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Title for Assignment

SUBJ1234 ASSIGNMENT X

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Abstract

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Contents

2 Introduction

2.1 Aim

3   Literature Review

Before starting the project, it was important to comprehensively understand what issues are being faced by systems controlled in similar ways to $AIRUS$, and what solutions are already available.
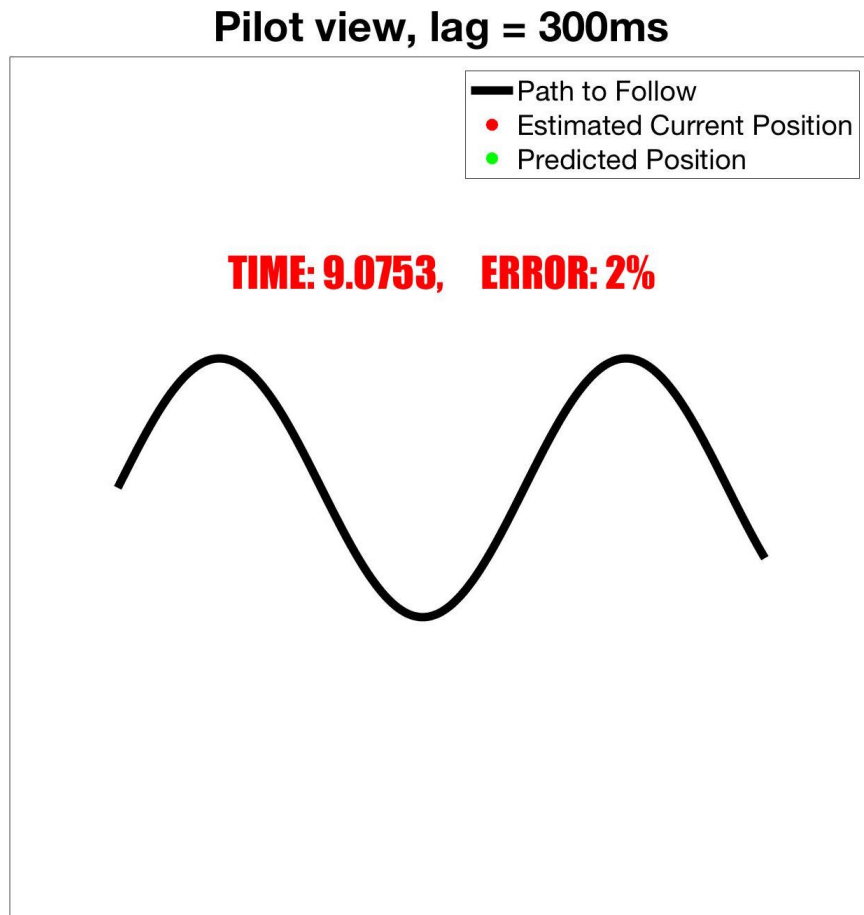
3.1   Inserting a figure

Figure 1.

Figure 1: Example Figure

3.2   Referencing[1]

3.3   Table

Table 1 is a table. Use latex table generator

Variable Name	Definition	Initialization	Application
dtTelem	Time between telemetry being sent and received	User input to parent file	Compensated for in the prediction, used to calculate expected current position
dtControlReceived	Time between control being sent and received	User input to parent file	Used in the prediction to find position of green dot, represents the lag in the system
dtControlActed	Time taken for commanded velocity to be implemented, once received	User input to parent file	The reciprocal of this is used as the proportional gain constant in the PD controller
dtEuler	Shorter time step used for Euler integration in predictor	Defined in predictor	Used to iterate through the displacement and velocity prediction calculations in each loop of the system
dt_i	Time taken for each iteration	Calculated in parent file	Represents the time taken for each iteration in the simulation, used in many functions in the system to find the number of iterations that corresponds to a given delay
timeTaken	Total time taken for the red dot to reach the end of the plot	Calculated in parent file	The total time taken for the pilot to move the red dot from the initial position to the final position

Table 1: Definition of Time Parameters

3.4   subfigures

Figure 2: Example subfigures

4 Conclusion

References

[1] Abdullah Akce, Miles Johnson,Timothy Bretl, "Remote Teleoperation of an Unmanned Aircraft with a Brain-Machine Interface: Theory and Preliminary Results," *Conference Paper in Proceedings - IEEE International Conference on Robotics and Automation*, 2010.

5 Appendix

5.1 Matlab Code

Figure Formatting

```matlab
% FORMAT 2D FIGURE: GIVES FIGURE LATEX FORMATTING
% Author: Tara Bartlett 450198331
% Input: handles of figure, xlabel and ylabel (and legend)

function formatFigure(figHandle,XLABEL,YLABEL,varargin)
figure(figHandle);
grid on;
fontsize = 16;
xHandle = xlabel(XLABEL);
yHandle = ylabel(YLABEL);
set(xHandle,'Interpreter','Latex','FontSize',fontsize);
set(yHandle,'Interpreter','Latex','FontSize',fontsize);
set(gca,'TickLabelInterpreter','latex','FontSize',fontsize,'LineWidth',1.5);

if ¬isempty(varargin)
    set(varargin{1},'Interpreter','latex','Location','best','FontSize',fontsize);
end
end
```