

## Digital Recording In Churches

When considering the installation of digital equipment for recording services and events there are a range of products available, varying in price, some of which will require a faculty. The choice is between lower cost and lower quality or higher cost and higher quality. However, when considering the installation of a digital presence its important to note that the benefit is in the ability to live stream services and events and thereby enable remote worship for those who do not attend church.

### Basic Package

A less expensive or low-end model could be purchased as a short-term measure and in the absence of someone with detailed technical knowledge able to operate a more sophisticated package.

It would also enable the church to determine what sort of digital presence is required before investing in a high-spec package. Examples of a low-end solution would be a mobile phone or tablet mounted on a tripod, to provide a steady focus and, crucially, a reliable broadband connection. Functionality, such as the ability to zoom and edit would however be limited.

There are a range of broadband providers, but the average monthly cost (February 2022) is around £35.

### Mid-Range Package

The mid-range solution, more expensive but higher quality and functionality than the basic option, would include equipment such as specialist cameras designed for or easily adaptable to live-streaming (transmitting live video and audio of a wedding or service for instance, over the internet). These are unobtrusive, not wall-mounted, easily moved to different areas of the church depending on the service or requirements and would not require a faculty.

An example of such a device is the Mevo Start Live Streaming Camera, currently retailing at £327 (Amazon February 2022). Features include a 6-hour battery life, the ability to control the camera from a mobile phone up to 100ft away and streaming direct to a range of social media platforms. It does however have limited zoom capability.

Other options include:

- Mevo Plus (UK) - The Live Event Camera, stream in Full HD 1080p or Record in 4K, compatible with Android and iOS at £249 (Amazon February 2022)
- Panasonic HC-V770EB-K Full HD Camcorder with Wireless Twin Camera with 20x Optical Zoom at £369 (Amazon February 2022)
- Panasonic LUMIX DMC-G7MEB-K Professional Camera with 12-60 mm Lens at £669 (Amazon February 2022)

Although these cameras have the capability to live stream, events can be recorded and edit and then uploaded to the internet later. All would, however, require a tripod and reliable broadband connection if the intention is to live stream.

### **Top-Range Package**

To obtain the best results both from the package chosen and for the investment made, its recommended that more sophisticated multi-camera packages are installed if there is an experienced technical person within the church team. These packages are more expensive but offer provide higher quality and functionality than the basic or mid-range options. However, given the equipment involved such as wall mounted cameras and the need for speakers and microphones, this option would almost certainly require a faculty. If in doubt, always ask the DAC Secretary who'll be happy to advise.

Examples of high-spec packages include:

Multi-camera solutions which can allow for on-screen lyrics to be displayed simultaneously alongside a live feed. These solutions also come with a mixing desk and feed outputs which allow for upload to multiple social media platforms simultaneously such as Facebook and YouTube. These need to be professionally installed and mounted with more cabling and are around £3500 (February 2022).

PTZ moveable cameras are wall mounted and require cabling and a television monitor to operate the system. The camera can be turned or tilted with a remote control and will require a faculty. Several churches (St Mary, St Fagan's, Llandaff Cathedral and St Teilo's have installed such devices and other churches are in the process of applying). The average cost for this type of solution is around £3200 (February 2022).

A DSLR camera, with a tripod could be linked by cable to a computer. A video capture card would also be needed. This provides one single, fixed camera view as opposed to the rotating capability of the PTZ camera. Examples of the DSLR include:

- Canon 700D £450 (February 2022) <https://amzn.to/398CcBI>
- Sony FDR-AX53 Ultra HD 4K Compact Camcorder £700 (February 2022) [shorturl.at/gjrA5](http://shorturl.at/gjrA5)
- Sony A7 II £900 (February 2022) <https://amzn.to/2vBnQMk>

### **Additional equipment which might be needed**

In addition to the cost of the camera, a capture card would be required to adapt an existing DSLR camera for video capability, which would cost around £250.

**Speakers** may be needed with a microphone if the space is particularly large. Standalone speakers would not need to be affixed to a wall, but less obtrusive, wall-mounted speakers with wiring would need a faculty to install if no existing system is already in place. An example of a wall mounted column speaker would be:

- Turbosound IP300 iNSPIRE Powered Column Loudspeaker £399 (February 2022) [shorturl.at/zARWZ](https://shorturl.at/zARWZ)

**Tripods** are advised to stabilize the footage and ensure it looks more professional. Tripods can be bought for all camera solutions:

- Desktop Tripod £14.99 (February 2022) <https://amzn.to/2U7s73O>
- Standard Tripod £23.99 (February 2022) <https://amzn.to/3a95L7n>
- Smartphone Gimble £84 (February 2022) <https://amzn.to/2wgnfQN>
- Smartphone Video Rig £19.99 (February 2022) <https://amzn.to/2U7i2Us>
- SLR Handheld Stabiliser £68.99 (February 2022) [shorturl.at/krwBW](https://shorturl.at/krwBW)
- SLR Gimble £168 (February 2022) [shorturl.at/dhyE1](https://shorturl.at/dhyE1)

## Microphones

Microphones are required to ensure a good standard of audio quality for streaming, to give viewers a high quality experience, especially if using a smart phone or tablet. A smart phone will need a converter to connect to a microphone.

- Lav Mic (basic option) £14.99 (February 2022) <https://amzn.to/2U5JuBH>
- Lav Mic (high-end option) £49.99 (February 2022) <https://amzn.to/3949B0o>
- USB Mic (for plugging into laptop etc) £125 (February 2022) <https://amzn.to/2U4zdG7>
- Shotgun Mic (for dual/group interviews) £28.45 (February 2022) <https://amzn.to/33wAwAM>

## Streaming

Most streaming platforms are free to use, but to access higher quality or increased functionality you may have to pay for access. Examples of free to use services include:

- Church Online Platform ([www.churchonlineplatform.com](http://www.churchonlineplatform.com))
- Open Broadcaster Software (<https://obsproject.com>)
- YouTube Live ([www.youtube.com](http://www.youtube.com))
- Facebook Live ([www.facebook.com](http://www.facebook.com))

## Other Considerations

A copyright license would be worth investing in to cover streaming activity. Similarly, One License would be needed to cover any choral music. [Digital and Online Support - St Padarn's Institute \(stpadarns.ac.uk\)](https://www.stpadarns.ac.uk)

QR codes can be produced on digital and paper posters to invite people to worship online.

Data protection and safeguarding will need to be considered at all times.

Training may be needed for operators of the equipment.

CCTV should be considered as well as updating insurance cover if there will be an increase in valuable equipment in churches. This would require a faculty for permanent installation.