

For use by the Project lecturer	Approved		Revision required	
<b>Feedback</b> <div>For use by the Project module lecturer only</div>				

To be completed by the student						
<b>PROJECT PROPOSAL 2024</b>			Project no		Revision no	
Title	Surname	Initials	Student no	Study leader (title, initials, surname)		
Project title (the title on the project concept note)						

Language editor details	Language editor signature
<b><u>Student declaration</u></b> I understand what plagiarism is and that I have to complete my project on my own.	<b><u>Study leader declaration</u></b> This is a clear and unambiguous description of what is required in this project. <u>Approved for submission</u> (Yes/No)
Student signature	Study leader signature and date

<b>1. Project description</b> What is the problem to be solved with your project? What is your project about? What does your system have to do?
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## 2. Technical challenges in this project

Describe the technical challenges that are *beyond* those encountered up to the end of third year and in other final year modules.

### 2.1 Primary *design* challenges

Which aspects of the design of the system do you expect to be the most challenging?

### 2.2 Primary *implementation* challenges

Which aspects of the implementation to you expect to be the most challenging?

## 3. Functional analysis

### 3.1 Functional description

Describe the design in terms of system functions as shown on the functional block diagram in section 3.2. This description should be in *narrative format*. **DO NOT** use a bullet list.

### 3.2 Functional block diagram (this should not be a flow diagram)

## 4. System requirements and specifications

These are the core requirements of the system or product (the mission-critical requirements) in table format **IN ORDER OF IMPORTANCE**. Requirement 1 is the most fundamental requirement.

	Requirement 1: the <u>fundamental functional</u> and performance requirement of your project	Requirement 2 (Number 2 in the order of importance)	Requirement 3 (Number 3 in the order of importance)
<b>1. Core mission requirements of the system or product.</b> Focus on requirements that are <b>core</b> to solving the engineering problem. These will reflect the solution to the problem.			
<b>2. What is the <u>target specification</u></b> (in <i>measurable</i> terms) to be met in order to achieve the requirement in 1. above?			
<b>3. Motivation:</b> Defend the <u>specific</u> target specification, i.e. the <u>value that you selected</u> . I.e., <i>why</i> will meeting the specification given in point 2 above <i>solve the problem</i> ?			
<b>4. How will you <u>demonstrate at the examination</u></b> that this requirement and specification (points 1 and 2 above) have been met? Be explicit about how you will <i>prove</i> these were met.			
<b>5. Your own design contribution:</b> what are the aspects that <i>you will design and implement yourself</i> to meet the requirement in point 2? <u>If none, remove this requirement.</u>			
<b>6. What are the aspects to be <u>taken off the shelf</u></b> to meet this requirement? If none, indicate "none". Clearly specify for what tasks <b>library functions</b> will be used (if relevant to the project).			

## System requirements and specifications page 2

	Requirement 4	Requirement 5	Requirement 6
<b>1. Core mission requirements of the system or product.</b> Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
<b>2. What is the target specification</b> (in measurable terms) to be met in order to achieve the requirement in 1. above?			
<b>3. Motivation:</b> Defend the <u>specific</u> target specification, i.e. the <u>value that you selected</u> . I.e., <i>why</i> will meeting the specification given in point 2 above solve the problem?			
<b>4. How will you demonstrate at the examination</b> that this requirement and specification (points 1 and 2 above) have been met? Be explicit about how you will <i>prove</i> these were met.			
<b>5. Your own design contribution:</b> what are the aspects that <i>you will design and implement yourself</i> to meet the requirement in point 2? <u>If none, remove this requirement.</u>			
<b>6. What are the aspects to be taken off the shelf</b> to meet this requirement? If none, indicate "none". Clearly specify for what tasks <b>library functions</b> will be used (if relevant to the project).			

## System requirements and specifications page 3

	Requirement 7	Requirement 8	Requirement 9
<b>1. Core mission requirements of the system or product.</b> Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
<b>2. What is the target specification</b> (in measurable terms) to be met in order to achieve the requirement in 1. above?			
<b>3. Motivation:</b> Defend the <u>specific</u> target specification, i.e. the <u>value that you selected</u> . I.e., <i>why</i> will meeting the specification given in point 2 above solve the problem?			
<b>4. How will you demonstrate at the examination</b> that this requirement and specification (points 1 and 2 above) have been met? Be explicit about how you will <i>prove</i> these were met.			
<b>5. Your own design contribution:</b> what are the aspects that <i>you will design and implement yourself</i> to meet the requirement in point 2? <u>If none, remove this requirement.</u>			
<b>6. What are the aspects to be taken off the shelf</b> to meet this requirement? If none, indicate "none". Clearly specify for what tasks <b>library functions</b> will be used (if relevant to the project).			

## System requirements and specifications page 4

	Requirement 10	Requirement 11	Requirement 12
<b>1. Core mission requirements of the system or product.</b> Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
<b>2. What is the target specification</b> (in measurable terms) to be met in order to achieve the requirement in 1. above?			
<b>3. Motivation:</b> Defend the <u>specific</u> target specification selected, i.e. the value. <i>Why</i> will meeting the specification given in point 2 above <i>solve the problem</i> ?			
<b>4. How will you demonstrate at the examination</b> that this requirement and specification (points 1 and 2 above) have been met? Be explicit about how you will <i>prove</i> these were met.			
<b>5. Your own design contribution:</b> what are the aspects that <i>you will design and implement yourself</i> to meet the requirement in point 2? If none, <i>remove this requirement</i> .			
<b>6. What are the aspects to be taken off the shelf</b> to meet this requirement? If none, indicate "none". Explicitly indicate what tasks library functions will be used for (if relevant to the project).			

## 5. Field conditions

These are the REAL WORLD CONDITIONS under which your project has to work and has to be demonstrated.

	Real world field condition 1	Real world field condition 2	Real world field condition 3
<b>Field condition requirement.</b> In which field conditions does the system have to operate? Describe the one, two or three most important field conditions.			

## 6. Student tasks

### 6.1 Design and implementation tasks

List your primary design and implementation tasks in bullet list format (5-10 bullets). These are *not* product requirements, but *your* tasks.

### 6.2 New knowledge to be acquired

Describe what the theoretical foundation to the project is, and which new knowledge you will acquire (*beyond* that covered in any other undergraduate modules).