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DSLR Filmmaking: Canon Rebel T2i/T3i (550D) Filmmaking Quick Guide and Recommendations

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T2i (550D)

5D Mark ii mounted up for production

Intro:

The Canon Rebel T2i is an entry level DSLR camera with several advanced features that make it a great tool for amateur digital filmmaking.

If you've found yourself in need of an affordable camera for digital filmmaking, then the T2i could suit your needs perfectly.

First of all, it's one of the most affordable DSLRs with HD video. You can pick one up right now for $800 here with the Canon EF-S 18-55mm IS kit lens, which is a perfectly useable lens for most situations. Or you can just buy the body of the camera for around 700. Maybe less used, but I recommend getting one new since it's already so cheap and you won't have to worry.

If you need a video camera with Auto Focusing capabilities, then the T2i, along with the 5D Mark ii and 7D, is not the camera for you. HD DSLRs do not have advanced AF systems for video, so if you shoot events or news or anything that requires real AF, you need a camera like the canon XA-H1 or Sony Z1H.

Canon T2i vs. Canon 7D

The Canon T2i is virtually the same camera as the Canon 7D with less functionality and a plastic body, but for half the price.

It has an 18 megapixel sensor which is more than anyone needs, and it records FULL HD 1080 video at 24 or 30 frames, or 25 frames the rest of the world. It also records 720p at 60 fps, for slow motion effects work. You can make beautiful videos with the T2i,

which is why many people are making movies with it right now.

There are a couple drawbacks when comparing it to the 7D. The T2i does not allow you to dial in custom white balance numerically like the 7D or 5D Mark ii. It also does not allow you to dial in the ISO in small increments. You can only choose 100,200,400,800,1600, 3200, 6400, and 12800. The 7D and 5D Mark ii allow you to dial in the ISO in increments like 100,120, 200,250,320, etc.

The T2i is built like a consumer camera, which it is. If dropped, the T2i will probably break. I've dropped a 5D Mark ii on pavement several times and while it had a few dents, it kept on working perfectly.

The T2i is very small. It's not very comfortable to hold. More than likely you'll be working with it on some sort of rig like a Red Rock Micro, so that isn't much of a drawback. Being light is also a benefit because it won't make your arm sore like the 7D or 5D Mark ii.

Canon T2i vs. other video DSLRs:

I can't compare the T2i with other DSLRs that shoot video, like the Nikons or the Panasonics. Canon has been making DSLRs with video a few years now and they got it pretty right with their first attempt: the 5D Mark ii.

The others offer different features and probably pretty comparable quality images, so I would just test them and see which one you like. If you already have Canon EF lenses lying around, then I would just get a Canon DSLR for video.

Functionality:

Like all Canons, it works perfectly. The menus and buttons are all easy to understand after some time learning them. Some of the buttons are not automatically discernable.

Read the user manual that comes with your camera. Also, when you're in live mode, the functionality changes and you have to sort through your settings a little differently.

I recommend learning the T2i by opening the user manual and reading through it. That's how I learned on my first Canon DSLR, the Canon Digital Rebel.

Once you know the camera's functions in and out, you won't be stuck in front your friends or a client, trying to figure out what button does what.

Battery Life

One of the biggest drawbacks to using the Canon T2i is the battery life. It sucks! Be sure to pick up several extra batteries and maybe a grip and an AC adapter. If this really bothers you, you might want to opt for the 7D which uses the same batteries as the 5D Mark ii which are awesome.

Lenses:

Many people don't like the Canon 18-55mm IS kit lens because they say it has poor construction quality and has poor image quality. I think the images it makes are pretty darn good but agree it is poorly made. It also only costs 120 dollars new.

If you don't get the 18-55mm IS kit lens, you have several choices in the low end range and many many choices if your wallet is fat. Below I only make recommendations for a few affordable lenses. If you can afford the best, you probably won't be buying a T2i, you'll be buying a Canon 5D Mark ii and that camera requires different lenses which I cover in my 5D Mark ii quick guide.

Affordable Lens choices:

Super Wide:

Tokina 11-16mm f2.8 ($600) - This lens is a favorite of crop sensor DSLR owners because it is super wide and it's f2.8. It's a professional quality lens all around.

