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| South Metropolitan TAFE |
| Lathe Project |
| Personal Report |

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| Nimesh Bhana  11-28-2017 |

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# Abstract:

A detailed report analysing and showing what I have contributed to the Lathe project. The method of which I will show this information would be through this report. This is designed to allow me to show what I have done so I can be marked by my lecturer and pass the course.

# Introduction:

The purpose of this report to analyse my contribution to the lathe project through evidence shown in Github as well as the final report. This report will be going through the work I have done to highlight the work needed to get this project working as well as showing my faults and how I overcome them.

This report will be structured as an engineering report which are used in real world situations. This report is required as part of my learning and so will be completed for said course. This report contains a table on content to outline specific pages for different sections being the Introduction; Body, time lined accordingly with pictures as evidence, and finally a conclusion of my whole report.

# Body:

## Research:

The research started with the basic understanding of the lathe, this included how it worked why it worked and what it was capable of doing. This then was followed by learning how a Computer Numeric Control (CNC) works and why it works. This then developed into talking to lecturers (Ross Jarvis) and understanding what they wanted for the project.

After discussions of the lathe we started working on how to strip down the lathe and allow it to change into the CNC lathe. This lead to researching for motor that fit the calculation Migel had worked out for the motors looking for the switches and working on finding the encoder needed.

Within the research I started talking to manufactures of different parts such as the encoders. I discussed with our lectures how we would want them to mount the encoders and looked into ones that would fit. I also researched the switches but was never able to get around to mounting them on the lathe as we never completed the lathe.

## Stripping down the lathe:

We basically stripped the lathe down to its bare minimum being the bed gear box and legs and slides we did this by first pulling off the unnecessary. This was the manual controls and screws that allowed them to work smoothly. After this was done the lectures and technicians pulled the bed off so we could take the tray off. This was when I measured the legs out correctly and then model them.

# Conclusion:

My main job in the construction of the lathe project was part of the electrics for the lathe as well as 3D modelling others parts as the where working on their own. As well showing a small amount of leadership within the electronics group by leading my group with research.