

Reflection

This project while it was simple on paper there was a lot involved. Due to COVID this wasn't my first choice of what I wanted to do for a project. If this had been a normal year and a half, I would have done something like putting on a concert at Voorhees similar to what my friend Nick Mallios did. However, I spent the winter vacation between December until the end of January struggling to find what I wanted to do for the project. I then thought about what if there was a student or someone in the next couple of years trying to figure out audio for the first time. What if someone needed an instructional video? The question came to me; "What are the similarities and differences between RF microphones vs Analog (hardwired) microphones?"

I started sending out emails to my technical advisor and to Professor Ryoya. I got the approval and I got to work. There were a lot of challenges with this project including scheduling and logistics. During the semester, I was working four days a week and figuring all this out on top of the 4 other classes. Prof. Huntington, Prof. Robinson and I started with figuring out the system diagrams, the equipment list and testing all the equipment at the school. Everything went well for both systems and I started figuring out what the listening test was going to be. The testing procedures came next and subsequently I was asking around for someone to be the speaker for the test. One of my best friends Colm was around to help out. The couple weeks prior to the actual day of filming we had trouble getting Colm into the school due to the COVID restrictions. Professor Guerrero helped me navigate the parameters and we set the date for May 3rd, 2021 for the listening tests.

The day of filming was planned for May 3rd at 11:30pm. I told Colm a couple days prior to get COVID tested. He got the results the day after which was a Sunday and he was negative, I picked him up around 10 am that next morning. I rented the Shure Beta 58 microphone from Rainbow Sound in Farmingdale, NY. Upon arrival we had a little trouble with public safety but we got in eventually. We borrowed the equipment needed for each system and a camera. The hardwired mic system was the longest system to build. The RF system was much faster to build and had less equipment involved. We set up the analog system closest to the camera and the RF system in the background of the camera shot. Filming everything took about 3 hours and breakdown took about another half hour. I started editing the first rough cut of the video the next day. I did a new revised version of the rough cut that weekend. The final cut was finished not soon after.

As stated in the testing procedures, each microphone was spoken into ten times each in both listening tests. In terms of setup, RF systems are much easier and faster to build however, they have a greater chance of needing to troubleshoot due to the wireless element. The analog or hardwired mic system obviously was a bit longer to setup but it's much more straight forward to build. The first test we EQ'd both microphones which made it harder for me to discern which mic was which by ear. The second test went much better because we had no EQ on each mic. I was able to differentiate much more clearly in that I noticed that the analog mic has a much more immediate low end frequency response. While, the RF mic had a more immediate higher end frequency response.

Overall, what I wanted this project to be was an answer to the question of: what is the differences in sound and in system capabilities between a hardwired mic based system v.s. a RF mic based system? Did I feel like I achieved the answer? Absolutely. I learned so much about scheduling and getting more comfortable with editing myself. I also git a greater understanding of RF microphones and RF technology in general. I've had an incredible four years here at City Tech. This was not how I pictured finishing up my Culmination but I'm glad It's done. I can't wait for what's to come when we all get through this COVID thing and get back to normal.