

Questions and Answers Vol. 7

or

“On final approach”

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But first...

Some house keeping

Calendar at a glance

Week	Dates	Lecture	Reviews	Demos	Assessment submissions
1	2/3 – 6/3	Introduction			
2	9/3 – 13/3	Principles of Mechatronic Systems design			Problem analysis
3	16/3 – 20/3	Professional Engineering Topics			Analysis peer review
4	23/3 – 27/3	Your soldering is (probably) terrible			
5	30/3 – 3/4	Q&A	Progress review 1		
Break	6/4 – 10/4	Q&A			
6	13/4 – 17/4	Radio module selection			
7	20/4 – 24/4	Aircraft flight	Progress seminar	25% demo	
8	27/4 – 2/5	Q&A			
9	4/5 – 8/5	NO LECTURE IN WEEK 9		50% demo	
10	11/5 – 15/5	Projective geometry	Progress review 2		
11	18/5 – 22/5	Q&A		75% demo	Preliminary report
12	25/5 – 29/5	Q&A			
13	1/6 – 5/6	Closing lecture		Final testing	Final report and reflection

You are here

OMG!

Preliminary reports

- Picked up this morning
 - Let the Markathon –BEGIN–
- We will do our utmost to get it back to you tomorrow morning (but no promises)
 - Pickup from my office during the contact session time, from 10 to 12

Final report

- Due on Friday 6th
 - *Real soon now!*
- Your report must have:
 - Max 6 pages of explanation/writing
 - Bibliography/math/sims/figures/budgets/etc in the appendices
 - Analytics, reasoning, justification

Final report

- The report is individual assessment
- Focus on your contributions and efforts
 - But explain how they fit into the team's design
- Your 6 pages are precious
 - Make sure any content essential to understanding your design is in the main body
 - Use the appendices wisely

Final report

But you already know what to do...

Feedback from preliminary reports

Normally at this point in the class I'd have lots of in-depth feedback from the preliminary reports that I'd spent all last night marking...

This year, the Monday noon lecture slot means that's not possible, since the receipts office only opens at 10 am.

Feedback from preliminary reports

Instead, I'll give you quick feedback from what I've glanced over, plus comments based on the last two years' classes and highlight typical problems seen in preliminary reports.

Analysis

- Most of you have gotten the hint about analysis – Good!
 - Of course, you can always do with more, thrown into the appendices! ☺
 - Some of you still need to fill in the gaps
- Next stop: methodical process

Feedback from preliminary reports

The awful truth:

- I don't actually care *what* you did.
 - Seriously. If you did a lousy job, physics will punish you (and your marks) at the demo
- The report is really all about your process.
 - Even if it didn't work out, if your justification and reasoning was sound, we will reward you.
 - If you made stupid decisions... well...

Feedback from preliminary reports

- Focus more on *why* you made each decision
- If you can't give a reason for a design decision, then why did you make it?
- You (probably) need more specific analysis
 - Use real numbers that show your design or approach will work – not just general equations
 - If numbers aren't appropriate, show what your logical method was (consider a decision-table)

Feedback from preliminary reports

- Do not exceed 6 pages written content
 - Don't try to sneak it into appendices – *seriously*
 - Go nuts with appendices for bibliography/math/sims/figures/budgets/etc
 - There is no such thing as too many pictures
- Just 3 pages and a lousy hand-drawn picture won't cut it
 - Just 3 pages *without* any pictures won't either

~You know who you are~

Feedback from preliminary reports

- Don't try to talk your work up
 - Let your analysis and results argue for you
- Don't abuse intensifiers and adjectives:
 - eg. “Very”, “many”, “essential”, “optimal”
 - “Omit unnecessary words.” – William Strunk, Jr.
- I know this is a challenging project
 - No need to convince me how hard you worked!

Feedback from preliminary reports

- The best words:
 - “Because”, “therefore”
 - “Based on our analysis ... in the appendix.”
- The worst words:
 - “We did some research*...”
 - “The decision was made...”
 - “<other team member> did...”

*If you use the word “research” *it had better come with citations*

When you get your feedback

- If you feel like you don't have many comments and want more, please just ask
 - I will try to give you feedback right away!
- If you can't read my writing, ask me, and I will do my best to figure out what I wrote
- I am also happy to sit down with you and discuss your comments in detail – just ask!



Almost there!

Stay on target!

The Final Countdown

- That means more stress and more fatigue
 - You work best when you're well rested; if it all gets too much, take a break or go home
 - Please don't sleep or eat in the lab
 - Clean up wire clippings, plastic scrap, random debris, etc. off the floor – put it in the bin
 - If someone passes out in the lab, please move them gently out of the way of foot traffic.

