Evaluation of Results of Testing

4.1 Identify gaps and omissions in the testing process (not exhaustive)

The major gap in my testing is that I haven't tested the requirement "System should be as cost efficient as possible, making the most money available from the orders for a given day (maximise sampled average percentage monetary value) (system)". This requirement is key to the viability of the product in the real world. However, as it was not essential to the system I was designing, I left it out in the interests of time. I did implement a way of maximising the value; sorting the orders for a day by value and greedily delivering as many as possible with the number of moves the drone had. I did not have time to test whether this approach worked and therefore whether the system was efficient in terms of money. This is an important aspect of the system which I haven't had time to test, if I had more resources this would be the first thing I would work on to improve the system as a whole.

Another deficiency in the testing is the nature of the synthetic data used to test the final system. The data was all within acceptable input, that is that none of the synthetic data should have caused any errors. This data was useful in terms of testing the that the system worked for correct input (which it did), however I do not know how the system would perform with inaccurate data, incomplete data, data in the wrong format etc. In order to be confident in the products' performance it would be important to test this going forward.

Another deficiency is that I haven't tested the requirements "code should be readable" and "code should be clear". The software is to be handed to another team of developers and so it should be easy for them to understand what I have done, to this end I have tried throughout the process to use meaningful variable names and provide comments on the code, at no point however have I systematically tested these requirements. Therefore, it is likely that there are errors regarding unclear variables or poor descriptions of methods. Given more time this is definitely an area I would look to test.

The final major deficiency is the lack of acceptance testing. The system was tested with synthetic data representing what the orders for a day should look like, however in reality the data may be completely different. This raises questions over how the system would perform in the real world.