

PRODUCTION ON A BUDGET

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www.urbanfox.tv

UrbanFox Ltd

All of this presentation will go on our website

www.urbanfox.tv/seminar

WHAT CAMERA SHALL I BUY?

What is your budget?

BUDGET

Whatever your budget - don't forget you'll need to set aside some money for a tripod, mics, lights, editing....

Think about 50:50

So if you spend £3,000 on the camera - you could easily spend £3,000 on all the other stuff.

HOW WILL YOU USE IT?

- Internet broadcasting, podcast, vodcast
 - £500 - £2,000
- Weddings, special interest videos (SIV)
 - £500 - £3,000

HOW WILL YOU USE IT?

- Corporate, broadcast and stock footage.
 - £3,000 - £?,???
- Documentary
 - £3,000 - £?,???
- Drama
 - £1,500 - £?,???

...

- The lens
- The imaging system
- The recording format
- Camera choices
- Audio
- Lighting
- Editing

LENSES

- Cheaper cameras tend to have fixed lenses.
- Focus lag
- Probably won't zoom out wide enough

LENSES

If you spend more you can get a camera with interchangeable lenses.

-Canon XL range
-JVC HD range
-Sony DSR, Z7 or EX3...

But, check your budget...

...will you be able to afford a second lens (even if you buy an HD DSLR)?

THE IMAGING SYSTEM

- SD or HD?
- Only a choice if you buy second hand
- SD is OK for internet
- SD can be better in low light than HD equivalent
- Some have night vision for very low light conditions.

THE IMAGING SYSTEM

- CCD and CMOS
- More = better (max of 3)
- Bigger = better = more expensive

Sony HVR-A1 => 1/3inch CMOS £1,700
Sony HVR-Z5 => 1/3inch 3CMOS £3,200
Panasonic HPX301 => 1/3inch 3CMOS £7,250
Sony PMW-EX1R => 1/2inch 3CMOS £4,680
Sony DSR-450 => 2/3inch 3CCD £11,960
Canon EOS 550D => APS-C 1CMOS £700

(all prices ex VAT)

THE IMAGING SYSTEM

- CCD better for interlaced pictures
- CMOS better for progressive
- True progressive?
- 25f or 25p
- 24p anyone?

THE IMAGING SYSTEM

CMOS - No smearing

- Rolling shutter
 - Partial exposure - flash
 - Banding - fluorescent lights
 - Skew
 - Wobble

THE IMAGING SYSTEM

CMOS



RECORDING MEDIA

- TAPE
- EXTERNAL HARD DRIVES
- INTERNAL HARD DRIVES
- OPTICAL DISC RECORDING
- SOLID STATE RECORDING

...TAPE...

- Cheap
- Very reliable
- Proven to be archive-able
- Comes in edit friendly formats

...EXTERNAL HARD DRIVE...

- Useful for long events
- 40GB = 3hrs
- Firestore 60Gb - £850
- Sony HVR-DR60 - £500



...EXTERNAL HARD DRIVE...

- Expensive
- Where do you put it?
- Insecure firewire socket
- Good back-up
- Long record times
 - Sony NX5 11 hours
- Possibility of faster workflow

Mega bits

- DV/DVCAM (25 Mbps)
- DVCPRO (25 Mbps)
- DVCPRO 50
- DVCPRO HD (100 Mbps)
- HDV (19 + 25 Mbps)
- XDCAM EX (25 + 35 Mbps)
- AVCHD (various)
- AVC-I (50 + 100 Mbps)

Camera outputs

FireWire used to be the way to get video and audio into an external hard drive.

- Look out for cameras with:
- » HDMI
 - » HDSDI

Solid State Recording

Convergent Design (Polecam stand)

Flash XDR or nanoFlash - Up to 220Mbps I-frame recording



...INTERNAL HARD DRIVES...

- Only on lower cost handycams
- AVCHD Format - editable?
- Usually highly compressed video
- Long recording times
40GB = 15hours
- You must archive to a separate drive



...OPTICAL DISC...

- Within this budget records to DVD
- Low quality
- Hard to edit
- Avoid

...SOLID STATE...

- Getting cheaper
- No moving parts
- Pretty reliable
- Pretty resilient too
(washing machine safe)

...SOLID STATE...

- Panasonic P2
- DVCPRO HD or AVC-I
- P2 still expensive
- £640 - 64GB card
- 1GB = 1min HD
- No moving parts



...SOLID STATE...

