

VR Stream Guide

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Oh, don't we all wish that streaming VR content was a tad easier! Those out there that stream VR content get all my respect as it is way harder than streaming pancake games. Have no fear! Here is a comprehensive guide on how I stream and what my VR stream set up consist of, including hardware and software. Keep in mind that none of these products or brands are sponsors, all are my authentic recommendations from experience in use. Moreover, this is not the only way to stream VR content. There are much better ways and I urge you to do your research. But, I have a considerably outdated PC with a subpar graphics card, and I am on a very tight budget, which is why I decided to use this casting method of streaming VR content. Stick with me until the end, it will all make sense I promise.

Streaming VR successfully can be broken down into a couple of parts:

-**Game Visual** (pg.1)

-**Body Cam Visual** (pg.1)

-**Game Audio** (pg.2-3)How to set up transmitters

Headphones

TTS

-**Commentary Audio** (pg.4)

-**Open Broadcast Software to string it all together** (pg.4)

? **Game Visual**

In my method for streaming, I use the Quest 2 native casting feature to transmit the scene in my quest to the PC via a **screen mirroring receiver software**. I know that sounds wordy, but its basically just a software that does the same as a Chromecast would do but for PC. There are many of these software's out there, but I personally use **Air Receiver** because it was extremely inexpensive (around 5\$). I also recommend using Air Server(20\$). They both have trial periods for you to experiment with them before purchase.

A free option I should mention is the oculus website itself. You can cast from your quest to **oculus.com/casting**. I know a couple great streamers that use this method.

? **Body Cam Visual**

Now that we covered how to mirror your quest gameplay onto your PC we can now talk about what else your future audience will be looking at when enjoying your stream. That is you! A body cam is optional but having one will elevate your stream, because that is what VR is all about. I use the **Logitech C922 Pro HD Stream** (figure A). You can stream video in full HD 1080p which is a great start in the quality of your body cam. For me this one is relatively affordable, but if you have the extra cash, I totally recommend the Logitech Brio. It is currently Logitech's flagship webcam with 4K quality. I am seriously jealous of my brother who uses this for video conferences... 😊 When I jump on a call with him his face and background look super clean and crisp.



Figure A. C922 Pro HD Stream Webcam

Game Audio

Now this is where it got super tricky for me. I watched so many videos and I could never get game audio right. It's ok you don't have to make the mistakes that I made! When streaming VR you have to capture the audio from your game/headset and transmit it to your PC where it can be captured for your stream. The catch here is that you want it to be in sync with your game visual that we mentioned earlier. Hence, to wirelessly transmit the audio with no perceptible latency you need a **Bluetooth 5.0 Transmitter Set**. These pieces of hardware are game changers. I use the **TROND Bluetooth 5.0 Transmitter Set** from Amazon (figure B), they ran me around 50\$. They work as both receiver and transmitter. The reason you need the set is because you need to transmit in BT 5.0 and receive in BT 5.0 in order to get the desired no latency result.



Figure B. TROND Bluetooth 5.0 Transmitter Set from Amazon.

How to set up transmitters:

You will set one unit to the TX (transmitter) mode and attach it to the Quest 2 headset. I personally use a strip of Velcro and zip ties to attach it on the left-hand side (figure C). The TX unit will be connected via **3.5mm Aux cable splitter** (figure D) leading into the Quest's native 3.5mm jack (little hole). Please reference the pictures below for further clarification.



Figure C. TROND TX unit attached to left side of Quest 2. Wired via 3.5mm aux splitter.



Figure D. 3.5mm Aux Cable Splitter.

The other unit will be connected to your PC in RX (receiver) mode via 3.5mm cable. The 3.5mm AUX splitter does not come with the transmitters and must be bought separately, I bought mine at Walmart for around 5\$.

Headphones:

I am including this in the Game Audio section because not only do you need to transmit your game audio to stream it, but you need to be able to hear it while you play. With the transmitter taking the 3.5mm jack on your headset you will no longer be able to hear the gameplay through the speakers of the quest. This is where the **aux splitter** (figure D) comes into play. The second female connector will be taken up by your headphones 3.5 mm cable. You will need to get yourself a pair of headphones.

I originally used a wired headset; it was inexpensive and allowed me to hear my gameplay audio while simultaneously transmitting it to my PC for the stream. It was perfect as an inexpensive and “get the job done” option. Because the headset was wired to my Quest I had no connection to my PC audio, which hindered my ability to interact with chat through **Text To Speech**.



