

**Field Backup of Camera Images an update**

I purchased the Blazedrive unit thinking that this was going to be the perfect solution to providing quick and simple backup of my camera SD cards whilst away on holiday etc.



The Blazedrive unit with Wi-Fi connectivity SD Card reader and provision for an internal HDD or SSD unit. It has its own inbuilt lithium-ion battery for power. It can also connect to LAN via the Ethernet port. It is controlled by an “app” on your smartphone.

However, in fully testing the unit with large video files and with a mixture of JPEG and RAW files the transfer speeds were “horrendously long” Also what was advertised as a “one button backup solution” turned out to be the button on the smartphone app not the physical button on the unit. The files are copied simultaneously to the smartphone and not locally between the SD card reader and the HDD/SSD. Not a very convenient solution as the “app” on the smartphone had to be left running for the file transfer to keep happening! I have abandoned any idea of using the device for this purpose now and will use it as a power bank or local drive.

So, what’s the alternative now?

Well a very elegant and simple solution is to use your smartphone to act as the backup and connect the camera via the USB cable and on the Android phone an OTG cable or on IOS the camera connection cable. If you have sufficient internal memory on the smartphone this may be all that you need. If you have a smartphone with limited memory or you have used up a fair amount of the internal memory, then you may want to look at my next option which is to use the smartphone to act as a “file manager”. The proposal only work on Android phones as Apple IOS prevents this sort of file transfer operation.



My initial connection proposal for a simple transfer from SD card reader to external SDD/HDD unit employing a USB hub.

After putting the “kit” together I found a USB 3.0 SD/QXD card reader plus USB port with independent USB channels allowing simultaneous transfer to each device.



The new setup is a lot more portable. I switched out the m.2 enclosure for a standard USB-Sata 3 drive connected to the USB Port and the SD card plugs into the SD card reader slot in the device. The device still allowed USB 3.0 transfer speeds and 25GB of files transferred in 6 minutes 29 seconds.

As with the previous unit the whole project is run by the “files” app on the Android smartphone. The app allows for a wide range of options from whole drive to individual file transfer.

The drive doesn't support an external power supply to power the drive however the USB-C port is designed to supply up to 2A.

Affiliate link for the XQD reader/hub UK <https://amzn.to/2EiJ81F>  
Or Direct to USB-C <https://amzn.to/2VwvzCX>

Affiliate link for the XQD reader/hub USA with USB Type A <https://amzn.to/2StZQA5>  
Or direct to USB-C <https://amzn.to/2Ui053f>

I made a short video on how to transfer the files on Youtube.

[Youtube Video](#)



### The Canon Powershot SX740HS

I've had this camera for just over 6 months now and have been using it mainly for capturing LCD screen shots from the FZ1000 camera for inclusion in the FZ1000 user's guide. The camera, in my opinion, has a lot to offer and I thought that I would bring you an update on its performance for both shooting stills and video.



One of the features that attracted me to this particular model was the tilting LCD screen and 4K video. The SX730HS appears to be the same camera but without the 4K video option.

It gives me a great advantage shooting images at ground level or above my head.

The Canon PowerShot SX740 HS is a pocket super-zoom camera with a 40x / 24-960mm optical range, 20 Megapixel 1/2.3in sensor, 4k video, Wifi and Bluetooth.

It now employs the latest DIGIC 8 processor which additionally supports 4k video and burst shooting up to 10fps.

The 4k video mode shoots at 25 or 30fps, made possible by the presence of the DIGIC 8 processor, but like the EOS M50, filming in 4k takes a 1:1 / 8 Megapixel crop from the middle of the sensor resulting in quite a severe reduction in the field-of-view.

Capturing video in 4k will reduce the horizontal field-of-view by 1.35x reducing your chance of capturing a wide field of view. But on the plus side allowing the long lens to reach even further.

1080p still uses the full sensor width though and is available up to 60p, and regardless of the mode the SX740 HS can capture half hour clips.