- Sony PMW-EX1R & EX3
- SxS Cards (S by S)
- 16GB = 50/70mins
- 16GB card = £320
- So, not cheap



...SOLID STATE...

- Cheap Kensington reader with SD card work around
- 16Gb=£25 inc VAT

Lots of info including a compatibility list from Guy Barwood
<http://tinyurl.com/d4m8wt>



...SOLID STATE...

- Canon EOS 550D
- 1080p 24/25/30
- 18 mega pixels
- APS-C CMOS
- MPEG-4 44Mbps
- SDHC cards
- £700 (+ lenses)



...Hybrids...

- Sony HVR-Z5 & Z7
Mini DV tape and Compact Flash
- Sony NX5
SDHC or Memory Stick and External Hard Drive



CAMERA CHOICES

CAMERA CHOICES

- Internet broadcasting
Panasonic 700 series 'semi pro' camcorder
- 1920x1080 @ 50fps
 - AVCHD @ 28Mbps
 - 3xMOS sensors
 - SDHC/SDXC cards
 - 5.1 surround sound...



HDC-SD700 version £799 (available March)

CAMERA CHOICES

- Weddings/special interest
Canon XH A1S
- Excellent in low light (0.4Lux)
 - One of cheapest camcorders with HDSDI
 - HDV (tape only)
 - £2,300

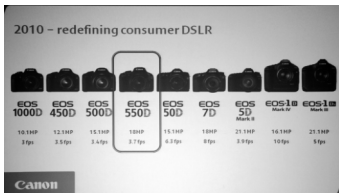


CAMERA CHOICES

- Weddings/special interest
Canon 5D MkII
- Full Frame 35mm sensor
 - Wonderful choice of lenses
 - Good in low light
 - Compact Flash
 - Takes photos too...
 - 30 frames per second only (until new firmware)
 - £1,850 (body only) or £2,500 with lens
- Also EOS 7D or 550D



CAMERA CHOICES



CAMERA CHOICES

- Weddings/special interest
Sony HVR-Z5
- Pretty good in low light (1.5Lux)
 - HDV (tape) plus Compact Flash
 - Can record to both at same time
 - Not too heavy
 - £3,200
- Also consider HVR-Z7 for interchangeable lenses
Or HXR-NX5 for solid-state and 11 hour HDD



CAMERA CHOICES

- Weddings/special interest
JVC HM700
- Shoulder mounted, comfortable
 - Records native QuickTime .MOV for instant editing on Final Cut Pro (35Mbps)
 - SX-S and SDHC
 - 3xCCDs (no rolling shutter)
 - Interchangeable lenses
 - £5,300



CAMERA CHOICES

- Corporate, broadcast and stock footage
JVC HM700
- Shoulder mounted, comfortable
 - Records native QuickTime .MOV for instant editing on Final Cut Pro (35Mbps)
 - SxS and SDHC
 - 3xCCDs (no rolling shutter)
 - Interchangeable lenses
 - £5,300



CAMERA CHOICES

- Corporate, broadcast and stock footage
Panasonic HPX301
- DVCPRO HD and AVC-Intra 50/100Mbps
 - 10-bit 4:2:2 recording
 - Shoulder mounted
 - Interchangeable lenses
 - Records to P2 cards
 - £7,250



CAMERA CHOICES

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Canon 5D MkII
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 - 30 frames per second only (until new firmware)
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- Also EOS 7D or 550D



CAMERA CHOICES

- Corporate, broadcast and stock footage
Sony PMW-EX1R/EX3
- 35Mbps SxS cards (4:2:0)
 - Not always accepted for HD broadcast
 - EX3 has interchangeable lenses
 - £4,600/£5,600



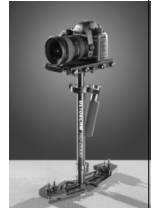
CAMERA CHOICES

- Observational Documentary
Sony HXR-NX5
- Solid-state 2xSDHC cards or Memory Sticks
 - Optional 11 hour external HDD
 - AVCHD @ 24Mbps (has to be transcoded for use on Avid or Final Cut Pro)
 - Has 'SD' but don't use it... (only 9Mbps)
- £3,300



CAMERA CHOICES

- Drama
Canon 5D MkII
- Full Frame 35mm sensor
 - Wonderful choice of lenses
 - Good in low light
 - Compact Flash
 - Takes photos too...
 - 30 frames per second only (until new firmware)
 - £1,850 (body only) or £2,500 with lens
- Also EOS 7D or 550D



CAMERA CHOICES

- Drama
Ikonoskop A-Cam dII
- 1920x1080 uncompressed 12-bit 4:4:4 (DNG RAW)
 - 80GB Memory card
 - Tiny
 - Variety of lens mounts
 - 1xCCD (Super 16mm equivalent)
 - Not shipping until Summer
 - About €5,000



CAMERA CHOICES

- Drama
Red One
- Not within our budget
 - Hire @ £250 per day (£1,000 per week)
 - You'll really need two of them...



