These setup notes for remote capture are written based on using Canon Equipment, other manufacturers are similar.
The quality you get will be greatly determined by the evenness and accuracy of your print box lighting.
We use colour corrected tubes, with even-ness of light over the picture area –
many print boxes illuminate the top and bottom more than in the centre of the print.

SETTING UP THE LAPTOP, PROJECTOR AND CAMERA
(Please also see the Additional Notes section)

Connect Laptop, Projector and Camera (EOS 30D) use a mains power 'battery' connection for your camera – camera batteries do not last long enough normally
(the camera is set up square to the print box on a tripod – This can be behind 3 judges i.e. Connah's Quay /SPF style; The laptop operator/camera controller must be able to see both the projection screen and print box)

Switch on Projector, wait until blue screen is present then switch on laptop. Do **not** switch on camera at this point.

Flick switch on front edge of laptop if '**Wireless Network**' message appears.

Make sure projector sync's with laptop.

Setup projector image to fit screen, keystone and focus.

Make sure all software is available to open via the desktop (e.g. shortcuts).

Open graphics card software and make sure that -
Main display is the projector (analogue monitor/Projector), secondary is the laptop (notebook/panel). Confirm and exit. This will reset any problems with desktop image being cut off on projection edges.

Go back into 'graphics card software' Change from '**Clone'** to **'Extended desktop'** setting 1400x1050 (or your projector resolution) should be already set in both boxes.

The following is our usual print and digital setup, with projector to the left and laptop/camera to the right – drag screens as appropriate – **'1'** should be the screen/projector and **'2'** the laptop. Which is '1' and which is '2' will be correct if previous stage done correctly.

Test settings by clicking **'Identify'**. Large figure **'1'** will appear on projected image screen and **'2'** will appear on Laptop. Also, move cursor off edge of projector screen to the right or left as appropriate, the cursor will appear on the laptop screen. Make sure to Confirm/Finish and exit to save settings. Laptop screen will now be blank.

Switch on camera now.
For Canon Camera - Open **'Digital Photo Professional'** (supplied on CD that came with your camera) **–** it will appear on projection screen - If a canon browser utility opens, cancel it.

Click **'View'** – **'Edit in image window'** if it's not already open. A screen appears that displays a list of folders on the left. (Hide Toolbars if necessary)

Set up Four folders to save the images into. Probably only three will be needed but each relates to a session of judging during the day. The picture taking utility has to be synchronised to the correct folder at the appropriate time. It is important to split up the saved location of the images taken during the day, otherwise the time taken from camera shutter click to the image appearing on the projection screen starts to increase markedly - The next print could be on the easel before the previous image appears on the screen!

Synchronisation tells the software where to save the images. To do this-
Click **'Tools'** untick **'Sync with utility'**. Highlight the folder you need and re-click **'Sync with utility'**.

*Click **'Tools'** – **'Start EOS utility'**. Camera controls window will appear (be aware that on occasions it can hide behind the main Digital Photo Professional window in which case bring it to the front).

Drag the **EOS Utility** window to the right onto the laptop screen. You can adjust the camera settings by highlighting the different functions with the tabs key then adjust the values with the left and right arrows on screen.

Camera settings (Canon EOS 30) – this should give you a starting point
SRGB / Medium JPEG / Rear Screen off / No Card / 6200K or 5400K (or to suit the tubes in print box)/
400 ISO / Manual Exposure 1/20 sec at f7.1 as a starting point/ Image stabiliser off
Approx focal length 125mm, depends on setup of room / Prefocus with autofocus then switch to manual or camera won't fire. Within User settings; You may have to set JPEG sharpening for images to look sharp and lower the Contrast setting to stop images appearing too conrasty.

When you fire the camera shutter, thumbnail images appear in the image window (check that they are in the correct folder). Delete any test images prior to the start of the session. If you have a title image click on this before returning to main window.

TO START THE SESSION

Click **'View'** – **'Return to main Window'**. When you fire the shutter the image will appear full size on the projector screen. At the end of the session, re-sync to the next folder.

When shutting down it is important to do things in the reverse order.

Move the EOS utility camera controls window back to the left from the laptop screen to the projector screen (otherwise it will be 'lost' in the ether).

Switch off the camera **before** closing the **EOS Utility and the Digital Photo Professional**, otherwise the camera may lock up (**camera busy** appears on the top plate).

Go back into **'graphics card program'** and switch back from **Extended Desktop** to **Clone - remember to click Finish and Exit**. Do not alter Main Device from projector selection. **There is no need to alter this even if the projector is not to be used on the next startup.**

Switch off laptop **before** projector otherwise projector settings will be lost.

ADDITIONAL NOTES

- Split a day's shooting into 3 or 4 folders otherwise the processing will get slower as the day goes on.

- If you do set the camera to a larger file size this will also slow down the processing

- You can use the 'space bar key' to fire the shutter

- You can alter the exposure as you go, for very dark or very light prints

- You may find it easier to set up the laptop, projector and camera with an audience if you get a 5 to 7 metre 'laptop (usb) to camera cable' and a 5 to 7 metre 'projector to laptop' cable – you must get a good quality one though, if you require this length, or you will experience a significant fall-off in quality

- ideally tests should be done to find the correct basic exposure, using a grey card, with the 'camera setup' at the right distance from the print box to be used, with the ambient lighting also as it will be on the day – you can also create a 'custom white balance' if necessary

- ideally your print box should have colour corrected tubes/bulbs and an even light distribution (This capture process can increase contrast – uneven light distribution can exaggerate this which can increase the likelihood of burnt out whites, no detail in blacks or poor colours)

- Nikon also supply Remote Capture software on the CD with your camera

- Full instructions for using Remote Capture software is also supplied on the Manual disc that comes with your camera.

- If you have an adobeRGB(1998) projector then this colour space can be set on the camera to match