Questions and Answers Vol. 6

or

"Yeah, everyone is just going to be in the lab, right?"

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But first…

Some house keeping

Calendar at a glance

Week	Dates	Lecture	Reviews	Demos	Assessment submissions
1	3/3 – 7/3	Introduction			
2	10/3 – 15/3	Principles of Mechatronic Systems design			
3	17/3 – 21/3	Professional Engineering Topics			Design brief
4	24/3 – 28/3	Your soldering is (probably) terrible			
5	31/3 -4/3	No lecture	Progress review 1		
6	7/4 – 11/4	Image segmentation			
7	14/4 – 18/4	Q&A	Progress seminar	25% demo	
Break	21/4 – 25/4				
8	28/4 – 3/5	Q&A			
9	5/5 – 9/5	Q&A	Progress review	50% demo	
10	12/5 – 16/5	Q&A			
11	19/5 – 23/5	Q&A		75% demo	Preliminary report
12	26/5 – 30/5				
13	2/6 – 6/6	Closing lecture		Final testing	Final report and addendum

You are here

Dun dun dunnn!


Almost there!
Stay on target!

That said…

- "Everyone is on track" was not a coded message for "Feel free to slack off"
  - You need to be working as hard now as ever
- Your computer vision system is almost certainly not yet up to scratch
  - To do a decent job, you really needed 2 people working on it all semester long

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.

FAQ Roundup

- **What are we supposed to do with the final report addendum?**
  - It's just an extra page to add in all the extra stuff you've done since the preliminary report was due. Bulk out your existing material with more awesome analysis, incorporate additional introductory description, or simply tack on an extra appendix or ten – it's up to you.

- **Is the addendum supposed to be a personal reflection?**
  - Not specifically, but you can use it that way if you like. You may also include a personal reflection in an appendix if you feel you there are important things to be said about your approach the project, your team work or whatever.

- **Are the cars due Monday 2nd?**
  - **No.**

    More on this later.

FAQ Roundup

- **Will it never end?**
  - Yes, soon.

Next Friday you shall be free…

Incremental demo 3½

- By popular demand, a final demo round!
- Last-last chance to secure safety-net marks
  - Earned marks will be capped at 50% of total
- This will be the full scenario
  - Set-up and testing time strictly enforced.

Thursday 2 pm, by appointment only

The final demo

- This is it – the real deal
  - Your chance to win the St. Lucia Grand Prix!
  - Testing during Thursday and Friday next week!
- Sign up on the doodle poll for a slot
  - Sign-ups are open *right now!* (closes Sunday)
- Demos are also qualifying rounds for the exhibition race on Friday arvo at 3.

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

Lots of comments from the preliminary

You can pick yours up here, afterwards!

I have the same question as you

WHYYYY????

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 real reason for a design decision, then *why did you make it*??
- You probably need more analysis
  - Ideally, real numbers that show your design or approach will work!
  - 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
  - Go nuts with appendices for bibliography/math/sims/figures/budgets/etc
  - Don't try to sneak written content in – *seriously*
  - There is no such thing as too many pictures
- Also, just 2 pages and a picture won't cut it
  - 2 pages *without* a picture won't cut it either!

~You know who you are~

Feedback from preliminary reports

- Don’t try to talk your own 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

Feedback from preliminary reports

- 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!

Next week

- Tuesday 3rd – 10 am
  - Toolbox hand-in
  - Lab clean
  - Car hand-in
  - Final lecture and SECats
- Thursday – 11 am to 5 pm
  - Time trial sessions
- Friday 3 pm
  - Exhibition race

Toolbox hand in

- Toolbox hand in on Tuesday 3rd, 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*.

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
- It’s a really terrific idea to clean the lab early if you can!

Car hand-in

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

Car hand-in

- Be sure your car is finished and complete at hand-in time.
  - You **won't** have access to the lab, your car, the cameras or track infrastructure 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

Final lecture

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

Dun dun dunnn!

Questions

Tune-in next time for…

The last lecture

or

"SECaTs and chequered flags"

Fun fact: Chequered flags have been used in motorsports for over 100 years.