.





Up to 12 functions can be registered.

Press the MENU button and select Function Menu Set. Then, choose an area and a function for assignment.

# **Shooting Mode**

To freely control the AF setting, shooting in P, A, S or M mode is recommended, rather than Intelligent Auto or Superior Auto mode.

Setting steps





Superior Auto mode.		
P (Program Auto)	Allows you to shoot with the exposure adjusted automatically (both the shutter speed and the aperture value (F value)). Also, you can select various settings using the menu and adjust them as desired.	
A (Aperture Priority)	Allows you to adjust the aperture and shoot when you want to blur the background, etc.	
S (Shutter Priority)	Allows you to shoot fast-moving subjects etc. by manually adjusting the shutter speed.	
M (Manual Exposure)	Allows you to shoot still images with a desired exposure by adjusting the shutter speed and the aperture value.	
Intelligent Auto	Allows you to shoot still images with the settings adjusted automatically.	
Superior Auto	Allows you to shoot still images of higher quality with the settings adjusted automatically than you could with Intelligent Auto mode.	
MR (Memory recall)	Allows you to shoot an image after recalling often-used modes or numeric settings that have been registered in advance.	

# **Focus Mode**

Choose a focusing method depending on the subject movement. The methods mainly used as examples in this booklet are AF-C and AF-S.

Press the Fn button and choose Focus Mode, then choose a desired mode.



AF-S Single-shot AF	Locks the focus when focus adjustment is achieved. Use Single-shot AF when the subject is stationary.	
AF-A Automatic AF	Switches between Single-shot AF and Continuous AF according to the movement of the subject. When the shutter button is pressed halfway down, the camera locks focus when it determines that the subject is stationary, or continues to focus while the subject is in motion. During continuous shooting, the camer automatically shoots with Continuous AF starting from the second shot.	
AF-C Continuous AF	Continues to focus while the shutter button is held halfway down. Use this when the subject is in motion.	
DMF DMF	Allows you to use a combination of manual focus and autofocus.	
M F Manual Focus	Allows focus to be adjusted manually.	

# **Focus Area**

Focus Area settings let you choose the area within the frame to focus on. The basic choice is Wide, but you can choose Zone, Center or Flexible Spot, as necessary.





Setting steps



#### Wide

Focuses automatically on a subject within all ranges of the image. One or more green frames are displayed around the area that is in focus.



#### Center

Focuses automatically on a subject in the center of the image.

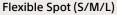


#### Zone

Select a zone on the monitor on which to focus. You can choose among nine zones. The camera focuses on a subject in the chosen zone.







Lets you move an AF range frame (select S, M, or L size) to a desired point on the screen and focus on a very small subject within a narrow area.



Setting steps

# Lock-on AF

Lock-on AF function tracks the subject and maintains focus on it. Position the target frame over the subject to be tracked, then press the central button of the control wheel to start the subject tracking. Also, there's a convenient Lock-on AF activation setting (only available when the camera is in AF-C mode) to start tracking by pressing the shutter button halfway down.



#### Setting steps



Press the MENU button and call up Lock-on AF, then choose On, Listed at the bottom of the choices is the mode that allows Lock-on AF to be activated when the shutter button is pressed halfway down.

# Eye AF

Eye AF is a function to precisely focus on a subject's eye. Once focus is achieved, a green rectangular frame appears over the eye that is in focus. Eye AF is only available when it is assigned to one of the assignable buttons.

Setting steps



Press the MENU button and call up Custom Key Settings. Choose a desired button (the AEL button. in this example) and assign Eye AF to it.

Setting steps

Press the MENU button and call

up Smile/Face Detect., then

choose a desired setting.

# Smile/Face Detect.

Face Detection function detects subjects' faces, adjusts focus, exposure, and flash settings, and performs image processing automatically. When the camera detects a face (up to eight are detectable at a time), the gray face detection frame appears. When the camera determines that autofocus is enabled, the face detection frame turns white. When the shutter button is pressed halfway down, the frame turns green.

Menu item details		
Off	Face Detection function not in use.	
On (Regist. Faces)	When detecting faces, assigns higher priority to faces registered in Face Registration.	
On	When detecting faces, does not assign higher priority to registered faces.	
Smile Shutter On	Automatically detects and shoots a smile.	

# **Drive Mode**

Allows you to choose among various drive mode options such as Continuous Shooting and Selftimer shooting.

Press the left side of the control wheel and choose a desired setting.



	Single Shooting	Shoots one still image. Mainly used when shooting a stationary subject.
	Continuous Shooting	Shoots images continuously while you press and hold down the shutter button. Enables maximum 11fps continuous shooting in Hi setting. Hi, Mid or Lo settings are available.
<u>ড</u>	Self-timer	Shoots an image after 10 or 2 seconds.
రుం	Self-timer (Cont.)	Shoots 3 or 5 images continuously after 10 seconds.
BRIC	Cont. Bracket	Shoots images, each with a different degree of brightness, while you hold the shutter button down.
BRIS	Single Bracket	Shoots a specified number of images, one by one, each with a different degree of exposure.
BRKWB	White Balance Bracket	Shoots a total of three images, each with different color tones, according to selected settings for white balance, color temperature and color filter.
DRO	DRO Bracket	Shoots a total of three images, each with a different degree of D-Range Optimizer used.

# AF Track Duration (movie shooting)

You can choose between two degrees of duration for AF tracking when recording a movie. With High setting, the AF guickly focuses and tracks on a subject within close proximity. Normal setting enhances stability of tracking on the intended subject in situations where objects cross in between the subject and camera.

# Setting steps

Press the MENU button and call up AF Track Duration, Choose a desired setting.

# AF drive speed (movie shooting)

You can select focusing speed when using autofocus in movie mode.

Sets the AF drive speed to fast. This mode is suitable for shooting active scenes, such as sports.

Normal Sets the AF drive speed to normal.

Sets the AF drive speed to slow. With this mode, the focus switches smoothly when the subject of focus changes. Also, this mode is useful for shooting impressive movies.

Setting steps



Press the MENU button and call up AF drive speed. Choose a desired setting.