
Equipment Testing


There are two main types of cameras we have tested in order to use in our production, one of which is an iPhone 6S camera and the other is the Sony DSC-HX300, here are the specs for both of these Cameras:

Here are some technical specs for the iPhone 6S's camera taken from the Apple Website:
<http://www.apple.com/uk/iphone-6s/specs/>

iPhone 6 S

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Video
Recording



- 4K video recording (3840x2160) at 30 fps
- 1080p HD video recording at 30 fps or 60 fps
- 720p HD video recording at 30 fps
- Optical image stabilisation for video (iPhone 6s Plus only)
- True Tone flash
- Slo-mo video support for 1080p at 120 fps and 720p at 240 fps
- Time-lapse video with stabilisation
- Cinematic video stabilisation (1080p and 720p)
- Continuous autofocus video
- Improved noise reduction
- Take 8MP still photos while recording 4K video
- Playback zoom
- 3x zoom
- Face detection
- Video geotagging

Here's an image of a video that was shot on this camera, this was used in order test for the quality of capturing different colours and lighting within the frame. On this test, I feel that the camera performs pretty well at shooting in 4K at 30 fps. However, as the camera panned across the scene, there was a slight amount of glare in the frame from the light.





Here's another screenshot from a clip showing water coming from a tap shot on this camera. I decided to shoot this because it's a shot we plan on using in our film. I feel that the camera also performed well as it is fairly high quality, however the field of view on this camera is fairly small, this means that the camera zooms in quite a bit, while this isn't a very big issue, it does mean that we would have to consider this when shooting, this could be tackled by shooting from slightly further away to capture more in the frame.

This camera also performs fairly well in both low and high light situations; this is good for our production as we plan on using mostly ambient lighting for our production due to the high costs of lighting equipment and the issue of transporting them.

After shooting various tests with this camera, here are a few Pro's and Con's I have found from shooting with it:

Pro's	Con's
Very high quality image – 4k quality at 30fps	High price – Very expensive, however this camera is already owned
Built in Slow-Motion – There is built in slow motion to this camera which is an element that we plan on using in our film.	Battery complications – The battery for this device is not removable, this means that if the battery were to run out during filming then there could be complications such as needing to charge the device which is time consuming.
Versatile and portable- This device is very small and can fit in your pocket, this means that transporting equipment will be considerably easier in our production.	No expandable storage- This device also lacks the ability to add expandable storage, this means that if the device were to run out of memory on set, we would have to stop filming and export all the footage onto a computer or alternative storage method.
Image stabilization- This makes the image more clear when the camera is moving while filming, this would be useful in our sequence where there is more movement in the scene.	Autofocus – This can be seen as both a positive and negative between different people, however in our production we will want certain elements to be in better focus than others in the frame in order to highlight certain aspects. This is therefore a disadvantage for this device as the camera does this automatically and doesn't have many options to allow the user to manually choose an element to focus on, this makes it harder for us to make our footage look more professional or artistic.
Built in flash- The camera has a 'true tone' flash feature built in which is available when recording video, this means that the flash and image is adjusted in order to match elements in the frame such as lighting or the tones of someone's face.	Small FOV- This camera has a particularly small Field of View, this means that particular elements could be cut out of the frame.
Built in Microphone- This device also has a built-in microphone, this makes it even easier for us to capture sound and footage at the same time with only one device, however there is a trade-off with this factor, this is that the quality of the microphone itself is a lot poorer compared to other types of microphones which we have used previously.	

The second main camera we tested was the SONY DSC-HX300, here are again some of the specs for this camera taken from the SONY website:
<http://www.sony.co.uk/electronics/cyber-shot-compact-cameras/dsc-hx300/specifications>



Camera	<div>IMAGE PROCESSOR BIONZ™</div> <div>ISO SENSITIVITY (STILL IMAGE) ISO 80-12800</div>	<div>CONTINUOUS SHOOTING SPEED (MAXIMUM NUMBER OF RECORDING PIXELS) 10 fps (for up to 10 shots)</div> <div>FLASH TYPE Sorry, this data isn't available</div>
Recording	<div>MOVIE RECORDING MODE (NTSC) AVCHD (up to 1,920 x 1,080/50p at 28Mbps) / MP4 (up to 1,440 x 1,080/25fps at 12Mbps) / VGA (up to 640 x 480/25fps at 3Mbps)</div>	
Interface	<div>INPUT AND OUTPUT TERMINALS Hi-Speed USB (USB 2.0), Micro HDMI, Multi USB</div>	<div>WI-FI CONNECTIVITY —</div>

Here’s an image of a video that was shot on this camera, this was used to test the quality against the video taken on the iPhone’s camera. On this test, I feel that the camera under performs in comparison to the iPhone’s camera for a number of reasons. First of which is the picture quality of the video itself: while the specs of the camera show’s that it can shoot at full 1080p, there is a lot of motion blur which made the footage look very poor when viewing on a computer.



Here is another image of a clip taken in the same conditions as before. For this clip, the camera performed considerably better, this is most likely due to the fact that the camera is in a stationary position, this makes the footage look a lot higher quality compared to the previous video taken on the camera. This helped me work out that this camera is not suitable for when moving the camera, this could be slightly problematic as we plan on using a number of panning shots and shots where the camera follows our character. This camera also has a wider field of view than the iPhone, this means that we can fit quite a lot in the frame while being fairly close to a subject.

