The concept I've chosen to envision a Mixed-Reality experience for is the ability to see electricity and signals. The way I would go about doing this is by making an Augmented Reality(AR) app that would be mostly used on a phone and is built with that in mind. The AR app would all people to use their phone's camera to look at electronics and cables and see a visual representation of the current flowing through it, as well as a visual representation of various signals being sent between devices. The visuals would all be similar with the main difference being color. I imagine a flowing texture like wind moving to be the way electricity would be shown. It would be yellow and would just overlay over the wires in view. It would also be able to tell the amount of current in the wire in amperes. For signals going between devices I imagine that to be like data being sent to various things in the area. This could be represented in the same way electricity is shown, but with a different color. It could also be shown by a dotted blue line being drawn between devices and an envelope moving along that dotted line. Other variations of this could include just the dotted line, but with different color used to differentiate where the signals were coming from. This could help in a setting where there are a lot of devices sending data and the moving envelopes would create a much more cluttered view along with a lower framerate as each envelope would have to be moving. Aside from making sure the visuals are simple and easy to understand, the GUI would also have to be simple and easy to understand. SInce this is something that would be used on phones for the most part, I feel that using simple, transparent blocks for buttons would be a good choice as the transparency would allow for an uninterrupted view of the scene while still allowing for functionality. The buttons would include a camera button to take a picture of what your seeing, pause/start button to turn on and off the overlay of information, a settings button to change the color of the lines drawn and to enable/disable to envelopes, and a transparency slider to change the opacity of the drawne lines. I would also add an on/off button to turn on or off the GUI. I feel that these buttons would cover all the things people would need and want control over. This allows for less of the GUI to be obstructing the view and keeps in line with the simple theme of the app.