

Programming Dandelion for Nikon

Before you start

Set your camera to **M** exposition mode.

Programming of Dandelion includes three simple steps:

1. Activation of the program mode
2. Command input
3. Data input

Activate Dandelion program mode by making 3 successive shots with the following shutter speed:

- 1 sec
- 5 sec
- 1 sec

If your camera does not have a 5 sec shutter speed, use 6 sec.

Your screen will show aperture changing by itself in rounds:
2.8 - 4.5 - 5.6 - 10 - 20 - 40 - 90.

This means that Dandelion has entered program mode.

Commands are input with a **1 sec.** shot when a certain aperture value appears on the screen.

You cannot choose an aperture value with a controller on your camera. You will have to wait until the needed aperture value appears on the screen. If you miss the value you need, you will have to choose it when it appears again during the next round.

If you don't make a shot after three rounds, Dandelion will exit program mode automatically. To force exit simply turn your camera off.

Changing aperture

Make one shot at aperture 2.8. Aperture will start changing in rounds, but this time from F1 to F90. Choose the value you need. You can only choose aperture values the camera displays. Make a shot at the value you need. Dandelion will memorize it and exit program mode.

Changing focal length

Make a shot at aperture value 4.5. The aperture will continue changing, this time from F1 to F90. Here each value corresponds to focal length according to the table:

Aper.	Focal	Aper.	Focal	Aper.	Focal	Aper.	Focal	Aper.	Focal
1.0	5 mm	2.7	28 mm	6.3	68 mm	17	160 mm	40	400 mm
1.1	7 mm	2.8	30 mm	6.7	70 mm	18	180 mm	43	420 mm
1.2	8 mm	3.0	32 mm	7.1	75 mm	19	190 mm	45	450 mm
1.3	10 mm	3.2	35 mm	7.6	80 mm	20	200 mm	51	500 mm
1.4	12 mm	3.3	38 mm	8.0	85 mm	21	210 mm	54	550 mm
1.5	14 mm	3.5	40 mm	8.5	90 mm	22	220 mm	57	600 mm
1.6	15 mm	3.8	42 mm	9.0	95 mm	24	240 mm	60	650 mm
1.7	17 mm	4.0	45 mm	9.5	100 mm	25	250 mm	64	700 mm
1.8	18 mm	4.2	48 mm	10	105 mm	27	260 mm	68	800 mm
1.9	19 mm	4.5	50 mm	11	110 mm	29	270 mm	72	900 mm
2.0	20 mm	4.8	52 mm	12	120 mm	30	280 mm	76	1000 mm
2.1	21 mm	5.0	55 mm	13	130 mm	32	300 mm	81	1200 mm
2.2	22 mm	5.3	58 mm	14	135 mm	34	320 mm	85	1500 mm
2.4	24 mm	5.6	60 mm	15	140 mm	36	350 mm	90	2000 mm
2.5	25 mm	6.0	65 mm	16	150 mm	38	380 mm		

Table 1. Aperture values and corresponding focal lengths.

Make a shot when the needed aperture value appears. Dandelion will memorize its corresponding focal length and exit program mode.

AF/MF switch

Works similar to lens switch. Simply make a shot when aperture value 5.6 appears and the focus mode will switch. Dandelion will then exit program mode.

Confirmation dot justification

You can move autofocus confirmation dot slightly forward or backward by experimentally moving justification constant. One shot at aperture value 10 moves the dot back. Aperture 20 moves the dot forward. The range consists of 17 positions. On default 9 (middle position) is used. Move the confirmation dot forward or backward and try to adjust sharpness. The best justification distance is 3-5 meters.

To exit justification mode turn your camera off.

Lens function

If Dandelion is installed on a lens with an automatic instant-return aperture of AI-S type, you will have to unblock the aperture control function by setting Dandelion to your lens's minimal aperture value which usually equals to 16 or 22.

For correct functioning of an instant-return aperture you will first have to set Dandelion to the fully-open aperture value. You can do this with the help of function 2.8. Then use the following function of minimal aperture value change.

Make one shot at aperture value 40. Aperture will start changing its values round by round, from F1 to F90. Choose the value you need. Normally it will be 16 or 22.

Make one shot when the aperture value you need appears. Dandelion will memorize it and exit program mode.

After that you will be able to work with your aperture in the same way as with an AF lens. Close the aperture on your lens, thus setting it to its minimum. Let it stay that way forever. Then you can choose aperture value, adjust sharpness, make shots, etc, with your main dial.

Note: In pre-AIS series lenses manufactured before 1981 the aperture control mechanism has a non-linear construction. When making pictures with such lens a slight expo correction may be needed.

AI-S lenses with linear aperture of the new type can be distinguished by a special marking: minimal aperture value is marked in red on the main and additional scales. Additional information and photos [can be found here](#).

New AI-S series includes Samyang and Zeiss ZF lenses.

Reset default settings

Make a shot when aperture value 90 appears. Dandelion will reset its default settings (45/2.8, AF, justification 9) and exit program mode.