It's probably pitched at the Panasonic's Lumix TZ90 / ZS70 but unlike that model it doesn't have a touch screen or support RAW capture.

Considering the target market, I'm thinking Canon did the right thing and left RAW out of the options and concentrated in getting decent out of camera JPEG images even if the user only ever used fully auto mode.



*out of camera JPEG using P mode*

Like all small sensor cameras, it's best to keep the ISO as low as possible as the noise reduction algorithms quickly destroy image quality at anything over ISO 800 and even at ISO 100 there is evidence of blur reduction of image sharpness but it does exceed smartphone image quality.



I did a 6-month user experience of the camera (filmed with the SX740HS in 4k) on YouTube so you can see the quality of the images and video from the camera.

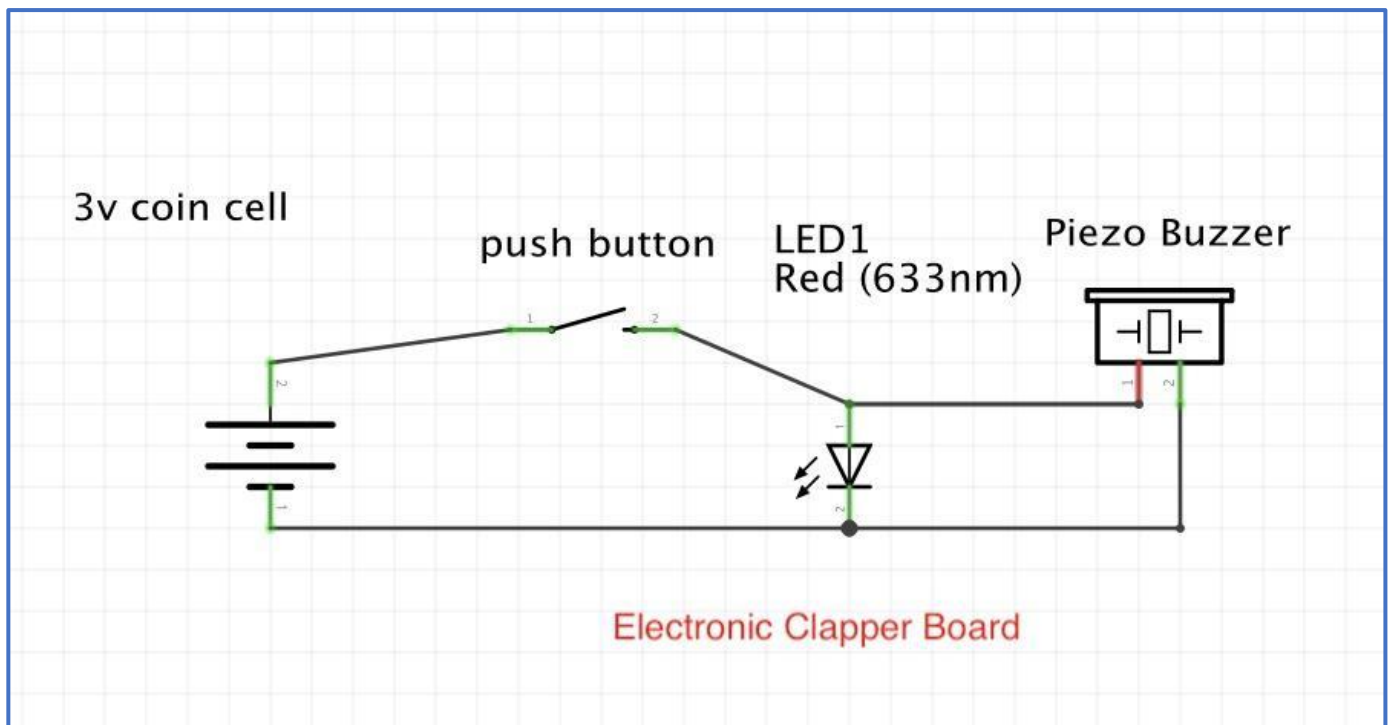
[You will find it here at YouTube](#)

## Electronic "Clapperboard" Project

When recording video clips with cameras that do not have an audio input socket if you want good audio you have to use an external audio recorder to capture the audio and then later synchronise it to the video in post-production.

