REFLECTION AND SUMMARY

1. A description of the device that your group created, along with any challenges that were encountered and overcome
2. A short reflection of the course — What did you learn? Is it useful? How might you apply it in the future?

1. The device created by us was a basic working model representative of a sensitive temperature tracking and alerting system. The idea behind this device was to enable the user to track minute changes in the surrounding environment based off a threshold maximum temperature beyond which the buzzer will go off alerting the user to attend to matter immediately. It was also equipped with a button so as to turn the buzzer on or off whenever required. For example: at temperatures below 25 degrees Celsius, the buzzer was an adaptable low frequency noise. However, as soon as the temperature rose to above 25 degrees Celsius, the buzzer sounded an annoying high frequency pitch as to alert the user. The button was an addition for the sole purpose of shutting down the annoying high pitch noise. Some real world applications for this system may include being implemented in a laboratory setting, as some require specific temperature ranges for optimal operation. It could also be well suited for vehicles as owners leave pets and kids inside during hot blazing summers. As soon as it reaches above a certain temperature, it will produce a warning signal.

   There were a few challenges encountered while creating the device, particularly when deciding on the basic utilitarian use of it - the idea of using the device as a temperature tracking and alerting device was agreed upon due to its practical use and convenient configuration. Apart from the sample code provided in the arduino software's various circuit configurations, an additional combinatory code needed to be created to put together the device. This was a challenging task due for us as beginners; with guidance from our instructor we were able compile a code that finally worked free of errors.

2. Netri: I was able to learn the basics of how a code could carry out a simple function on an electronic device. I only had rudimentary knowledge about coding from high school where I had never seen a code carry out a function on an electronic device. Taking this course has been useful in terms of exposing me and making me aware of the working of the various electronic devices that we use in our everyday lives, and shown me how complex codes and languages can also be simplified and learnt by any individual. This newfound knowledge gives me the thought of even considering purchasing an arduino in the future to experiment with and create more simple electronic devices.

Garry: The reason I took the course was to try something new and different. All throughout high school, I was always intimidated by coding. This experiential course allowed me the exposure that I wanted and needed at a beginner level, to the technological and coding world. It taught me the background and the basics of how electronics work; the complex combination of simplicity and sophistication. The idea of how complex everyday electronics are, and how they work in relation to the programming of specific tasks required of them. It was intriguing because prior to this experience, I assumed that coding is something you either get or you don't. I was extremely proud of myself when the assignment was completed due to this reason. It was a slightly different perspective and approach because we take for granted the technologies we have today but fail to appreciate the ingeniousness. Through the small baby steps, the experience has made me comfortable enough to potentially try and experiment more in the future. To come down to the makerspace area, and make use of the resources available to enhance my learning and growth.