Effective and Oral Communication in Professional and Lay domains

When it comes to circuits and components in the real world there are multiple steps that need to be achieved to go from design, manufacturing on large scale and sale. In this unit as engineers we explore the design stages that occur.

When we design such a circuit, we need to consider the different audiences that will go through the design. That is, we must provide enough technical concepts so that other engineers can test and see if the circuit works as intended and they can improve and make changes to modify the design. We must also include details for customers who do not have a knowledge of the technical concepts included in the design. We must also prepare documentation for manufacturers so that can understand the components in the PCB design and produce it at cheaper costs. Finally, we must provide enough information for stakeholders for them to plan out the sales and marketing with enough technical details and an idea of how the design works.

The portfolio was prepared with a summary of how the design works for those without technical knowledge. The portfolio included a schematic which explained the functionally of each component and explaining how the individual components work together to produce the working design. The design portfolio has information on the layout of the design and its assembly. These were intended for other engineers. The portfolio also include a materials and cost list which was for manufactures. The simulations and experimental data needed was for businesses to guarantee to the customers that the product works as intended.

While there were simulations to cater to the criteria provided the portfolio didn’t have experimental data to show the customers that it works as intended. The design implemented is also a very simple and cheap design this can be improved by other engineers by adding transistors and using other set ups of the relaxation oscillators.

The design was put together and was documented within a certain time period which mirrors real world situations of reaching a deadline. While learning new concepts in the lectures we were allowed to explore and come up with creative ways to bring about the specifications required by the design and then test it’s effectiveness during the workshop. We received feedback from the lecturers and the workshop coordinators as to how we can improve this design. As shown by the reflection above I believe that this unit allowed for the necessary proficiency required by Engineers Australia