The normal method is to employ a mechanical clapperboard which snaps shut making the audio signal and the point where the two chevrons meet is the visual synchronisation.

I wanted a much more portable unit so I came up with the idea of an electronic audio-visual device based upon a bright red LED and a piezo buzzer,



The power is from a CR2032 lithium coin cell in a battery holder. The LED and piezo buzzer are wired in parallel with anode (shorter lead) of the LED wired to the +ve of the piezo.

The cathode (longer lead) is wired to the -ve of the piezo buzzer and then to the -ve of the battery. From the +ve of the battery wire to one side of the push button and then the other side is wired to the anode of the LED.

Here are some links to give you an idea of what to look for if you want to build one.

The piezo buzzer is available from Amazon like this one; <https://amzn.to/2EmmNAC>

A box of assorted coloured LEDs <https://amzn.to/2BXCpd5>

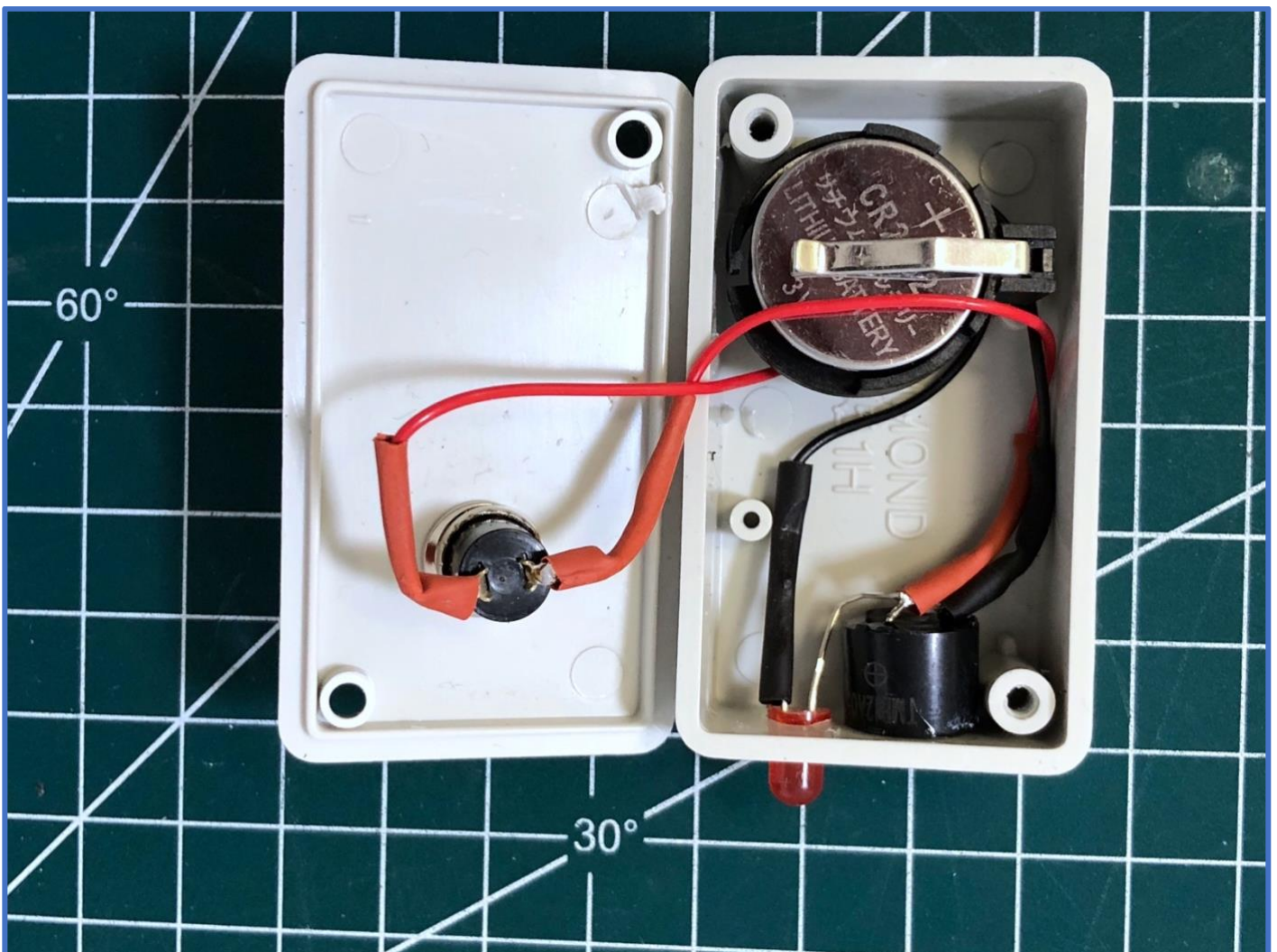
Push button <https://amzn.to/2EBcbPx>

Battery holder <https://amzn.to/2NywbFl>

Plastic box <https://amzn.to/2NxygRH>

You can see it in action on this video

<https://www.youtube.com/watch?v=nFv3y7Og9ZM>



If anyone is interested in one of these units pre-built for you (built to a more professional standard not just proof of concept) let me know and I might make them available through my store at £8.50. email link below.

[Clapperboard please](#)

## The Panasonic Lumix FZ1000 mk2

So, February 18<sup>th</sup> Panasonic released news about the new FZ1000 mk2.



From the Panasonic Press release:

