MINOR DESIGN PROJECT 2025

(NAME)

NESA NUMBER:

CONTENTS

PROJECT PROPOSAL

EXPLORATION OF NEEDS

Design situation	Explore the design situation/s (PROBLEMS) that your Product could be developed to address. Support with facts and statistics on the situation (Screenshots, news articles, research papers etc). Discuss the IMPACTS (historical, current and future) of this situation on the relevant individual, society and/or environmental considerations.
Needs	Identify the NEEDS which arise from the design situation. Use Dot Points. *Unpack the problem - what needs to be addressed in order to improve upon current circumstances? What needs to be included in the final solution in order to be successful?*
Opportunities	Identify the OPPORTUNITIES that this problem presents. This can only be realistic if prior research is completed into existing products.
Motivation and interest	Elaborate on your own personal motivation and interests in exploring a solution to the proposed design situation.

ONGOING EVALUATION
Provide regular ongoing evaluation which critically evaluate aspects of the product throughout its entire development. How does this preliminary exploration of the needs warrant the purpose for the product so far? Identify the information which will be critical in helping you justify the selection of a genuine need or opportunity.

DESIGN BRIEF

Provide a Design Brief which clarifies the direction of the Minor Design Project and what must be achieved.

TARGET MARKET

Describe your target market and the intended user.

DESIGN CONSTRAINTS/ PARAMETERS

Parameter	**Justification**
Cost	
Time	
Skills	
Functional requirements	
Size requirements	

Aesthetic requirements	

AREAS OF INVESTIGATION

Describe a range of areas/ aspects of the project which relate clearly to the need that will be investigated. Break each Area of Investigation down into subcategories - add rows as necessary.

Identify the method of investigation and classify the types of research methods as **Primary or Secondary**. Some areas will require both forms of research to occur.

Indicate and critically analyse why this is important, and include any areas for **future direction.**

Indicate the order that you will proceed in your research (ALL Research to be completed within PROJECT DEVELOPMENT section)

Areas of Investigation to consider include but are not limited to:

- Existing Solutions
- Materials
- Production Methods
- Aesthetics
- WHS Issues
- Ergonomics/ Anthropometric Data
- Reuse/ Recycling
- Australian Standard
- Social Factors
- Cost Cutting
- Sustainability/ LCA
- Human Resource
- Non Human Resources
- Prototyping and Testing
- Culture
- Trends

Area to investigate and Description	Methods of investigation	Explanation and relevance to the need	Critical analysis and further direction

ONGOING EVALUATION
Provide a critical analysis for this section. How does the identification of these areas which require investigation, research and testing impact the development of your MDP?

CRITERIA TO EVALUATE SUCCESS

The Criteria to Evaluate Success should be viewed as a checklist that you continually refer back to throughout the development of your project to evaluate if you are still on track. This should be made up of appropriate criteria specific to the development of your product.

State what the product will have to do to make it successful in terms of both its functional (how it works) and aesthetic (how it looks) and environmental qualities (what effect). Including:

- Critical analysis of each factor
- List in order of most important to least important (Eg. 1-15)
- Describe the research methodology that will need to be used to evaluate each of the criteria. This means that you need to describe how you are going to test/ check how each of the criteria listed have been achieved. For example, you could conduct a survey to determine if the finished product is aesthetically appealing to teenagers or ask an expert to evaluate the quality of the timber joints you have used to construct your furniture.

FUNCTIONAL

Specific criteria to evaluate success	Rating of importance	Method used to evaluate success	Standard I expect to achieve/ Critical Evaluation

AESTHETIC

Specific criteria to evaluate success	Rating of importance	Method used to evaluate success	Standard I expect to achieve/ Critical Evaluation

ENVIRONMENTAL

Specific criteria to evaluate success	Rating of importance	Method used to evaluate success	Standard I expect to achieve/ Critical Evaluation

ONGOING EVALUATION
Provide a critical analysis for this section. How does the identification of key indicators of success impact on your design development?

PROJECT MANAGEMENT

ACTION PLAN
TIME PLAN

ACTION PLAN

Term 2 2025

Week	Proposed Work	Actual Completion	Critical Evaluation
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
Holidays - 2wks			

ONGOING EVALUATION Term 2 Week 4 2025
Provide an ongoing evaluation for your action planning this term. Evaluate the impact of any major findings, successes or setbacks. What are the implications for your current time management? 1. Where are you at now in terms of your minor design project development? (Explain challenges faced till this point) 2. Where do you want to head and achieve in the next 4 weeks? 3. What measures will you take to ensure you achieve these goals?

ONGOING EVALUATION Term 2 Week 8 2025
Provide an ongoing evaluation for your action planning this term. Evaluate the impact of any major findings, successes or setbacks. What are the implications for your current time management?

Term 3 2025

Week	Proposed Work	Actual Completion	Critical Evaluation
1			

2			
3			
4			
5			

ONGOING EVALUATION Term 3 Week 1 2025
Provide an ongoing evaluation for your action planning this term. Evaluate the impact of any major findings, successes or setbacks. What are the implications for your current time management?

ONGOING EVALUATION Term 3 Week 4 2025
Provide an ongoing evaluation for your action planning this term. Evaluate the impact of any major findings, successes or setbacks. What are the implications for your current time management?

TIMELINE PLAN

Develop a timeline plan (Gantt Chart) which identifies all tasks (including every process throughout the production) which need to be completed throughout the project. The processes that you research should inform the specific steps required to create your project. The suggested format is portrait view including 2 terms and the holiday periods. The timeline plan should show a projected and actual plan. This can be differentiated through the use of two different colours. Make sure to include a legend or key. The projected plan must be completed up to the hand in date for 2025.