This lens is not fully compatible with the 5D Mark ii, so remember if you plan to upgrade to the 5D you won't able to use it to its fullest potential - more specifically, the lens is designed for crop-sensor DSLRs like the T2i and 7D, not a full frame sensor camera like the 5D Mark ii or 1Ds Mark iii, so it only works at the 16mm setting.

Wide:

Sigma 18-50mm f2.8-4.5 ($200) - This is the most affordable lens that goes wide (18mm) and offers f2.8 for low-light shooting. It also has Optical Stabilization and HSM focusing (not needed for manual focus video shooting, but nice for shooting photos in AF mode). This lens is not compatible with the 5D Mark ii, so if you plan on upgrading to the 5D anytime soon, remember you'll be needed a different lens for it as well.

Medium Wide:

Canon 28mm f1.8 ($500) - This lens is great for low light with its f1.8 aperture. It also has USM focusing, again not necessary for video use but a good feature for AF use. You can use this lens on any Canon DSLR.

Canon 28mm f2.8 (around $150 used) - Great value, fast aperture f2.8, well made. I have this lens and it's great. Click here for more details.

Medium Telephoto:

Canon 50mm f1.8 ($134) - This lens is a must have for any Canon DSLR owner. Read my short review of this lens here. It's very sharp and makes great images. You could shoot your entire movie with this lens, but it isn't very wide so I'd use it in combination with something wider like the kit lens (18-55mm) or the Sigma 18-50mm f2.8-4.5. You can use this lens on any Canon DSLR.

Telephoto:

Canon 70-200mm f4 L ($700) - For the money this lens is one of the best values for professional grade glass. The only drawback is the f4, which really isn't very fast, so you may want a faster telephoto like the Canon 100mm f2.

Canon 70-210mm f4 ($150 used) - A great value...close to the same quality images as the 70-200 f4 L but not the same build quality. It's a push-pull zoom, which is cool for quick zoom shots. The manual focus ring is terrible to focus by hand.

Canon 75-300mm f4-5.6 ($100 used, $200 new) - This lens gets a lot of criticism, but for an affordable telephoto for video it will work just fine. If you can find the IS version, you'll be even better off because that

will help in the instance you want to try and handhold a shot for video.

Canon 55-250mm f4-5.6 ($250 new) - This is a newer lens made only for Canon's crop sensor cameras like the T2i, 7D, etc. It produces excellent images, has IS, and is affordable. Probably the best value in a tele zoom if you don't plan to get a 5D. It doesn't have a metal mount and is made entirely of plastic, but still would be a good match for your T2i.

Faster Telephoto Options

Canon 100mm f2 ($450 new) – If you need a telephoto with a faster (brighter) aperture so you can shoot in darker situations easier, the Canon 100mm f2 is a good option. There's also the Canon 100mm f2.8 macro and the Canon 85mm f1.8 that each run for under $500 new and maybe less than $400 used. Sigma, Tamron and Tokina each make a 100mm telephoto macro that are f2.8 and may run a bit cheaper than Canon.

Nikon Manual Focus and Manual Aperture Lenses

With the appropriate adapter you can mount Nikon manual focus (some AF too) and manual aperture lenses on your Canon DSLR to shot video. They work wonderfully, so if you have older Nikon manual focus lenses lying around, don't worry, you can use these to shoot movies on your T2i.

You can also get these lenses on ebay for pretty cheap, but not much less than the Canon lenses, and Canons are easier to use because you get AF indicators and electronic control of your aperture.

Renting Lenses

You can always just rent lenses for a project. Websites like Lens Rentals offer any lens you want for pretty good rates.

Do the highest quality lenses make better video?

This is a good question. Because the video is compressed and not RAW or as large as JPEGs, one might think using lower quality glass is not as big a deal in video mode on a DSLR. From my experience, you can tell a difference in quality when using different lenses. I tend to believe that the faster a lens is, the better the images because you can keep the ISO lower.

But I also believe that each lens has a look that it gives to the image that is unique. Wide angle lenses are more difficult to manufacture, therefore an expensive, high quality wide angle lens would be a good option over a discount wide angle lens. Telephoto lenses are usually sharper and make pretty images because they are easier to manufacture and the depth of field is so shallow and your subject stands out easier.