*At the heart of the camera is a large 1-inch 20.1-megapixel High Sensitivity CMOS sensor, which boasts a high signal to noise ratio – in other words, it's the ideal choice for capturing clear images, even in low light conditions. The 16x optical LEICA zoom lens gives you a 35mm camera equivalent of 25-400mm, making it perfect for everything from scenic photography to distant subjects. The newly added Zoom Compose Assist assures, that you do not lose your subject when it suddenly leaves the frame. An aperture range of f/2.8-4.0 is available for creating beautifully blurred backgrounds, while a new minimum aperture of f/11 is useful for highly detailed landscape shots. Additional specifications include the following:*

*5-axis Hybrid O.I.S.+ (Optical Image Stabilizer) to compensate for handshake to achieve blur-free images at every focal length.*

*Photo Styles for creative, including the newly added L.Monochrome D mode for enhanced monochrome images.*

*Bluetooth Low Energy (4.2) and Wi-Fi connectivity (IEEE802.11b/g/n) for instant sharing via Panasonic Image App.*

*Long-Life Battery with AC- or USB Power Charging on the Go.*

So essentially it looks like there is a change to lens/sensor from the original FZ1000 (While the resolution hasn't changed, it's not the same sensor as the one in the 2014 FZ1000.

Panasonic says the sensor has a dramatic reduction in noise when shooting at high ISOs.

The processor also has several algorithms designed to fight noise.

In front of that sensor is a 16x optical zoom lens, equivalent to a 25-400mm reach.

The lens has a bright f/2.8-f/4 aperture, with the minimum aperture now at f/11 instead of the f/8 of the predecessor.

To steady that long lens, the FZ1000 II uses a five-axis hybrid optical stabilization system.

We now have a much upgraded EVF (2,360K dot OLED) and a touch screen LCD and in camera charging and low power Bluetooth connectivity for faster Wi-Fi connection using the Panasonic Image App.

