

What is Helicon Remote?

Helicon Remote – this application offers tethered shooting for Canon and Nikon cameras.

Helicon Remote allows the user to tether to a Canon or Nikon DSLR camera to a computer or a mobile device and automates focus bracketing, exposure bracketing (HDR), or time lapse photography. It can even combine all these methods together! See it in action in the video tutorials here: <http://tinyurl.com/y8torp7n>

What is Photo Stacking?

Focus stacking is a photographic term used to describe the process of combining photographs to obtain images with a much larger depth of field than would be possible in a single photo. Focus stacking as a photographic technique which is especially useful for macro photography of small objects, regardless of the f/stop used, the unavoidably small depth of field when shooting small objects means that much of the subject will actually be unsharp and out of focus. Stacking overcomes this by combining the sharpest parts of several images focused at different points and combining them into one very sharp composite image. Read more about focus stacking here

<http://tinyurl.com/ouaw7bc>

Focus stacking is not entirely used for close up photography, have a look at this link for a focus stacking tutorial for landscape photography: <http://tinyurl.com/y7mtrwqx>

With focus stacking software camera renders results that could not be achieved even with a classic tilt-shift lens.

With Helicon Remote the camera is tethered to a desktop or laptop computer with a USB cable, the software can control the photographic steps between photographs, it can control exposure, it takes several shots, user controllable of an object, automatically adjusting the focus distances across the object being photographed, then **Helicon Focus** can quickly combine the stack into a fully focused image.

With late versions of Adobe Photoshop CC and/or Lightroom Classic it is possible to use a focus stacking technique in these programmes.

Nowadays micro photography, close-ups, jewellery and product photography became truly dependent on focus stacking to create outstanding imagery.

However it matters not what is shot – landscapes or flowers, animals or still-life – **Helicon Remote and Helicon Focus** can help make the images really stand out.

We can light the subject using any one of the following methods:

- LED panel
- Off camera Flash, using Nikon CLS (Creative Lighting System), Commander Remote Wireless Flash System (using Nikons IR Panel SG-3IR in the hot shoe to mask off the on camera flash from affecting the lighting on the subject).
- Studio Flash
- Daylight

Typical equipment

- Nikon D750 Full Frame Digital Single Lens Reflex Camera (DSLR)
- Nikon IR Panel SG-3IR (only used when shooting with flash as the pop-up on camera flash can adversely affect the exposure)
- Nikkor f2.8 105mm Macro lens
- LED panel containing 160 LEDs or
- LED Panel containing a 560 LEDs
- A tripod stand, with universal joint, to hold the LED light/Speedlight
- A tripod to support the camera
- Tripod equipped with a ball head
- USB connecting lead between the camera and laptop/desktop computer
- USB extension lead (if necessary)

- Laptop/desktop computer which runs **Helicon Remote** and **Helicon Focus**
- Gary Fong Lightsphere Collapsible Flash Diffuser
- Nikon SB-900 Speedlight
- Meike Auto Focus Extension Tube Set
- Blu-Tack

The camera is connected to a computer with a USB cable. Switch the camera on and run **Helicon Remote** — or vice versa. Set the lens to Auto Focus (AF) mode. This will enable Helicon Remote to control the lens. Helicon Remote will automatically take control of the camera and a Live View image will be seen on the computer/laptop screen.

The exposure parameters: aperture, exposure time, ISO, etc. can be set from **Helicon Remote**.

Click autofocus in the top panel of **Helicon Remote**.

The first step consists of clicking on the area of the object closest to the lens, this is to set the front focusing point, this results in a magnified view, usually out of focus. The adjustments can be conveniently fine-tuned using the arrows in the bracketing focus panel.

Then clicking the "A symbol" results in a small yellow lock in the Focus Bracketing panel of the program. The front focus point is then locked.

Then similarly manually focus, using the controls in the programme for point "B", the focus point of the object furthest from the lens.

The adjustments can be conveniently fine-tuned using the arrows in the bracketing focus panel.

The focus can then be checked using the preview button, which opens up a high resolution preview of the image allowing precise control of the focus.

At this point the suggested number of focus point intervals can be modified. The focus bracketing sequence, is automatically captured by the program after pressing the "start shooting" key that triggers the capture. The software controls the focusing ring on the camera.

After completion of the shooting, the software offers the option to directly open the bracketed sequence in **Helicon Focus** to render the final stacked image.

Helicon Focus offers three different methods of rendering to process the source files and create the output image.

According to the user's manual, method A - weighted average - is better at producing smooth transitions and preserving colours.

Method B - depth map - works best for continuous surfaces.

Method C - pyramid - is good for intersecting objects and deep stacks.

It's a good idea to run all three of them and pick the best output image for final editing in the photo editing software.

Note that Helicon Focus occasionally makes small stitching errors that can be easily recovered in Photoshop by opening the bracketed sequence as layers and masking the problematic area.

Helicon Focus home page: <http://tinyurl.com/q7qqamf>

Cost of the **Helicon Focus** software, (**Helicon Remote** is a free download after purchasing **Helicon Focus**). Although the prices are shown in dollars, when payment is made it will be shown payable in UKP.

It is usually possible to obtain a 20% discount of any of the versions by ordering by searching for a discount code online. At the present time (January 2021) Helicon are discounting their prices by 20%.

Helicon Focus Licenses

Prices reduced January 2021.

Helicon Focus Lite = Helicon Focus Lite license, note this version does not include Helicon Remote.

1 year license for ~~\$30~~, \$24, unlimited license for ~~\$115~~, \$92.

Helicon Remote Lifetime license ~~\$75~~. \$60.

Helicon Focus Pro Package = Helicon Focus Pro license + Helicon Remote for desktop computers (Windows, Mac OS 11)

1 year license for ~~\$55~~, \$44 unlimited license for ~~\$200~~, \$160.

Helicon Focus Premium Package = Helicon Focus Pro license + Helicon Remote multi-platform (Windows, Mac OS 11, Android, iOS)

1 year license for ~~\$65~~, \$52 unlimited license for ~~\$240~~, \$192.

One year license is valid during one year after purchase and reverts to demo mode afterwards.

Unlimited license is valid for lifetime, all updates are free.

Footnote

Helicon FB Tube

This is an extension tube with integrated electronic microcontroller designed to enable automated focus bracketing in single or continuous shooting modes.

Helicon FB Tube automatically shifts the focus by one step with each shot thus producing a stack of images of unlimited length that can be rendered into a fully-focused image.

Nikon

The Nikon D850 has a Focus Shift Photography feature and is high resolution and meets high magnification. This feature enables the user to automatically shoot up to 300 shots at adjustable focus step intervals to infinity which can be easily assembled into a focus-stacked image, using third party software.