

FOCUS STACKING

A solution to inadequate Depth of Field (DoF) being available to obtain front to back sharpness

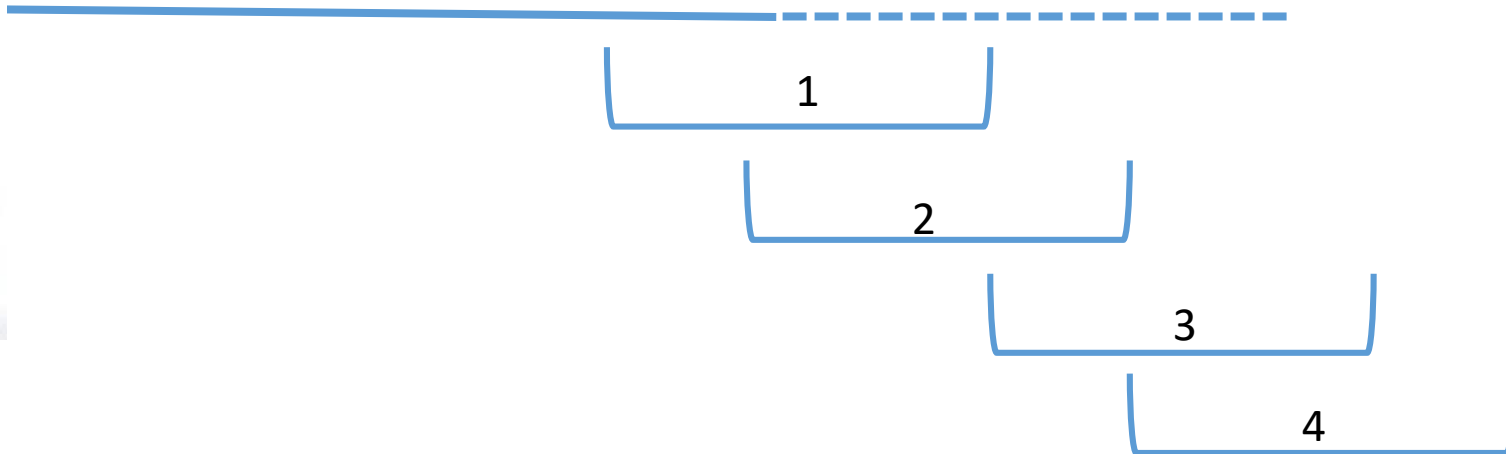


Point of
Focus



Depth of Field

It involves several images being taken from a static position with a moving point of focus



The sharp element of each picture is then merged by software to create one fully in-focus image. Two leading specialists are “Zerene” and “Helicon” whilst Photoshop can be used with more effort and knowledge.

THREE OPTIONS FOR CAPTURING IMAGES

1. Move point of focus of the lens whilst keeping the camera absolutely still.
2. Use a manual focussing rail e.g. Velbon Super Mag Slider c. £75 to move camera
3. Use an electronic automated rail e.g. Cognisys Stack Shot c. £550

N.B. All require a firm, unmoving base such as a bench or tripod so the camera stays still (1) or only moves in a horizontal plane (2) and (3)

STACK SHOT SYSTEM

The machine moves the camera and fires the shutter at each step.

All methods of capture achieve the object but the automated method is easier, quicker and more precise. Particularly comes into it's own for macro photography where depth of field is very small and focus is critical.

STACK SHOT MODES

1. AUTOMATIC STEP – User sets beginning and end plus number of steps. System does the rest.
2. AUTOMATIC DISTANCE – User sets beginning and end plus distance to travel for each step. System does the rest.
3. MANUAL DISTANCE – Same as Automatic Distance but each step must be manually advanced.
4. TOTAL TRAVEL DISTANCE – User specifies the total distance the camera will travel and the number of steps it will use.

STACK SHOT SYSTEM

Within each mode user can also control:-

Automatic Return – camera back to beginning for repeats

Time Lapse – e.g. once every 24 hours for flower blooming and dying

Units of Measure – Metric or Imperial

Settle Time – How long it pauses after moving before taking shot

MOVE FOCUS POINT

First Image (front sharp)



Last Image (rear sharp)



MOVE FOCUS POINT

STACKED IMAGE



VELBON SLIDER

First Image (front sharp)



Last Image (rear sharp)



