

Enter the Hybrid – The Canon 5D Mark II

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Since the introduction of digital SLRs, I've been wondering how long it would take to make a camera that shoots both high-resolution photos and high quality video all in one body. My question has been answered with the introduction of the hybrid cameras. The Canon 5D Mark II joins the Nikon D90 in this new class of camera that will most likely shape the future of professional photography. I'll focus less on the specs and more on the usability of the camera in a university environment. We've also created a webpage at [\*photo.byu.edu/5d\*](http://photo.byu.edu/5d) that has videos and stills so that you come to your own conclusions.

The Still Camera

The original 5D has been a very popular camera since its introduction in 2005 and the new 5D Mark II improves upon the original in every way. At a cost of \$2,700, it affords the benefits of a full frame camera at a Wal-Mart price. The 21.1 Megapixel CMOS chip produces gorgeous images with incredible detail. While the frame rate is listed as 3.9 fps, Canon might overly generous on that one. I've put the camera through the paces over the past two months and I've been surprised at how well the camera handles extreme situations.

This camera is well suited to portrait work. The raw file weighs in at a hefty 25 megabytes, but in this case chunkiness is your friend. With that much data you can be assured of smooth skin tones and a fair amount of dynamic range. The native file measures 12.48 X 18.72 inches at 300 dpi, so if you are going to buy this camera, pick up some larger memory cards while you are at it.

By far the strength of this camera is its low light capabilities. The 5D Mark II is a huge improvement over the 1D Mark III in this area. One of the first shoots I took it on was a volleyball game where I had to shoot at 1600 ISO, and I was stunned with the results. On the website is a side-by-side comparison of images from the 1D Mark III, 5D Mark II and the Nikon D3 at 1600, 3200, and 6400 ISO. The D3 and the 5D Mark II easily separate themselves from the 1D Mark III, but as to the overall winner, I would have to give it to the 5D Mark II by a nose. If you look at the noise levels of the empty blue chair in the background you can see how the 5D handles the noise more efficiently, especially at 6400 ISO.

As a shooter, I generally don't like to venture past 1600 ISO for most things I shoot. My philosophy is to keep the noise low enough to use the images in our alumni magazine, so I rarely push the ISO to the netherworlds. With this camera I have shot several assignments at 3200 ISO with surprising results. Somewhere in dusty cabinet my old D1H is rolling over in its grave.

We must keep in mind that this is not a 1Ds Mark III; the light body feels cheap compared to a 1D series camera. My biggest frustration with the original 5D is the autofocus; it was slow and inaccurate in low light. The 5D Mark II is somewhat

improved in this regard, but it is still slow. It is not the greatest camera for shooting sports action, that is unless you are shooting the world senior games. It does make a great remote though. The focusing screen also makes it somewhat difficult to determine critical focus compared to the 1D cameras, but you do get used to it.

## The Video Camera

Nikon introduced the D90 in late August 2008 with some lively fanfare. It was the first hybrid camera capable of shooting stills along with HD video at 720P. As with any two party system, all eyes immediately turned to the competition to look for a rebuttal. Three weeks later, Canon introduced the 5D Mark II. It was almost as if they were in a hurry to say “We’ve got HD too, but it is 1080P!” The demo footage from both cameras was interesting, but it wasn’t until Vince Laforet came out with “*Reverie*” that people caught the vision of the footage hybrids could produce. It showed that they could deliver stunning HD in situations that would give traditional video cameras a heart attack.

There are several advantages to having this capability in a DSLR:

1. Depth of Field – Most video cameras have fairly small chips when compared to still cameras. This limits how shallow the depth of field appears in footage. The chips in the hybrids are huge, which allows you to have very shallow depth of field. This is the coveted film look that everybody wants. Check out the website to watch a comparison between the 5D Mark II and the Panasonic HMC-150.

2. Lenses – Video lenses get very expensive at the extremes. Super wide-angle views are difficult to achieve and also very expensive. Telephoto comes easier, but I would argue that you run into quality issues rather quickly. With the hybrids, all of your still lenses are converted to video lenses. Our glass is better than most video glass, plus we have fisheyes, super wides, fast primes, tilt-shifts and even Lensbabies to boot.
3. Low Light Capabilities – The larger hybrid chips deal with low light situations in a way no video camera can. “Reverie” was shot at night with very little available light. We took the 5D and the Panasonic HMC-150 into a nearly dark conference room and shot our somewhat willing model with both cameras. Take a look at the footage and you’ll see who wins this battle.

The video quality is remarkable with the 5D Mark II. As with the still images, the quality of the video in low light is stunning. That said, there is one major limitation to the camera; the utter lack of full manual control. The camera only has an auto mode in which the camera automatically adjusts the aperture and the gain (ISO) to expose for the available light. Think of it as P mode for video. It forces you to trick the camera into a certain exposure, and then hit exposure lock so that the exposure doesn’t change when the light does. The lack of having full control over these variables is extremely frustrating. It is like driving a Lamborghini in a school zone that never ends. There are several work-arounds, but none give you full control over the exposure.

There are many photographers that are resurrecting old lenses with aperture rings and adapting them to the 5D Mark II. Right now old Nikon glass is as popular as the 5D itself because shooters are buying adapters to mount them on the Canon for video work. This does allow you to control the amount of light entering the camera, which is better than what the camera does on its own.

There is a lot of speculation about Canon's decision to release the camera in this configuration. The most plausible rumor is that they had to announce the camera early, in order to compete with the hype that Nikon received for the D90. Some say they didn't intend to make the announcement for several more months, which would have allowed the engineers to fully prep the video mode. While I am writing this article, the speculation is that in mid-April, Canon will come out with a firmware update that will give us full manual controls over the video settings.

Despite its crippled controls, the 1080P video is totally usable, especially for web and multimedia projects. You can capture audio via a microphone, but you cannot control the gain. For focus, it is best to prefocus before capturing video or manually set the focus yourself during capture.

The 5D Mark II won't replace your video camera, but it will give it a run for its money. It is a great video camera when you are in a low-light situation or require the unique perspective that a small camera can provide. As a hybrid, it is a superb still camera coupled with a video feature that shows a lot of promise in the months and years to come.

