**Tech Equipment Suggestions**

These are recommendations that have come from several churches. We have not personally tried all of these, but these are suggestions to look at.

Easiest solution: phone and tripod. Phones have great cameras, can zoom in, and can stream directly. You can purchase an external microphone if necessary.

Most congregations will want to purchase a laptop for worship.

Check your wifi: make sure your upload speed is at least 20 Mbps!

**Programs:**

Zoom: video conferencing program that many are familiar with, can call in or use computer for video. Can also stream directly to Facebook Live or YouTube if desired. Do not need anything more than a computer. [www.zoom.us](http://www.zoom.us)

Streamyard: <https://streamyard.com/> Allows for up to six computers to join at a time to be in a single stream. Free for churches.

Free Software: OBS (Open Broadcasting Source). Allows for live streaming and pre-recorded material to be used. <https://obsproject.com/>

VMix: streaming software <https://www.vmix.com/>

**Presentation Software (Slides):**

Power Point--comes with Office 365

Google Slides

Canva (free for nonprofits but they haven’t recognized churches as nonprofits)

Pro Presenter 7

**Cameras:**

All-in-one streaming cameras: <https://mevo.com/>

Webcams:Logitech StreamCam, Logitech Brio,

Portable video and audio recorder: Zoom Q4n

Canon Vivia HF R800 ($250)

<https://www.bhphotovideo.com/c/product/1308395-REG/canon_1960c002_vixia_hf_r800_camcorder.html/?msclkid=c3f0120adf8b1f134c2d7264e46bfcb0>

Camcorders:

Canon XA15 ($1699)

<https://www.bhphotovideo.com/c/product/1364307-REG/canon_2217c006_xa15_compact_full_hd.html>

PTZ (Pivot, Turn, Zoom) cameras:

Eg. PTZOptics ($1799)

<https://www.bhphotovideo.com/c/product/1401958-REG/ptzoptics_pt30x_sdi_gy_g2_30x_optical_zoom_3g_sdi.html>

PTZ cameras range in price. Manual zoom cameras are much cheaper, but to be able to control remotely will cost $1000-$1500

**Other Equipment:**

The ATEM Mini Pro allows multiple cameras (up to 4) to be plugged into the device and plugged into a computer. One HDMI output to send out to a screen/computer. Power Point slides or other slide programs from a computer could be input into the program. Could use this box to stream directly online to either YouTube or Facebook through an Ethernet connection.

<https://www.blackmagicdesign.com/products/atemmini>

**Sound:**

You will want to use microphones through a mixer rather than camera microphones to pick up sound and eliminate echoes.

iRig stream ($99)

Connect the feed of your church mixer straight into your board by connecting it through RCA jacks. Can also use it to plug in a lapel mic to get sound sent into your phone or computer.

<https://www.sweetwater.com/store/detail/iRigStream--ik-multimedia-irig-stream-usb-audio-interface-for-ios-android-mac-and-pc>

USB Mixer Mackie ProFX10 ($229)

USB lugs in to computer and you can use it to send the master mix to your Livestream

<https://www.sweetwater.com/store/detail/ProFX10v3--mackie-profx10v3-10-channel-mixer-with-effects>