

Assignment 3

Assignment 3 contributes 30% of the marks for this unit.

General Requirements

This is an individual assignment. Include your name and student ID number.

For this assignment, you must use the same product innovation you proposed in Assignment 2. No change allowed.

This is a technical, engineering report. This means you should avoid informal or colourful language. Your language should attempt to be objective, neutral and avoid discussing opinions or feelings. Any unsubstantiated or bold claims should be avoided without compelling evidence or references. Avoid the use of first-person pronouns such as “I”, “my” and “we”.

Reference any sources using the IEEE referencing standard.

Late assignments will incur a penalty as stated in the unit outline.

Only upload your assignment in PDF format. This reduces errors in the way TurnItIn renders your document.

Gen AI (e.g. ChatGPT/Gemini/Claude/CoPilot) detection will automatically be used on all TurnItIn submissions, so DO NOT use any Gen AI tools to write your assignments.

You may include diagrams or images you created for Assignment 1 or 2 in this assignment.

The Assignment

In this assignment consider the development of an innovative product, as well as launch of this product through a startup business.

You are required to use the same product innovation as used in earlier assignments.

You will not be penalised for copying or paraphrasing content presented in Assignment 1 or 2.

This assignment is made up of two sections, with the marks for each section given below (contributing to a total of 30% of the marks for this unit).

Section 1

Product Plan (70% of the 30 marks for this unit)

Section 2

Business Structure (30% of the 30 marks for this unit)

SUBMIT as ONE PDF file.

Section 1 - Product Plan (21 Marks) 600-800 Words

Detail the system level design of your product innovation.

In this section, demonstrate that you have applied a considered and logical approach to the design of your product.

Use of diagrams/tables is encouraged to help further explain your proposal.

Its either more words or a balance of words and diagrams/tables.

Please use paragraphs and titles ... e.g. Product Description, Concepts ...

Consider the following items for inclusion in this section ... Start with Product Title

- A description of the product and its operation, function, and features in one paragraph
- What product concepts or variations were considered and then rejected? Explain why the final selected product concept was selected.
- If relevant, the product architecture (mechanism, construction, composition etc) including a functional diagram of the product and its operation.
- If relevant and important, the look and feel of the product with a sketch or diagram of how the product will look.
- Explain stages of prototype development that you will use to develop this product. Prototypes are built for different reasons, such as: to test a product hypothesis; to validate design decisions and material use; to determine technical feasibility; for user testing; to verify specifications; for demonstration; pre-manufacturing version using common parts; and so on.
- Provide projected milestones for each stage of product development. Consider estimated timeframes for research, design, prototype iteration, alpha and beta testing, initial manufacturing run, product launch, production ramp-up. Use a simple chart, e.g. a Gantt chart.

I will be looking at clean and concise language. No marketing language as this is a technical report. Please use paragraphs and sections title when necessary.

Week 5 – Concept Development (from Opportunity Identification)

Week 7 – Product Architecture

Week 8 – Prototyping



Section 2 - Business Structure (9 Marks) 400-600 Words

You are considering a business “startup” to launch your product in the marketplace.

The following items might be included in this section.

Use of diagrams/tables is encouraged to help further explain your proposal.

Please use paragraphs and titles ... e.g. Business Model, Vision, Mission and Values, Revenue Model

Its either more words or a balance of words and diagrams/tables.

- A short company description of the business model.
- The company purpose/vision, mission and/or values.
- How does the business capture value? What is the revenue model and pricing strategy of the business?
- How does the business deliver value to customers? Is the business selling a product through a reseller network, or will the business have stores, or sell online only? Or some other approach?
- Consider the logistics of providing the product and service/support to the customer. For example, consider product ordering, product distribution, delivery, customer support and returns.

I will be looking at clean and concise language. No marketing language as this is a technical report. Please use paragraphs and sections title when necessary.

Good to check out Week 11 on Business Model, Vision and Week 10 Product Commercialisation, some of the example Pitch Decks too.

References

If references are needed, please provide a reference list in IEEE format. If references are listed here, ensure to reference these in-text.

Appendices

Please note, appendices will not be reviewed in detail, so should only be provided to support claims made in the assignment.

Mark Allocation

Assignment 3 contributes 30% of the marks for this unit.

Marks will be allocated to each section of this assignment as follows.

Section	Percentage of this Assignment	Maximum Marks for this unit
1	70%	21
2	30%	9
Totals	100.00%	30

Marking Rubric

	Novice	Emerging	Pass	Good	Excellent
Task Fulfilment/ Academic Style (60%)	Do not address the task or responds to the task only partially or in a limited way. May have misinterpreted the task. Does not adhere to academic writing style conventions (i.e. formal, impersonal, and objective).	Responds to the task only partially or in a limited way; Mostly adheres to academic writing style conventions (i.e. formal, impersonal, and objective)	Responds to the task relevantly but may lack detail and length. Mostly adheres to academic writing style conventions (i.e. formal, impersonal, and objective).	Responds to the task relevantly but may lack detail and length. Fully adheres to academic writing style conventions (i.e. formal, impersonal, and objective).	Responds to the task relevantly in sufficient detail and length (including formatting of text). Fully adheres to academic writing style conventions (i.e. formal, impersonal, and objective).
Grammar, Vocabulary and Punctuation(20%)	Contains several grammatical errors and/or a limited range of vocabulary, which may include inappropriate usage. Contains numerous spelling and/or punctuation errors which impede overall comprehension - do not penalise typos or common misspellings.	Contains some grammatical errors and/or uses a limited vocabulary. Contains several spelling and/or punctuation errors – do not penalise typos or common misspellings.	Contains some grammatical errors in complex forms, and/or may include a more limited vocabulary range. Contains a number of spelling and/or punctuation errors - do not penalise typos or common misspellings.	Contains a range of contextually appropriate vocabulary and include few, if any, grammatical error Contains very few spelling or punctuation errors - do not penalise typos or common misspellings	Contains a wide range of contextually appropriate vocabulary and does not include any grammatical errors Is free from spelling or punctuation errors - do not penalise typos or common misspellings
Organisation, Coherence, Cohesion(20%)	May lack overall organisation, thematic unity and coherence in and/or between sentences including the development of ideas, but shows some attempt at connecting the ideas expressed.	May lack overall organisation but develops some ideas coherently with some attempt at paragraphing demonstrated. Sentence structures may be limited and/or inappropriately connected.	Has an overall logic and coherence. Shows use of paragraphs and a range of sentence structures which are usually appropriately connected.	Is logically organised, expresses ideas coherently through well-constructed paragraphs, and a range of appropriately connected sentence structures.	Is logically organised, presents a unity of theme and expresses ideas coherently through well-constructed paragraphs and a wide range of appropriately connected sentence structures.