VELBON SLIDER

STACKED IMAGE



VELBON SLIDER

First Image



Last Image



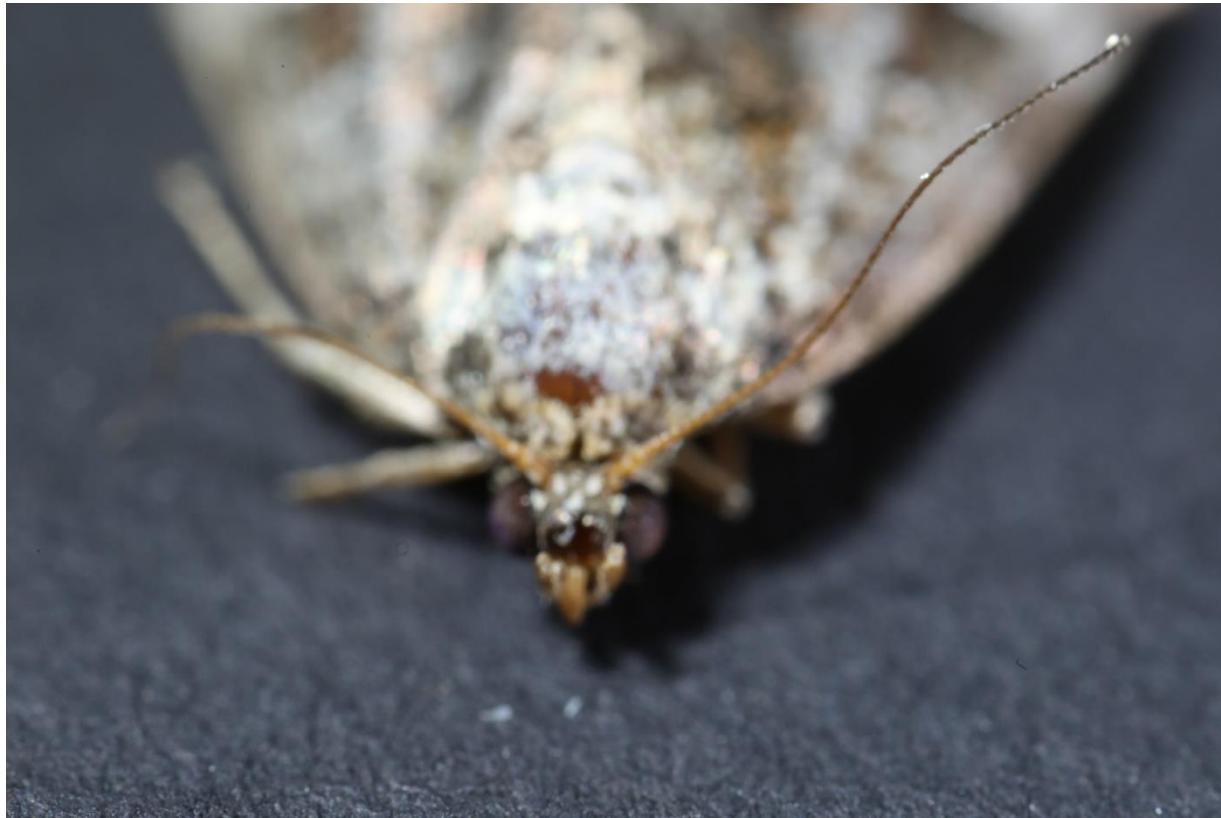
VELBON SLIDER

STACKED IMAGE

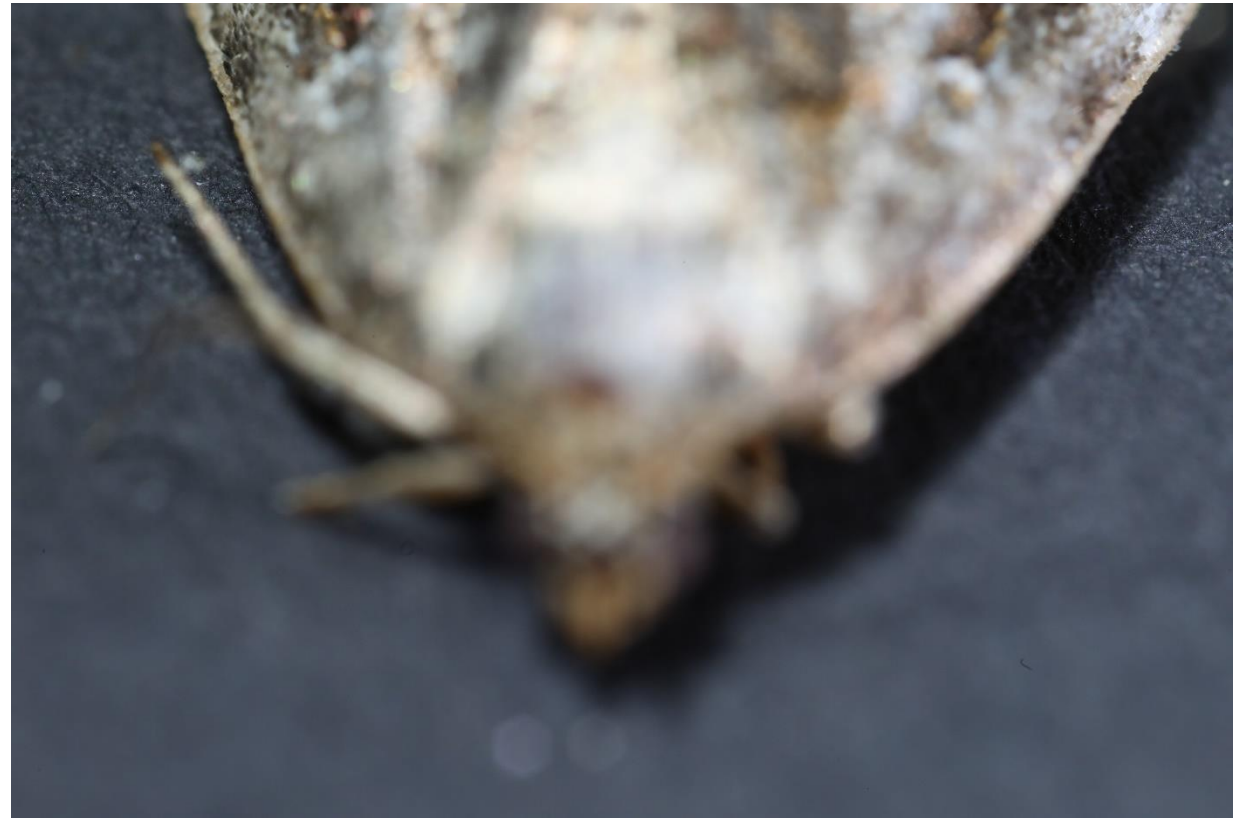


COGNISYS STACK SHOT

First Image



Last Image



COGNISYS STACK SHOT

STACKED IMAGE

