

# CHURCH BROADCAST SCHOOL

A Communication Ministry of the Michigan Conference of The United Methodist Church

## EPISODE FOUR: Quality Online Video

*Equip you with everything good that you may do his will, working in us that which is pleasing in his sight, through Jesus Christ, to whom be glory forever and ever. Amen.*

*Hebrews 13:21 ESV*

### KEY IDEAS

- While audio is the most critical part of any online broadcast, video plays a critical role in sharing your message.
- The hardest to watch is “Security Camera Worship” where the camera is mounted all the way in the back of the sanctuary, sometimes up on the balcony.
- You see a huge room, the backs of the heads of others at the worship, and a tiny person up front leading.
- No one likes to watch *other* people worship. You want to be *in worship* with others.
- You need to get that camera way up front, close, where the viewer can see what’s happening.
- It is important to use either a camera with a very strong zoom feature, which few cameras have, or move the camera up close.
- An important part of choosing the right camera is choosing the highest resolution possible.
- Resolution is how sharp the camera image is.
- When you stream video, the resolution is compressed to make the file sizes small enough to stream online.
- Network television is filmed in 4000, 6000, or higher lines of resolution. This is called High Definition, or H-D.
- When you stream, you watch images that are a fraction of that resolution.
- Ideally, you want to record in 1080 or higher, which is the start of HD. When you get lower than that, your images get blurry and soft. Now let’s look at the variety of cameras available.
- Cell phone cameras today shoot in HD, are extremely light sensitive, and have terrific cameras.
- A few cell phones can make for a great camera setup.
- Place the cell phone on a mount.
  - [RetiCAM Smartphone Tripod Mount with XL Conversion Kit - Metal Universal Smart Phone Tripod Adapter - Standard Plus XL Conversion Kit](#)
- A cell phone is small, so you can place it way up front without it being too noticeable.
- Always shoot video in the horizontal position, never vertical.
- Take a moment to clean your lens with a soft cloth.
- With a cell phone, you can stream directly to Facebook LIVE, or with a special app on the phone, you can connect it to a computer.

# CHURCH BROADCAST SCHOOL

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- The inexpensive [NDI App](#), allows you to turn a cell phone into a regular video camera.
- The NDI app can work on WIFI, but I prefer to use a cable option.
- When possible, hardwire all video, audio, and internet.
- Bluetooth and WIFI can sometimes be unreliable, and troubleshooting is just one more thing if you start having problems.
- Use a dongle adapter and standard computer CAT5 cables, available online or at any computer supply store, you can connect cellphones to an inexpensive standard router and then connect it to your streaming computer.
- Another option is to use a digital camcorder. Today, you can purchase an excellent one for as little as a couple of hundred dollars.
- Newer camcorders connect with a simple HDMI cable that connects to your computer.
- Make sure your camcorder also puts out a digital signal.
- A [MEVO system](#) allows you to stream directly online or record service for later in 1080HD. One person can broadcast the entire service.
- PTZ - Pan, Tilt, and Zoom cameras are professional-grade remote cameras shooting in HD.
- Older models require a digital converter, so if you purchase a used camera, check to see if it shoots in an analog or digital format.
- PTZ cameras are expensive but have excellent picture quality and are programable to zoom from shot to shot. They're very light sensitive and work in bright or dark sanctuaries. Look for a PTZ with at least 20 times optical zoom.
- Optical zoom versus digital zoom means that the camera is physically adjusting to get a closer shot. Digital zoom is just showing you a part of the same image. The closer you get, the blurrier the image will get.
- There is a significant learning curve, and they need to be set up by knowledgeable people.
- A note about tripods; pay attention to how much weight they can handle and how tall they can raise up.
- Light stands work well instead of tripods for smaller cameras like cell phones or MEVO cameras.
- Get your cameras on eye level with those on camera.
- To get started think about using a less expensive system first, like a MEVO or NDI cell phone camera, before graduating to a sophisticated system that skilled people need to operate.
- Lighting for video can greatly improve video quality.
- Light comes in a range of colors or color temperatures, from blue - like the light, you find outside in the sky, to yellow, green, or reddish light that you find indoors from incandescent or fluorescent lighting.
- The goal is to add more of the same color light as what you find naturally in your recording space.

# CHURCH BROADCAST SCHOOL

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- If you have lots of clear windows, use blue light, or if you depend on overhead lights in the sanctuary, choose bulbs or settings that are more red or yellow.
- Adding more lighting can be as simple as purchasing a simple [LED RING light](#).
- You can even use inexpensive clamp lamps from the hardware store with the proper color temperature bulbs.
- Most rooms are a mix of blue outdoor light and other warmer indoor colors. Whichever is the most dominant color light, add to it with either LED or lightbulbs that have similar colors.