

▼ ON THE ROAD  
John Hicks shoots film in a production still from 'Push With Me'

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# SHOOT VIDEO LIKE A PRO

Professional photographer and videographer John Hicks tells us about the best techniques and kit for making videos with your DSLR

Since the introduction of video-enabled DSLR cameras some three years ago, there has been a fast-moving revolution going on in the world of photography and motion.

Because of the large sensor sizes, which directly affect the option to create shallow depth of field, the new breed of HD DSLR cameras can now produce

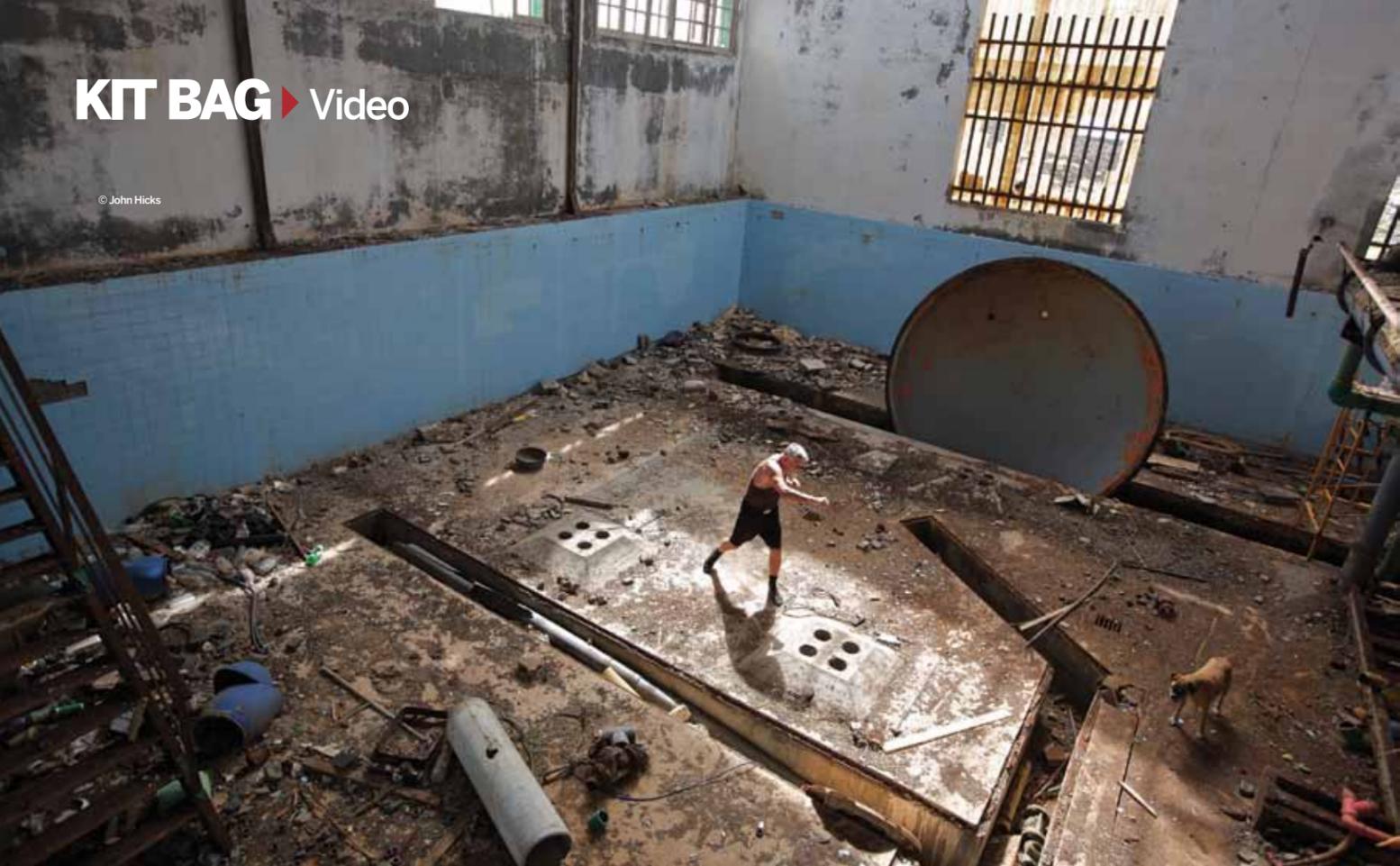
cinema-quality visuals at a price affordable for both amateurs and professionals alike.