The Final Countdown

- The lab is starting to get messy
 - Not unexpected, but keep it under control
 - Please take 5 minutes to tidy your place and sweep around your work area
 - Prevents slips and makes dropped components easier to find!
- Don't test launchers in c404; use MS-207

Incremental demo 3½

“ ’Twas a dark and stormy night.
When suddenly, out from the
mist, a final demo round!”

- Last-last chance to secure safety-net marks
 - Earned marks will be capped at 50% of total
 - Will run Wednesday/Thursday this week

By appointment only

E-mail me before end of Tuesday

Next week

- Monday 1st – The Final Lecture
- Tuesday 2nd – 10 am
 - Toolbox hand-in
 - Project hand-in
 - Lab clean
- Wednesday and Thursday – Final demos
- Friday – Exhibition demos?

Toolbox hand in

- Toolbox hand in on Tuesday 2nd, 10 am.
 - Peter Bleakley and co will be there to check your toolbox and mark you off
 - You are collectively and separately responsible for the good condition of your toolbox.
 - If your toolbox is not complete, you will not receive a mark until it *is*.

Project hand-in

- Hand-in during the Tuesday contact session
 - Bring a box to keep your system in after testing
 - Your box must be CLEARLY marked with your team number (so I can find it next week)
- You must also submit:
 - Code, engineering drawings, diagrams, user manual and other material as appropriate

Project hand-in

- Be sure your project is finished and complete at hand-in time.
 - You **won't** have access to the lab, your system, cameras or carrier until your demo
- Take all your not-part-of-the-assessment stuff with you when you leave
 - You will not be able to get in to retrieve it


Lab clean up

- The lab will be cleaned prior to sign-off
 - Floor swept out
 - Rubbish to go in Hawken skips
 - Soldering area tidied up
 - Your desk must be cleared/clean, locker empty
- Beat the rush - it's a really terrific idea to clean the lab early if you can!

The final demo

- This is it: where most of the marks in this course from come from!
 - Testing on Wednesday and Thursday next week!
- Sign up on the doodle poll for a slot
 - Sign-ups are open *right now!* (closes Sunday)
 - You should all know the sign-up process by now

Final lecture

- Please come along to the wrap-up lecture next week
 - Important information about the demos
 - Notes for the exhibition session
 - Exclusive ‘behind-the-scenes’ look at the class concept, design and artwork
 - SECaTs 

Dun dun
dunnn!

SECaTs



Well... actually...

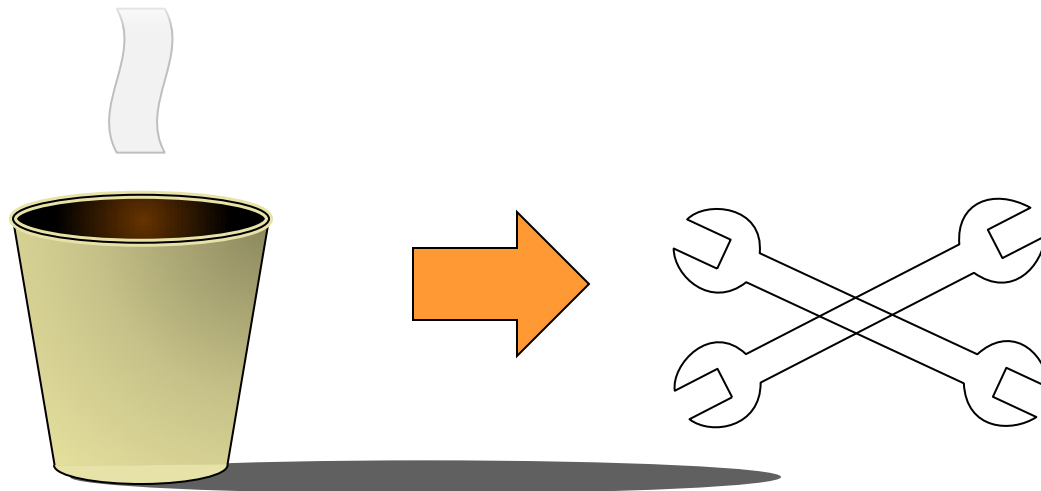
Electronic SECaTs

- This year the School of ITEE is switching to online, electronic SECaTs
- SECaTs for this course are already open!
 - Via the link in the emails you should receive, or use the “Have Your Say” option in Blackboard
- You don’t need to do them until next week
 - I’ll remind you again in The Final Lecture

Gratuitous project tips

- Take the time to read through the building criteria sheet
 - A handy reference for good engineering craft!
- Avoid the dreaded “Flims-o-tron”
 - Build your stuff to be robust and strong; I will be testing for solid, quality construction
- Commenting your code well is a sure way to get more marks in build quality

Questions



Tune-in next time for...

The Final Lecture

or

“Hit the deck!”

Fun fact: More students have done an incremental demo
in this class, than in any of the previous years.