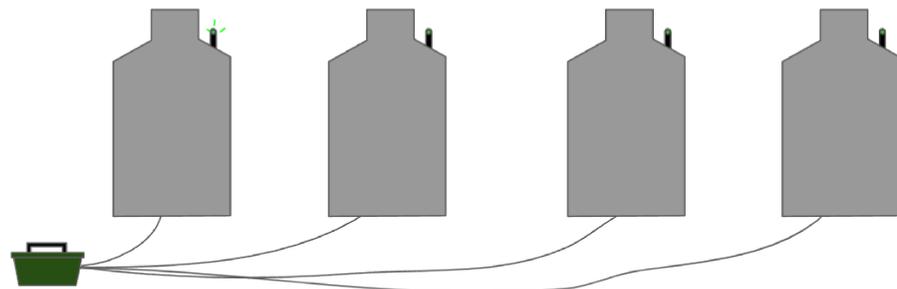


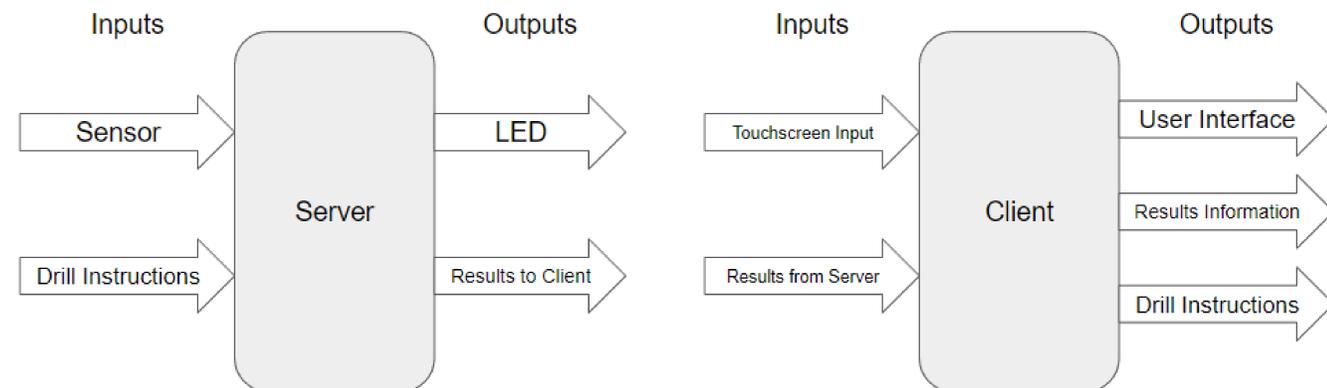
Shooting Drill System

Project

- Recreational shooting is a sport enjoyed by millions around the world
- This project allows shooters to easily practice or compete in shooting drills
- Use an app to interact with a system of LEDs and sensors to get timed feedback
- **The scope of this project is limited to the design of the server and client software**



System



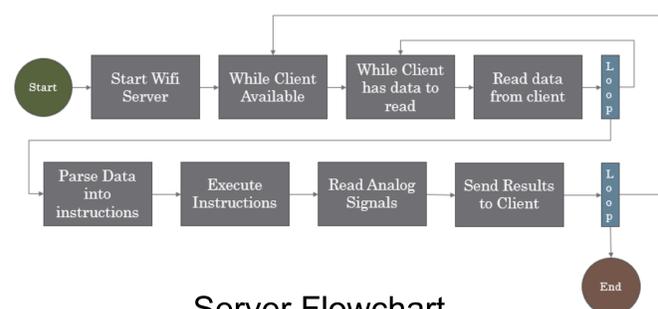
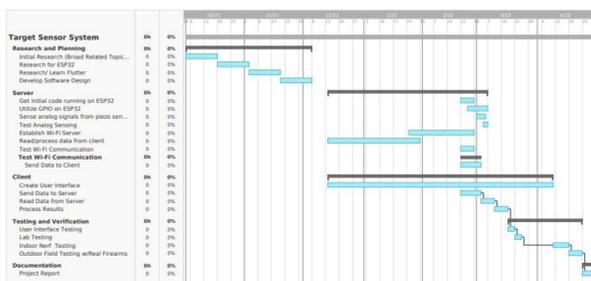
Methods

- The key feature of the system is the interpreter in the server
- The client sends data written in a micro-language of my design to the server
- The instructions of the micro-language tell the server how to play a shooting drill
- This design allows new drills to be played by only updating the client app
- Consumers are more familiar with updating apps than updating firmware

Conclusion

Objectives and Requirements Met

- The system allows for the timing of shooting drills with millisecond precision
- New drills can be added by simply updating the client app
- The system is very easy to use, making for great accessibility
- This project taught me about asynchronous programming, networking, and code interpretation
- In the future, I'd like to design a wireless sensor that is powered by ambient electromagnetic waves, based upon RFID technology



Gantt Chart

Server Flowchart