Figure E. Steelseries Arctis 7 Wireless Headphones

Now stick with me here, I currently use the **Arctis 7 by Steelseries** (figure E) a wireless headset for a variety of reasons. You will want to hear your gameplay audio and hear your PC audio, in order to play the game as well as be connected to your chat in stream. The Arctis 7 provided the perfect solution! It has a USB dongle that will be connected to your PC allowing you to hear any sounds coming from your computer. Additionally, because the headset can take several inputs at the same time you can also connect it to your Quest with any small 3.5mm aux cable and hear your gameplay audio.

Text to speech (TTS):

A great way to hear your viewers in chat with a brick glued to your face is TTS. There are several ways to get TTS but the most straight forward is through your web browser. Go to **Speechchat.com** and connect your Twitch account. Yay you! Now with a wireless headset and a simple sign-in to Speechchat you can hear your chat when ever they send a message! There are several options you can change in the Speechchat control panel, I use the UK Male option because he sounds eloquent and sophisticated. Also, you can change the format in which he speaks. Play with these settings until you find what you like.

🔗 Commentary Audio

Just as important as game audio is the sound of your voice reaching all your viewers. This can be recorded with one hundred different microphones, but for VR content one mic that stands out is the **Antlion ModMic Wireless** (figure F). It sounds vastly better than the native mic on the Quest 2. It is wire free with a USB dongle that connects to your pc. Set up is super easy. It comes with a magnetic clasp that you can stick on to your headphones or the Quest 2 itself. The ModMic will then attach itself to this magnetic clasp. You pair them by holding both buttons simultaneously and your ready to capture your voice on your PC. Now this one is very expensive, I luckily bought it second hand for 60\$ from someone who had not used it at all. If you have the money it is worth it due to the quality of sound and convenience of use.

I should mention an inexpensive lavalier mic will do the job of getting your voice to your pc. However, most of the cheaper options are wired and quality lacks. This ModMic is a very essential part of my setup.



Figure F. Antlion Audio Wireless ModMic

🔗 Open Broadcast Software (OBS)

This is the last but certainly not the least important part of streaming. Everything we have mentioned until now is pointless without OBS studio. OBS will bring all the audio and visual sources together and stream them to your audience. OBS is free and open source for anyone to use! Connect your streaming account to OBS and then your audio and visual sources. There is lots of information out there on how to use and set up OBS. I recommend researching and watching Youtube videos on everything you don't know.

There are other alternative broadcasting software's that are much better like StreamLabs OBS. I do not use these because my PC specs are not the best. StreamLabs has a lot of moving parts and causes my stream to lag or crash. I'm sure there are ways to make it fit for my PC but I have limited knowledge on how to use it; hence, I use OBS which is more simple and has a very straightforward interface for me.

🔗 Just Do It

I know that all this seems a bit crazy and convoluted; but once again I say, have no fear! I was also very lost trying to figure out how to stream my Quest 2 gameplay. I did tons of research, and everyone showed streaming VR differently. I took bits of info from many sources and came up with the method that fit me best. If your PC is not the most powerful, you are on a tight budget, but you still want to show the world your gameplay this method is best for you as well. My advice to you is to take the leap. When I actually started to purchase these things, everything came together. I was even able to figure out what I needed next to improve. To learn you must take a bit of a risk, it may seem difficult from the outside, but it is not impossible.

Check out my stream **Twitch.tv/kingchristopheus** and see how it looks for you. I stream Population: One, it is a VR battle royale and is very heavy on the Quest and PC. Despite my graphics card and processor, I can run a decent stream. If you have any questions about streaming or anything related join the Discord and message me. I am open to giving any info I might have. All my components are listed below with affiliate links on where to find them↓. Good luck future streamers!

Software List:

- OBS Studio
- Speechchat
- Air receiver

Hardware List:

- Gaming Console: Oculus Quest 2 <https://amzn.to/3uRXvVG>
- Camera: Logitech C922 Pro <https://amzn.to/3aJN6EQ>
- Pc: Dell G3
Processor: Intel(R) Core(TM) i5-8300H CPU @ 2.30GHz 2.30 GHz
Ram: 8GB
Graphics Card: Nvidia GeForce GTX 1050 Ti
- Headphones: Steelseries Arctic 7 <https://amzn.to/3uSquc6>
- Microphone: Atlion Wireless Mod Mic <https://amzn.to/3uS5tOx>
- Audio: Trond Low latency V5.0 Bluetooth Audio Transmitter Receiver Set <https://amzn.to/3z9ao04>
- Enegon External Battery Pack 10k mAh 6+ Hours of Quest 2 gameplay <https://amzn.to/3alxqdg>
- 3.5mm audio splitter cable <https://amzn.to/3AUmBHe>

Links:

<https://www.twitch.tv/kingchristopheus>

<https://www.tiktok.com/@kingchristopheus>

<https://discord.gg/TycJNGpMHn>