Questions and Answers Vol. 2

or

"By caffeine alone do you set your mind in motion."

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But first…

Some house keeping

Calendar at a glance

Week	Dates	Lecture	Reviews	Demos	Assessment submissions
1	25/2 – 1/3	Introduction			
2	4/3 – 8/3	Principles of Mechatronic Systems design			Problem analysis
3	11/3 – 15/3	Previous years deconstruction case studies			
4	18/3 – 22/3	Professional Engineering Topics	Progress review 1		
5	25/3 – 29/3	PCB design tips			
6	1/4 – 5/4	Your soldering is (probably) terrible			
7	8/4 – 12/4	~~Introduction to firmware design~~	Progress seminar	25% demo	
8	15/4 – 19/4	Introduction to firmware design			
Break	22/4 – 26/4				
9	29/4 – 3/5	Q&A 1		50% demo	
10	6/5 – 10/5	~~No lecture~~ Q and A sessions	Progress review		
11	13/5 – 17/5	Q and A sessions		75% demo	Preliminary report
12	20/5 – 24/5	Monday lecture!!			
13	27/5 – 31/5	Closing lecture		Final testing	Final report and reflection

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Coming up sooon

Preliminary report is due end of next week

The reports

- The final report is the major written assessment piece of the class:
  - Detail work done to make your system function
  - Detail the analytical approach you used
  - Convince me that you followed a sane and considered approach in finding your solution

- The preliminary report is just the same
  - Only sooner!

The preliminary report

- The preliminary report allows us to give you useful feedback *prior* to assigning marks

- Once handed in, we will endeavour to return useful comments to you the next week
  - Use the comments to improve the final report!

- Pass/fail assessment – **minor weighting.**

The preliminary report

- The preliminary report must:
  - Contain the majority of content and structure of the final report
  - Constitute a complete, polished report in its own right (preliminary, ***not draft.***)

- The preliminary report must not:
  - Be an unstructured jumble of material
  - Be an incomplete, feeble effort

The preliminary report

- Preliminary report due in Week 11
  - That's next week
  - That's only *ELEVEN* days away!

- The final report is due in Week 13
  - Last day of semester

OMG! Get started now!!

The preliminary report

- Comments back on the preliminary report are only intended to be suggestions for improving your writing and construction.

- They are NO indication of the mark you can expect on the final report.

- Mindlessly following the comments alone will not guarantee 100% on the final report.

FAQ Roundup

- **Can we use more than one wall wart? Can we use a power board?**
  - Sure, just make sure they're both tagged and tested.

- **Does our box and power board count towards our budget?**
  - Nope.

- **We didn't request an incremental demo before the Friday deadline because nobody in our team bothered to attend last week's lecture or read the slides online – can we still do one anyway?**
  - Nope. As stated in the lecture last week, the Friday deadline is firm. Unfortunately, there won't be enough time during the pracs for non-demo testing; the tutors will give you access for practice during the Friday contact session.

- **But… but… that's so unfair!**
  - Firstly, that's not really a question. Secondly, it's the obligation of everyone in your team to stay up to date with announcements in class.

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FAQ Roundup

- **Can we recycle parts of our design analysis for the report?**
  - Sure. However, it's worth noting that a design analysis and a project report are two different types of document for two different purposes. You should think very carefully about what parts are recyclable and why you might choose to reuse them.

- **But what about self-plagiarism??**
  - Sigh….

    Allow me to explain.

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Self-plagiarism

- "Self-plagiarism" almost certainly does not mean what you think it means.
  - Only tangentially about copying your own work

Self-plagiarism is about *misrepresentation.*

Self-plagiarism

- In the rarefied airs of academic publishing, it is of utmost importance whether the material you publish is 'novel'
  - Ie. never before seen nor published anywhere

"Nobody will pay for old news."

Self-plagiarism

- Thus, if you take old academic work and try to pass it off as new research, the publishers will *destroy* you.

  - Or just sue you, or whatever.
  - Either way, your career is over.

Self-plagiarism

- In an educational context, rehashing old work does not fulfil the educational goal.
  - We want to know what you can do now, in the constraints imposed, rather than what you did last year without restrictions.

Self-plagiarism

- So, educators and academics care a great deal about self-plagiarism and warn students against it's sinful nature.

- Of course, most engineers live and work in the real world…

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Self-plagiarism

- In engineering practice, replicating work needlessly is unprofessional and inappropriate.

- So long as you only take credit for your own work and credit others' appropriately (using their work by permission, of course) employers do not care if you copy

Self-plagiarism

- This course is structured like a professional design and build project.

  - Your reporting should reflect this.

- Consequently, I have zero qualms about you reusing your own past work from the course.

  - Cite small quotes/extracts, but replication is ok.

  - Of course, do not copy the work of others without proper attribution, though.

Incremental demo

- Next week is the 75% incremental demo
  - This is as close to real as we can make it

- Same process as last time:
  1. Send me an email request naming your team, you, and stating your desire to test
  2. Show up at the appointed time
  3. ???
  4. Profit!

Incremental demo

- I strongly urge you to attend this demo
    - Either demoing, or just spectating

- You will get to see the process in action, for reals, doing everything like the final demo
    - You are running out of time to make any changes to your system
    - Better to find out what doesn't work sooner…

And now…

Gratuitous project tips

Gratuitous project tips!

- At this point in the class you should be very close to working hardware
  - Aim to spend the next several weeks testing
  - If you aren't that far ahead, pick up the pace!

- OMG go to the incremental demos!
  - Even if you're not ready to test, this is an excellent chance to see how the testing is done
  - Also a great chance to see what other teams are doing well… and badly!

Gratuitous project tips!

- Your mechanism is (still) terrible (probably)
  - Beware the "dreaded flimsotron"!
  - Some people are getting the message and are starting to think about alternatives
  - It is almost too late to be making these changes
  - … almost, but not quite.
  - Pay very close attention to how well things work on during the incremental demos!
- And what about software?

Gratuitous project tips!

- Think about what the task actually requires you to do
  - A lot of people seem to be worried about small details in their build, rather than how the overall system works together

- This is the part of the course where team dynamics start to bite
  - You should be paying particular attention to making sure your team is happy with your work

Questions

Tune-in next time for…

Questions and Answers Vol. 3

or

"The world is one cup of coffee away from chaos"

Fun fact: Pauline did ~~not~~ have coffee this morning.