Bottom line, if you can use only Canon L lenses, you'll

be better off than using discount off-brand lenses. For those on a budget, check out the lenses I recommended in the list above.

I've seen in magazines, filmmakers mounting film lenses on the 5D Mark ii. These require special adapters and a whole other level of equipment that is out of the budget range of many people. In my opinion, if you're going to pay the top dollar to rent or buy a film lens for a 5D Mark ii, why not use the money to rent a Red One or a real film camera?

Canon L lenses will make just as pretty an image as $20k film lenses. Film lenses are expensive because they are made for doing focus pulls all day long.

Lighting for your T2i/T3i

The T2i, T3i, 7D and 60D all offer virtually the same video quality in different bodies. They all offer beautiful, noise-free video from ISO 100-400, but after that you will begin to see digital noise, or grain. This differs from the 5D Mark ii and iii, as the 5D doesn't start to show much grain until ISO 1250 or 1600, allowing you to shoot noise-free video without as much lighting.

Don't make the mistake of thinking the T2i, etc. are as noise-free as the 5D. That's just not true. So, you need light. Whether you just shoot in daylight, harnessing the sun to keep your DSLR's ISO down to 100 or 200,

or with some movie lights, some supplemental lighting will boost the quality of your production.

Using lights not only helps keep your ISO to clean levels, it also allows you to shoot at smaller apertures for easier focus and sharper images. Larger apertures look better, though, so it's up to you. Personally I shoot at f1.8 indoors and f2.8-5.6 outdoors depending on the situation.

Lighting also helps you keep your shadows grain-free, as shooting in available light will reveal some grain in dark areas if you're not careful. You won't see this grain on your DSLR's LCD, but once in the computer you may see it. There are software plug-ins available for Final Cut that help eliminate video noise. I use these free plug-ins here.

Affordable Lighting

There are some affordable LED film/video lights available on amazon, B&H, and adorama. They range from $20 for a simple portable light to a $500 LED panel that can recreate the sun. These LED lights are very popular for many reasons, one being they can run on batteries, another being they don't get really hot like standard movie lights. They are also more fragile so you have to handle them gingerly. Pro movie lights are made to be thrown around.

Shooting Movies with the Canon T2i/T3i

Like in photography, cinematography requires lighting and your style depends on what you find pleasing to your eye. Some people don't like to use much artificial lighting, but they like using daylight to light their subjects.

Daylight or sunlight is the biggest source of free light and in most cases if you have enough light, you can make pretty images. The T2i will also do a good job in low light with a fast lens (especially with a lens with f2.8 or f1.8) but you still need some light. If you crank up the ISO too high you'll risk too much grain in your images, which you may actually prefer, depending on what you like and the style of the project you're shooting.

In daylight there is more of a chance of pretty looking images if you adjust the camera to expose correctly for each situation. In a situation on a low budget when you're having to light a set, there is more of a risk of lower quality images. That's speaking from my low budget filmmaking experience. Of course if you have a big budget and a ton of lighting tools at your disposal then you can make pretty images with them. But if you have a big budget you may not be using a DLSR anyway.

If you're shooting in daylight or sunlight you might want a few lens filters like a circular polarizer and neutral density filters to attach to the lens. These help

you to be able to keep the aperture wide on a fast lens in daylight, so your subject will look nice and crisp with a blurry background.

Basic settings on the T2i/T3i in movie mode

To get your T2i into movie mode, just turn the main dial until you have selected the camera. This is a pain in the butt, btw, because on the 5D Mark ii you just leave the main dial on M selection and hit the record button. On the T2i the camera icon is on the very far end of the main dial, annoying!

Once you've done that the camera's mirror will slap up and you'll see an image on the LCD. Now go into your menu and make sure you've selected the frame size and rate that you want. Most people leave it in 1080p 24fps all the time.

Setting ISO

My general rule of thumb on the T2i is not to go above 400 ISO, but 800 ISO looks pretty good too, depending on the light. I try to keep the ISO at 100 as much as possible because it reduces the amount of video grain in the dark areas of the image. On the camera's LCD you don't see it, but once you get the images on your computer you might see grain on images at 400 or 800 ISO.