There's also mention, that they have added the Cinelike D and V profiles for videography as well as the new Monochrome profiles as well. The new FZ1000 II shoots 4K video at 30 or 24 fps and has a dedicated position on the mode dial.





Like Panasonic's other recent 4K-equipped cameras, you can also pull still photos out of a 4K sequence or use 4K photo modes to shoot first and focus later and perform focus bracketing.

The Focus/Zoom ring control looks like you need to program one of the function buttons to switch from Focus to Zoom on the lens barrel and they have added the same feature that some Canon cameras have of the zoom out to frame and fast zoom back to shoot operation via another pushbutton on the lens.

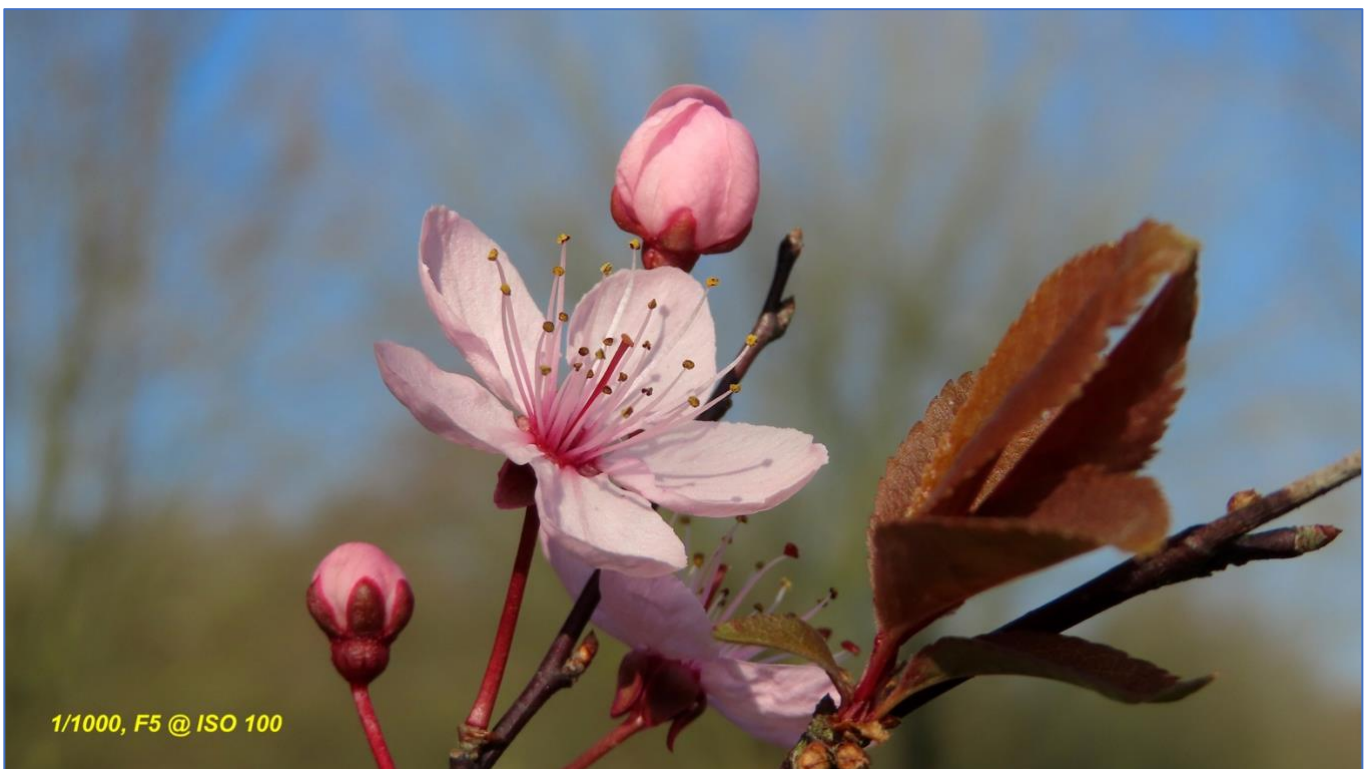
Nice to see that they have got rid of the failure prone push in back control wheel and replaced it with the much sturdier top control dial.