Conventional video cameras operating with significantly smaller sensors have traditionally produced electronic-looking motion clips with foreground and background constantly in focus. "For this reason I never shot video until I got my first Canon

EOS 5D Mark II," explains John Hicks. "Combined with its performance in low light, the recently updated 'filmic' picture profiles and frame rates, and any lens from my kit bag, I'm now using my 'stills' camera to shoot broadcast-quality film at a fraction of the cost." The question isn't so much why should you shoot video as why wouldn't you shoot video? ▶▶

IN-DEPTH  
FEATURE SPECIAL  
Shooting video  
**8-PAGE  
GUIDE**  
John Hicks takes us through his top tips for shooting video with your DSLR. Check out one of John's videos on your free CD

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## The kit

**When choosing 'the perfect video-enabled DSLR,' you have to realise that no one camera will do everything.** There are pros and cons for every model on the market, but there are certain key features you should look out for.

Because video DSLRs effectively output a JPEG file, high definition is the optimum for quality. You should always aim to shoot with cameras that offer the highest resolution of 1920 x 1080 because you can always downgrade to 1280 x 720 later.

The size of the sensor is directly related to the shallow depth of field associated with a cinematic look, so it's an important consideration. However, it also makes it far more difficult to focus so you may want to compromise on this. If you intend to use an external monitor for focus and viewing you must bear in mind that some models drop resolution on output.

Full-frame sensors also give you true form factor on your lenses. If you like to shoot wide-angle then what you save on the cost of the body you more than pay for in super-wide lenses. If you prefer to shoot with long

lenses then a Canon EOS 7D, for instance, will give you 160mm out of a 100mm lens.

Likewise, if you intend to shoot slow-motion footage then check the frame rates and go for a minimum of 60fps. It will look more realistic when slowed down by 50 per cent.

Also, if you are looking to do any atmospheric shooting at twilight then you must check the noise levels at the maximum recommended ISO settings. Cameras vary in the way their video functions can handle low light performance, so this should factor in your choice.

Finally, with so many boxes ticked on price, quality, resolution, sensor size and frame rate it's inevitable that some functions are compromised, and the main one is the audio quality straight out of the camera. If you want to record good dialogue, which is essential for great filmmaking, then it's much better to use a separate device specifically designed for this. Disregard the in-built microphone when deciding which video DSLR is best for you. ▶▶

## Top five cameras with video functions

### Canon EOS 5D Mark II

**Price:** £1,590

**Web:** www.canon.co.uk



The Canon 5D MK II is John's go-to camera because of its full-frame sensor, shallow depth of field and low light capabilities. While it only shoots at 30fps, it gets skin tones, colours and tones.

### Nikon D7000

**Price:** £1,099

**Web:** www.nikon.co.uk



The Nikon D7000 is a perfect entry-level video-enabled DSLR at an incredible price. It offers full 1080p HD movies at 24fps, as well as a 16.2 megapixel sensor for capturing beautiful still images too.

### Nikon D3S

**Price:** £3,600

**Web:** www.nikon.co.uk



The Nikon D3S outputs at 12MP so has larger pixels on the same full-frame sensor, which is great for noise reduction. If you already have a kit of Nikon lenses, it's worth a look.

### Panasonic GH2

**Price:** £720

**Web:** www.panasonic.co.uk



The Panasonic GH2 is a lightweight, stylish, hybrid 1080p HD movie camera operating the micro four thirds system, an LCD flip-out screen, clean uncompressed HDMI output and touch-screen autofocus. Perfect for reportage-style shooting while on the move.

### Sony Alpha A77

**Price:** £1,150

**Web:** www.sony.co.uk



The Alpha A77 eliminates the moving mirror to enable ultra-fast shooting up to 12 frames per second and high speed/precision autofocus even when filming HD movies. This simplified mechanism enables these models to be smaller, lighter and easy to carry compared to a conventional DSLR.

## Storyboarding apps and software

### Storyboard Composer

**Price:** £10.49/\$14.99

**Web:** www.cinemek.com/storyboard/

Storyboard Composer for iPhone is a mobile storyboard designed for filmmakers who want to pre-visualise their story and add traditional markups such as slide, track, zoom and pan. It also enables you to set a duration for each storyboard panel and then play it to get real-time feedback on pacing and framing.

