

# Autofocus Setup Steps

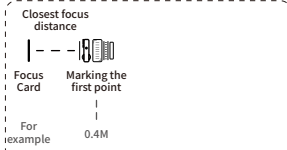
\*Things to know before AF setup:

1. Please print the focus card on regular A3 or A4 paper and paste it on a non-reflective wall.
2. Perform automatic focusing lens calibration under normal indoor lighting conditions, do not do it outdoors.
3. Start the motor, do not start the controller, and install the motor correctly according to the 'installation precautions'.
4. Select the channel color for saving the lens autofocus data. Double-click the motor button to cycle through 5 channels (red, yellow, green, blue, white). Labels stickers can be used to record which lens corresponds to each channel.
5. During AF setup, keep the camera and focus card on the same horizontal line.
6. During the AF setup process, make sure there are no other objects between the motor and the Focus Card to avoid errors caused by interference with the motor's scanning.

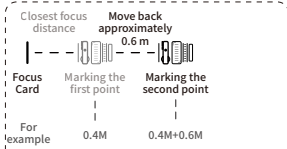
\*Start AF setup:

1. Long press the motor button for three seconds to automatically calibrate the lens stroke. Make sure the lens stroke calibration is complete.
2. Short press the motor button a time then long press for three seconds to enter autofocus setup mode.

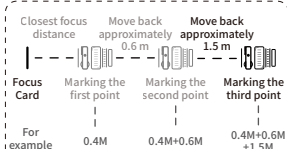
1. Manually rotate the lens to the approximate position of the closest focus point on the lens, and move the camera back and forth until the focus card in the camera frame is in focus and accurate. Short press the motor button to mark the first point. At this point, the lens channel indicator light will be blinking fast. You can move the camera only after the indicator light stops flashing rapidly and the motor emits a beep sound.



2. Move the camera approximately 0.6 meters backwards and manually adjust the lens focus ring to accurately focus the focus card in the camera frame. Short press the motor button to mark the second AF point. At this point, the lens channel indicator light will be blinking fast again. You can move the camera only after the indicator light stops flashing rapidly and the motor emits a beep sound.



3. Move the camera approximately 1.5 meters backwards and manually adjust the lens focus ring to accurately focus the focus card in the camera frame. Short press the motor button again, when the indicator light stops blinking fast and the motor emits a beep sound. Means complete the autofocus setup. At this point, the lens channel indicator light will stay on continuously, and the motor will enter autofocus mode.



\*Test the autofocus by checking the accuracy of the focus from 4 meters to the closest focus distance. If it is accurate, the AF setup is complete. If it is not accurate, check if there are any errors in the AF setup steps and try again according to the steps.

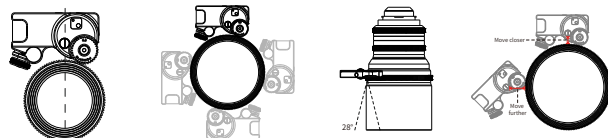
\*LiDAR's effective scanning distance is 4 meters and scanning angle is 28°. If the range is exceeded, the motor enters a low-power mode and automatically moves the depth of field focus to a position about 5 meters away on the lens. If no object is detected within 5 seconds, the motor adjusts the depth of field focus to a position approximately 30 meters away on the lens and maintains it. When an object re-enters the scanning range, the motor immediately resumes normal autofocus mode from the low-power mode.

\*The lens data will be saved in the color channel that performs the calibration action. After the motor restarts, simply set it to the corresponding color channel and automatically/manually calibrate the lens stroke to extract the AF data for the lens. This will initiate the autofocus mode without the need for setup again. Changing the camera will not affect the AF data of the lens.

\*When the motor is in autofocus mode, Short pressing the motor button can pause the autofocus, and short pressing it again can restart the autofocus.

\*After controller and the motor connecting, rotate the controller to the closest focus limit of the lens before the motor enters automatic focus mode. If the controller moves away from the closest focus limit, the motor will automatically switch to manual control mode.

## Installation Precautions



1. When installing, it is recommended to place the LiDAR as close to the lens axis as possible for optimal results

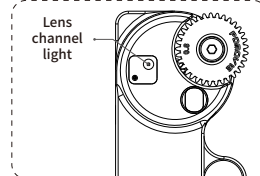
2. The installation position of the LiDAR can be chosen based on the emphasis of the composition of the scene

3. The field of view of the LiDAR is 28 degrees, so when using it, be careful not to obstruct it

4. When the front end of the lens is longer, the position of the LiDAR should be adjusted appropriately to avoid occlusion.

## Lens channel light - Blinking indicator

5 lens channels	●●●●●
No AF data available	One cycle of blinking
Enter AF setup mode	Two cycles of blinking
Successfully marked the first point	Three cycles of blinking
Successfully marked the second point	Four cycles of blinking
AF setup completed	Constantly on



## Motor button - Autofocus setup

Number of clicks	Function description
●●●●● (Lone press for 3 seconds)	Automatic calibration of lens stroke
●●●●● (Short press a time and then long press for 3 seconds)	AF SETTING Calibration mode
● (Short press to mark first point)	Marking can only be done after in-focus with a reference object in AF setting mode
● (Short press to mark second point)	
● (Short press to mark third point)	
●●●●● (Short press a time after AF setup)	Pause/Resume autofocus
●●●●● (Short press twice)	Switch lens channel
●●●●● (Short press five times)	Change focus speed