Timeline Plan Evaluation - Provide ongoing critical evaluations throughout each term. Include the date the evaluation was made. Have you followed the timeline plan? Why or why not? Explain the challenges that you faced which may have affected the timeline. Have you had to make any compromises to make up missed time? **Place these as text boxes on or below the timeline plan.**

PROJECT DEVELOPMENT & REALISATION

SKETCHING & IDEA GENERATION
DESIGN FACTORS
PRODUCTION & WORKING DRAWINGS
RESEARCH & EXPERIMENTATION
PROTOTYPING, MODELLING & TESTING

EVIDENCE OF CREATIVITY

EXPLORATION OF EXISTING IDEAS/ PRODUCTS

Analyse the strengths and weaknesses of existing ideas/ products and indicate features which should and should not be included in the development of your final product. Provide a technical and/or technical analysis for each resource. Identify how these examples will inform your own design process.

Provide the title of the product, the manufacturer, date and source for each image. These ideas can be anything that has the potential to influence your design decisions.

Observing and evaluating existing ideas will assist the development of your MDP by providing inspiration and potential ideas in regards to techniques, materials and styles. It is important to assess a range of sources that are not always directly associated with your needs or design situation. These sources can provide inspiration for particular design factors such as **materials, shape, line, style, trend, colour and function.**

IDEA 1 - NAME	ANALYSIS
IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP
Manufacturer & Source:	

IDEA 2 - NAME	ANALYSIS
IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP

Manufacturer & Source:

IDEA 3 - NAME	ANALYSIS
IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP
Manufacturer & Source:	

IDEA 4 - NAME	ANALYSIS
IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP
Manufacturer & Source:	

IDEA 5 - NAME	ANALYSIS

IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP
Manufacturer & Source:	

IDEA 6 - NAME	ANALYSIS
IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP
Manufacturer & Source:	

IDEA 7 - NAME	ANALYSIS
IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP

Manufacturer & Source:

IDEA 8 - NAME	ANALYSIS
IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP
Manufacturer & Source:	

IDEA 9 - NAME	ANALYSIS
IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP
Manufacturer & Source:	

IDEA 10 - NAME	ANALYSIS

IMAGE	Provide a conceptual and/or technical analysis for each resource. Analyse the impact on the development of your MDP
Manufacturer & Source:	

ONGOING EVALUATION
Provide a critical evaluation for this section. How does the identification of various existing ideas impact on your design development?

IDEA GENERATION/ DESIGN DEVELOPMENT

- Generate around 100 thumbnail sketches to explore creative ideas.
- Thumbnails should show diversity in approach and design thinking.
- Select the top 10 ideas and develop these further into detailed concept sketches.
- Include detailed annotations on the sketches.

EXPERIMENTATION AND DESIGN SOLUTION TESTING

Include a minimum of 10 relevant experiments to address the 'Areas of Investigation' as documented in the Project Proposal and test your design solutions. Add additional tables as required.

Remember to include :
Aim.
Method,
Result,
Evaluation and application of conclusions

Areas to address through experiments and/or research may include (if relevant):

- All areas for research as listed in your Project Proposal
- Prototyping of design ideas (CAD renders or physical mockups)
- Material testing
- Testing of components
- Testing of appropriate processes
- Development of Prototypes

<table>
<tr><th colspan="4">EXPERIMENT 1 -</th></tr>
<tr><td colspan="4">AIM:</td></tr>
<tr><td colspan="2">METHOD:</td><td colspan="2">EQUIPMENT REQUIRED:

WHS:</td></tr>
<tr><th colspan="4">RESULTS</th></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><th colspan="4">CONCLUSION</th></tr>
<tr><td colspan="4">Critically analyse the advantages and disadvantages for each area of experimentation and testing. Analyse the implications to your own project. How do these materials, components, processes, technologies and resources help you with the production of your proposed idea?</td></tr>
</table>

EXPERIMENT 2 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:
RESULTS	
CONCLUSION	

EXPERIMENT 3 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:
RESULTS	
CONCLUSION	

EXPERIMENT 4 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:
RESULTS	
CONCLUSION	

EXPERIMENT 5 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:
RESULTS	
CONCLUSION	

EXPERIMENT 6 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:
RESULTS	
CONCLUSION	

EXPERIMENT 7 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:
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EXPERIMENT 8 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:
RESULTS	
CONCLUSION	

EXPERIMENT 9 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:
RESULTS	
CONCLUSION	

EXPERIMENT 10 -	
AIM:	
METHOD:	EQUIPMENT REQUIRED: WHS:

RESULTS			

CONCLUSION

ONGOING EVALUATION

PRODUCTION & WORK DRAWINGS

Technical drawings which conform to Australian drawing standard AS1100 to be produced using a CAD program. Drawings must include all necessary measurements and provide detail of all components required to complete the project. Separate drawings should be used to provide highly detailed information on single components. Include a Bill of Materials which lists all parts, the quantity and material required.

FULL DESIGN REALISATION

Document the processes and techniques used to build your final design. Include documentation of tools, materials and safety measures. Provide clear photographic evidence of each stage of development. Organise the record of production in a table format. Provide regular ongoing evaluations.

EVALUATIONS

AND ASSESSMENT

ANALYSIS & CRITICAL EVALUATION OF DESIGN

- Assess your final design against the original brief and design criteria.
- Identify strengths, weaknesses, and areas for improvement.

CRITICAL EVALUATION OF THE PRODUCT'S IMPACT ON SOCIETY & THE ENVIRONMENT

- Reflect on the environmental and societal impact of your design.
- Consider sustainability, material use, and user experience.

ANALYSIS OF PRODUCT AGAINST CRITERIA FOR SUCCESS

- Reflect on how well your final design met the established Criteria for Success.
- Justify your evaluation with evidence from testing and prototyping.