### Sketchpad Pro

**Price:** £2.99/\$4.99 **Web:** sketchpad.tikibone.net

Sketchpad is an industry-standard iPad storyboard app for artists and filmmakers who want a convenient, visual way to plan out their ideas for their next film. Professional functions and design enable users to pre-visualise the action in 3D colour, export PDFs and share these with the rest of the crew.

### MovieSlate

**Price:** £17.49/\$24.99

**Web:** itunes.apple.com

Movie Slate is a convenient, all-in-one digital slate, clapperboard, shot log, and notepad essential for film. It'll save you valuable time later when editing footage and syncing sound and movie files.

## Planning a shoot

**COMPOSE**  
Organise and think about your shoots

**Planning is essential, unless you just want to shoot random movie clips. Even a 90-second film project, like 'Push With Me' on paralympic athlete Rafa Botello, requires planning, pre-visualisation and collaboration.**

First up, carefully storyboarding your movie is essential because it enables you to plan your shots, think about your cut points and work out where, when and how you can begin and end a scene. While there is always room for a certain amount of improvisation, you have to think about your edit before you shoot it if you want the final project to look smooth and seamless as a whole. So make some basic sketches and piece together a visual storyline before you hit Record.

Logistics and adapting what you have in your kit bag to what you know is equally important. If you only have minimal equipment you should play to your strengths and keep it really simple. Even without a tripod you can still shoot handheld if the action looks realistic, but it will

look amateurish when shooting a straight interview if you can't lock the camera off.

Without the gear to pull off fancy camera moves, concentrate on the story you are trying to tell and set up shots that don't require focus pulls, pans, slides or tilts for their dramatic impact.

Unless you're multi-talented and can direct, shoot, record sound, edit and score your own short films, you will also need to put together a small crew.

For actors and/or models it's best to start off using your friends, family or local characters with a story to tell. Check out drama and theatre groups for more talent and post notices on websites like Facebook, Mandy (mandy.com) and Shooting People (shootingpeople.org).

For technical crew you should go to colleges, photography/video shops and post notices on shooting people. If it's a good project then people may work for expenses only, so don't be afraid to ask for help because it will improve your production values.



**TEAMWORK** Film work is a group effort – you need a good team if you wish to be at a professional level



**SETUP** A typical film setup complete with camera and sound gear

## Choosing the right tripod

News and events shooters generally favour a video tripod because they are quicker to set up and level and are generally rock solid. DSLR film cameras, however, are considerably smaller and lighter than a conventional video camera, so if you already have a standard stills tripod then this will do the job and will be easier and lighter to travel with.

More important is the head that you'll be using. A good quality fluid head is essential for smooth tilt and pan moves and you don't have to spend a fortune securing one. Balance and weight ratio are important considerations, so look for a head that balances well with your tripod and supports your combined camera and lens weight.

**“The Manfrotto 536K CF Video Tripod with 504HD Head kit combines the professional 504HD MPRO system with the carbon fibre 536 tripod”**

## Our top tripod choice

**Price:** £999 **Web:** www.manfrottodistribution.co.uk

Rock solid and smooth, this combines a bowl head, which enables you to quickly get your horizon straight, and an excellent set of sticks, which are very fast to deploy and easy to adjust. It's expensive, but once you move on to video mode you'll need it to stand firm while you execute camera slides, pans and tilts.



**PRO'S PICK**

▲ The 504HD head kit is agile and solid to use out in the field

▲ The solid 536K legs are built for professional use

## Lighting and audio accessories

### Lite Panel MicroPro LED kit

Price: £360 Web: [www.litepanels.com](http://www.litepanels.com)



One of the very best compact daylight-balanced LED lights out there. You can take it anywhere and use it as a key light or as a little fill light for the eyes. It's battery operated (or AC), portable and controllable.

### Zoom H4n handheld digital recorder

Price: £260 Web: [www.dv247.com](http://www.dv247.com)



The Zoom H4n is the industry standard for all independent filmmakers looking to record separate broadcast quality audio. It can mount on any HD DSLR rig, is easy to use, portable and has built-in stereo sound at an excellent price.

### RODE NTG-2 condenser microphone

Price: £169 Web: [www.rodemic.com](http://www.rodemic.com)



The RODE NTG-2 is a lightweight condenser shotgun microphone, designed for professional applications within film and voiceover work. A wide bandwidth coupled with low noise at a very good price point.

