

## Capstone Constraints

My senior design project—a templated mobile app architecture for Android apps—is pretty open-ended & lacks significant constraints in the traditional categories such as economic, professional, or security. The largest constraints that I will be facing fall into two categories: resources & hardware.

Speaking first to the resources category, one of the largest hurdles which I am having to overcome during my capstone project is that of lack of resources. Because I am completing this project for my co-op company and they are paying me for it, I am unable to bring on fellow peers to aid in development. Moreover, due to the small size of the company, I am completing the project solo as well. I have help within the company in designing & discussing ideas with, but the actual implementation of the entire architecture is being completed by me alone. This creates a somewhat daunting situation, as I've got a *long* list of deliverables and a timeframe to complete the project, but no additional developers to help with tasks that may take longer than expected.

Secondly, is the hardware component(s) of this architecture. The architecture itself is to serve as a foundation for our mobile apps over the next 10+ years. Each of these apps is designed to connect with a physical module over Bluetooth Low Energy (BLE). Thus, in order to accurately implement & test my solution, I need access to physical hardware during development. This hardware could be either the actual, production module itself or some eval board thrown together for development purposes. Regardless, the hardware is outside the scope of this project, but I am still dependent on it. Consequently, I have to collaborate effectively with the hardware & electronics departments of my company to ensure that they've built the proper hardware by the time I'm ready to begin testing.

These two constraints summarize roughly 90% of the constraints of my project. There aren't many other constraints that amount to more than a slight inconvenience on this project. However, these two constraints are significant enough and will keep me busy for the duration of the project. Ensuring I maintain effective communication & planning throughout the development process will be key to my success with this project.