This is why it helps to have a fast lens like the 28mm f1.8, so you can have your ISO at 100 more often, as opposed to an f4 lens where you'd have to set it at ISO 400 or 800. At f1.8 your depth of field is really thin, so not much is in focus. Be sure to double check your focus before shooting an important shot.

Checking focus

On the top right corner of the back of the camera, there are two buttons. One has a - symbol and the other a + symbol. While in movie mode you can zoom in with the + symbol to 5x and 10x to check focus. Hit the same button to go back to regular viewing.

Picture Style

Another thing to watch in your menu is your picture style. In picture style you can set contrast, saturation, sharpness, and color tone, greatly effecting the final image. You can even shoot in black and white!

White Balance

Also in movie mode, make sure you white balance is set to auto. The camera will give you pretty accurate color while on auto, except maybe in indoor situations when you're shooting on available indoor lighting. In this case, set the white balance to tungsten, the light bulb symbol. It should help the color look more natural.

Auto Lighting Optimizer

In movie mode in the second camera menu screen there is "auto lighting optimizer." this helps bring up the exposure of dark areas in your image. It can create more grain, however, so be careful. I usually leave it on standard, but you may choose to turn it off to rid of any grain, or on to help bring up nasty looking shadows.

Highlight Tone Priority

There's also "highlight tone priority" which helps control the highlights in your image. It is supposed to basically help the highlights look less intense but I can't tell much of a difference with it on or off, so I generally leave it off. It also forces the camera' s lowest ISO to be 200, which could cause more grain.

Audio Recording

The T2i records stereo audio, but the built-in microphone records in mono. You need an external stereo microphone to have stereo sound.

Seinheiser and Rhode make external mics for HD DSLRs or you can just record with a separate solid state audio recorder like the Tascam DR-05. Sony and other companies make great audio recorders as well.

Recording and Memory Cards

Once you're in movie mode, just hit the camera icon button on the back of the camera (beside the

viewfinder) to start recording. If your SD memory card is older and slow, it won't be able to record fast enough for video. Make sure to use a class 6 or higher SDHC or SDXC card. I have used a class 4 sandisk ultra 15mb/s with no problems as well.

Using a Rig

There are many rigs out there made specifically for DSLRs. They help stabilize the camera and help focus by offering a follow focus device that attaches to the lens. These rigs usually cost more than the camera, especially in the case of the T2i.

I imagine most T2i owners are filmmakers who already own a 5D Mark ii or 7D and want a T2i as a second camera, or amateur who just want to mess around with a camera that can make pretty images. The filmmakers who have a budget probably already have rigs for their cameras, like the Red Rock Micro.

If you're an amateur with a small or no budget, a professional tripod is more important than having a rig. If you already have a pro tripod, maybe just swing for the follow focus for your T2i. You don't necessarily need the mattebox and all the other tubes and accessories when you're first starting out. The follow focus device will increase your T2i's ease of use one hundred fold.

Using a Tripod

I recommend using a high quality tripod with the T2i for smooth shots. Here is an example of a high quality, lower cost tripod. Consumer grade tripods with ball or geared heads are no good for video use. You need a fluid head. This is important if you plan on doing tilts and pans in your shots. Don't expect to be able to do this without a fluid head.

Cheaper Options

If you can't rent or buy or borrow any pro equipment and don't mind going handheld, the Manfrotto fig rig is a great option. I first saw filmmaker Matt Nunn using this tool. It's great, especially used with an IS lens.

If you have sand bags and are creative, you can do a lot of shots for free with your camera sitting on a sandbag. We've done dolly shots just dragging a few sandbags across the floor on a sheet with the camera sitting on the sand bags. Sandbags help for shots done from the top of ladders or in any precarious situation where you need stability in the short term to get a quick shot. It's a pain and I don't recommend working without some pro equipment.

Films Made on the Canon T2i

Click here to see movies that were shot on DSLRs like the T2i, 7D and 5D Mark ii.

MAF members Seth and Elizabeth Hall with Middle Eight Media made a mini doc that can be seen here on the Canon T2i.