### D|Focus V3

Price: \$140 Web: [www.dfocussystem.com](http://www.dfocussystem.com)



An affordable follow focus control mechanism with an optimised design for better compatibility with DSLR cameras. For anyone starting out making films this is a terrific way to get into the habit of pulling focus the professional way.

### Glidetrack HD Hybrid Slider

Price: £360 Web: [www.glidetrack.com](http://www.glidetrack.com)



The Glidetrack Hybrid Slider system incorporates both sliding and roller bearings to enable silky smooth horizontal and vertical slides, pulls and pushes. An essential bit of kit once you realise that, for dynamic impact, you have to move the camera in filmmaking.

### Tiffen 77mm Variable Neutral Density Filter

Price: £200 Web: [www.tiffen.com](http://www.tiffen.com)



The Tiffen Variable Neutral Density Filter is a versatile and flexible tool providing two to eight stops of light control essential for enabling shallow depth of field and good exposure without changing your optimum shutter speed settings in video mode.

## Lighting and audio

**If you want to shoot great-looking film, you have to understand how to make use of a constant light source. So to begin with, keep it simple and work with what's available.**

Because of the low light capabilities of video DSLRs and the option to shoot wide open, you can film at dawn and dusk to great cinematic effect, so be prepared to film in the 'magic hour'.

High-contrast, graphic light is difficult to work with and should be avoided because it gives an electronic look to your footage. Seek out shade and soft flattering light for creating contours, shape and

dimension in your moving images. You can also experiment with a torch, street lights, neon, fire, car headlights and anything else that will illuminate your subject.

As you get more experienced working with natural light sources you can then add daylight balanced lighting like LED and HMI, which is expensive to buy but can be hired from outlets like The Flash Centre ([www.theflashcentre.com](http://www.theflashcentre.com)). You can also try local event hire outlets for your lighting and, if you're good at DIY, check out YouTube tutorials on how to customise your own set. ▶▶

“High-contrast, graphic light is difficult to work with and should be avoided”



▶▶ Filming under a flat light source is easier for controlling the exposure



“If you want to create a flattering light it's better not to point a light directly at your subject but to bounce and diffuse it”

### ▲ KEEP IT STEADY

A rig will help you keep your filming smooth and steady and is more agile than a tripod

### ▶▶ SOUND ISSUES

Recording and syncing sound in the editing process is a hard thing to get right

## Lighting basics

The same rules of lighting that apply to stills also work for video, except that you don't have the option to use strobes. If you want to create a flattering light it's better not to point a light directly at your subject but to bounce and diffuse it using soft boxes, bounce boards, reflectors and silks. Spreading out the light source will be more naturalistic, as will the basic three-light setup that consists of a key, fill and back light.

Generally, the key light is the most powerful and looks best placed off to one side, while the fill light is there to soften the shadow areas.

When a backlight is added it takes on a three-dimensional feel and brings the whole scene to life. Equally you can use sunlight as the key or back light and a reflector as the fill so experiment and see what works best for you.



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## Editing

Every filmmaker should learn the basics of editing. It gives you a clearer idea of what's needed from the footage you capture and will help you get more out of your film.

Most importantly you need plenty of 'B' roll, which is the close-ups, cutaways and incidentals as well as plenty of shots and angles from the same setup to help gel the whole piece together.

These days there are plenty of industry-standard software options and a mass of YouTube tutorials showing you how to use them. If you're on a budget and have a Mac operating system you can start off in

iMovie (pre-installed on most new machines) before upgrading to the Final Cut Pro studio products ([www.apple.com/finalcutpro](http://www.apple.com/finalcutpro)), and if you operate on a PC then you have a choice of Avid ([www.avid.com](http://www.avid.com)) or Premiere ([www.adobe.com/uk/products/premiere](http://www.adobe.com/uk/products/premiere)).

At first it is daunting and learning a new craft can be overwhelming. If you think of an editing program as a pair of digital scissors that cut and paste your footage together and then apply the same principles of editing a photo project to create pace, drama and flow to the moving images on your computer, you'll soon get the hang of it.

DP



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## Technique

When moving from photography to film, you effectively lose control of your shutter settings – and this is a huge deal.

