For use by the Project lecturer		Approved		Revision required	

Feedback

Project number on list of Project concepts remains the project's identifier.

You will submit Rev 0 on the AMS (this may be your own iteration 10, but will still officially be your Rev 0 submission).

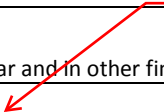| To be completed by the student					Language editor name	Language editor signature
PROJECT PROPOSAL 2023		Project no		Revision no		
Title	Surname	Initials	Student no	Study leader (title, initials, surname)	**Student declaration** I understand what plagiarism is and that I have to complete my project on my own.	**Study leader declaration** This is a clear and unambiguous description of what is required in this project
Project title					Student signature	Study leader signature and date

1. Project description

What is your project about? What does your system have to do? What is the problem to be solved?

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

2.2 Primary *implementation* challenges

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.

3.2 Functional block 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 fundamental functional and performance requirement	Requirement 2	Requirement 3
1. Core mission requirements of the system or product. Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
2. What is the target specification (in *measurable* terms) to be met in order to achieve this requirement?			
3. Motivation: *how* or *why* will meeting the specification given in point 2 above *solve the problem*? (Motivate the *specific* target specification selected)			
4. How will you demonstrate at the examination that this requirement (point 1 above) and specification (point 2 above) has been met?			
5. Your own design contribution: what are the aspects that *you will design and implement yourself* to meet the requirement in point 2? If none, *remove this requirement.*			
6. What are the aspects to be taken off the shelf to meet this requirement? If none, indicate "none"			

System requirements and specifications page 2

	Requirement 4	Requirement 5	Requirement 6
1. Core mission requirements of the system or product. Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
2. What is the target specification (in *measurable* terms) to be met in order to achieve this requirement?			
3. Motivation: *how* or *why* will meeting the specification given in point 2 above *solve the problem*? (Motivate the *specific* target specification selected)			
4. How will you demonstrate at the examination that this requirement (point 1 above) and specification (point 2 above) has been met?			
5. Your own design contribution: what are the aspects that *you will design and implement yourself* to meet the requirement in point 2? If none, *remove this requirement.*			
6. What are the aspects to be taken off the shelf to meet this requirement? If none, indicate "none"			

System requirements and specifications page 3

	Requirement 7	Requirement 8	Requirement 9
1. <u>Core mission requirements of the system or product.</u> Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
2. What is the <u>target specification</u> (in *measurable* terms) to be met in order to achieve this requirement?			
3. <u>Motivation:</u> *how* or *why* will meeting the specification given in point 2 above *solve the problem*? (Motivate the *specific* target specification selected)			
4. How will you <u>demonstrate</u> at the examination that this requirement (point 1 above) and specification (point 2 above) has been met?			
5. <u>Your own design contribution:</u> what are the aspects that *you will design and implement yourself* to meet the requirement in point 2? If none, *remove this requirement.*			
6. What are the aspects <u>to be taken off the shelf</u> to meet this requirement? If none, indicate "none"			

System requirements and specifications page 4

	Requirement 10	Requirement 11	Requirement 12
1. <u>Core mission requirements of the system or product.</u> Focus on requirements that are core to solving the engineering problem. These will reflect the solution to the problem.			
2. What is the <u>target specification</u> (in *measurable* terms) to be met in order to achieve this requirement?			
3. <u>Motivation:</u> *how* or *why* will meeting the specification given in point 2 above *solve the problem*? (Motivate the *specific* target specification selected)			
4. How will you <u>demonstrate</u> at the examination that this requirement (point 1 above) and specification (point 2 above) has been met?			
5. <u>Your own design contribution:</u> what are the aspects that *you will design and implement yourself* to meet the requirement in point 2? If none, *remove this requirement.*			
6. What are the aspects <u>to be taken off the shelf</u> to meet this requirement? If none, indicate "none"			

This is from the class example

5. Field conditions

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

	Field condition 1	Field condition 2	Field condition 3
Field condition requirement. In which field conditions does the system have to operate? Indicate the one, two or three most important field conditions.			
Field condition specification. What is the specification (in measurable terms) for this field condition?			

All of this copied from the class example

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).

Note that FULL SENTENCES are used throughout. This is a requirement.