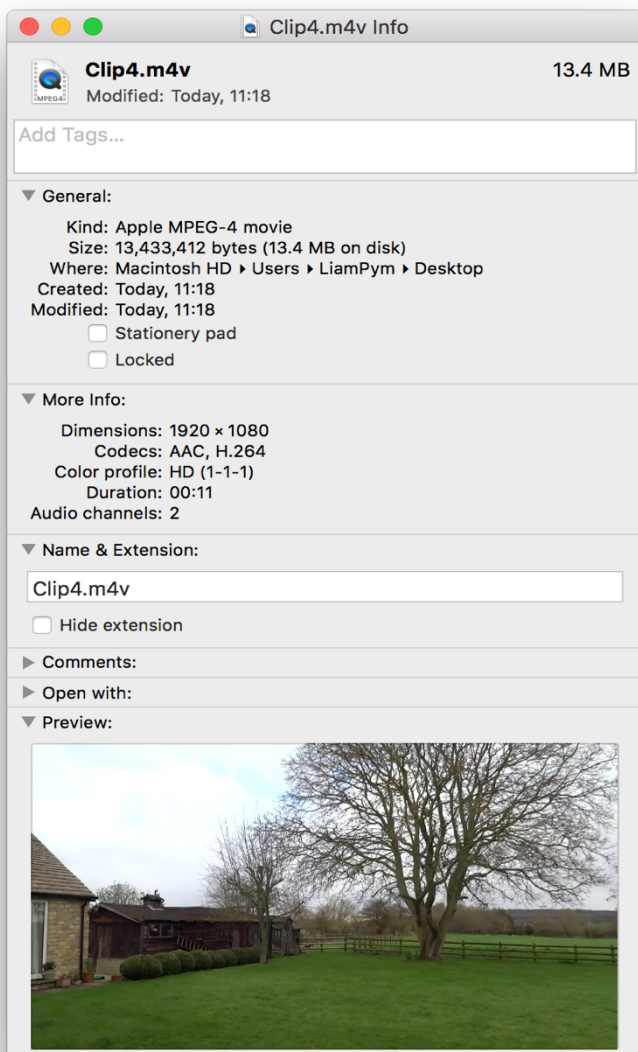


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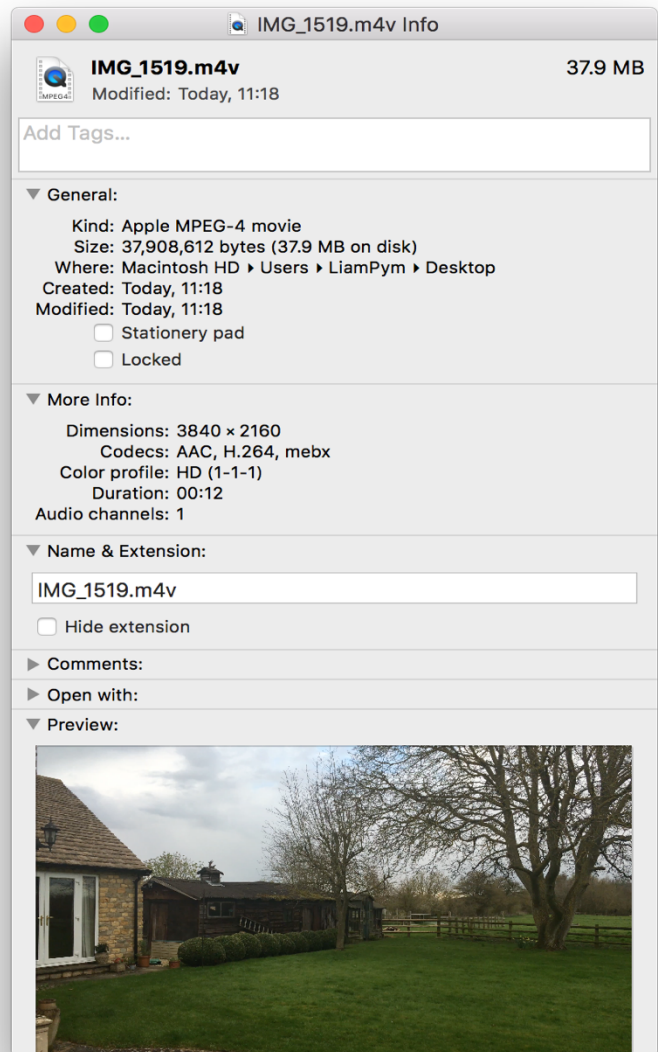
Pro's	Con's
Full 1080 p HD video capture at 50 fps	Large/Heavy- This is a large camera which could prove as a problem for some of the sequences that we had planned, for example POV shots may be quite hard to shoot etc.
Wide Field of View- As said earlier, a lot can be shown in the frame while being close to the subject.	Autofocus – Again this is a disadvantage for the same reason as stated earlier.
Expandable Storage- This device has the ability to add an SD card, this means that we can have more than enough space to shoot our opening sequence without running out of space etc.	No image stabilization/motion blur- When the camera is panning across a scene or is moving, the footage becomes very blurry and very unclear. This makes it unappealing to watch for audiences.
Built in Microphone- Same as previous.	Lower quality picture – This camera doesn't shoot in an as high quality as previous examples we have looked at.
Removable Battery – This camera has the ability to remove the battery from the camera. This means that if it were to run out while shooting, a back-up can be taken in order to make sure that we will be able to use the camera without worrying about battery life etc.	

Side by Side comparison:

SONY DSC- HX300



iPhone 6S



Heres a side by side comparison of the footage results, the screenshots show the resolution of the footage, the file sizes etc. As you can see, the file size of the iPhone was considerably larger with up to nearly 40mb for a 12 second video, this is mostly due to the fact that this it has the ability to shoot in 3840 x 2160 (4k) resolution. Whereas the file size for the SONY camera is only nearly 14 MB for a 11 second video, this again is most likely due to the dimensions only being 1080p rather than 4K quality.

SONY DSC- HX300



iPhone 6S