UrbanFox Ltd

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Any questions?

Retailers

- www.creativevideo.co.uk
- www.mitcorp.co.uk
- www.visuals.co.uk
- www.top-teks.co.uk
- www.prokit.co.uk

Tripods

- Spend as much as possible (£200 - £700)
- Weight (carbon fibre is expensive)
- Robust - outlive the camera
- Min and Max height
- Easy to use leg adjustments

Tripods

- Video NOT a photographic tripod
- Mid level or ground level spreader
- Spirit level
- Quick release hot shoe
- Pan and tilt head
- Separate pan and tilt head frictions

Alternative Support

The Pod
www.jessops.com



Double Bean bag
www.wildlifewatchingsupplies.co.uk

Alternative Support

- Monopod (Manfrotto 560B 561B)
- Magic arm with Superclamp

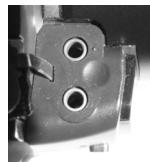


FEATURES...

THERE ARE 5 THINGS THAT MAKE CAMERAS GOOD

- The lens
- The imaging system
- The recording format
- Audio
- Lighting

IF YOU ONLY HAVE A MINIJACK MIC INPUT



Then you may need an XLR adapter...

A BeachTek box (DXA-4)



Cheap Alternative



Basic Sound Kit

- Gun mic (hypercardioid)
great for noisy places

- Sennheiser 416P
- www.mcdactions.co.uk
- Sennheiser ME66 (K6)
- Rode NTG1 and 2
- Beyerdynamic MCE 86



Basic Sound Kit

- Personal mic (Tie, clip, lavalier)
- Omni directional - good for interviews
- Sony ECM77 or ECM88
- Tram TR-50
- Sanken COS-11



Basic Sound Kit

Radio mic

Sennheiser Evolution
(EW112-p G2)



Basic Sound Kit

- Sony UWP-C1 series
- Diversity System



Basic Kit

- XLR-XLR cables
30cm, 1m, 2m, 3m
(quad flex)
- Closed Headphones
- Sennheiser HD25



Sound Equipment

- www.ltf-uk.com
- www.creativevideo.co.uk
- www.canford.co.uk

FEATURES...

I THINK THERE ARE 5 THINGS
THAT MAKE CAMERAS GOOD

- The lens
- The imaging system
- The recording format
- Audio
- Lighting

Lighting kit

Lights are tools. You need the correct
light to do a specific job well.

SO...

Please don't buy three identical lamps

Interview kit

- Hard light
- Dedo aspheric2 (150W)
- Soft Light
- Lowell Rifa 44 (300W)



Interview Kit

•Around £1,000 +VAT




LED On-Camera Light

- Cool light
- 0-100% dimmable
- No colour temp change
- Lamp life 10,000 hours
- Very low battery consumption (11W)
- LitePanels LP Micro £246 ex vat





LED On-Camera Light

- Dedolight DLOBML
- On camera light with articulating arm
- £355 ex vat



Lighting Kit Extras

- RCD
- Circuit tester

Lighting Kit Extras


- Daylight colour-correction gel
- Extension leads
- Magic arm

www.studiolighting.co.uk



RUN OUT OF MONEY?

- ...buy a reflector
- Search for 5 in 1 reflector on eBay
- Don't buy one that is too big unless you have an assistant to hold it.




Trolley

- Folding sack truck (eBay)
- Carries 50-90Kg Load

Plus

- A good suitcase on wheels
- A rucksack - so you always know where your kit is



FEATURES...

THERE ARE 5 THINGS THAT MAKE CAMERAS GOOD...

Actually, can we make that
six ...

EDITING

You're not buying a computer...
...you're buying an edit suite

BUY A MAC



The Intel models (will run Windows too)
Buy a refurbished Mac ... <http://tinyurl.com/227sxx>

RAM

Get lots of it

www.crucial.com

Hang on a minute...
I've thought of another
thing that makes your video
look good...

The person operating it

For training go to
www.urbanfox.tv