To avoid the 'Benny Hill effect', and for best results out of the can, choose the shutter speed closest to a film camera, which is 1/50sec on a DSLR, and stay fixed on that when filming. But be aware that to shoot wide open you will now need a decent set of neutral density filters to cut down on the light. A good tip is to buy the largest-diameter ND filter for your biggest lens and then get yourself a set of step-down rings.

Also, adjust your picture styles in your menu settings to ensure your contrast, saturation and sharpness are right down, as a flat image is easier to adjust and colour-correct in the final edit.

For optimum quality, stay as close as possible to the camera's native ISO, which runs in multiples of 160, as



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**ADDITIONAL KIT** To make your DSLR video-friendly you may need to invest in some specialised gear

film shot at ISO 640 will output better (and with less noise) than the same footage shot at ISO 500.

With the technical basics covered, the DSLR filmmaker now has to adapt a camera designed primarily for taking stills into a tool for video capture. With the mirror locked up in Movie mode, you have to rely on the LCD viewfinder screen on the back of the camera to compose, focus and follow your shots.

It's almost impossible to see the screen outside, so a magnification loupe like the Zacuto Z finder ([www.zacuto.com](http://www.zacuto.com)), which clips onto the back of the LCD screen, not only enables you to use it as a conventional viewfinder but also adds a point of contact to further stabilise the camera. Stabilisation of the lightweight DSLR is another problem because, unlike a conventional video, it has no in-built stabilisation and can look jerky and amateurish when used handheld. You can counteract this by keeping your rig as balanced as possible: use prime lenses instead of heavy zooms, add a run-and-gun rig to your kit and play to the strengths of a video DSLR with interesting POV shots and the ability to film in tight, confined spaces.

Scenes can soon look very boring with the camera mounted on a tripod, so remember to shoot the same scene from several different angles and perspectives. Rather than zooming, take a wide panoramic shot to cut next to a close-up macro in the final edit. Even then

**“As autofocus is not an option for video, use the magnification tool on the LCD screen”**

**FILM STILL**  
Stills taken from John's HD video, Paintball.  
To see the full video check out the DP CD

you have to move the camera to keep viewer attention, and one of the easiest ways to do this is with the pan and tilt from a fluid head. Both techniques create visual suspense and work well at the beginning or end of a scene, but you will need to practise to ensure smooth play throughout the movement.

Next up is the push or pull, which works great with wide-angle lenses, but you'll need a slider like the Glidetrack ([www.glidetrack.com](http://www.glidetrack.com)) to achieve this to a professional standard.

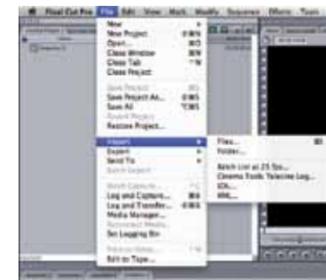
Trouble is, once you start moving the camera or your subjects start moving in the frame, you run into massive focus problems. As autofocus is not an option for video, use the magnification tool on the LCD screen to pre-focus and, when filming action, start off by keeping your subjects roughly equidistant to your camera. If you want to film action coming towards the camera you'll need a follow focus rig and some help as it's very difficult to follow and focus at the same time.

Also, ultrasonic lenses were designed to autofocus and many old-style manual focus lenses are now being snapped up and adapted, so look in your old kit for any you might have discarded.

Another good tip is to always ensure your end point is in pin-sharp focus. The blurred figure of an actor ending up in focus will work fine, but the reverse is for the cutting room floor only.

**HIGH QUALITY DETAIL**  
The HD video quality of DSLRs in recent years is much higher than in the past

## How to add a simple audio track to your video in Final Cut Pro



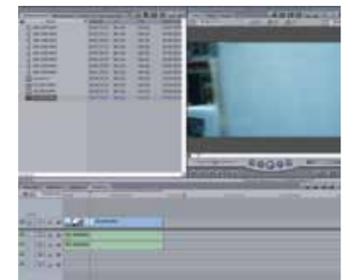
**1 Import files** Import your selected movie files into your editing software program, making sure to enable maximum image resolution output.



**2 Get the sound** Import your audio files into your editing program and make sure you upload it with no quality loss. You don't want to lose any quality at this stage.



**3 Keep both parts separate** Separately drag and drop both your movie and audio files into the editing suite. Make sure you have full control over each element.



**4 Make adjustments** Once you've edited your visuals, adjust your simple audio track to fit and then add fade in and out as well as checking levels on sound.