Weekly Update

This week we worked on setting up the microphone feed from the pi to app on the users phone. This went fine except I was having trouble finding the microphone as a device so I was just testing with audio files. Trey looked into this and was able to figure it out Sunday. So, this week we will set up a call for him to help me make sure I'm using the hardware properly. Once the audio feed from the pi to app was setup I began working on sending the audio feed from the app to the pi. This was where I ran into problems that required a creative solution.

Problems

I knew from the start that I would need to code this part for both iOS and Android as using the hardware is different for both. This was fine except I was having trouble getting a solution for the iOS portion. I've never programmed in iOS and I was a little over my head with what I needed to do. So, I began doing research on how I could get around this and came up with a solution. I changed the way the audio was sent from the pi to the phone so that o wouldn't need permissions to send audio back the other way from the phone. I did this using a Voice over internet protocol (VOIP). This means that using the internet the pi makes a phone call to the users phone when the button is pressed. I believe this is all around a better solution as it is fast, high quality, and works well no matter where the user is. The functionality of smartphones still allows the user to run the call in the background and view their feed while talking to them.

Next week

For the next week, Trey and I will work together to make sure the microphone is working and record some test calls to show next week. Now that the video feed and the audio are figured out, testing and refinement are all that's left. Once, this is done we can finish our user manual.