

## Nicholas Rawson

Nicholas Rawson is an Engineer at Aero Engine Controls, currently working in small engine investigations. Here he talks about his career so far.

### How did you first become interested in STEM as a career?

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When I was choosing my degree course, I chose it based on career prospects. The current shortage of engineers and the relatively high salaries were what originally tempted me into Engineering.

### What pathway did you follow to get where you are?

After secondary school I studied Maths, Physics and Electronics at A-level. I was rubbish at maths – so rubbish that in my first A-level exam I got an E, despite what I thought was plenty of revision! This gave me the kick up the backside I needed, and I began my revision for my summer exams at the end of February. I came out with B in maths for the year, with A's in Physics and Electronics.

My A2 year was not good. I dropped a grade in everything and missed my university grade requirements of ABB. Thankfully my personal statement, which is too often underestimated by young people, was so good I was accepted regardless.

I completed my degree in Electronic & Electrical Engineering last year with a First Class Masters. I firmly believe that academic success is 25% intelligence and 75% hard work. The fact that I can go from E to 1st Class demonstrates this.

Once you have a degree in engineering – things get VERY easy. I had 3 job offers on my desk by March 2011, and I accepted my job at Aero Engine Controls soon after (6 months before I was due to start work!). Companies were falling over themselves to interview and employ me.

### Was there a moment or intervention that prompted your career choice?

I was fortunate enough in my 3rd year of secondary school to have a fantastic Physics teacher. I really enjoyed physics, and continued it along with electronics at A-level.

### What skills and qualities are required for your job?

In my job you need good organisational skills and a logical approach. Currently I am working on a problem where our Electronic Engine Controls for a specific jet engine are causing it to not produce any power during takeoff! It's a very interesting situation. I am leading the investigation team, and we are carefully whittling down the possibilities and zoning in on the problem. We will then devise a solution and implement it.

### Describe a typical day in your role

I'm currently investigating a 'take off thrust' which is taking up most of my time. I am currently trying to understand some test results so that I can order more tests. I'm also co-ordinating other members of my investigation team from various specialist departments around the company, and trying to extract information from the customer about the aeroplanes themselves.

There is a lot of emailing, phone calls, meetings as we get to grips with understanding various problems. I like being asked my 'expert' opinion on something just because I understand it. It is very acceptable in this job to just spend time understanding things. Learning from and teaching to colleagues is part of everyday work. It's a relaxed and trusting environment; you are not chained to your desk which is very important to me.

### What inspires you about your work and/or about STEM?

Engineering creates and maintains the world in which modern society lives. Nothing will influence the future of the world more than STEM.

Now that I am employed in engineering, engineering offers security – financial and lifestyle. If I decide one day that I don't want to be an engineer anymore, any number of other jobs are open to me – teaching, finance, technician, management. Such choice ensures my future will be a happy one, and that I will never be trapped into working for a company I dislike.

### Could you offer any advice to young people?

Money was one of the reasons I originally went into engineering. The starting salaries are high, and there are lots of other benefits. I would be happy to talk about my specifics if young people are curious.

Ease of employment is something I also considered, and is something young people should also consider. A good degree in engineering offers an almost guaranteed path into well paid employment.

If I can go from an E to a 1st class, so can anyone else. It requires good revision technique, steady revision and a well-written personal statement, both of which I would be happy to help with.