

# Basic Guide for improving audio/video quality with Cell Phones (updated 3/25/2020)

The recent restrictions on public Mass present our parishes with an opportunity to heighten our social media and streaming presence. Facebook Live is the most popular option due to its ease of use and ubiquity. One simply needs a smartphone and we are connected to our parishioners. Yet, most smartphones have terrible microphones. This guide tries to address this limitation.

## Condenser Microphone

- A condenser microphone can be a way to grab sound and audio from in front of the camera. St. Pius V uses this exact model with decent results.
  - [Rode VideoMicro Compact On-Camera Microphone](#)
    - Note: This requires the celebrant/speaker to be relatively close to the microphone. Hence while it is better than the stock microphone in your phone, it will not be the best option if you position the phone far away.
- TRS to TRRS adapter. Modern phones need a TRRS input for the microphone to work. Most microphones use a TRS plug so you need an adapter. The Rode microphone above only comes with a TRS wire (at least according to reviews). See the photo below to tell the difference between a TRS and a TRRS plug.
  - [TRS to TRRS Adapter](#)
- If you already have a microphone, then you will simply need this to plug into your phone, if the microphone is missing a TRRS plug.
  - [3.5mm TRS to TRRS Adapter](#)
- For Iphone Users: You need this if you do not have a headphone jack. The TRRS plug goes into this.
  - [Apple Lightning to 3.5mm Adapter](#)
- For Android phones without a headphone jack you need the following or something similar.
  - [USB-C to 3.5mm Headphone Jack Adapter](#)

## XLR Microphones/Use preexisting Microphones

- A lot of parishes use microphones with an XLR plug. Typically, these microphones also require power (called “phantom power”). You can repurpose them for streaming using this device:
  - [XLR Microphone to TRRS 3.5mm with Phantom Power](#)

## Multiple Audio Input:

- If you have more than one audio source that you want to plug into your smartphone, then you will need to split the signal:
  - [Dual TRRS Female to Single TRRS Male 3.5mm](#)
    - Note: This is a TRRS to TRRS. If one of your microphones or sources is TRS, then you will need to get an adapter to plug into this. You can use the adapter linked above: [3.5mm TRS to TRRS Adapter](#).
    - A possible disadvantage to this set up is the inability to change the volume of each audio input (one source may be louder/quieter than the other). This will need to be tested.

## Wireless:

- A lavalier microphone attached to your smartphone is bound to be a hazard especially if you move around a lot. This is a wireless microphone that you can plug into your smartphone. The receiver can be attached to your tripod or taped close to your phone. The transmitter has a built-in microphone and can be clipped to your person. You can also purchase or use a lavalier microphone and attach that to the transmitter.

- [Rode Wireless Go - Compact Wireless Microphone System](#)
  - Note: The receiver comes with a TRS to TRS wire to your smartphone. You will need the adapter: [TRS to TRRS Adapter](#).
- [Hotec Wireless System with Dual Headset Microphones](#)
  - Note: This is a cheaper alternative to the one above, comes with two microphones (one for celebrant, and one for reader for instance), and it has an adapter to plug the receiver into the cell phone. The audio quality sounds good as well.

## Mounting Equipment

- Tripod/Selfie Stick: This can mount the Rode VideoMicro in the middle of the ring and your smartphone below.
  - [10" Selfie Ring Light with Adjustable Tripod Stand](#)
- Cell phone gimbal stabilizer for motion shots. If you need to take your camera with you; this will stabilize your shots and reduce shakiness.
  - [Zhiyun Handheld Gimbal Stabilizer](#)

## Helpful Website(s):

- This YouTube channel has proven particularly helpful and this video explains the process above: [Best Live Streaming Set Up Youtube](#)
  - Videos on this channel also detail how to stream using a webcam, DSLR camera, Video camera and more. It also details how to set up a YouTube channel and many other informative topics pertinent to video streaming.

## Appendix

- **Different Microphone Plugs:**
  - **XLR plug Male to Female**



- **TRRS plug vs TRS plug**



## ● Acknowledgements

- A big thanks to Fr. Patrick Briscoe for helping with this guide! Check out St. Pius V and their videos to see what a difference good audio can make: [St. Pius V Livestream](#)
- Thanks to Fr. Brian Morris for his recommendation of the Hotec Wireless System above.
- Thank you to Mr. Mark Garrepy for his insights into filming. He is doing a really outstanding job at the Shrine of the Little Flower in Burriville. See the video [here](#).
  - Check out Mark's Facebook: <https://www.facebook.com/pg/markgarrepyproductions/posts/>