Whilst the new EVF, touch screen and top control dial would be a welcome upgrade from the FZ1000 mk1 I'm not sure that the image quality will be significantly different, and for video the FZ2000/2500 is a much better option, in my opinion,

The camera will go on sale at the end of March with a retail price of £769.99 in the UK.

## Shooting Spring Blooms

Yes, I know that it is still officially winter here in the UK but with temperatures hitting all-time records of 20C in some places some trees have been tricked into believing that spring is here. Also, I have noticed bumble bees and honey bees taking advantage of this harvest. When the cold snap returns next week I'm not sure what will happen to them.



Shooting with a colour complimentary background as with the first image accentuates the bloom. If that's not possible, try using a longer focal length and moving back to throw the background out of focus. Both these images were taken with the Canon SX740 HS camera.



Still possible with your smartphone by getting close so that the background is rendered out of focus. This one taken with the iPhone X.

### **iPhone Challenge**



Taken with my iPhone X just after taking the crimson bloom above (growing to the right-hand side of the chapel), the last rays of the golden afternoon sun with deep shadows and bright highlights shows just what can be achieved now with these devices ... and it can only get better.



The village stocks at Rivington, dating back to 1716. Again, an iPhone X image showing the depth of field available with these short coupled lenses.

### **This Month's Studio DIY**

I like creating things which ultimately have some future use. I have a couple of diffuser screens which fold up into a small ring and fit nicely in my camera bag, I use these when shooting flowers etc., in bright sunlight to reduce the contrast in the scene.



This is one of my nylon diffusers which I carry in my camera back pack for flower photography.

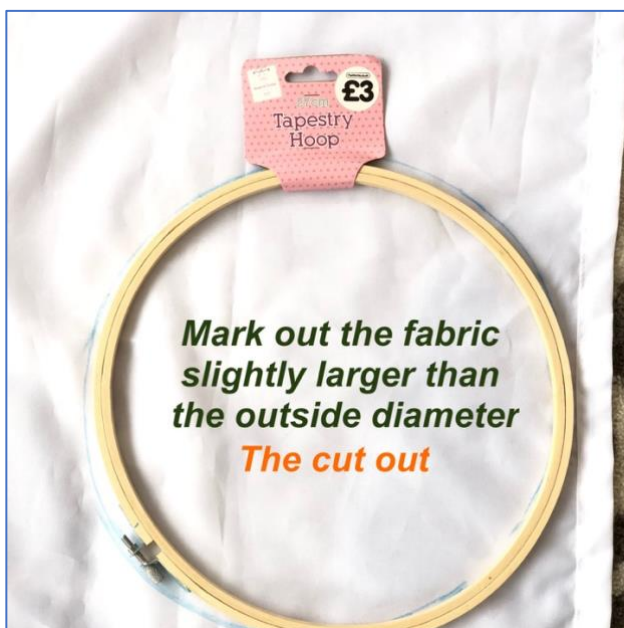
If you want to learn more about this have a look at this [Video of mine on Youtube](#)



Holding the diffuser between the sun and the flower creates a nice soft light source which brings out the subtle shades in the flowers.



With the diffuser, you can see the reduction of the hard shadows and less highlight blowout. When I was out shopping for some other craft materials I noticed a Tapestry Hoop and I thought that would be the basis for a small fixed diffuser that I could place over LED lights or flash units to recreate this soft look. With a small section cut from an old nylon shower curtain I fixed the fabric into the frame. The inner ring locks the fabric against the outer ring. Just pull the material tight, then tighten the outer clamp and cut off the excessive material.



Marking and cutting out the fabric



and then fixed between the two hoops.