

STUDENT FEEDBACK FORM: ALK25882786

Generic Assessment Criteria	Marks available	Marks awarded
1. Engagement with Literature Skills		
The report acknowledges key historical contributions to PID control (e.g., Minorsky, Sperry). The report references practical online sources (e.g., MATLAB blogs, Control Tutorials, RFCafe) relevant to system modelling. However, no academic or peer-reviewed sources were used. Most references are blogs, product sites, or outdated links. Referencing is incomplete and inconsistent: URLs are pasted raw, no author names or publication years are cited in-text, and Harvard style is not followed. Some cited sources (e.g., Figure 2, 3) are not traceable to academic origins and are primarily images, not literature. Areas to improve and Feedforward: Use scholarly references (e.g., Ogata, Nise, control systems journals) to support theory and modelling. Apply correct Harvard referencing - include author(s), year, title in italics, and source/publisher with access date where needed. Integrate sources critically into the narrative—not just to define terms but to justify decisions.	20	8
2. Knowledge and Understanding Skills		
Your report shows understanding of mass-spring-damper physics, Newton's law, and transfer functions. The correct system classification (underdamped) using damping ratio and natural frequency calculations has been provided. The function of PID terms and their impact on system behaviour have been correctly stated. However, some terminology is misused or informal (e.g., "solving errors," "ask the code to ask it to..."). Mathematical derivations are sometimes unclear and not consistently formatted. The report lacks discussion of frequency domain, stability margins, or deeper system dynamics. Areas to improve and Feedforward: Tighten the technical explanation and use proper mathematical symbols and typesetting. Introduce more engineering language (e.g., "settling behaviour influenced by pole location"). Discuss limitations or assumptions of modelling (e.g., linearity, ideal damping).	20	12
3. Cognitive and Intellectual Skills		
You have made a fair attempt to compare different PID configurations and critically identify the optimal balance between overshoot, SSE, and settling time. You have also used numerical data from MATLAB simulations effectively in analysis. There is room to improve on the following: Some conclusions are superficial (e.g., "you then are to discuss and compare..."), and analytical depth is lacking. The analysis relies on AI-generated tuning without evaluating its validity or limitations. Broader implications of design trade-offs (e.g., performance vs robustness) have not been considered in the report. Areas to improve and Feedforward: Reflect more deeply on why a specific parameter set performs best. Include interpretation of what happens when parameters are pushed to extremes. Add a brief discussion on real-world consequences of overshoot, oscillations, and poor tuning.	20	13
4. Practical Application Skills		
The MATLAB code is clean, correctly structured and effectively uses stepinfo, feedback, and dcgain. Performance metrics are extracted and used in the discussion. The closed-loop simulation with PID shows understanding of practical control implementation. However, some explanations are informal, for example the code explanation: "ask it to include the settling time...". No discussion was made on how to handle noise, sampling effects, or nonlinearities. Areas to improve and Feedforward: Compare Simulink/MATALB outputs. Show manual vs AI tuning comparison or explain the tuning logic used. Elaborate on real-world constraints that could impact implementation (e.g., actuator lag, sensor delay).	25	14
5. Transferable Skills for Life and Professional Practice		
You have adequately demonstrated the ability to use MATLAB for simulation and result analysis. Your work shows awareness of the importance of tuning in engineering systems and attempted to reflected on learning outcomes ad performance evaluation. However, your writing quality is inconsistent, with several spelling errors, awkward phrasing, and lack of polish. The structure is somewhat fragmented: transitions between theory, simulation, and analysis need smoothing. Areas to improve and Feedforward: Proofread your work thoroughly and maintain formal tone and language. Use clear section transitions and topic sentences to improve flow. Reflect briefly on how this task aligns with real engineering tasks, e.g., control design in automation, mechatronics, or aerospace.	15	9

Assessment Mark (Assessment marks are subject to ratification at the Exam Board. These comments and marks are to give feedback on module work and are for guidance only until they are confirmed.)	Late Submission Penalties (tick if appropriate)		56%
	Up to 1 week late (40% Max)		
	Over 1 week late (0%)		

