WHAT SHOULD GO INTO MY REQUIREMENTS ANALYSIS?

In essence, the requirements analysis forms a "contract" between the "stakeholders" (usually yourself and your supervisor) that will clearly outline your responsibilities and deliverables (requirements) in your FYP. This document will form the "marking scheme" for your project and as such, needs to be very carefully constructed in close consultation with your supervisor. The more specific you can be in the requirements analysis, the better, as you can "tick-off" your requirements as you go and clearly show your progress to the assessment panel.

This means that **you need to do a lot of work from the start of your project** to the time you submit your requirements analysis. You need to become knowledgeable enough on the background of your project to make informed decisions as to whether proposed requirements are achievable or not. Prototyping and testing is especially important when approach a new problem that you are unfamiliar with.

It would also be a good idea to set specific goals or milestones that might correspond to different final grade levels (HD, D, C etc), keeping the difficulty in line with the grading criteria set out in the Unit Guide.

All of this should be done while communication with your supervisor (your "employer" or "boss", who "pays" you with marks), so that you have a clear agreement on what they expect from your project. This also takes careful consideration on the part of the supervisor to ensure that your requirements are obtainable but challenging. If you do not believe that communication is one of your strengths, this is your chance to grow and practice those skills in a safe environment. This will be invaluable to your performance as an engineer in future.

LITERATURE REVIEW

Many projects begin with the sentence "I don't know where to begin." The best place is often to begin by reviewing what others have done, or what components/ systems are currently available which may (or may not) help you.

In a research context a literature review involves collecting and reading journals books and articles relevant to the subject of your research. This can be broadened to include reading data sheets, searching the web for similar projects, books and documentation accompanying hardware.

In any case, **one of your requirements for your project must be, during the life of your project, to develop a literature review, with proper citations**. You will ultimately include your literature review in your final thesis. It should be incorporated as a requirement in your Requirements Analysis.

PROTOTYPES

Prototypes come in many forms. For some, it's a rough mock up of the final product, or a demonstration of the key technology that will be used in the final product, or a selected example of an experimental framework. Your Requirements Analysis may need to include provision for some form of prototype that you will most likely demonstrate at your mid-year presentation. Prototypes help to validate a design, the concepts and theory behind it and help identify critical design decisions and flaws before too much time money and effort are expended.

EXAMPLE REQUIREMENTS ANALYSIS

On the ECE4094-ECE4095 web site, there is a sample Requirements Specification supplied kindly supplied by Grey Innovation.