

*Graduate Profile, Aeronautical Engineering, University of Limerick, Ireland*  
**LAURENCE QUEENEY**

**MR. LAURENCE QUEENEY**

**A350-1000 WING DESIGN INTEGRATOR  
AIRBUS, BRISTOL, UK**

[www.airbus.com](http://www.airbus.com)



**Education and Training**

→ B. Eng. (Hons) Aeronautical Eng, University of Limerick, Ireland, 1999

**Current Position**

Title	Dates	Employer
A350-1000 Wing Design Integrator	2008 - Present	Airbus, Bristol, UK

**Previous Positions**

Title	Dates	Employer
Direct Entry Graduate (DEG) Programme	Oct 1999 - Oct 2001	Airbus, Bristol, UK
Design Engineer A340-600	Oct 2001 - Nov 2002	Airbus, Bristol, UK
Design Engineer A380	Nov 2002 to July 2003	Airbus, Bristol, UK
Design Engineer A340-600HGW	July 2003 - Feb 2005	Airbus, Bristol, UK
Lead Designer for A350XWB-900 Main Landing Gear Support Structure	Feb 2005 to May 2008	Airbus, Bristol, UK

**"Home" Town(s)/County(s)**

Cahir, Co. Tipperary

**Please describe your current job**

I currently work as part of the Wing Architects and Integrators team on the A350XWB-1000. We're responsible for the overall structural design and integration of the wing. My day-to-day job involves defining and managing various trade studies to optimise the weight and performance of the wing.

I work closely with the Aerodynamics team who define the overall wing shape to ensure the structural elements fit within the wing shape, and any aerodynamic impacts to our trade studies are included so that the configuration finally defined is best for the overall aircraft.

The work I carry out feeds into the Overall Aircraft Design Team in Toulouse and is used in the definition of the wing planform, Highlift Configuration (Flaps and Slats), Flight Control Configuration (Spoilers and Ailerons) and the Landing Gear Configuration.

I've spent the last few years travelling to Toulouse and Bremen on a regular basis where I have been heavily involved in the decision making process in defining the wing configuration.

The work provides great job satisfaction, is incredibly exciting and no two days are the same.

**Please describe your career path since graduating with your B.Eng. Aeronautical Eng.**

I came straight out of UL and became a Direct Entry Graduate (DEG) for what was then called British Aerospace (now Airbus). The graduate scheme lasted two years and involved a number of 3-month placements in various departments e.g. Design, Testing, Manufacturing, as well as an external placement, for which I had the good fortune to be placed in Hawker de Havilland in Sydney, Australia.

After the DEG scheme I joined the A340-600 design team. I spent my time creating 3D models and drawing various wing components, and answering manufacturing query notes which arise when assembling the wing. At this time I had little experience and was under close supervision from more senior engineers.

In November 2002 I joined the A380 team. This was a hugely busy and exciting time. I was given the responsibility of defining the wing upper and lower cover bolting positions for the A380 Wing. I had a small team working for me and the task was a critical path item, meaning any delay in delivery would have a direct knock-on to delivery of the Wing to the final assembly line in Toulouse.

Post-A380 I joined the A340-600HGW team. This was an increased weight version of the original A340-600 and the design work was to be completed by a

newly set up office in Wichita, USA under the supervision of our team in Bristol. Another fantastic opportunity arose as I was requested to spend 2 months in Wichita working with the team to set up the necessary design tools and advise on processes and issues that arose.

After this I joined the A350 team working on the design of the Main Landing Gear Support structure. The original A350 was based on the A330 wing, but replacing the spars and wing covers with Carbon Fibre Reinforced Plastic (CFRP). It soon became apparent that this approach was not going to achieve the performance required to beat our competitor's aircraft so we started with a blank sheet of paper on a new family of aircraft known as A350XWB. On this project I was made Lead Designer of the Main Landing Gear Support Structure (MLGSS), where I managed numerous trade-offs to define the optimum MLGSS geometry and was responsible for the day to day design of the Structure. I was also heavily involved with the Overall Aircraft Design Team in integrating the Main Landing Gear into the aircraft.

In May 2008 I joined the Wing Architects and Integrators team.

#### **What made you decide to study Aeronautical Engineering at UL?**

I was always interested in aircraft growing up and at school. My best subjects were maths, physics and technical drawing so Engineering was a natural choice. Once I heard of the Aeronautical Engineering course being offered in UL I knew it was the one for me.

#### **Are you glad you did?**

Yes, the course was extremely challenging and interesting. Things I learned on the course I use on a daily basis. I still keep a copy of some of my course notes in my drawer at work for reference.

#### **What did you most enjoy about studying at UL - academically, and also non-academically?**

Academically I really enjoyed the Flight Mechanics Test labs in 4th year which involved a number of test flights on board a twin engine turbo prop.

The small class size meant I got to know everybody on the course very well. Some of my best friends today are the people from the course.

**Where did you do your COOP?**

I spent 9 months at Airbus HQ in Toulouse. I was involved with the Technical publications department in updating and making amendments to the Aircraft Maintenance Manual. It gave me a first taste of life working at Airbus and I thoroughly enjoyed my time living in the South of France.

**What advice would you give school-goers considering choosing Aeronautical Engineering?**

The course is challenging, so you need to be aware of what you're letting yourself in for. It's heavily maths based so make sure the subjects you choose for your Leaving Cert reflect this. You do need to be quite dedicated particularly in the final two years to get a good degree.

Don't be put off by people saying there are no jobs in Aeronautical Engineering. There are lots of very interesting jobs out there, particularly if you're prepared to work abroad.

**What advice would you give future graduates of Aeronautical Engineering?**

Start thinking early in 4th year about which companies you want to apply to for jobs. The applications forms for a lot of the companies need to be in early in the year, and usually need to be completed when you're under pressure to get course work done. Take whatever time necessary to fill in the forms carefully with well thought out answers.